



# OFFICE OF THE ROURKELA MUNICIPAL CORPORATION

UditNagar, Rourkela Dist. –Sundargarh (Odisha) Pin-769012

Website: [www.rmc.nic.in](http://www.rmc.nic.in) Email Id: [rourkelamunicipality@gmail.com](mailto:rourkelamunicipality@gmail.com)

**No. 2797**

**Date: 02.03.2026**

## **Tender Call Notice**

The Municipal Commissioner on behalf of Rourkela Municipal Corporation invites sealed applications in conformation with detailed Tender call notice from the reputed firms /Agencies for **“Open area development with Plantation of Flora and landscape over the area along with establishment of irrigation system and Maintenance for 02 Years at Balughat River Front”**.

Detail technical specifications, along with terms & conditions etc. may be seen from the Tender Odisha Website i.e. [www.tendersorissa.gov.in](http://www.tendersorissa.gov.in) and Website of Rourkela Municipal Corporation i.e. [www.rmc.nic.in](http://www.rmc.nic.in). Date of issue of tender document **30.03.2026**.

**Sd/-  
Commissioner  
Rourkela Municipal Corporation**

**Memo No. 2798                      Date: 02.03.2026**

Copy to Notice Board of RMC for wide publicity of advertisement through office notice board and MIS, RMC is directed for uploading of the tender document in the RMC website and Tender Odisha website.

**Sd/-  
Commissioner  
Rourkela Municipal Corporation**

**Memo No: 2799                      Date: 02.03.2026**

Copy to Director, I&PR Dept., Govt. of Odisha, Bhubaneswar for information with a request to publish the copy of above mentioned notice in one highly circulated Odia daily newspapers & one highly circulated English daily newspaper on date **31.03.2026**.

**Sd/-  
Commissioner  
Rourkela Municipal Corporation**



**Tender Call Notice No. 2797**

**Date: 02.03.2026**

**Rourkela Municipal Corporation**  
**Uditnagar, Rourkela, Dist.-Sundargarh (Odisha), PIN-769012**  
**Email ID: [rourkelamunicipality@gmail.com](mailto:rourkelamunicipality@gmail.com)**  
**Website: [www.rmc.nic.in](http://www.rmc.nic.in)**

**MC/RMC/19/2026**

**TENDER**

**STANDARD TERMS & CONDITIONS OF TENDER DOCUMENTS FOR  
"Open area development with Plantation of Flora and landscape over the  
area along with establishment of irrigation system and Maintenance for  
02 Years at Balughat River Front".**

## **INVITATION FOR BID (IFB)**

Rourkela Municipal Corporation, Rourkela invites sealed Bids for "**Open area development with Plantation of Flora and landscape over the area along with establishment of irrigation system and Maintenance for 02 Years at Balughat River Front**".

### **Bidding Schedule:**

<b>SL.NO</b>	<b>INFORMATION/SUBJECT</b>	<b>DETAIL</b>
01	NAME OF WORK	Open area development with Plantation of Flora and landscape over the area along with establishment of irrigation system and Maintenance for 02 Years at Balughat River Front
02	DATE OF PUBLICATION OF BID	30.03.2026
03	TENDER PAPER COST (Rs.11,800/-)	To be deposited online.
04	EARNEST MONEY TO BE DEPOSITED (Rs.1,00,000/-)	To be deposited online.
04	LAST DATE AND TIME FOR BID SUBMISSION	17.04.2026, 05.00 PM
06	DATE AND TIME FOR BID OPENING	18.04.2026, 11.00 AM
07	DATE OF FINANCIAL BID OPENING	To be Intimated
08	NAME AND OFFICE FOR INVITING TENDER	Commissioner, RMC
09	EMAIL ADDRESS	rourkelamunicipality@gmail.com

1. Bidder may download the Bidding Document from the RMC website [www.rmc.nic.in](http://www.rmc.nic.in) and submit its Bid by utilizing the downloaded document, along with the required non-refundable fee towards Tender paper cost of Rs.11,800/- (Including of GST) through online. The bidder has to submit all the documents through online mode.
2. In the event of any of the above-mentioned dates being declared as a holiday / closed day the Bids will be received/ opened on the next working day at the appointed time.
3. For Queries and Clarifications, send email to: [rourkelamunicipality@gmail.com](mailto:rourkelamunicipality@gmail.com) only.
4. The Authority of RMC reserves the right, without any obligation or liability, to accept or reject any or all proposals at any stage of the process or to cancel or modify the process without assigning any reason whatsoever. Any changes in the tender document, addendum and corrigendum or schedule of the tender shall be reflected in the website of RMC [www.rmc.nic.in](http://www.rmc.nic.in). No extension of any deadline will be granted on the basis of grounds that RMC have not responded to any question or not provided any clarification.

Sd/-  
**Commissioner**  
**Rourkela Municipal Corporation**

## Tender Call Notice

Rourkela Municipal Corporation (RMC) invites Tender from prospective agencies for Open area development with Plantation of Flora and landscape over the area along with establishment of irrigation system and Maintenance for 02 Years at Balughat River Front.

<b>NO</b>	<b>Name Of Work</b>	<b>Deliverables</b>
01	Open area development with Plantation of Flora and landscape over the area along with establishment of irrigation system and Maintenance for 02 Years at Balughat River Front.	Interest Parties shall have to submit documents as provided in the Tender.

### (A) Technical Bid

<b>NO.</b>	<b>Technical Criteria</b>	<b>Documentary Proof</b>
1	Should not have defaulted/black listed by any Govt. Dept./PSU of India and there should not be any pending litigation against a bidder with The Central/State Government department.	Self-declared Affidavit on Non-Judicial Stamp of value 100 INR to be submitted.
2	Agency Should be a proprietor/Partnership Firm/Company/MSME registered.	Self-certified copy of Incorporation or Udyog Adhar.
3	Should have GST Registration	Self-certified copy of the Certificate is to be submitted.
4	Should have PAN registration number.	Self-certified copy of PAN to be submitted
5	Civil Contractor License (minimum B Class) Govt. of Odisha Registered	Copy to be attached.
6	Work Experience	Should have work experience of landscaping work/ Horticulture works/Irrigation related work in any Govt. Organization/ PSU
7	Must have a minimum average turnover of 1Cr in the last 3 years i.e. FY2022-23, 2023-24, 2024-25	Copy of the Audit Report from authorized CA to be submitted
8	EMD Rs. 1,00,000/-	To be deposited online
9	Tender Paper Cost Rs. 11,800/-	To be deposited online

## Terms of Reference (ToR)

### **1. Background**

Rourkela Municipal Corporation is the largest Urban Local Body of the State and is engaged in several activities such as Sanitation, Engineering, Social Welfare, Enforcement etc. besides taking care of City beautification. Rourkela Municipal Corporation in its endeavor to add to the beauty of city besides providing a sustainable environment to its citizens intends development of landscape and maintenance near New Brahmani bridge.

### **2. Objective**

The broad objective is as follows:

- i. Plantation of Flora and development of landscape over the area along with establishment of irrigation system.
- ii. Maintenance of the Landscaping & Plantation work undertaken till the expiry of Maintenance Period of 24 months.

### Site Location



### 3. Scope of Services

#### 3.1 SCOPE OF WORK

The selected private Agency shall carry out the following:

- Plantation of new plants and development of landscape on **90mtr x 30 mtr area** of as per direction of the authorized Officer of RMC.
- Rectify the defects as noticed by the assigned officer in charge/ Superintending Engineer - of RMC as per the terms and conditions of Contract after the completion of Plantation work till expiry of Defect Liability Period
- Maintenance of the Landscaping & Plantation work undertaken till the expiry of Maintenance Period of 24 months.

#### 3.2 Plantation Work:

The selected agency will provide and install the following Plantation works as per the provisions of this RFP and instructions authorized officer of RMC.

- (i). The Details of Area along with the concept design is given in **Appendix-II** of this RFP.
- (ii). The total time period to complete the plantation work shall be **30 days** from the date of issue of order by RMC. However, apart from the initial 30 days, plantation work shall be taken up by the Agency as and when required by the Authority in the manner as described in the RFP as and when instructed by the authorized official of RMC.
- (iii). After Completion of plantation work, the Agency shall rectify defects if any noticed by the assigned officer of RMC as per the terms and conditions of Contract during the Defect Liability Period of **30 days**.
- (iv). The Defect Liability Period shall be for a period of **30 days** after Completion and handing over of plantation work, section-wise. Defect liability shall include mortality replacement, Cutting / Pruning / Trimming of plants and Soil working. Maintenance period shall start after the completion of the Defect Liability Period.
- (v). The selected agency shall install the required equipment in the said premises at its own cost and expenses.
- (vi). No alterations or damage shall be caused to the area. In case any damage is caused to RMC's assets/ premises/ any electric cable, wire/ Optical fiber/ Gas pipes / water pipes etc. passing through the area of plantation by the

bidder, the cost of same shall be recovered from the bidder by RMC. The bidder will make his own arrangements at his cost to restore the items planted/installed/erected strictly as per the approval given by the RMC.

- (vii). The quality of planter box/pots and its foundation shall be of very high standards and it should not spoil the look / aesthetics of the project site. If in the opinion of RMC, the quality/standard of plantation work and its foundation is not up to the mark, RMC may instruct replacement of such items and the same shall be binding on the agency
- (viii). No damage shall be caused to existing infrastructure.
- (ix). Any change required at site shall be decided by Officer-in-charge.
- (x). Geo-tagged photographs shall be taken by the agency at their own cost before the work starts, during the work as well as after completion of work and submit the same to the Authority for the record and future reference.

**Civil Work:**

- (i) Digging of one Bore well.

**3.3 Maintenance of Plantation & landscape:**

The Broad Scope shall include but not limited to:

- (i). The Agency shall provide maintenance of installed plants, landscape for period of 36 months from the date of agreement.
- (ii). Maintenance of Landscape includes, but not limited to:
  - (a) All plant materials shall be healthy, sound, and vigorous, free from diseases, insects, pests, or their eggs, and shall have healthy, well-developed root system. All plants shall be kept under normal weather conditions similar to those in the locality of the project. All plants must be protected from the Sun and rain till planted.
  - (b) Maintaining all the trees, plants, shrubs, hedges as are existing on completion of development period of contract and any other stretch developed thereafter.
  - (c) Plants, shrubs, Trees etc. by excavation/digging as and when required in the interest of the beautiful maintenance of the ambience of the Landscape area.
  - (d) Prepare and maintain flower beds, seasonal and perennial both.
  - (e) Cutting of grass, pruning of plants at required intervals and removing the waste to proper place should be done to give uniform look .

- (f) Regular watering of grass, trees, plants, shrubs etc. and hoeing and weeding in and around them.
  - (g) Spraying of insecticide and fungicide application/spreading of bio-fertilizers and manure as and when required/advised, any material will not be supplied by RMC.
  - (h) Pruning of overcrowded branches, watering, manuring and weeding along with other works.
  - (i) Weeding, soil working, manuring, pest controlling, trimming etc. as where and when required.
  - (j) During maintenance period, the bidders shall provide undertaking for making minimum availability (either owned or leased or hired) of the following key and critical equipment in working conditions and not expired, sufficient to execute this work in requisite time schedule.
  - (k) Sufficient numbers of gardeners and supervisors for day to day maintenance Watch and ward of the total assets developed.
  - (l) Welding and fabrication of railing / Hanging plant pots / tree guards etc.as and when required.
  - (m) Agency at all times shall ensure that the soil should not overflow onto the tank area.
  - (n) Agency shall ensure that all the manpower deployed are provided with safely gears while working and safety norms are adhered to in coordination with RMC.
- (iii). All the maintenance activities shall be carried in mechanized manner.
  - (iv). Agency shall have appropriate manpower to handle irrigation by drip system and sprinkler system..
  - (v). Operation and Maintenance shall preferably be done in consultation with Officer in charge of RMC. The agency needs to keep the record of the daily Operation and Maintenance activities. This is to be signed/ verified by the authority once in a month. For this, the agency has to submit an Operation and Maintenance Plan to the Authority within 15 days of the date of issue of work order.

### **3.3.1 Cleaning of plantation area**

- i. The entire plantation widths shall be cleaned regularly.
- ii. Cleaning shall be done by sweeping, raking, brush cutter application, herbicide application etc.
- iii. The three general approaches to control weed competition are

mechanical, chemical, or physical systems. All methods require varying amounts of time and economic inputs, and may differ in effectiveness depending upon site conditions and competition with undesirable species. Regardless of which system or combination of systems is to be implemented.

- iv. Regular uprooting, cutting of unwanted weeds, bushes and wild vegetation shall be done to keep plantation area weed free.
- v. The dry and fallen leaves of avenue trees shall be collected and disposed in consultation with RMC to prevent the chances of pest and diseases attack on plant and also fire damage.

### **3.3.2 Watering/ Irrigation**

- i. The quantity of water requirement largely depends on nature of species, soil quality, climatic condition of the area mainly temperature, relative humidity, wind velocity etc.
- ii. The plants shall be watered/ irrigated through sprinklers in morning and evening time to avoid evaporation loss of water through soil. For this purpose, the agency is required to establish the sprinkler system as per the mentioned design and specification in Appendix -1.
- iii. During the first growing season sufficient measures shall be taken to conserve soil moisture for survival of the plants.
- iv. Agency shall maintain the entire irrigation system in good condition.
- v. In case of breakdown/failure of watering system, Agency shall provide water to each plant through manual means or through water tankers.
- vi. Water shall be used from the Bore well.

### **3.3.3 Loosening of Soil**

- i. Loosening of soil around the avenue plants shall be done on regular basis and soil should be made well loose, so as to allow water and air to penetrate into the soil, increase the microbial activity in sublayer and increase the fertility of soil for plants.
- ii. Loosening of soil shall be done with the help of proper tools and method.
- iii. Care must be taken to prevent damage of root or stem of the plants during soil working.
- iv. Soil texture/ soil health shall be maintained at all times

### **3.3.4 Weeding**

- i. Fast-growing herbaceous weeds such as grasses, sedges and broad-leaved plants or undesired woody perennials such as trees, shrubs, and vines shall suppress the slow- growing hardwood seedlings. So, uprooting of the weeds and controlling the same is an essential component of any plantation. Cutting of the weeds by scrapping should be avoided as this action coppiced

the weeds and grasses. They grow fast when watering starts.

- ii. Weeding operation should be done with the help of proper weeding tools, all weeded out material shall be disposed in the compost pit.
- iii. Cutting and weeding tools shall be kept clean, sharp and well maintained.

### **3.3.5 Trimming and Pruning of Plants**

- i. Trimming and pruning means to control unbalance and extra growth of plant by cutting and removing undesired part of the plant.
- ii. Pruning helps in encouraging vigorous growth by allowing proper air & light. So, removal of over- crowding and weak branches, dried up, diseased and pest infested parts should be done whenever necessary.
- iii. Pruning operation shall be carried out by mechanical means only and with the help of proper tools like Pole pruner, pruning secateurs, shears, chainsaw etc. Manual pruning can only be undertaken in case of machine failure. Care should be taken to prevent damage of Cambium layer.
- iv. Trimming and Pruning of plants shall be undertaken in consultation with authority, RMC. Utmost care should be taken during Trimming of plantation in the view of increase/improvement of overall aesthetics of the landscape area. Trimmed leaves and branches shall be collected and disposed in a designated site as instructed by RMC.
- v. After pruning, wherever applicable plant protection measures are to be undertaken.
- vi. In no case tree branches shall come out on the pavement area posing threat to the moving traffic on roads. Agency shall be penalized heavily as decided by the RMC for any such kind of negligence and such penalty shall be binding upon the Agency.

### **3.3.6 Mulching**

- i. Mulching is the process of preparing a layer of material applied to the surface of soil to check evaporation of soil moisture.
- ii. Applying mulch shall conserve soil moisture and soil temperature, increase soil microbial activity, improving fertility and health of the soil, reducing weed growth and enhancing the visual appeal of the area.
- iii. Mulching around the plants shall be done as per the instruction of BMC's horticulturist. Sufficient precaution should be taken to prevent termite attack.

### **3.3.7 Application of Manure / FYM and Fertilizers**

- i. For growth and development of plant different nutrients are essential like N P K and other micro nutrients. These essential plant nutrients are supplied through FYM, compost and Bio- fertilizer.

- ii. Farmyard manure improves soil structure and is used as a natural fertilizer for plant. It increases the soil capacity to hold more water and nutrients.
- iii. It also increases the microbial activity of the soil to improve its mineral supply and also the plant nutrients.
- iv. Neem Cake can be used to control soil borne pest that help roots to absorb nutrients in regular and optimum manner.
- v. Fertilizers like Single Super Phosphate, Diammonium Phosphate, Murat of Potash, Neem Cake etc. shall be provided after weeding and soil working followed by regular irrigation to the plantation.

### **3.4 Replacement of casualties:**

- i. Plants may die due to adverse climatic condition, human errors and default in maintenance.
- ii. In case of mortality/ death of plants, the Agency shall undertake the replantation of same species of same age group with requisite preparatory work.
- iii. Agency shall be responsible for 100% survival of plants at all time during the plantation operation & maintenance phase.

### **3.5 Pesticide Application**

- i. Plants are attacked by different types of pest and diseases, some of these insect pest and diseases are fatal to plants.
- ii. Proper application of pesticide and the equipment used for applying pesticide are vital to the success of pest control operations.
- iii. All pesticides are poisonous substances and they can cause harm to all living beings. So, bio- pesticides should be preferred. shall be done as per instruction of RMC's horticulturist and as and when required by the Agency under intimation to the Horticulturist.

Grass turfing – 1900 Sqm

Trees, palms, bamboo, shrubs

### **Terms and Conditions**

1. The bidder should submit (self-attested) documentary proof in support of the above condition and shall also submit a clause by clause compliance certificate. The incomplete offers i.e. financial or technical bids for partial items instead of bidding for the whole list of requirement will the summarily rejected without any further correspondence.
2. The bidder must also submit an affidavit of assurance of no change in the quoted price for two-year.
4. Submissions of Bids- The bidder has to submit papers on-line with all

required documents.

#### 5. Evaluation of Bids

- a. Tendering authority shall evaluate the bids in respect to the substantive responsiveness of the bid or otherwise. Tendering authority shall carry out a detailed evaluation of the substantially responded bids. Tendering authority shall check the bid to determine whether they are complete, in all respect or not.
  - b. Arithmetical error shall be rectified on the following basis
    - i. If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the bidder.
    - ii. In case of discrepancy between words and figures, the amount in words shall prevail.
  - c. If any bid is found substantially non-responsive shall be rejected by the evaluation committee.
  - d. Tendering Authority may waive any minor infirmly or non-conformity or irregularity in the bid which does not constitute a material /service deviation.
  - e. Tendering Authority shall evaluate in detail and compare the substantially responsive bids.
  - f. The Financial bid will be opened only when a Bidder qualifies in the Technical Bid.
  - g. The Shortlisted Agency quoting the lowest price bid shall be the preferred bidder.
  - h. The decision taken by the tender committee shall be final and binding to all participating bidders. It cannot be challenged in any court of law.
8. Termination of Default: Tendering Authority may, without prejudice to any other remedy for breach of contract, by written notice of default, sent to the agency, terminate this contract in whole or in part.
- a. If the agency fails to deliver any or all the services/goods within the time specified in the contract, or any extension thereof granted by Tendering Authority
  - b. If the agency fails to perform any other obligation (s) under the contract; and
  - c. If the agency, in either of the above circumstances, does not remedy his failure within 15 days (or such longer period as the competent authority may authorize in writing) after receipt of the default notice from Tendering Authority.

#### 10. Payment and release of the Funds:

Contractor shall raise invoice after completion of the work in all aspects. The contractor will raise the invoice as per the following schedule.

Sl. No.	Payment Stages & Milestones	Payment in % of Project Cost
1	After successful Plantation, development of landscape & establishment of irrigation	90%
2	After 1 <sup>st</sup> year of maintenance	05%
3	After 2 <sup>nd</sup> year of maintenance	05%

- ***The payment will be made to the bidder are subject to deduction of tax as per the Government Rule from time to time.***
- ***The fee is inclusive of the anticipated inflationary increase over the duration of the contract and hence will not be reviewed further.***

### **Supply of Materials**

- a. The contractor shall at his own expenses provide all materials required for the work. The materials supplied by the contractor shall conform to relevant latest specifications and Codes of Practices or in their absence to other specifications as may be decided by RMC. The contractor shall furnish necessary certificate(s) in support of the quality of the materials as may be required by RMC.
- a. RMC shall have absolute authority to test the quality of materials/Equipment at any time through any reputed laboratory at the cost of contractor. The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials. RMC shall have the right for removal from the work sites, of all specifications and in case of default, RMC shall be at liberty to sell such materials and/or to employ other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials.
- b. Statutory Approvals and clearances
- c. The Contractor shall be liable to undertake all statutory clearances, NOC and approvals from the relevant Local authorities for undertaking and executing the project. The Official fee for undertaking these clearances shall be borne by the agency; however, all Incidental expenses shall be borne by the contractor.
- d. Contractor to Provide and Facilitate Inspection, Safety Gear, etc.:
- e. RMC will have the right to inspect the work and can reject partly or fully such construction/installation if found defective in its opinion.
- f. Black Listing
- g. A contractor may be blacklisted for:-
- h. Misbehavior/ threatening of Departmental & supervisory officers during execution of work/tendering process.
- i. Involvement in any sort of tender fixing.
- j. Constant non-achievement of milestones on insufficient and imaginary grounds and non- adherence to quality specifications despite being pointed out.
- k. Persistent and intentional violation of important conditions of contract.
- l. Security consideration of the State i.e., any action that jeopardizes the

security of the state.

- m. Submission of False/ fabricated/ forged documents for consideration of a tender.
- n. In case a contractor is blacklisted, it will be widely published and intimated to all Departments of Government and also to Govt. of India Agencies working in the State.

## **Appendix – I**

### **Scope of Work & Specification for the Irrigation System**

Design, Supply, Installation, Testing and commissioning of irrigation System with salient features including trenching & backfilling to depth as required in all types of soil. Upon final inspection a water audit shall be performed and a minimum 70% Distribution Uniformity (DU) shall be achieved. Any adjustments required to achieve minimum DU will be borne by the installer.

The water source for entire irrigation is proposed through the /Tank/bore well which is in scope of this tender. The emitting devices proposed for the horticulture area are as follows:

- a) Lawn in any of above areas - Sprinkler system
- b) Ground cover/Hedge/Plantation (moderate /light) in any of above areas - In built Drip line.
- c) Trees in any of above areas - Drip Line /Hydrant
- d) Quick coupling valves are proposed at strategic locations for washing of plants, trees, pathways etc. The quick coupling valves can also be used for stand by manual irrigation.
- e) The above system is completely automatic using solenoid valves, controller etc. for precise irrigation.

#### **1. Hydraulics**

- Operating pressures for each component in the system should be within manufactures specified pressure ranges to operate each head in the system.
- Filters should be used as needed or recommended by the manufacturer.
- Appropriate and required back-flow prevention shall be installed according to current legal requirements.

#### **2. General Construction Requirements**

- Verify and have marked the location of all underground utilities and obstructions.

- Install all irrigation system components using details in the plans. Use sealant tape whenever needed on threaded connections to make them as secure as possible.
- Use of Teflon paste (pipe dope) is unacceptable.
- Stake pipe and head locations for approval prior to trenching. Trench to the depths on the plan to accommodate pipes and fittings. Barricade and secure open trenches to effectively prevent accidental entry if left open overnight.

### **3. Pipe Installation**

- Protect PVC pipe and fittings from prolonged exposure to sunlight.
- Prevent foreign materials from entering pipe during installation.
- Lay pipe in the trench in a snake-like manner with bell ends facing up stream.
- Maintain a 2-inch minimum lateral clearance between pipes located in the same trench.
- Thoroughly flush mainlines before installing control valves.

### **4. Electrical Wiring**

- Coil an additional 12 inches of wire at each automatic control valve.
- Splice wires at each control valve using waterproof wire connectors.

### **5. Backfilling**

- Bed all pipe 2 inches (minimum) surrounding the pipe with native material excavated from the trench and passing through a number 4 sieve.
- After the bedding has been placed, backfill and compact the trenches to the same density as the ground adjacent to the trench.

### **6. Spray Heads/ Rotor heads**

- Adjust sprinkler nozzles to allow for adequate coverage and at the same time minimize overhead spray onto the walks, roads, driveways and buildings.

### **7. Pipe**

- Schedule 40 Polyvinyl Chloride (PVC) irrigation pipe shall be used in all irrigation installations and repairs.
- Pipe sizes larger than 3 inches diameter may require schedule 200 or any other pipe as specified.
- Mainline- no dielectric connections.

### **8. Back-Flow Prevention**

- All back-flow devices and parts shall be capable of being tested and serviced

without removal of device from the line.

- Unions shall be installed on each side of the back-flow device to allow removal and maintenance of the unit and shall be constructed of brass and galvanized steel.
- All above ground piping shall be galvanized steel or ductile iron pipe.
- All above ground valves shall be constructed of brass or cast iron.
- An enclosure should be included unless the back-flow device can be installed within a tool room or other enclosed facility.

#### 9. Quick-Coupler Valves

All quick-coupler valves must be constructed of heavy-duty brass with a 25mm two-piece body design.

### **Appendix – II**

#### **PALM SPECIES (Best for NH Side)**

1. Royal Palm – *Roystonea regia*
2. Foxtail Palm – *Wodyetia bifurcata*
3. Date Palm – *Phoenix sylvestris*  
Native & hardy
4. Areca Palm – *Dypsis lutescens*
5. Washingtonia Palm –

#### **Recommended mix for your 40 palms**

<b>Species</b>	<b>Qty</b>
Royal Palm	10
Foxtail Palm	10
Date Palm	10
Washingtonia	10

#### **SHRUBS & HEDGES (Pollution Resistant)**

##### A. Flowering Shrubs

- *Bougainvillea spectabilis* – best dust barrier
- *Hibiscus rosa-sinensis* – hardy flowering
- *Tecoma stans* – heat tolerant
- *Ixora coccinea* – compact flowering
- *Nerium oleander* (Kaner) – smoke tolerant

##### B. Hedge Plants

- *Duranta erecta* – formal hedge
- Karonda – *Carissa carandas* – security hedge
- *Clerodendrum inerme* – dense screen
- *Acalypha wilkesiana* – colorful foliage
- *Murraya paniculata* (Kamini) – fragrant hedge

##### C. Ground Edge Plants

- *Wedelia trilobata*
- *Portulaca grandiflora*

➤ Periwinkle – *Vinca rosea*

□ Suggested Quantity Breakup (for 1800 shrubs)

<b>Plant</b>	<b>Nos.</b>
Bougainvillea	350
Duranta	350
Hibiscus	200
Tecoma	200
Kaner	200
Karonda	150
Ixora	150
Clerodendrum	100
Acalypha	100

**BOQ Details as per Apendix-1**

Sl. No.	Item	Unit	Quantity
1	Palms	No.	40
2	Bamboo Clumps	No.	80
3	Shrubs & Hedges	No.	1800
4	Ground Cover & Lawn	Sqm	2700
5	Providing good Soil, Compost, Pits	cum	300
6	Drip Irrigation	LS	1
7	Maintenance 24 Months	LS	1
8	Soil Filling minimum depth of 1 mtr. (120 mtr X 40 mtr)	Cum	4800

Price to be quoted on Lump sum basis.