



PUNE SOLAPUR EXPRESSWAYS PRIVATE LIMITED

AVENUE - MEDIAN PLANTATION AND MAINTENANCE OF HORTICULTURE WORK

**Pune – Solapur Section of NH-9 from Km 40/000(YAVAT) to Km
144/400 (INDAPUR) in the State of Maharashtra, Under NHDP
Phase III on DBFOT Basis**



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TENDER DOCUMENT

**AVENUE - MEDIAN PLANTATION
AND MAINTENANCE OF
HORTICULTURE WORK**


PUNE SOLAPUR EXPRESSWAYS LIMITED

FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM
44+000 TO KM 144+400



SECTION-I : BID NOTICE

RESERVED

<u>TENDER DOCUMENT</u>	PUNE SOLAPUR EXPRESSWAYS LIMITED	
AVENUE - MEDIAN PLANTATION AND MAINTENANCE OF HORTICULTURE WORK	FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM 44+000 TO KM 144+400	

Notice Inviting Tender

Four Lanning of Pune–Solapur section of NH-9 from Km. 40/000 to Km. 144/400 (Package –I) is under progress by **Concessionaire, M/s Pune-Solapur Expressway Private Limited (PSEPL)** under Design, Built, Finance, Operate and Transfer (DBFOT) basis, under NHDP Phase-III Programme of NHA in the State of Maharashtra.

1. **Name of Work:** PSEPL invites bids from experienced firms/organizations to bid for **Avenue - Median Plantation and Maintenance of Horticulture work** for the project.

Sl. No	Description	Scope of work	Length	Estimated Cost of Work
1.	Median Plantation	Digging of holes, refilling of holes with manure and good earth, supply and planting of flowering plants & shrubs etc in median (666 nos/Km in 2 rows), watering and maintenance for a period of 12 months.	82 kms	Rs.246 Lakhs
2.	Avenue Plantation	Digging of holes, refilling of holes with manure and good earth, supply and planting of tree plants, watering, fixing tree guard and maintaining for a period of 12 months, (168 Trees/Km/side) within R.O.W.	91.5 kms	Rs.154 Lakhs

2. **Bid Fee :** Rs. 5,000 (only by DD, payable at the time of tender application)

3. **Preliminary requirement of bidding firm /contractor and duration for above package,**

Bid Security	Average Turn-over during last 3 years (horticulture work only)	Work of similar nature (horticulture work only) during last 5 years	Time of completion
Rs. 8 Lakhs	Rs.60 Lakhs	Single work of Rs.30 Lakhs OR Two works of Rs.20 Lakhs each	08 months

4. **Date of issue of Tender:** The complete Bid Documents may be **downloaded from the website <http://www.tendernews.com>** on any day between from IST 00.01 hrs of **03rd October 2011** till IST **24.00 hrs of 10th October 2011**.

5. **Date of receipt of Tender:** The last date for submission of the Bid Documents along with Bid Fee (Rs.5000 only by DD favouring “Pune Solapur Expressways Private Limited” payable at Mumbai) is **24th October’11** up to **17.00 Hrs (IST)**. The technical bids would be opened as and when the bids are received at the address mentioned below. The successful bidders shall be informed about the date, time and venue for opening financial bid in their presence. Unsuccessful bidders shall be intimated by registered post about their rejection along with other submitted bid documents.

NOTES:

- Applications of only eligible firm/contractors are accepted by accepting officer.
- Applications not accompanied by requisite value of DD/Banker’s cheque towards Bid Fee shall not be considered for issue of tender.
- In case of rejection of application for issue of tender, the applicant shall be refunded the Bid Fee.
- PSEPL reserves the right to reject any or all the bids received.

Bids to be submitted to: **The Project Manager,
Pune Solapur Expressways Private Limited,
Pentagon Tower, P-4, Office No.604,
Magarpatta City, Pune-411028
Tel: +91-20-67227311, Fax: +91-20-67227322**

TENDER DOCUMENT

**AVENUE - MEDIAN PLANTATION
AND MAINTENANCE OF
HORTICULTURE WORK**

PUNE SOLAPUR EXPRESSWAYS LIMITED

FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM
44+000 TO KM 144+400



SECTION-II
INSTRUCTION TO BIDDERS
& APPENDIX TO BID

PROPERLY



Section II: Instructions to Bidders

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Section II : Instructions to Bidders (ITB)

A. General

1. Scope of Bid

- 1.1 **M/s Pune Solapur Expressways Limited** referred to as "the Employer", invites bids for "AVENUE-MEDIAN PLANTATION AND MAINTENANCE OF HORTICULTURE WORK from KM-44+000 to KM- 144+400 of PUNE-SOLAPUR SECTION OF NH-9 IN THE STATE OF MAHARASHTRA" hereafter referred to as "the works".
- 1.2 The successful Bidder will be expected to complete the Works by the intended Completion Date specified in the Contract Data (Part I General Conditions of Contract).
- 1.3 Throughout these bidding documents, the terms "bid" and "tender" and their derivatives (bidder/tenderer, bid/tender, bidding/tendering, etc.) are synonymous.

2. Source of Funds

- 2.1 The expenditure on this project will be met by Pune Solapur Expressways Private Limited (PSEPL).

3. Eligible Bidders

- 3.1 This Invitation for Bids is open to all bidders as defined in the Appendix to ITB.
- 3.2 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or any public undertaking, autonomous body, authority by whatever name called under the Central or the State Government and also by any private organisation.

4. Qualification of the Bidder

- 4.1 All bidders shall include the following information and documents with their bids in Section-3, Qualification Information unless otherwise stated in the Appendix to ITB:
 - a) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bidder;
 - b) Total monetary value of Horticulture works performed for each of the last three years;
 - c) Experience certificate for works of a similar nature and size for each of the last five years with certificates from the concerned officer of the rank of Executive Engineer or equivalent in government sector or project manager in case of private sector.
 - d) Evidence of availability (either owned or leased or rented) of items of T&P (equipment) named in Clause 4.4.1 (b) (i).
 - e) Details of the technical personnel proposed to be employed for the Contract having the qualifications defined in Clause 4.4.1 (b) (ii) .
 - f) Reports on the financial standing of the Bidder, and a certificate from Chartered Accountant as a proof of turnover for the past three years.
 - g) Information regarding any litigation or arbitration during the last five years in which the Bidder is involved, the parties concerned, the disputed amount, and the matter.
 - h) Attested copies of latest income tax and sale tax return filed by the firm
 - i) Attested copy of PAN and TIN number
 - j) Attested copy of ESI & PF registration number.

4.2 Bids from joint venture are not allowed.

4.3 Deleted

4.4 To qualify for award of the contract,

4.4.1 Each bidder in its name should have the following;-

- a) **Achieved an average annual financial turnover (in all classes of horticulture works only) amount Rs.60 lakhs during last three year ending 31st March of the previous financial year duly certified by Chartered Accountant.**
- b) Satisfactorily completed (phase/part compilation of the work and part work in a contract shall not be considered) similar works during last five years ending last day of month



previous (firms showings work experience certificate from non government/non PSU organization should submit tax deduction at sources certificate in support of their claim for having experience of stipulated value of works) to the one in which bids are invited should be either of the following:

- i. Two similar completed works costing not less than amount equals to Rs 20.00 lakh each.
- ii. One similar completed work costing not less than amount equals to Rs. 30.00 lakh.

(the similar work includes development and maintenance of horticulture and or land sacking work OR as significant item of the project involving development and maintenance of horticulture and / or landscaping only. The experience certificate should clearly outline the scope and amount of work done towards horticulture items/landscaping)

4.4.2 Each bidder;-

- a) Must produce:
 - i. An affidavit on a Stamp Paper, duly attested from the Notary Public, that the information furnished with the bid documents is correct in all respects; and
 - ii. Such other certificates as defined in the Appendix to ITB.
 - iii. Failure to submit the certificates/documents as specified above or in Appendix to ITB shall make the bid non-responsive.
- b) Each bidder must demonstrate:
 - i. Evidence of availability (either owned or leased or rented) of the key equipments for this work as stated below,

<u>Name of the Equipment</u>	<u>Quantity</u>
Tractor with trolley	3
Truck mounted with water tanker (10,000 lit) Or	6
Tractor Attached with water tanker (5000-6000 lit)	12

Note: The bidder must produce the documentary evidence in support of his (owning/leased or rented) for the above equipments.

- ii. Availability for this work of personnel with adequate experience as stated below,

<u>Sl. No</u>	<u>Personnel Minimum Qualification and Experience</u>	<u>Particular Experience (minimum requirement)</u>	<u>No. of Persons</u>
1	Horticulturist Or Horticulture Supervisor	B.Sc. (Ag) + 5 Years Exp. Or 15 year Exp..	1

4.5 Sub-Contractors' experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria.

4.6 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- i. Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or
- ii. Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc. or debarring from work etc.
- iii. Tempered the bid document in any manner.

5. One Bid per Bidder

5.1 Each Bidder shall submit only one Bid for the work. A Bidder who submits more than one Bid will cause the proposals with the Bidder's participation to be disqualified.

6. Cost of Bidding

6.1 The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will, in no case, be responsible or liable for those costs.



7. Site Visit

7.1 The Bidder, at his own cost, responsibility and risk, is encouraged to visit, examine and familiarise himself with the Site of Works and its surroundings including source of earth, water, etc. and obtain all information that may be necessary for preparing the Bid and entering into a contract for development and maintenance works. The costs of visiting the Site shall be at the Bidder's own expense. He may contact the person whose contact details shall be informed at later stage.

B. Bidding Documents

8. Content of Bidding Documents

8.1 The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10:

Volume- I:-

1. Notice Inviting Tender
2. Instructions to Bidders
3. Qualification Information
4. Forms of bid and Bank Guarantee
5. Conditions of Contract
(Part I General Conditions of Contract, and Contract Data;
Part II Special Conditions of Contract)
6. Scope of Work
7. Specifications

Volume - II:-

8. Bill of Quantities

8.2 One set of the bidding documents will be issued to the bidder.

8.3 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, and specifications, bill of quantities, and forms in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 26 hereof, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be rejected.

9. Clarification of Bidding Documents

9.1 A prospective Bidder requiring any clarification of the bidding documents may notify the Employer in writing or by cable ("cable" includes facsimile) at the Employer's address indicated in the Notice Inviting Tenders. The Employer will respond to any request for clarification received earlier than 10 days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the inquiry, but without identifying its source.

9.2

9.2.1 If a pre-bid meeting is to be held, the bidder or his official representative will be invited to attend it. Its date, time and address shall be informed accordingly.

9.2.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.2.3 The bidder is requested to submit any questions in writing or by cable so as to reach the Employer not later than 3 days before the meeting.

9.2.4 Minutes of the meeting, including the text of the questions rose (without identifying the source of the enquiry) (and shall be given on website the responses given will be transmitted without delay to all purchasers of the bidding documents). Any modifications of the bidding documents listed in Clause 8.1, which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting.

9.2.5 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.



10. Amendment of Bidding Documents

- 10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.
- 10.2 Any addendum thus issued shall be part of the bidding documents and shall be communicated in writing by registered post or by cable to all purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum by cable to the Employer. The Employer will assume no responsibility for postal delays. Addendum will also be available on the website.
- 10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend, as necessary, the deadline for submission of bids, in accordance with Clause 20.2.

C. Preparation of Bids

11. Language of Bid

- 11.1 All documents relating to the Bid shall be in English language.

12. Documents Comprising the Bid

- 12.1 The Bid submitted by the Bidder shall be in two separate parts:

Part I: This shall be named **Technical Bid** and shall comprise of:

For bidding documents downloaded from the website, the demand draft for the Bid Fee must be placed in a separate cover, marked "cost of Bid Fee" and such demand draft for the Bid Fee must be prepared on or before the last date of sale of bid document as mentioned in Bid Notice.

- I. Earnest Money in a separate cover marked 'Earnest Money';
- II. Qualification information, supporting documents, affidavit and undertaking as specified in Clause 4;
- III. Undertaking that the bid shall remain valid for the period specified in clause 15.1;
- IV. Any other information/documents required to be completed and submitted by bidders, as specified in the Appendix to ITB, and
- V. An affidavit affirming that information he has furnished in the bidding document is correct to the best of his knowledge and belief.

Part II. It shall be named **Financial Bid** and shall comprise of:

- I. Priced bill of quantities.

12.2 Each part shall be separately sealed and marked in accordance with Sealing and Marking instructions in clause 19.

12.3 The following documents, which are not submitted with the bid, will be deemed to be part of the bid.

<u>Section</u>	<u>Particulars</u>
1.	Notice Inviting Tender
2.	Instruction to the bidders
3.	Conditions of Contract
4.	Contract Data
5.	Scope of work
6.	Technical Specifications

13. Bid Prices

13.1 The Contract shall be for the whole Works, as described in Clause 1. 1 based on the priced Bill of Quantities submitted by the Bidder.

13.2 The bidder shall quote rates and prices (both in figures and words) for all items of the Works described in the Bill of Quantities along with the total bid price (both in figures and words). The items for which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. Corrections, if any, shall be made by crossing out, initialling, dating and rewriting.



- 13.3 All duties, taxes, royalties, escalation and other levies payable by the Contractor under the Contract, or for any other cause, shall be included in the rates, prices, and total Bid price submitted by the Bidder.
- 13.4 The rates and prices quoted by the Bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment.
- 13.5 The quantities specified in bill of quantities are tentative and tend to change with respect to site condition and as per instructions by Engineer.

14. Currencies of Bid and Payment

- 14.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

15. Bid Validity

- 15.1 Bids shall remain valid for a period of **120 days** after the deadline date for bid submission specified in Clause 20. A bid valid for a shorter period **shall be rejected by the Employer as non-responsive.**
- 15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 16 in all respects.

16. Earnest Money / Bid Security

- 16.1 The Bidder shall furnish, as part of the Bid, Earnest Money/Bid Security, for the amount **Rs.8,00,000.** Bank Guarantee/Demand Draft must be in favour of 'Pune Solapur Expressways Private Limited'
- 16.2 The Earnest Money shall, at the Bidder's option, be in the form of Bank Guarantee/Demand Draft of any scheduled commercial bank approved by RBI having a net worth of not less than Rs. 500 crore as per the latest annual report of the bank. In case of foreign bank (issued by a branch in India) the net worth in respect of the Indian operation shall only be taken into account. **It shall be valid for 45 days beyond the validity of the bid.**
- The acceptance of the guarantees shall also be subject to the following conditions:-
- The capital adequacy of the Bank shall not be less than the norms prescribed by RBI presently 9, with effect from 31st March, 2003, 10).
 - The bank guarantee issued by a Cooperative Bank shall not be accepted.
- 16.3 Any bid not accompanied by an acceptable Earnest Money, shall be rejected by the Employer as nonresponsive.
- 16.4 The Earnest Money of unsuccessful bidders will be returned within 28 days of the end of the Bid validity period specified in Sub-Clause 15.1.
- 16.5 The Earnest Money of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance Security.
- 16.6 The Bid Security / Earnest Money will be forfeited:
- if the Bidder withdraws the Bid after its submission during the period of Bid validity;
 - if the Bidder does not accept the correction of the bid price, pursuant to Clause 27; or
 - in the case of a successful Bidder, if the Bidder fails within the specified time limit to
 - sign the Agreement; and/or
 - furnish the required Performance Security.

17. Alternative Proposals by Bidders

- 17.1 Bidder shall submit offers that fully comply with the requirement of the bidding document including conditions of contract, conditional offer or alternate offer will not be considered further in the process of tender evaluation.



18. Format and Signing of Bid

- 18.1 The Bidder shall submit one set of the bid comprising of the documents as described in Clause 12 of these instruction to bidders, **hard bound** with the volume containing technical bid and financial bid in separate parts and clearly marked.
- 18.2 The Bid shall be typed or written in ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All pages of the Bid shall be signed by the person or persons signing the Bid. The scanned signature is not acceptable. Non compliance of this will make the bid non-responsive.
- 18.3 The Bid shall contain no overwriting, alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Bidder, in which case such corrections shall be made by scoring out the cancelled portion, writing the correction and signing and dating it along with the stamp by the person or persons signing the Bid.

D. D. Submission of Bids

19. Sealing and Marking of Bids

- 19.1 The Bidder shall place the two separate envelopes (called inner envelopes) marked "Technical Bid" and "Financial Bid" in one outer envelope. The inner envelopes will have markings as follows:
- Technical Bid:** To be opened as specified in clause 23.1.
- Financial Bid:** Not to be opened except with the approval of the Employer.
- The contents of the Technical and Financial Bids shall be as specified in clause 19.2
- 19.2 The inner and outer envelopes containing the Technical and Financial Bids shall
- a) be addressed to the Employer at the address provided in the Appendix to ITB;
 - b) bear the name and identification number of the Contract as defined in clause 1.1; and
 - c) provide a warning not to open before the specified time and date for Bid opening as defined in clause 23.1.
- 19.3 In addition to the identification required in Sub-Clause 19.2, each of the envelopes shall indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared late, pursuant to Clause 21, or is declared non-responsive pursuant to Clause 23.
- 19.4 If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or pre-mature opening of the bid.
- 19.5 **The bids should be submitted in hard bound form with page numbering and index. Any additional information shall also be furnished by the bidder in hard bound form with proper indexing and page numbering. The details submitted in others forms like spiral bound form, loose form, steple form etc., would be rejected.**

20. Deadline for Submission of Bids

- 20.1 Complete Bids (including Technical and Financial) must be received by the Employer at the address and not later than the date and time indicated in tender notice. In the event of the specified date for the submission of bids being declared a holiday for the Employer, the Bids will be received up to the specified time on the next working day.
- 20.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21. Late Bids

- 21.1 Any Bid received by the Employer after the deadline prescribed in Clause 20 will be returned unopened to the Bidder.

22. Modification and Withdrawal of Bids

- 22.1 Bidders may modify or withdraw their bids by giving notice in writing before the deadline prescribed in Clause 20.
- 22.2 Each Bidder's modification or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with Clause 18 & 19, with the outer and inner envelopes additionally marked "**MODIFICATION**" or "**WITHDRAWAL**", as appropriate.



The envelopes for modifications on 'Technical Bid' and 'Financial Bid' shall be submitted in separate sealed envelopes and marked as 'Modifications of Technical Bid' or 'Modifications of Financial Bid', as the case may be.

22.3 No bid may be modified after the deadline for submission of Bids.

22.4 Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in Clause 15.1 above or as extended pursuant to Clause 15.2 shall result in the forfeiture of the Bid security pursuant to Clause 16.

22.5 Bidders may only offer discounts to, or otherwise modify the prices of their Bids by submitting Bid modifications in accordance with this clause, or included in the original Bid submission.

E. Bid Opening and Evaluation

23. Bid Opening

Bid opening shall be carried out in two stages. Firstly, '*Technical Bid*' of all the bids received (except those received late) shall be opened after deadline specified for submission of bids, '*Financial Bid*' of those bidders whose technical bid has been determined to be substantially responsible shall be opened on a subsequent date, which will be notified to such bidders.

23.1 The Employer will open the envelope marked the "Technical Bid" of all the bids received (except those received late), including modifications of Technical Bid made pursuant to Clause 22. In the event of the specified date for opening of technical bids being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day.

23.1.1 Envelopes marked 'withdrawal' shall be opened and read. Bids for which acceptable notice of withdrawal has been submitted pursuant to Clause 22 shall not be opened.

23.1.2 Bidder's names, withdrawals, 'modification of technical bid', the presence of bid security and such other details, as the Employer may consider appropriate will be announced by the Employer at the opening.

23.2 In all other cases, the amount of Earnest Money, forms and validity shall be announced. Thereafter, the Employer at the opening as the Employer may consider appropriate, will announce the bidders' names and such other details.

23.3 The Employer will inform the unsuccessful bidders by phone and registered post.

23.4

i. The bids accompanied with valid bid security will be taken up for evaluation with respect to the Qualification Information and other information furnished in Part I of the bid pursuant to Clause 12.1.

ii. As soon as possible, the Evaluation Committee will finalize the list of responsive bidders whose financial bids are eligible for consideration.

iii. The Employer shall inform the bidders, whose technical bids are found responsive, of the date, time and place of opening of the financial bids. The bidders so informed, or their representative, may attend the meeting of opening of financial bids

23.5 The Employer shall inform the bidders, whose technical bid is found responsive, of the date, time and place of opening of the financial bids. The bidders so informed, or their representative, may attend the meeting of opening of financial bids.

23.6 At the time of the opening of the 'Financial Bid', the names of the bidders whose bids were found responsive in accordance with clause 23.5 will be announced. The financial bids of only these bidders will be opened. The remaining bids will be returned unopened to the bidders. The responsive bidders' names, the Bid prices, the total amount of each bid, any discount/rebate, modification of financial bids pursuant to clause 22 and such other details as the Employer may consider appropriate will be announced by the Employer at the time of bid opening. Any Bid price, which is not read out and recorded, will not be taken into account in Bid Evaluation.

23.7 The Employer shall prepare the minutes of the opening of the Financial Bids.

24. Process to be Confidential

24.1 Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other



persons not officially concerned with such process until the award to the successful Bidder has been announced. Any attempt by a Bidder to influence the Employer's processing of bids or award decisions may result in the rejection of his Bid

25. Clarification of Bids and Contacting the Employer

25.1 To assist in the examination, evaluation, and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his-Bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Clause 27.

25.2 Subject to sub-clause 25.1, no Bidder shall contact the Employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.

25.3 Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

26. Examination of Bids and Determination of Responsiveness

26.1 During the detailed evaluation of "Technical Bids", the Employer will determine whether each Bid

- a. meets the eligibility criteria defined in Clauses 3 and 4;
- b. has been properly signed;
- c. is accompanied by the required securities; and
- d. is substantially responsive to the requirements of the bidding documents. During the detailed evaluation of the "Financial Bids", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications.

26.2 A substantially responsive "Financial Bid" is one, which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one

- a. which affects in any substantial way the scope, quality, or performance of the Works;
- b. which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or
- c. whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

26.3 If a "Financial Bid" is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

27. Correction of Errors

27.1 Financial Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

- a. where there is a discrepancy between the rates in figures and in words, the rate in words will govern; and
- b. where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.

27.2 The amount stated in the Financial Bid will be corrected by the Employer in accordance with the above procedure for the correction of errors and shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid will be rejected, and the Bid Security shall be forfeited in accordance with Sub-Clause 16.6(b).

28. Evaluation and Comparison of Financial Bids

28.1 The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with Clause 26.



28.2 In evaluating the bids, the Employer will determine for each Bid the evaluated Bid price by adjusting the Bid price after making any correction for errors pursuant to Clause 27;

28.3 If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's/Employer's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction/execution methods and schedule proposed. After evaluation of the price analysis, the Employer may require that the amount of the performance security set forth in Clause 33 be increased and an additional performance security may be obtained at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract. The amount of the additional increased performance security shall be equal to the seriously unbalanced amount, which shall be final, binding and conclusive on the bidder.

28.4 A bid, which contains several items in the Bill of Quantities which are unrealistically priced low and which cannot be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

29. Price Preference

F. Award of Contract

30. Award Criteria

30.1 Subject to Clause 32, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the bidding documents and who has offered the lowest evaluated Bid price.

31. Employer's Right to Accept any Bid and to Reject any or all Bids

31.1 Notwithstanding Clause 30, the Employer reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Employer's action.

32. Notification of Award and Signing of Agreement.

32.1 The bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the Part I *General Conditions of Contract* called the "Letter of Acceptance") will state the sum that the Employer will pay to the Contractor in consideration of the execution, completion and maintenance of the Works, and of routine maintenance of roads by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

32.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 33.

32.3 The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and the successful Bidder after the performance security is furnished.

32.4 Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

33. Performance Security

33.1 Within **10 (ten) days** after receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security of Ten percent (10%) of the Contract Price, for the period of **28 days after the expiry of defect liability period of 6 months plus additional security for unbalanced Bids in accordance with Clause 28.3 of ITB and Clause 47 Part I General Conditions of Contract and sign the contract.**



33.2 The performance security shall be either in the form of a Bank Guarantee or fixed deposit Receipts, in the name of the Employer, from a Bank as applicable in case of earnest money / bid security defined in Appendix to ITB.

33.3 Failure of the successful bidder to comply with the requirement of sub clause 33.1 shall constitute sufficient ground for cancellation of the award and forfeiture of the bid security.

34. Deleted

35. Corrupt or Fraudulent Practices

The Employer will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract with other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor, or in execution. The Employer requires the bidders/Contractors to strictly observe the laws against fraud and corruption enforced in India, namely, Prevention of Corruption Act, 1988.

Appendix to ITB

ITB Clause reference

3.1

Average Turn-over during last 3 years (horticulture work only)	Work of similar nature (horticulture work only) during last 5 years
Rs.60 Lakhs	Single work of Rs.30 Lakhs OR Two works of Rs.20 Lakhs each

34

Deleted

4.3

Deleted



SECTION III : QUALIFICATION INFORMATION

The information to be filled in by the Bidder in the following pages will be used for purposes of post qualification as provided for in Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract.

1. For Individual Bidders

1.1. Constitution or legal status of Bidder

[Attach copy]

Place of registration:

Principal place of business:

Power of attorney of signatory of Bid *[Attach]*

1.2. Total value of Horticulture work performed work performed in the last three years (in Rs. Lakhs) refer ITB Clause 4.5 A(a)

(attach certificate from Chartered Accountant)

2006-2007-----
2007-2008-----
2008-2009-----
2009-2010-----

Work performed as prime contractor, ,

** Attach certificate(s) from the rank of Executive Engineer or equivalent*

1.4. Availability of Key Equipment essential for carrying out the Works [Ref. Clause 4.5(B)(a)]. The Bidder should list all the information requested below

Evidence of the availability of the equipment for specific time required must be furnished (original/photocopy attested by gazetted officer).

1.5. Qualifications and experience of Key Personnel required for administration and execution of the Contract [Ref. Clause 4.5(B)(b)]. Attach biographical data for technical personnel (Refer also to Cl. 4.3 (e) of Instruction to Bidders).

(Refer also to Sub Clause 9.1 of the Conditions of Contract).

1.6. Information on litigation history in which the Bidder is involved.

2. Bidders should provide the following affidavits/ undertakings as per formats enclosed hereafter: -



- (i) Affidavit (**it should be on stamp paper attested by Notary**)
- (ii) Undertaking regarding minimum investment of cash
- (iii) Undertaking that the Bids shall remain valid for the period specified in Clause 15.1.

AFFIDAVIT

- 1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
- 2. The undersigned also hereby certifies that neither our firm M/s _____ have abandoned any work nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
- 3. The undersigned hereby authorise(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
- 4. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department Project implementing agency.

(Signed by an Authorised Officer of the Firm with seal)

Title of Officer

Name of Firm

DATE

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s _____ would invest a minimum cash up to 25% of the value of the work during implementation of the Contract.

(Signed by an Authorised Officer of the Firm)

Title of Officer

Name of Firm

DATE

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s _____ agree to abide by this bid for a period _____ days for the date fixed for receiving the same and it shall be binding on us and may be accepted at any time before the expiration of that period.

(Signed by an Authorised Officer of the Firm)

Title of Officer

Name of Firm

TENDER DOCUMENT

**AVENUE - MEDIAN PLANTATION
AND MAINTENANCE OF
HORTICULTURE WORK**

PUNE SOLAPUR EXPRESSWAYS LIMITED

FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM
44+000 TO KM 144+400



SECTION-IV :
FORMS OF BID & BANK GUARANTEE

RESERVED



FORM OF BANK GUARANTEE FOR BID SECURITY

WHEREAS _____(Name of Tenderer) (hereinafter called the Tenders) wishes to submit his tender AVENUE - MEDIAN PLANTATION AND DAY TO DAY MAINTENANCE OF HORTICULTURE WORK FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM 44+000 TO KM 144+400 IN THE STATE OF MAHARASHTRA herein called "the Tender" KNOW ALL MEN by these present that we _____ (Name of Bank) of _____(Name of country) having our registered office at (_____) (hereinafter called the 'Bank') are bound unto the M/s Pune Solapur Expressways Private Limited (hereinafter called "the Employer") in the sum of the Rs. _____ (Rupees.....) *for which payment can truly be made to the said Employer. The Bank bind themselves, their successors and assigns by these presents with the common seal of the Bank this day _____of _____ (year) and undertake to pay the amount of Rs.____ (Rupees) to the employer upon receipt of this written demand without the employer having no substantiate his demand.

The conditions of this obligation are:

If the tenderer withdraws his tender during the period of Tender validity specified in the Form of Tender.

Or

If the Tenderer having been notified of the acceptance of his Tender by the Employer during the period of tender validity,

fails or refuses to execute the Form of Agreement in accordance with the instructions to bidders, if required; or

fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders.

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

This guarantee will remain in force upto and including the date 45 days beyond the validity of the bid as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, at any time prior to the closing date for submission of the Tenders Notice of which extension to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date of expiry of this guarantee.

SIGNATURE OF AUTHORISED REPRESENTATIVE OF THE BANK _____


NAME AND DESIGNATION _____

SEAL OF THE BANK _____

SIGNATURE OF THE WITNESS _____

NAME OF THE WITNESS _____

ADDRESS OF THE WITNESS _____

<p style="text-align: center;"><u>TENDER DOCUMENT</u></p> <p>AVENUE - MEDIAN PLANTATION AND MAINTENANCE OF HORTICULTURE WORK</p>	<p style="text-align: center;">PUNE SOLAPUR EXPRESSWAYS LIMITED</p> <p style="text-align: center;">FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM 44+000 TO KM 144+400</p>	
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FORM OF BANK GUARANTEE FOR PERFORMANCE SECURITY

To,

**Project Manager,
Pune Solapur Expressways Private Limited,
604, P-4, Pentagon Tower, Magarpatta City,
Hadapsar, Pune-411028.**

WHEREAS..... (name and address of contractor) hereinafter called “the contractor” has undertaken, in pursuance of Contract No. Dated to execute..... (name of Contract and brief description of Works) (hereinafter called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the Contractor shall furnish you with a Bank Guarantee by a Nationalised/Scheduled bank of India for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREOF we hereby affirm that we are the guarantor and responsible to you on behalf of the Contractor, up to a total of Rs..... (amount of guarantee) (Rupees..... (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

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

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

This guarantee shall be valid until 28 days from the date of expiry of the Defects Liability Period of six months.

Signature and seal of the Guarantor.....

Name of the Bank

Address.....

Date.....

In the presence of

1.....

(Name of Occupation)

2.....

(Name of Occupation)

An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract including additional security for unbalance bids, if any and denominated in Indian Rupees. Give names of all partners if the contractor is a Joint Venture



**FORM OF AGREEMENT
AGREEMENT**

This agreement made the day _____ of _____ (Year) between the Pune Solapur Expressways Private Limited (hereinafter called "the Employer" of the one part and M/s _____ (here in after called "the Contractor") of the other part.

AND WHEREAS the Employer invited bids from eligible bidders of the execution of certain works, viz.....

AND WHEREAS pursuant to the bid submitted by the Contractor, vide _____ (here in after referred to as the "BID" or "OFFER") for the execution of works, the Employer by his letter of acceptance dated ____ accepted the offer submitted by the Contractor for the execution and completion of such works and the remedying of any defects thereon, on terms and conditions in accordance with the documents listed in para 2 below.


AND WHEREAS the Contractor by a deed of undertaking dated _____ has agreed to abide by all the terms of the bid, including but not limited to the amount quoted for the execution of Contract, as stated in the bid, and also to comply with such terms and conditions as may be required from time to time.

AND WHEREAS pursuant to the bid submitted by the Contractor vide _____ (hereinafter referred to as the "the Offer"), the employer has by his letter of acceptance no. _____ dated ____ accepted the offer submitted by the Contractor for the execution and completion of such works and the remedying of any defects therein, on terms and conditions in accordance in the conditions of particular application and condition included hereinafter;

AND WHEREAS the contractor has agreed to undertake such works and has furnished a performance security pursuant to clause 35 of the instructions to bidders (Section-I).

NOW THIS AGREEMENT WITNESSETH as follows:

- I. In this agreement works and expressions shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to;
- II. the following documents shall be deemed to form and be read and constructed as part of this agreement viz.
 - a) Agreement,
 - b) Letter of Acceptance, Notice to Proceed with the Work,
 - c) Contractor's Bid,
 - d) Contract Data,
 - e) Conditions of Contract including Special Conditions of Contract
 - f) Specifications,
 - g) Bill of Quantities, and
 - h) Any other document listed in the Contract Data.
- III. The foregoing documents shall be constructed as complementary and mutually explanatory one with another. Should any ambiguities or discrepancy be noted then the order of precedence of these documents shall subject to the condition of particular applications be as listed above.
- IV. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works and remedy any defects therein in conformity in all respect with the provisions of the contract.
- V. The employer hereby covenants to pay the contractor in consideration of the execution and completion of the works and the remedying of defects therein the contract price or such other sum

<p><u>TENDER DOCUMENT</u></p> <p>AVENUE - MEDIAN PLANTATION AND MAINTENANCE OF HORTICULTURE WORK</p>	<p align="center">PUNE SOLAPUR EXPRESSWAYS LIMITED</p> <p align="center">FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM 44+000 TO KM 144+400</p>	
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as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS WHEREOF the parties here to have caused this agreement to be executed the day and year first before written.

The common seal of _____ was hereunto affixed in the presence of:

Or

Signed, sealed and delivered by the said Employer through his Authorized Representative and the said Contractor through his Power of Attorney holder in the presence of:

Binding Signature of Employer _____ --

For and on behalf of Pune Solapur Expressways Limited

Binding Signature of Contractor _____ ---

In the presence of

1. Name :

Address:

2. Name :

Address:

In the Presence of

1. Name:

Address:

2. Name:

Address:

In witness whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of _____

was hereunto affixed in the presence of:

Signed, Sealed and Delivered by the said _____ -

_____ -

_____ --

in the presence of:

Binding Signature of Employer _____ -

Binding Signature of Contractor _____ -

TENDER DOCUMENT

**AVENUE - MEDIAN PLANTATION
AND MAINTENANCE OF
HORTICULTURE WORK**

PUNE SOLAPUR EXPRESSWAYS LIMITED

FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM
44+000 TO KM 144+400



SECTION-V :
GENERAL CONDITIONS OF CONTRACT

RESERVED



GENERAL CONDITIONS OF CONTRACT AND CONTRACT DATA

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General Conditions of Contract

A. General

1. Definitions

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

Compensation Events are those defined in Clause 37 hereunder.

The Completion Date is the date of completion of the Works as certified by the Engineer, in accordance with Clause 44.1.

The Contract is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in Clause 2.3.

The Contract Data defines the documents and other information, which comprise the Contract.

The Contractor is a person or corporate body whose Bid to carry out the Works has been accepted by the Employer.

The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer and includes technical and financial bids.

The Contract Price is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days; months are calendar months.

A **Defect** is any part of the Works not completed in accordance with the Contract.

The Defects Liability Certificate is the certificate issued by Engineer, after the Defect Liability Period has ended and upon correction of Defects by the Contractor.

The Defects Liability Period is six months calculated from the Completion Date.

Drawings include calculations and other information provided or approved by the Engineer for the execution of the Contract.

The Employer is M/s Pune Solapur Expressways Private Limited, who employs the Contractor to carry out the Works. The Employer may delegate any or all functions to a person or body nominated by him for specified functions.

The Engineer is (will be intimated later) (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Engineer) who is responsible for supervising the execution of the Works and administering the Contract.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.

The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is after 8 months from the appointed date and maintenance for a period of 1 year. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time after the approval from Employer.

Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.



Plant is any integral part of the Works that shall have a mechanical, electrical, electronic, chemical, or biological function.

The **Site** is the area located between Km.40+000 to Km.144+400 of Pune-Solapur section on NH-9 in the state of Maharashtra.

Site Investigation Reports are those that were included in the bidding documents and are factual interpretative reports about the surface and subsurface conditions at the Site.

Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.

The **Start Date** shall be **within 15 days** after the date of issue of the Notice to proceed with the work. It is the date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

A **Sub-Contractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.

Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

A **Variation** is an instruction given by the Engineer after the approval from employer, which varies the Works.

The **Works** are what the Contract requires the Contractor to construct, install, maintain, and turn over to the Employer, which is AVENUE - MEDIAN PLANTATION AND MAINTENANCE OF HORTICULTURE WORK FOR 1 YEAR for the site.

2. Interpretation

- 2.1** In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about these Conditions of Contract.
- 2.2** If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3** The documents forming the Contract shall be interpreted in the following order of priority:
- 1) Agreement
 - 2) Notice to Proceed with the Work
 - 3) Letter of Acceptance
 - 4) Contractor's Bid
 - 5) Contract Data
 - 6) General Conditions of Contract
 - 7) Implementation Manual & Maintenance Intervention level
 - 8) Scope of Work
 - 9) Specification
 - 10) Bill of Quantities, and
 - 11) Any other document listed in the Contract Data

3. Language and Law

- 3.1** The language of the Contract is English and the law governing the Contract is law of Union of India and law of state Governmet.



4. Engineer's Decisions

- 4.1 Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. Delegation

- 5.1 The Engineer, duly informing the Employer, may delegate any of his duties and responsibilities to other people except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

6. Communications

- 6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

7. Deleted

8. Other Contractors

- 8.1 The Contractor shall cooperate and share the Site with other Contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, if any. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of other Contractors, and shall notify the Contractor of any such modification.
- 8.2 The Contractor should take up the works in convenient reaches with prior approval of the Engineer to ensure there is least hindrance to the smooth flow of traffic including movement of vehicles and equipment of other Contractors till the completion of the Works.

9. Personnel

- 9.1 The Contractor shall employ the technical personnel as mentioned in Clause 4 of information to bidders or other technical persons approved by the Engineer. The Engineer will approve any proposed replacement of technical personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel stated in the information to bidders. If the personnel stated in the contract data are not deployed on site by the contractor, it will treat as a breach of contract and action will be taken as per clause 47.
- 9.2 If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the Works in the Contract.

10. Employer's and Contractor's Risks

- 10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

- 11.1 The Employer is responsible for the excepted risks which are
- (a) in so far as they directly affect the execution of the Works in the Employer's country, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), natural calamities and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or
 - (b) a cause due solely to the design of the Works, other than the Contractor's design.

12. Contractor's Risks

- 12.1 All risks of loss of or damage to physical property and of personal injury and death, which arise during and in consequence of the performance of the Contract other than the excepted risks, referred to in clause 11.1, are the responsibility of the Contractor.

13. Insurance

- 13.1 The Contractor at his cost shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of defect liability period for 'a' to 'd' and up to the



completion period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

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

13.2 Insurance policies and certificates for insurance shall be delivered by the Contractor to the Engineer or the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in Indian Rupees to rectify the loss or damage incurred. If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be debt due.

13.3 Alterations to the terms of insurance shall not be made without the approval of the Engineer.

13.4 Both parties shall comply with any conditions of the insurance policies.

14. Site Investigation Reports

14.1 The Contractor, in preparing the Bid, may rely on any Site Investigation Reports referred to in the Contract Data, supplemented by any other information available to him, before submitting the bid.

15. Queries about the Contract Data

15.1 The Project Manager, PSEPL will clarify queries on the Contract Data.

16. Contractor to Construct the Works

16.1 The Contractor shall construct, and install and maintain the Works in accordance with the scope of work and specifications.

17. The Works to Be Completed by the Intended Completion Date

17.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

18. Approval by the Engineer

18.1 The Contractor shall submit Specifications and Drawings showing the proposed Works to the Engineer, who is to approve them if they comply with specifications and conditions of contract.

18.2 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.

19. Safety

19.1 The Contractor shall be responsible for the safety of all activities on the Site.

20. Discoveries

20.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

21. Possession of the Site

21.1 The Employer shall give possession of part of the Site to the Contractor at the discretion of the Engineer at the start date of project and then after the remaining site.

22. Access to the Site

22.1 The Contractor shall allow access to the Site and to any place where work in connection with the Contract is being carried out, or is intended to be carried out to the engineer and any person/persons/agency authorized by:

- a. The Engineer



b. The Employer

23. Instructions

- 23.1** The Contractor shall carry out all instructions of the Engineer, which comply with the applicable laws where the Site is located.
- 23.2** The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by Auditors appointed by the Employer if so required by the Employer.

B. Time Control

24. Programme

- 24.1** The Engineer shall issue the indent of work in stages specifying the time limit for the same as and when required. The Contractor shall submit to the Engineer for approval a programme showing the general methods, arrangements, order, and timing for all the activities in the Works, along with monthly cash flow forecasts.
- 24.2** An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.
- 24.3** The Contractor shall submit to the Engineer for approval an updated Programme at intervals. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.
- 24.4** The Engineer's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer again at any time. A revised Programme shall show the effect of Variations and Compensation Events.

25. Extension of the Intended Completion Date

- 25.1** The Engineer shall extend the Intended Completion Date only after the approval of Employer if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining Works, which would cause the Contractor to incur additional cost.
- 25.2** The Engineer shall decide whether and by how much time to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

26. Delays Ordered by the Engineer

- 26.1** The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works. Delay/delays totalling more than 30 days will require prior written approval of the Employer.

27. Management Meetings

- 27.1** The Engineer may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the plans for the Works.
- 27.2** The Engineer shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all those who attended the meeting.

C. Quality Control

28. Identifying Defects

- 28.1** The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.



29. Correction of Defects noticed during the Defect Liability Period.

- 29.1** It is the terms of contract that Improvement and Maintenance of Avenue and Median Plantation work shall be of very high standard, requiring no major repairs for at least six (6) months after the date of completion of works.
- 29.2** If any defects appear in the work within six months of "Taking over" certificate, the Engineer shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which begins at Completion, and is for six months thereafter. The Defects Liability shall be extended for as long as defects remain to be corrected.
- 29.3** Every time notice of a defect is given, the Contractor shall correct the notified defect at his own cost within the length of time specified by the Engineer's notice. If the contractor is in default the Engineer shall cause the same to be made good by other workmen and deduct the expense from any sums that may be due to the contractor.

30. Uncorrected Defects

- 30.1** If the Contractor has not corrected a Defect/completed the work, to the satisfaction of the Engineer, within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected/completed, and the Contractor will pay this amount, on correction of the Defect.

D. Cost Control

31. Bill of Quantities

- 31.1** The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning and maintaining works to be done by the Contractor.
- 31.2** The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item for the work executed.

31.3 Changes in the Quantities

- 31.3.1** If the final quantity of the work-done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent provided the change exceeds 10% of initial Contract Price, the Engineer shall adjust the rate to allow for the change.
- 31.3.2** The Engineer shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the Prior approval of the Employer. If requested by the Engineer, the Contractor shall provide the Engineer with a detailed cost breakdown of any rate in the Bill of Quantities.

- 31.4** The rate for single row median plantation and maintenance shall be derived (by reducing proportionately with respect to number of plants) to the rates specified for double row median plantation & maintenance.

32. Variations

- 32.1** The Engineer shall, having regard to the scope of the Works and the sanctioned estimated cost, have power to order only after approval from employer, in writing, Variations within the scope of the Works he considers necessary or advisable during the progress of the Works. Such Variations shall form part of the Contract and the Contractor shall carry them out and include them in updated Programmes produced by the Contractor. Oral orders of the Engineer for Variations, unless followed by written confirmation, shall not be taken into account.

33. Payments for Variations

- 33.1** If rates for Variation items are specified in the Bill of Quantities, the Contractor shall carry out such work at the same rate. This shall apply for Variations only up to the limit prescribed in the Clause 31. If the Variation exceeds this limit, the rate shall be derived under the provisions of clause 33.2 and 33.3 for quantities (higher) exceeding the deviation limit.
- 33.2** If the rates for Variation are not specified in the Bill of Quantities, the Engineer shall derive the rate from similar items in the Bill of Quantities.
- 33.3** If the rate for Variation item cannot be determined in the manner specified in Clause 33.1 or 33.2, the Contractor shall, within 14 days of the issue of order of Variation work, inform the Engineer the rate which he proposes to claim, supported by analysis of the rates. The Engineer shall assess the quotation and determine the rate based on prevailing market rates within one month of the submission of the claim by the Contractor and approval from NHA will be taken. As far as possible, the rate analysis shall be based on the standard data book and the current schedule of rates of the



district public works division. The decision of the Employer on the rate so determined shall be final and binding on the Contractor.

34. Cash Flow Forecasts

34.1 When the Programme is updated, the Contractor shall provide the Engineer with an updated cash flow forecast.

35. Payment Certificates

35.1 The Contractor shall submit to the Engineer monthly statements of the value of the work executed less the cumulative amount certified previously supported with detailed measurement of the items of work executed.

35.2 The Engineer shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit for the month in question.

35.3 The value of work executed shall be determined, based on measurements by the Engineer

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

35.5 The value of work executed shall also include the valuation of Variations and Compensation Events.

35.6 The Engineer / Employer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

35.7 The final bill shall be submitted by the contractor within one month of the actual date of completion of the work; otherwise the Engineers certificate of the measurement and of the total amount payable for work accordingly shall be final and payment made accordingly within a period of sixty days as far as possible.

36. Payments

36.1 Payments shall be adjusted for deductions for advance payments (if any), security deposit, other recoveries in terms of the Contract and taxes at source, as applicable under the law. The Employer shall pay the Contractor the amounts Engineer had certified within 28 days of the date of each certificate.

36.2 The Employer may appoint another authority, as specified in the Contract Data (or any other competent person appointed by the Employer and notified to the contractor) to make payment certified by the Engineer.

36.3 Items of the Works for which no rate or price has been entered in the Bill of Quantities, will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

36.4 For Avenue and Median Plantation,

1. 30% of the amount for new plantations (Avenue & Median) shall be paid after completion of plantation.
2. 30% of the amount of new plantation after completion of the work and three months of maintenance of plants, shrubs etc.
3. 30% of the amount of new plantation after completion of the work and six months of maintenance of plants, shrubs etc.
4. 10% of the amount of new plantation after completion of the work and twelve months of maintenance of plants, shrubs etc.

36.5 Payment for supply and planting of plant material including trees, shrubs and, ground covers etc., shall be made only after the actual planting of the said items

37. Compensation Events

37.1 The following shall be Compensation Events unless they are caused by the Contractor:

- a) The Engineer orders a delay or delays exceeding a total of 30 days.
- b) The effects on the Contractor of any of the Employer's Risks.

37.2 If a Compensation Event would prevent the Works being completed before the Intended Completion Date, the Intended Completion Date shall be extended. The Engineer shall decide whether and by how much the Intended Completion Date shall be extended after the approval of the employer.

37.3 The contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor not having given early warning or not having cooperated with the Engineer/Employer.



38.Tax

38.1 The rates quoted by the Contractor shall be deemed to be inclusive of the sales, escalations and other levies, duties, royalties, cess, toll, taxes of Central and State Governments, local bodies and authorities that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

39.Currencies

39.1 All payments will be made in Indian Rupees.

40.Security Deposit / Retention Money

40.1 The Employer shall **retain security deposit of five percent** of the amount from each payment due to the Contractor until Completion of the whole of the Works.

40.2 The security deposit/retention money and the performance security aggregating to 15 percent of the Contract price will be released to the Contractor when the Defect Liability period is over, and the Engineer has certified that the Defects, if any, notified by the Engineer to the Contractor before the end of this period have been corrected.

40.3 Deleted

41.Liquidated Damages

41.1 The Contractor shall pay liquidated damages to the Employer at the rate or part thereof stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's other liabilities.

41.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The contractor shall not be paid interest on the over payment.

42.Securities

42.1 The Performance Security equal to **ten percent** of the contract price and additional security for unbalanced bids (if any) shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in the form given in the Contract Data and by a scheduled commercial bank. The Performance Security shall be valid until a date 28 days from the date of expiry of Defect Liability Period and the additional security for unbalanced bids shall be valid until a date 28 days from the date of issue of the certificate of completion.

43.Cost of Repairs

43.1 Any loss or damage to

- i. the Works or Materials to be incorporated in the Works and
 - ii. any other part of project highway,
- between the Start Date and the end of the Defects Liability periods shall be remedied by the Contractor at their cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

44.Completion

44.1 The Contractor shall request the Engineer to issue a certificate of Completion of the Works, and the Engineer will do so upon deciding that the Works is completed.

45.Taking Over

45.1 The Employer shall take over the Site and the Works within seven days of the Engineer's issuing a certificate of Completion.

46.Operating and Maintenance Manuals

46.1 Contractor shall submit Maintenance Manuals 60 days prior to the completion date.

47.Termination



47.1 The Employer may terminate the Contract if the Contractor causes a fundamental breach of the Contract.

47.2 Fundamental breaches of Contract include, but shall not be limited to, the following:

- a. the Contractor stops work for 28 days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Engineer; the Contract, and less taxes due to be deducted at source as per applicable law.
- b. the Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
- c. the Engineer/Employer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- d. the Contractor does not maintain a Security, which is required;
- e. the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in clause 41;
- f. the Contractor fails to provide insurance cover as required under clause 13;
- g. if the Contractor, in the judgement of the Employer, has engaged in the corrupt or fraudulent practice in competing for or in executing the Contract. For the purpose of this clause, "corrupt practise" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement r in Contract execution. "Fraudulent Practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid process at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
- h. if the Contractor has not completed at least thirty percent of the value of Work required to be completed after half of the completion period has elapsed;
- i. if the Contractor fails to set up a field laboratory with the prescribed equipment, within the period specified in the Contract Data; and
- j. any other fundamental breaches as specified in the Contract Data.

47.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.

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

48. Payment upon Termination

48.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

48.2 If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract, and less taxes due to be deducted at source as per applicable law.

49. Property

49.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer for use for completing balance work if the Contract is terminated because of the Contractor's default.

50. Release from Performance

50.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of the Employer or the Contractor, the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this



certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

F. Other Conditions of Contract

51.Labour

51.1 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport, any work other than pavement and bridge related works, can be omitted and got done by another agency.

51.2 The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

52.COMPLIANCE WITH LABOUR REGULATIONS

52.1 During continuance of the Contract, the Contractor and his sub Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given in Appendix to Part I General Condition of Contract. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer. The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

53.Photographs of the Works

53.1 The contractor shall do photography/video photography of the site firstly before the start of the work, secondly mid-way in the execution of different stages of work and lastly after the completion of the work. No separate payment will be made to the contractor for this.

53.2 The Contractor shall not disclose details of Drawings (if any) furnished to him and works on which he is engaged without the prior approval of the Engineer in writing. No photograph of the works or any part thereof or plant employed thereon, except those permitted under clause 53.1, shall be taken or permitted by the Contractor to be taken by any of his employees or any employees of his sub-Contractors without the prior approval of the Engineer in writing. No photographs/ Video photography shall be published or otherwise circulated without the approval of the Engineer in writing.

54. ARBITRATION

The procedure for arbitration will be as follows:

- (a) In case of Dispute or difference arising between the Employer and a domestic contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996.
- (b) The arbitral tribunal shall consist of 3 arbitrators one each to be appointed by the Employer and the Contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Council of Indian Road Congress.
- (c) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) and (b) above within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then



the Council of Indian Road Congress shall appoint the arbitrator. A certified copy of the order of the Council of Indian Road Congress making such an appointment shall be furnished to each of the parties.

- (d) Arbitration proceedings shall be held as per laws prevailing jurisdiction, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.
- (e) The decision of the majority of arbitrators shall be final and binding upon both parties.
- (f) The cost and expenses of Arbitration proceedings will be in accordance as stated below and the signing of the contract shall be the acceptance of the fee structure given below by both the parties:

S.No.	Particulars of fee and other charges	Schedule Amount payable per Arbitrator/ per case
1.	Arbitrator fee	Rs.8,000/- per day subject to a maximum of Rs.2.0 lacs per case; or Rs.1.5 lacs (lump sum) subject to publishing the Award within 12 months. 12 months will be reckoned from the date of first meeting.
2.	Reading Charges	Rs.10,000/-
3.	Secretarial Assistance and Incidental Charges (telephone, fax, postage etc.)	Rs.15,000/-
4.	Charges for Publishing/ declaration of the Award	Maximum of Rs.15,000/-
5.	Extra charges for days other than hearing / meeting days (maximum for 2 days)	Rs.2,500/- per day

Note: However, the expenses incurred by each party in connection with the preparation, presentation, etc. of its proceedings shall be borne by each party itself.

- (g) Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor by the owners shall not be withheld, unless they are the subject matter of the arbitration proceedings.

Addendum of General Condition of Contract


SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.

- a) **Workmen Compensation Act 1923:** - The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act 1972:** - Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed the prescribed minimum years (say, five years) of service or more or on death the rate of prescribed minimum days' (say, 15 days) wages



for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (say, 10) or more employees.

- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%). The benefits payable under the Act are:
- Pension or family pension on retirement or death as the case may be.
 - Deposit linked insurance on the death in harness of the worker.
 - Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act 1951:** - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) **Contract Labour (Regulation & Abolition) Act 1970:** - The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ prescribed minimum (say 20) or more contract labour.
- f) **Minimum Wages Act 1948:** - The Employer is to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of buildings, roads, runways are scheduled employment.
- g) **Payment of Wages Act 1936:** - It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) **Equal Remuneration Act 1979:** - The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against female employees in the matters of transfers, training and promotions etc.
- i) **Payment of Bonus Act 1965:** - The Act is applicable to all establishments employing prescribed minimum (say, 20) or more workmen. The Act provides for payments of annual bonus within the prescribed range of percentage of wages to employees drawing up to the prescribed amount of wages, calculated in the prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.
- j) **Industrial Disputes Act 1947:** - The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) **Industrial Employment (Standing Orders) Act 1946:** - It is applicable to all establishments employing prescribed minimum (say, 100, or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get these certified by the designated Authority.
- l) **Trade Unions Act 1926:** - The Act lays down the procedure for registration of trade unions of workmen and Employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) **Child Labour (Prohibition & Regulation) Act 1986:** - The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulations of employment of children in all other occupations and processes. Employment of child labour is prohibited in building and construction industry.
- n) **Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979:** - The Act is applicable to an establishment which employs prescribed minimum (say, five) or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as Housing, Medical-Aid, Travelling expenses from home up to the establishment and back etc.
- o) **The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:** - All the establishments who carry on any building or other construction work and employs the prescribed minimum (say, 10) or more workers are covered under this Act. All such establishments are required to pay cess at the rate of 1% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near the work place etc.

<u>TENDER DOCUMENT</u>	PUNE SOLAPUR EXPRESSWAYS LIMITED	
AVENUE - MEDIAN PLANTATION AND MAINTENANCE OF HORTICULTURE WORK	FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM 44+000 TO KM 144+400	

The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

- p) **Factories Act 1948:** - The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the prescribed minimum (say, 10) persons or more with aid of power or another prescribed minimum (say, 20) or more persons without the aid of power engaged in manufacturing process.

Contract Data to General Conditions of Contract

Items marked "N/A" do not apply in this Contract.

Sl. No	Description	Clause Reference
1.	The Intended Completion Date for the whole of the Works is 8 months from start date and maintenance for 1 year.	[Cl.1, 17 & 25]
2.	The Start Date shall be within 15 days after the date of issue of the Notice to proceed with the work.	[Cl.1]
3.	Amount for insurance are: Rupees equivalent to Contract price And deductible as per premium rate.	[Cl.13.1]
4.	The period for submission of the programme for approval of Engineer shall be 10 days from the issue of Letter of Acceptance.	[Cl.24.1]
5.	(a) Identified indented work (1) Weekly Indent, Quarterly Indent and Bi-annual Indent - with in stipulated time (2) Emergent Indents – With in stipulated time (b) Amount of liquidated damages for identified Indented works delay in completion of works 0.1 percent of the Indented value, rounded off to the nearest thousand, per day with the minimum of Rs. 1000/- per day (c) Maximum limit of liquidated damages for delay in completion of works 10 per cent of the Initial delay in completion of work. Contract Price rounded off to the nearest thousand	[Cl.41.1]
6.	The standard form of Performance Security acceptable to the Employer Shall be an unconditional Bank Guarantee of the type as presented in the Bidding Documents.	[Cl. 42.1]
7.	The percentage to apply to the value of work not completed representing the Employer's additional cost for completing the work shall be 20%.	[Cl.48.1]

TENDER DOCUMENT

**AVENUE - MEDIAN PLANTATION
AND MAINTENANCE OF
HORTICULTURE WORK**

PUNE SOLAPUR EXPRESSWAYS LIMITED

FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM
44+000 TO KM 144+400



SECTION-VI : **SCOPE OF WORK**

RESERVED



SCOPE OF WORK

General

1. PLANT MATERIAL & PLANTING SPECIFICATIONS

1.1 WORK INCLUDES:

- 1.1.1 The contractor shall furnish all labor, materials tools and equipment's necessary to complete and maintain the work as specified herein.
- 1.1.2 The contractor shall treat the area to be planted and shall supply plant and maintain the theme at every interval of 500m as specified in the plant schedule submitted by the contractor for which prior approval has to be taken to go ahead with works, by Engineer in charge.
- 1.1.3 The contractor shall be liable for any damages to property caused by planting and transplanting operations and all areas and disturbed construction shall be restored to their original condition to the satisfaction of the client.
- 1.1.4 Work shall be performed and supervised at all times by qualified personnel.

1.2 PLANT MATERIAL INSPECTION

- 1.2.1 Furnish plant materials inspected by Horticulturist/Engineer in charge at the nursery and tagged after approval for delivery
- 1.2.2 Inspection at growing site does not preclude right of rejection at the site of plantation.

TOP SOIL INSPECTION:-

- I. After contract award, furnish source at top soil to Horticulturist/Engineer in charge for purpose of soil inspection.
- II. Take representative soil samples from area under consideration.
- III. Test soil samples for pH, alkalinity, total soluble salts, porosity, sodium content and organic matter.

1.3 DELIVERY STORAGE AND HANDLING OF PLANT MATERIAL

A. DELIVERY: -

- I. Do not deliver more plant materials than can be planted in one day and as approved by Engineer.
- II. Deliver plants with legible identification labels.
- III. Protect during delivery to prevent damage to root ball or desiccation of leaves.
- IV. Notify Horticulturist/Engineer in charge of delivery schedule in advance, so that plant material may be inspected upon approval at job site.
- V. Remove unacceptable plant material immediately from job site.

B. STORAGE

- I. Store plants in shade and protect from weather.
- II. Maintain and protect surplus plant material for 24 hrs.

C. HANDLING :-

- I. All earth balls shall be firm and intact and contained in Hessian. Do not drop balled and bur lapped stock at any time.
- II. All balled and Hessian covered plants and container grown plants shall at all times be handled by the ball or by the container and not by the plant stem.

1.4 GUARANTEE :

- 1.4.1 Guarantee new or existing, moved plant material through one full year after all plants are installed.
- 1.4.2 Replacement of plants shall be guaranteed for one full year from date of installation.
- 1.4.3 Repair damage to other plants or lawns during plant replacement at no cost to the owner.
- 1.5 **SCHEDULING:** Install trees, shrubs and ground cover plants before lawns (if any) are installed.

1.6 PLANT MATERIALS :

- 1.6.1 All plants to be sized as shown on schedules or as specified herein.
- 1.6.2 All plants shall be healthy, free from pests and diseases and be representative of their normal species or variety. All plants shall be well shaped, have vigorous root system and free from disease, wind burn, injuries, abrasion or disfigurement. locations and plant beds are acceptable to Horticulturist/ Engineer-In-charge
- 1.6.3 All plants shall be true to name and one plant of each bundle or lot shall be tagged with the name and size of the plants. In all cases, botanical names shall take precedence over common names,
- 1.6.4 All plants shall be nursery grown unless otherwise stated; they shall have been grown under the same climatic conditions as the location of this project for at least two years prior to the date of contract.

1.7 TOP SOIL (GOOD EARTH) :



If contractor feels that necessary soil treatment is to be done for ensuring survivability of the plants, he shall carry out the at his own cost and rate quoted shall include the same. Top soil or good earth shall be friable soil of loamy texture, typical of cultivated top soils of the locality containing at least 3% of organic decayed matter. It shall be taken from a well drained arable site. It shall be free from subsoil, kankar, mooram, shingle, stones, brick or other objectionable matter. It shall have pH value ranging between 6 to 8.5 No. top soil be delivered in a muddy condition.

1.8 FERTILIZER :

1.9 **Chemical type** : Commercial fertilizer uniform in composition, dry and free flowing shall be delivered in original unopened containers and shall be mixed as specified by the manufacturer.

1.10 **Organic type** :- Dry okhla sludge shall be used. It shall be used. It shall be free from extraneous matter, harmful bacteria, insects or chemicals.

1.11 PLANTING SOIL MIX :

1.12 Planting soil mix (Mixing of good Earth and sludge/ Manure). The stacked earth shall, before mixing, be broken down to particles of sizes not exceeding 6 mm in any direction, good earth shall be thoroughly mixed with sludge in the following proportions :-

- i. For trees and shrubs 2:1 (2 parts of stacked volume of earth after reduction by 20%: 1 part of stacked volume of manure after reduction by 8%).

1.13 INSPECTION

- ii. Prior to all planting work, carefully inspect the installed work and verify that all earth work is complete to the point where planting may properly commence.

1.14 PREPARATION

- iii. Stake out locations for plants and outlines of planting beds on ground.
- iv. Do not begin excavation until stake out of plant location and plant charge.

1.15 EXCAVATION FOR PLANTING : Digging of Pits

- v. The bottom of the pit shall be forked to loosen the soil. In case the soil is clay, a layer of broken bricks and stones shall be sprayed on the bottom of the hole and this layer shall be covered with dried leaves or straw.
- vi. In case the site is infested whit white ants, the sides of the pits shall be brushed with a mixture of B.H.C. (10% concentration) or Chlorpyriphose 20 EC.

1.16 PLANTING :

- vii. Planting shall be performed in accordance with recognized best horticulture practice.
- viii. Plants shall be set plumb and at such a level or elevation that after settlement they will bear same relation to level of surrounding ground as they bore to ground from which they were dug. All plants shall be planted on and in soil mix. All ropes, stones etc. shall be removed from the pit before back filling. Soil for back filling shall be loose and friable.
- ix. Earth balled and hessian covered plants or container plants shall be handled so that the ball will not be loosened. All plastic and other imperishable containers should be removed before planting. The burlap shall be cut away from the upper half of the ball and the remaining burlap shall be firmed at 150 mm to 200 mm. do not plant if ball is cracked or broken before or during planting process.
- x. Plants with exposed roots shall be placed in the proper position in the center of pit after the soil in the bottom of the pit has been firmed. Roots shall be arranged in their natural position and loose friable, topsoil worked in among them, firms at intervals and thoroughly settled with water. Care shall be taken to avoid bruising or breaking the roots when tamping the soil; all large and fleshy roots which are bruised or broken shall be pruned with a clean cut before planting.

1.16.1 FINISHING SURFACE AFTER BACK FILLING :-

- xi. The contractor shall cultivate and rake over finished plant areas and shall leave them in an orderly condition. A shallow basin, larger than the diameter of a planting pit as directed by the horticulturist should be prepared. On steep slopes the soil on the lower side of the plant shall be graded in such a manner that it will catch and hold water, as directed by the horticulturist.
- xii. No deduction shall be made for the value of topsoil displaced by balls. This displaced top soil shall be used in its entirety to build the above described watering basins on level ground or slight slopes and shall be used for grading around trees on steep slopes.
- xiii. All work done in preparing shallow basin, or grading of tree pits on steep slopes, and re-grading and re-seeding of the tree saucers shall be deemed and included in the unit price per tree.



xiv. STAKING :

xv. All staking shall be done immediately after planting. Plant shall stand plumb after staking. Drive stake perpendicularly, 60 cm- 90 cm as require to resist forces of the wind in to ground at edge of root ball. Single stake shall be located on the windward side of the tree. For balled root should be used to probe through the root system, to make a pilot hole, in to which the stake can be driven with minimum disturbance.

1.16.2 PRUNING :

Broken or badly bruised branches shall be removed with a clean cut. Each plant shall be pruned to preserve its natural character and in a manner appropriate to its particular requirements. The amount of pruning shall be limited to the minimum necessary. All pruning shall be done with sharp tools in accordance with instruction of the consultant. Pruning cuts shall be painted with recommended paints.

1.16.3 WATERING :

During and after planting, the plants shall be watered in to eliminate air voids around the roots and watered regularly as required for planting to become established.

1.16.4 SHRUB PLANTING:

Shrubs shall be positioned in the location and numbers shown on plan and placed to achieve even spacing and proper matching of shapes related in a random fashion at approximately equal centers to obtain a natural dense cover. The pits for shrubs shall be **60 cm in diameter and 60 cm deep** at exact positions. Polythene and other non-perishable containers should be removed and any badly damaged roots should be carefully pruned. The shrubs should then be set in pits so that the soil level, after settlement, will be at the original mark on the stem of the shrub. **The planting pit shall be backfilled with planting soil mix to half its depth** thoroughly firmed around the roots by treading to eliminate air voids. The remainder of the soil can then be returned and again firmed by treading, Tall shrubs may need staking: which shall be approved by the Horticulturist/Engineer in charge, depending upon the conditions of individual plant specimen.

1.16.5 HEDGE PLANTING : not in scope

1.16.6 Execution:

The contractor shall maintain all planted areas within the landscape contract boundary until the area is handed over in whole or in phases. Maintenance shall include but not be limited to watering, weeding, cultivating, control of insects of diseases by means of spraying with approved insecticides, herbicides, or fungicide, pruning, adjustment and repair of anchors and wire, repair of minor washouts and other horticultural operations necessary for the proper growth of plants and for keeping the contract area in appearance.

1.16.7 Scope of Work for General Maintenance of horticulture work:

The scope of the contract covers maintenance work for one year after completion date, which includes plants, shrubbery beds topiary and shrubs, trees, in the specified areas, Avenue / Median plantation and removal of rank vegetation and bushes etc. within a planted area. The maintenance shall include watering, manuring, fertilising, plant protection for pests and diseases, sweeping, weeding, and disposal of garden refuse, cultivation and cutting of edges, pruning and clipping of hedges, etc. and stacking, minor repair works and all other landscape operations necessary for the proper growth for horticulture features and maintaining them in proper standard of maintenance.

The quoted rates will be inclusive of cost of all materials like water, good earth mix with manure , labor, tools, plants, equipment, transportation, taxes & levies etc.

Contractor/Agency will execute the work as per approved specification. However where specification is not available, work shall be executed as per sound Engineering practices/direction of Engineer.

If the agency fails to arrange the sufficient quantities of material/ manure /pesticides/manpower/equipment (in good working condition) required to maintain the work in good condition within 4 days of its notification, then Owner / Employer reserve the right to get it arranged at their risk and cost and will charge extra 20% on the actual expenditure incurred in house or outsource (material, manpower, machinery In exceptional cases, Engineer may consider to extend the time limit mentioned above. The decision of Engineer shall be final and binding on the contractor in respect of extension of time for rectification of defects. However, all complaints will be attended promptly and within the time limit specified by Engineer.



Note: On duty, all staff are to wear distinctive standard jackets having company LOGO, with night visibility. They are to deal with public and hence should be well trained to be courteous and helpful.

2. Watering:-

- i. For the period from November to June [period shall be changed by Engineer depending on site condition] contractor shall prepare monthly plan for deployment of water tankers in consultation with Engineer and shall submit the same eight days prior to next month. It is obligatory on contractor to deploy the number of water tankers as per plan. If Engineer observes numbers of water tankers deployed (as per plan) are not being sufficient as per site condition, he shall instruct to increase in water tanker. Engineer's decision shall be final.
- ii. If contractor fails to deploy the water tankers as per Engineer's instructions and as per monthly plan each incidence of non deployment shall imposed penalty of Rs.8000 / day / incidence.
- iii. The methodologies suggested vide (i) to (ii) shall not relive contractor from his obligation of non-wilting of any hedge / shrub / flowering trees of median. If any existing hedge, shrub, flowering tree etc. got dead it should be replaced by contractor at his own cost. Engineers decisions in this context is final
- iv. Deployed water tanker shall fitted with red electric blinking signal and red flag at top of LHS back end. The safety measures as per IRC 112 shall be taken while watering
- v. The contractor shall maintain log books of each deployed water tankers and submit the Xerox copy's along with each monthly statement of work done.

3. Trimming of plantation and application of insecticides / pesticides

- i. Trimming of hedges and flowering trees shall be done as and when required and as ordered by Engineer.
- ii. Supplying and application of insecticides / pesticides shall be done as and when required and as ordered by Engineer.
- iii. Each incidence of failure of trimming and application of insecticides / pesticides shall be penalized at the rate of Rs. 500 / Km. / incidence. Engineer's decision shall be binding on the contractor.

4. The contractor shall submit the daily reports (on next day) of out put of various man and machinery deployments for median maintenance in the formats approved by Engineer. Failure of which shall impose penalty of Rs. 200/ incidence.

5. Other related conditions and schedule of charge of services

- I. The contractor shall employ technically sound man power. The total Nos. Of malis/workers to be engaged shall not be less than theoretical requirement for the actual quantities. Recovery shall be made every day at the rate @ Rs. 350/- (Rupees Three Hundred & Fifty only) for any shortage of skilled mali/workers and @ Rs. 500/- (Rupees Five Hundred only) for any shortage of Senior mali /Chaudhary.
- II. The staff should have experience & the normal working hours will be 8 hours a day from 9 a.m. to 5 p.m. with half hour lunch break from 1.30 p.m. to 2.00 p.m., subject to staggering of duty hour as per actual requirement during Sundays and other holidays contractor must deploy essential staff to ensure minimal maintenance particularly for watering of plants.
- III. If the avenue and median plants die due to careless operation or negligence or due to poor maintenance, the contractor is required to replace the plants at his own cost until they are well established. Payment will be made for those plants, which are grown and develop properly for the period under consideration as outlined in the bill on quantities.
- IV. If the Contractor fails to replace the plant within 10 days the client reserves the right to replace it and recover the cost for the same from the Contractor's bill / security deposit.
- V. The contractor shall arrange at his own expense all tools, required for maintenance of complete horticulture feature. No work should be suffered without tool etc.
- VI. In plant maintenance period if any plant to be found infected from fungus and virus etc. diseases, in that case whole cost as estimated by the Engineer would be deducted from the running bill, or whole plant may be replaced by the contractor at his own cost in the shape & size.
- VII. Contractor will have to make his own arrangements for protecting the plants during maintenance period within ROW/Median by providing necessary tree guard barbed wire fencing etc. No extra cost shall be paid for temporary protection work.
- VIII. The whole area should be kept neat and clean and be maintained to the
 - a. optimum level throughout the contract period and area should kept ready for inspection.

- IX. The instruction of Engineer In-charge staff is to be carried out promptly. In case of any difference of opinion/ interpretation of specification & conditions, the matter is to be referred by the contractor to the Engineer In-charge for his decision, which shall be final & binding.
- X. The Horticulture In-charge / Engineer In-charge have the full right to modify or change the methodology/species or specification as per physical conditions of site.
- XI. The Contractor shall be bound to perform the assigned jobs even though the same may not have been included in the schedule of services.
- XII. Cleaning of wastage material on every day will have to ensure by the Supervisors of the contractor and the waste is to be disposed off as per direction the Engineer In-charge of area.
- XIII. If contractor fails to keep median and road side plants without weeds, unwanted vegetation, debris, within 7 days as instruction/notice given by the Engineer In-charge, (as per provision of BOQ) recovery of Rs. 5000/km shall be imposed. Engineer decision in this context is binding on contractor.
- XIV. The contractor shall be responsible for good conduct and behaviour of its employees, In case of any misconduct by any employee, the contractor shall have to terminate the service of such employees forthwith at their own risk and responsibility.
- XV. Planning: The contractor will be responsible to provide detailed plan in soft copy /hard copy (3 copies) showing the no. of species, type of species, distance etc., as per IRC SP:21:2009. The plan shall be provided within 15 days after commencement. The work shall be executed as per the approved plan.
- XVI. Reporting: The contractor will be responsible to provide daily report, weekly report, and monthly report in soft copy and hard copy (3 copies) as per the format approved by engineer in-charge.
- XVII. Part of the median plantation and hedge plantation in median are awarded to Civil works contractors deployed for by Concessionaire, and the scope of works limited to them shall be intimated by Engineer before award of contract. However the quantum of works mentioned in this contract excludes the scope of works awarded to them.

SCHEDULE OF SERVICES REQUIRED

Sl No	Description	
1	Maintenance of plants	Watering, Training, Pruning, Hoeing, Weeding, Making basin, Manuring, Plant protection etc. as per direction of Engineer In-charge.
2	Maintenance of : Shrubs in median.	Cutting or clipping hoeing / weeding 1-2 times in months, watering, manuring as per direction Engineer In-charge.
3	Disposal of Garbage :	All Horticulture waste generated by hoeing, weeding, mowing of lawns, cutting grass sword, clipping of hedge, dead leaves and annuals are to be disposed off at anyplace in the campus as directed by Engineer In-charge so as to maintain the tidiness of the area.
4	Watering :	Six tanker (mounted with truck) each of 10000 liter capacity or 12 tanker (mounted with tractor) each of 5000-6000 liter capacity with proper safety light is required deployed every day for watering the median plants.
5	Training & Pruning :	To provide desired form and size to plants, regular training and pruning by cutting and removing undesired part/ of twinges/ over crowding and to make desired form, shape and size of plants and to prevent the glare of vehicle, the plant should be multi branch from ground at 1.5 to 2 meter height with oval safe. Time of pruning: - Generally, two pruning is required in a year i.e. December to January and May to June. (Light pruning can be done anytime as required) Pruning tools: - Pruning knife, pruning saw, secateur and pruning shear etc.



6	Basin , Hoeing & Weeding	Making of basin of size 60cm dia & 15 cm deep,(for shrubs)120cm dia (for tree) hoeing & weeding of plants, 1 times should be done every month per plant.
7	Manuring / Feeding	Minimum two feeding is require per year @ of 5 cum per 1200 plants (Sept, Oct & Feb, March).
8	Planting :	<p>Median plantation for one to two rows of flowering shrubs should be provided according to the varying width of the median in different sections.</p> <p>In median width of 1.5-3 meters, one row of shrub whereas in 4.5 meter wide median, plantation of two rows of flowering shrubs are proposed.</p> <p>Avenue plantation shall be done at a spacing of 6m centre to centre.</p> <p>Specification : Shrubs to be supplied in poly bags (growing in 25-30 cm poly bags/earthen pots, up tp 2 years old, 3-4 branches and well established free from diseases (To be planted in individual pits).</p> <p>Proposed Plants: The shrub species proposed in the median are mainly <i>Bougainvilleas</i> in <i>Pink, Red, Yellow and white colour</i>, <i>Thevetia (Kaner)</i> in <i>red white and Yellow colour</i> and <i>Ervatania (Chandani)</i> Avenue Plantation shall include some bio-fuel plants (viz <i>Pongammia Pinnata</i>) and others like <i>Jatropha</i> and other species specified in IRC codes and as approved by Engineer in the Plant schedule submitted by contractor.</p>
9	Deployment of Mali :	1 mali for every 2 km or 1332 shrubs/plants. 1 helper for every 2 km. or 1332 shrubs/plants.

TENDER DOCUMENT

**AVENUE - MEDIAN PLANTATION
AND MAINTENANCE OF
HORTICULTURE WORK**

PUNE SOLAPUR EXPRESSWAYS LIMITED

FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM
44+000 TO KM 144+400



SECTION-VII : SPECIFICATIONS

PROSPERITY



SPECIFICATION

(To be read along with scope of works)

MEDIAN PLANTATION MATERIAL:

The species to be planted in median would be of low or medium height with ornamental value to enhance the visual experience of the road corridor. It will also act as a screen to prevent glare from the incoming vehicles.

One or two rows of flowering shrubs are recommended in accordance to the varying width of the median in different sections. In sections where median width from 1.5 meter-3 meters, one row of shrub to be planted whereas in 4.5 to 5 meter median width, plantation of two rows of flowering shrubs are proposed.

Only two rows of shrubs will be planted on median width of 4.5 meters and these plants will be at a spacing of 1.0 meters from the inner edge of the median.

The plants will be at spacing of 1.5m centre to centre in staggered manner for two row plantation and at spacing of 3m centre to centre for single row, as per IRC SP:21:2009.

The species recommended for median are mainly Bouganvillia and Kaner. Bouganvillia is considered as the most suitable species as it has a great aesthetic value and it is found in various colours and shades. (As per the provisions of IRC SP:21:2009) It can also withstand extreme temperature and climatic conditions and also has low requirement of water. These species have been proposed considering the climatic conditions, requirement of water and future management. However, other species listed in the Appendix - A may also be used.

The surface for the median plantation should be well prepared by the contractor. The masses of loose derbies on the median and any convexities will be removed and similarly any concavities are to be filled by good soil. The surface should have sufficient layer of good quality soil so as to have a better growth and survival of grasses and shrubs.

The height of the plants will not be less than 2 ft. for median and need to be in polythene bags until the planting.

All plants supplied must be planted within three days of removal from the nursery.

The contractor will be required to water the area in case of insufficient rains after planting as instructed by the Engineer.

Median Plantation

- | | |
|--|---|
| Size of the pits for planting shrubs: | - 60 cm dia with 60 cm deep |
| Number of plants per km.for double row | - 666 (spacing at 1.5m c/c in staggering) |
| Number of plants per km.for single row | - 333 (spacing at 3.0m c/c at centre of median) |
| Use of compost and manure | - 1/3 of volume of pit mixed with soil, and refilled. |

AVENUE PLANTATION MATERIAL:

Roadside avenues can be planted up by following :-

- Entire transplant
- Seedlings in poly bags
- Cuttings

Entire Transplant:

- ◆ The plants are retained in the seed beds.
- ◆ At the time of planting, plants are carefully dug out with a ball of earth.
- ◆ As far as possible, injury to the root system is avoided.
- ◆ The ball of earth around each plant can be kept in place by a piece of gunning bag or straw tied round by a piece of string. The transplants are to be kept moist during transit.



◆ To avoid transpiration loss, except for the leaves on leading short all other leaves may be snipped off with a sharp pair of scissors.

The advantage of transplantation is that very tall sized plants [up to 3 mts] can be planted on the roads and within a short period [2-3 years] a good avenue can be developed. Species recommended are Azadirachta indica, Syzygium cuminii, Mangifera indica, Ficus religiosa, Ficus glomerata, shisam, kanji etc. In all cases prior approval of plant schedule may be taken from Engineer.

Polythene bag plants:

Plants are grown in polythene bags in nurseries and are transplanted to the site. Plants should be well prepared in Nursery in polybags of 20 to 30 cm sizes, One to two year old depending upon the species. Polythene sheet is removed before planting the saplings.

Cuttings:

Cuttings made from aerial roots and branches of species of Ficus like Gular, Pakad and Bargad generally strike roots and rapidly establish themselves.

For avenue plantation the plant size shall not be less than 3 ft. height and the species shall be selected as per the provision of IRC SP:21:2009.

Species like Jatropha and also bio fuel plants (viz.Pongamiapinnata) shall also be included

Avenue Plantation

Size of the pits for planting shrubs:	- 60 cm dia with 100 cm deep
Number of plants per km/per side	- 168 (spacing at 6m c/c)
Use of compost and manure	- 1/3 of volume of pit mixed with soil, and refilled.

APPENDIX – A

Suggestive Plants for Median Plantation

1. Bougainvella Garden glory
2. Nerium oleander Kaner
3. Thevetia nerifolia Yellow Kaner
4. Bauhinia alba
5. Bauhinia acuminata
6. Tecoma stans
7. Tecoma capensis
8. TMS single and double
9. Hibiscus sps.
10. Calliandra
11. Gardenia floria
12. Crosandra
13. Musanda
14. Magnolia sps.
15. Hamelia

Or any other plant as per IRC SP:21:2009

For avenue plantain the provision of IRC SP:21:2009 shall be followed.

TENDER DOCUMENT

**AVENUE - MEDIAN PLANTATION
AND MAINTENANCE OF
HORTICULTURE WORK**

PUNE SOLAPUR EXPRESSWAYS LIMITED

FOUR LANING OF PUNE-SOLAPUR SECTION OF NH-9 FROM KM
44+000 TO KM 144+400



VOLUME-II
BILL OF QUANTITIES

PROSPECT



BILL OF QUANTITIES

Preamble

1. The Bill of quantities shall be read in conjunction with the Instruction to Bidders, Conditions of Contract and Technical Specifications.
2. The quantities given in the Bill of quantities are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be actual quantities of work ordered and carried out as measured by the Contractor and verified by the Engineer and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable and otherwise at such rates and prices as the Engineer may fix within the terms of Contract.
3. The rates and prices tendered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the Contract, include all equipment, construction plant, labour, supervision, materials, erection, maintenance, testing of input material delivered, profit, taxes and duties together with all general risks, liabilities and obligations set out and implied in the Contract.
4. The rates and prices shall be quoted in words and figure.
5. A rate or price shall be entered against each item in the Bill of Quantities whether the quantities are stated or not. The cost of the items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
6. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities and where no items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
7. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. Reference to the relevant sections of the contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
8. The method of measurement of completed work for payment shall be in accordance with the specification for Road and Bridge Works published by the Ministry of Road Transport & Highways Fourth Revision, 2001.
9. Errors will be corrected by the Employer for any arithmetic errors pursuant to Clause 27 of the Instructions to Bidders.

Note:

1. Item for which no rate or price has been entered in will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.
2. Unit rates and prices shall be quoted by the bidder in Indian Rupee.
3. When there is a discrepancy between the rate in figures and words, the rates in words will govern.
4. When there is a discrepancy between unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rates quoted shall govern.

VOLUME – 2 (FINANCIAL BID)

Sub: AVENUE - MEDIAN PLANTATION AND DAY TO DAY MAINTENANCE OF HORTICULTURE WORK Km.40+000 to Km.144+400 of Pune-Solapur section on NH-9 in the state of Maharashtra.

S.No	DESCRIPTION OF ITEMS	Unit	Qty	Rate in Indian Rupees		Amount
				In words	In figure	
1	New Plantation for median: Shrub plantation (666 nos/km in two rows) with digging holes of holes 60 cm dia, and 60 cm deep refilling with appropriate earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20%: 1 part of stacked volume of manure after reduction by 8%) including cost of plant, plantation, watering, manure and removal of rubbish and surplus earth, if any with all leads and lifts. Specification: Well established, healthy, free from disease, 50-60 cm height and two year old plants growing in 25-30 cm poly bags / earthen pots. (As per the provision of IRC SP: 21:2009) and complete maintenance for the period of 1 year from including pruning, hoeing, making of plants basin, trimming, cleaning of hedges/plants/beds, spraying of insecticides, fungicides, weeding, hedge clipping, uprooting, clearing and removal of rank vegetation/weeds and grass from the median, watering, manuring replacement of causalities of similar plants and removal of the garden waste as per direction & satisfaction of the officer-incharge to maintain the plants good & healthy conditions for during the maintenance period.	Per Km	82 (Eighty two)			
2	Avenue plantation with digging hole of size 0.60 m dia and 1.0 m deep imported with earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) including cost of plant, 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 separately). (As per the provision of IRC SP: 21:2009) and Complete	Per plant	15372 (Fifteen thousand three hundred seventy two)			



	maintenance for period of 1 year including pruning, hoeing, making of plants basin, trimming, cleaning within ROW, spraying of insecticides, fungicides, weeding, uprooting, replacement of casualties of similar plants and removal of the garden waste as per directing & satisfaction of the officer-in charge to maintain the plants good & healthy conditions for during the maintenance period.					
	TOTAL					

Total Rs in words.....

Note:

1. Proposed plants for plantations shall be as per IRC SP: 21:2009 or as proposed in scope of work and specifications.
2. Refilling of pits with appropriate earth shall be mixed with manure or sludge in the ratio of 2:1 by volume.
3. The cost includes rates of plant, plantation, watering, manure, pesticides, chemicals and removal of rubbish and surplus earth, etc. if any with all leads and lifts along with maintenance as described in the scope of work for a period of 1 year.
4. Payment Schedule for median/Avenue plantation
 - A. 30% of the amount for new plantations (Avenue & Median) shall be paid after completion of plantation
 - B. 30% of the amount of new plantation after completion of the work and three months of maintenance of plants, shrubs etc.
 - C. 30% of the amount of new plantation after completion of the work and six months of maintenance of plants, shrubs etc.
 - D. 10% of the amount of new plantation after completion of the work and twelve months of maintenance of plants, shrubs etc.
5. No extra Payment for extra plantations shall be paid

AUTHORIZED SIGNATURE OF BIDDER