

INTEGRATED EXTERNAL LANDSCAPE MANAGEMENT AND GARDENING SERVICES AT IGI AIRPORT, NEW DELHI

SCOPE OF SERVICES AND SERVICE PERFORMANCE STANDARDS

Part A

SCOPE OF SERVICES:

The Service Provider shall provide all necessary equipment, plants, tools-tackles, materials, manpower for proper maintenance of landscape sites which include all trees, saplings, foliage plants, shrubs, ground covers, hedges, creepers, turfs and seasonal flowers. A proper schedule shall be followed with the quality benchmark as given below:

Note: Non plant area like loose gravels and edge separators which come in between, also have to be maintained accordingly.

S. No.	ITEM	WORK	FREQUENCY	REMARKS
1	Ornamental trees, shrubs, foliage, hedges, turfs, ground covers climbers and creepers.	Weeding	Regular basis	Frequency may vary as per the climatic condition. Herbicides may also be used on few intensive weed patches in garden after discussion with DIAL's representative.
2	Landscaped site.	Cleaning/ housekeeping	Regularly/as and when required	All rubbish e.g. waste paper; plastic etc. shall be removed off on regularly basis or as per requirement.
3	Ornamental trees, shrubs, foliage, hedges, climbers and creepers.	Soil loosening	Fortnightly basis/ as per requirement.	Frequency may vary as per the climatic requirement for proper leaching of the necessary inputs.
5	Ornamental tree, shrubs, foliage, landscaped sites, hedges, turf and creepers. Semi-mature and mature ornamental trees.	Chemical Fertilization	Minimum 2 times/year or accordingly. In case of turf minimum three times/year or as per instructions.	Cost of material to be paid in accordance with rates provided in the SOR. However, application cost is included in maintenance service. Application rate and time will be as per schedule provided by DIAL.
6	Ornamental tree, shrubs, foliage, landscaped sites, hedges, turf and creepers. Semi-mature and mature ornamental trees.	FYM	Minimum 2 times/year or accordingly. In case of turf minimum three times/year or as per instructions.	Cost of material to be paid in accordance with rates provided in the SOR. However application cost is included in maintenance service. Application rate and time will be as per schedule provided by DIAL.
7	Ornamental tree, shrubs, foliage, landscaped sites, hedges, turf and creepers. Semi-mature and mature ornamental trees.	Neem cake	Minimum 2 times/year or accordingly	Cost of material to be paid in accordance with rates provided in the SOR. However application cost is included in maintenance service.

				Application rate and time will be as per schedule provided by DIAL.
8	Entire Landscape sites.	Irrigation/ Watering	Regular & requirement basis.	Watering of all plants has to be done through irrigation system, installed at Service Area. Washing of plants is to be done as & when requirement basis.
9	Ornamental tree, shrubs, foliage, landscaped sites, hedges, turf and creepers. Semi-mature and mature ornamental trees.	Disease & Pest control	As and when required.	Preventive measure will be taken to avoid even minimal damages to the trees with the consent of DIAL. Cost of fungicide/pesticide will be paid in accordance with rates provided in the SOR. However application cost is included in maintenance service cost.
11	Ornamental tree, shrubs, foliage, landscaped sites, hedges, turf and creepers. Semi-mature and mature ornamental trees.	Trimming/pruning/ Training/ Staking	On regular basis.	Frequency may vary as per the climatic condition. Should be done by mechanized tools and Tackles.
12	Large trees/ palms	Basin maintenance	Regular basis.	Should be weed free, clean, well edged all time.
13	Lawn area	Mowing	On need basis to maintain the lawn height at 15-40 mm. followed by cleaning of lawn by removing grass clippings. Ensure that no more than 1/3 of the leaf blades are removed per mowing.	Frequency may vary as per the climatic condition. Mowing has to be done by branded mechanized lawn mower. Specialized lawn mower is to be used for angular mound surfaces. Mower blades will be sharp at all times to provide a quality cut.
16	Seasonal flowers	Seed/ seedling plantation to blooming	Winter and summer season.	Maintenance of seasonal flowers from plantation to blooming and removal of plants after completion of usable life cycle shall be a part of maintenance service. Local/OP seedlings to be provided by DIAL in seed beds and Service Provider is responsible for planting of these seedlings in existing garden area without any extra charges. Maximum 5% of total garden area will be covered from these seedlings. Cost of Hybrid/improved(in seedling trays) seedlings to be paid in accordance with rates provided in the SOR Cost of

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Part B**Service Performance Standards**

The performance of the work shall be as specified in technical specification and as reviewed by the DIAL according to quality parameters stated below:

Sr. NO.	Item	Performance parameters/Service Performance Standards
1	Lawn Area	<ul style="list-style-type: none"> Turf grass properly moved between 15 to 40 mm above ground level. Well cut grass along lawn edges
2	Hedge/edge	<ul style="list-style-type: none"> Well Pruned & trained
3	Flowering Shrubs/creepers	<ul style="list-style-type: none"> Free of dry & undesirable branches Properly trained
4	Garden Trees	<ul style="list-style-type: none"> Free of dried & undesirable branches
5	Ground Cover/Foliage plants bed	<ul style="list-style-type: none"> Well pruned (wherever applicable)
6	Specimen plants & topiary	<ul style="list-style-type: none"> Well pruned (wherever applicable)
7	Palm & cycads	<ul style="list-style-type: none"> Free of dry leaves
8	Overall garden	<ul style="list-style-type: none"> Free of Weeds No garbage in garden Seasonal flower seedling plantation & maintenance Application of Manure & Fertilizer Pest & disease control Watering Timely mortality replacement Inter-culture operation

FORM—A MODE OF MEASUREMENT FOR MAINTENANCE OF GARDEN AREA /SERVICE PERFORMANCE STANDARDS

Service Provider name :

Details of the Agreement:

Work name :

Month & Year :

Location :

Sr. no.	Performance Parameters/activities	Weightage allotted	Actual weightage (%)		Remarks
			1st Fortnight	2nd Fortnight	
1	Lawn	10%			
a)	Lawn mowing	70%			
b)	Side cutting	15%			
c)	Quality of mowing	15%			
2	Hedge/Edge	7%			

a)	Pruning & training	100%			
3	Flowering & ornamental Shrubs/creepers	5%			
a)	Removal of dry & undesirable branches	80%			
b)	Removal of matured (dried) flowers	10%			
c)	Properly trained	10%			
4	Trees	1%			
a)	Removal of dry & undesirable branches	100%			
5	Ground Cover/Foliage plants bed	8%			
a)	Pruning & training	100%			
6	Specimen plants & topiary	4%			
a)	Pruning & training	100%			
7	Palm , cycads & succulent	3%			
a)	Free of Dry leaves	100%			
8	Overall Garden Area	62			
a)	Cleaning & removal of garbage from garden	20			
b)	Weeding	30			
c)	Application of Manure & Fertilizer	10			
d)	Pest & disease control	10			
d)	Seasonal Flower seedling plantation & maintenance	15			
e)	Irrigation	5			
f)	Mortality replacement	5			
g)	Inter-culture operation	5			

Note: Liquidated Damages –

1. Percentage Weight age allotted to a particular activity is on the basis of its importance. Form A to be filled twice in a month in percentage of work completed against the corresponding activity. This forms the basis for deduction from monthly maintenance charges as Liquidated Damages for any incomplete activity in Form A.

2. Service Provider shall submit the above work report on 15th & 30th of each Month and obtain signature of DIAL's authorized representative.

3. Performance measurement through checklist will have genuine consideration of climatic factors, practicability, essentiality & other external factors.

GENERAL NOTES:

The General Notes listed here below shall apply to all the landscape maintenance works:

- Work done checklist must get signed on 15th and 30th (+/- 2 days) of every month from horticulturist at the specific Service Area(s).
- Service Provider shall submit report on manpower and machinery engaged at Service Area(s)/site on Effective Date and further on daily basis.
- A quarterly maintenance schedule shall be prepared forecasting maintenance operations for the coming quarter. This shall be submitted for approval to DIAL before 15th of the preceding quarter.
- Any plant mortality due to the negligence of maintenance activity to be replaced by Service Provider free of cost.
- Service Provider is also responsible for replacement of plant mortality occurred due to other reasons i.e. natural death, damages due to accident, vandalism, theft, extreme weather (like frost), Natural calamities and related work contract (Electrical, Mechanical, Civil, I.T. etc.) and same to be paid by DIAL as per item rate provided in SOR.
- If required, an open area with irrigation water may be provided to Service Provider for laydown area and development of temporary nursery at Service Area(s)/site so that Service Provider can propagate suitable ground-covers/shrubs for mortality replacement. A buffer stock of commonly planted shrubs, & ground covers at IGI Airport also to be maintained in temporary nursery for immediate mortality replacement.
- DIAL shall have the absolute discretion to inspect equipment and materials used by the Service Provider at all times. The Service Provider shall allow easy access by DIAL to its offices and stores for inspection.
- All spraying of pesticides and fertilizer applications will be performed at optimum temperatures and wind drift negligible. No pesticide/ fertilizer/manure will be applied to landscape areas without the express approval of DIAL.
- No extra payment to be made for new planting in existing landscape area under maintenance (except large scale refurbishment / modification). DIAL may provide extra plants from the nursery at IGI Airport maintained by DIAL or otherwise the Service Provider can provide the same as additional supply in terms of the rates provided in the SOR.

- DIAL is not bound to procure all consumable items mentioned in the Agreement; and quantity may also differ during execution of work. Items to be supplied on need basis after written instruction by DIAL's representative.
- All garden waste to be dumped only in compost pits at designated locations and dumping of garden waste in open area may lead to a fine of Rs.1000 per event.
- Service Provider will depute minimum 1 gardener for every 2500 sq. mt. landscape area (including machine operators) for the garden maintenance works at site. However, in order to carry out detailed scope of works as per the Service Performance Standards the Service Provider has to deploy additional manpower and resources if required, at any point of time during the Term, without any additional cost to DIAL. The Service Provider shall be fully responsible for carrying out all the detailed scope of Services in terms of the Service Performance Standards. .
- Service Provider will depute minimum one dedicated horticulturist with qualification of BSc Ag/Hort with minimum 5 years relevant experience and other supporting staff with relevant qualifications and experience.
- All personnel/ gardener under this Agreement shall wear uniform throughout the working hours.
- In case Service Provider is unable to perform any maintenance activity, DIAL may award the same work to other agency and deduct the expenditure amount with 10 % extra administrative & supervision charges from the Service Provider's payment.

NOTES FOR IRRIGATION:

- Irrigation water to be provided by DIAL without any charges.
- The Service Provider shall take note of the availability of the Irrigation System in landscape areas.
- Service Provider is responsible for day to day coordination with agency responsible for O&M of landscape irrigation system.
- The condition of operation and maintenance of quick coupling valves, hose pipe connector and hose pipe are to be reviewed by the Service Provider.
- The damages to irrigation system occur due to negligence during horticultural operation are responsibility of Service Provider .
- The Service Provider shall manage the use of irrigation water to be the minimum necessary, to ensure the healthy growth and maintenance level of the plants, providing a high level of appearance.
- The Service Provider shall be responsible for protection of sprinklers, placement of drip lines in their original position after each horticulture operation.

- In case of any failure of irrigation systems or of water supply or in case irrigation water is for any other reason unavailable to the plants, the Service Provider shall immediately make arrangements for manual watering by water tanker, or by other approved arrangement. All plants shall be maintained in a well-watered and healthy state at all times. In the event there is any unavailability of the irrigation water at the Service Area, the Services Provider shall arrange for the water tanker upon prior written approval of DIAL, provided always that the reason for unavailability of irrigation is not the result of any failure or omission on the part of the Service Provider. The Service Provider shall mention the cost of the same in the invoice generated which shall be in accordance to the Contract Sum.
- The water tankers to be used shall be in good condition and fixed with necessary safety features such as safety blinking lights. Water from water tanker shall be dispensed to the landscapes using an appropriate pump fitted properly with hose and sprinkler shower head approved by DIAL. The movement of water tankers on road shall not obstruct the passenger movement.
- The operation and maintenances of Irrigation system are not included in this Agreement.

Performance Service Standards with respect to Service Provider Equipment: The Service Provider will maintain minimum machinery, equipment and tools-tackles as per Schedule 2. . The listed equipment, vehicle and tools-tackles are minimum requirement which the Service Provider shall deploy and maintain through-out the Term. However, if any extra equipment or resource is required to perform the scope of Service, the Service Provider shall deploy such additional resources from time to time without any extra cost to DIAL.

**SCHEDULE 2
SERVICE PROVIDER EQUIPMENT:**

Sr. No.	Name of Equipment	Details and Brand/Model	Qty. (No.)	Remarks
1	Lawn Mowers (Motorized Ride-on)	Minimum 700 cc/24 HP engine	1	For Large area
2	Lawn Mowers (Motorized Walk behind)	Minimum 150 cc/ 6HP engine. Make:Toro/ Jacobsan / Husqvarna / Hayter/ Honda/ Stihl/ Bosch/Oleo-mac/Stiga /Yamaha /Kawasaki/ Mitsubishi/Steelfort/Yardstar/California Trimmer	13	For Medium Lawn area. Each for 25000 sq. mt.

3	Hover Lawn Mowers	Toro/ Allen/ Flymo/ Hayter/ Husqvarna/California Trimmer/Honda	3	For mounds and other slope area
4	Lawn Mowers	Manual	2	For Small lawn areas
5	Brush Cutter (Motorized)	Toro/ Jacobsan / Husqvarna / Hayter/ Honda/ Stihl/ Bosch/ Hitachi/ Komatsu/Oleo-mac/ Stiga /Yamaha/ Kawasaki/ Mitsubishi/California Trimmer	13	For Side cuttings & uneven grass area cutting. Each for 25000 sq mt
6	Hedge Trimmer (Motorized)	Toro/ Jacobsan / Husqvarna / Hayter/ Honda/ Stihl/ Bosch/ Hitachi/ Komatsu/Oleo-mac/ Stiga /Yamaha/ Kawasaki/ Mitsubishi/California Trimmer	13	Each for 25000 sq. mt.
7	Knapsack sprayer	16 Litre, Battery operated. Aspee/Shakti/Neptune/Balwaan or equivalent	7	For Pesticide/ Fungicide/ Herbicide Spray
8	Power Sprayer	Petrol engine. Aspee/ Shakti/ Neptune/ Balwaan or equivalent	2	For Large area
9	Foot Sprayer	Aspee/ Shakti/ Neptune/ Balwaan or equivalent	1	For Large area/tree
10	Utility Vehicle	Mahendra Bolero Pick-up/Maxitruck/ Mahendra Genio/ Tata 207/Tata Yodha/ Isuzu D-max/ Ashok Leyland Dost equivalent. Hydraulic hopper Tipper will be installed in minimum one utility vehicles	3	For removal of Garden waste and transportation of equipment/tools-tackles, plants, Manure & Fertilizer
11	Garden Shear	Falcon/Passi/Sharpex/equivalent	25	
12	Tree Prunner/ Lopper	Falcon/Passi/Sharpex or equivalent	4	
13	Spade		20	
14	Pick-axe		10	
15	Ladder	Different height	5	
16	Crow-bar		1	
17	Raker		10	
18	Secateurs	Falcon/Passi/Sharpex/equivalent	10	
19	Wheel Barrow		4	
20	Watering Cane		5	
21	Side cutter/grass shear		20	
22	Plastic drum	200 litre	3	
23	Lawn core	Manual operated	1	

	aerator			
24	Fertilizer spreader	Manual operated	1	
25	Chainsaw	Minimum Size 12", Petrol/Battery operated	1	
26	Car	Hatchback/Van, CNG/EV	1	For site movement
27	Khurpi (Different Type)		As per requirement	
28	Flexible Hose Pipe		As per requirement	

- If landscape area is equal or more than 50% of quantity required for each machine than next number of machine will be applicable.
- Hover lawn mowers (for mound and other slope area) may also be replaced from Battery operated or electric lawn mowers but Service Provider will arrange electricity from available power sources (Feeder Pillar) including, cables, pre-paid meter and other necessary material. Electricity will be provided on paid basis. Otherwise generator can be used by the Service Provider.
- The Service Provider shall strive to mechanize as many of his operations as possible to reduce dependency on labor.
- In case, Service Provider fails to depute machineries as per above-mentioned list within one month of Effective Date, then DIAL reserves the right to purchase/hire these machineries on the cost & risk of Service Provider. Amount of the same to be deducted from the bill of Service provider.
- DIAL shall have the absolute discretion to inspect equipment and materials used by the Service Provider at all times. The Service Provider shall allow easy access by DIAL to its offices and stores for inspection.
- All the machineries (Sr. no. 1 to 9) should be in operational stage all the time. The maximum repairing time for any major break-down of machine is one week. In case of non-repairing of the same within stipulated time, a Liquidated Damages of INR 1500/ week/machine to be levied on Service Provider.
- Liquidated Damages of INR 3000/day/vehicle to be levied in the absence of utility vehicle and other four wheeler.
- Service Provider has to provided vehicle (Car/Van) to concern DIAL staff for visiting the Service area as per requirement.
- Vehicle deputed under contract may also be used for transportation of consumable material and additional supply (SOR) items procured locally (within NCR) without hampering the necessary routine work

- Open laydown area for storage cum office space for tools-tackles and machinery to be provided by DIAL without any rent.
- Any equipment, materials or goods supplied which are not up to the standards acceptable to DIAL, the Service Provider shall promptly remove the same and replace it with the best available in the market. . Notwithstanding, DIAL reserves the right to instruct the Service Provider to engage specialist agencies, other vendors or suppliers to carry out remedial work if required. No claims for additional costs will be entertained by DIAL for this replacement or rectification.

Performance Service Standards with respect to the Service Team:

In order to carry out detailed scope of works, the Service Provider has to deploy additional manpower and resources if required, at any point of time during the Term, without any additional cost to DIAL.

**SCHEDULE 3
SERVICE TEAM**

Sr. No.	Type of Manpower	No.	Remarks
1	Project Manager/ Site In-charge/ Sr. Horticulturist	1	Minimum 5 years' experience of relevant field
2	Executive/Jr. Horticulturist	3	B. Sc. Ag/Hort. with minimum 3 years relevant experience.
3	Horticulture Supervisor/supporting staff	11	Each for every 30000 sq. mt. area
4	Drivers & Mechanic	4	
5	Gardeners (including Machine/lawn mowers operators)	128	Gardeners mean all type of Gardeners (Head Gardeners/Gardener/Dy. Gardener/Assistant gardener) who can directly do labour work with his hand. Calculation based on 3.20 lakh sq. mt. of landscaped area.

- Minimum no. of gardeners deployment shall depend on area (1 gardener for every 2500 sq. mt area) and in case of area variation, the same can be changed on pro-rata basis.
- The number of gardeners mentioned in the above table will be deputed every day (30/31 days) in a month.. Therefore, Service Provider has to hire extra gardeners as reliever to compensate weekly off and leaves. Maximum 20% (Plus/minus of total number of gardeners as mentioned in the above table)) day to day variation is permissible; however, at the end of the month,

total man-days of gardener should not be less than minimum deployment of gardeners mentioned above. If variation on any day is more than 20% due to some extra ordinary/unforeseen circumstance than agency will provide proper explanations for the same. The same shall not be applicable to managerial / supervisory staff, drivers and other workers. Hence in the case of Managerial / supervisory staff, Driver and other workers, reliever/compensatory deployment may not be necessary on weekly off/short leaves.

- In case Service Provider fails to depute minimum gardeners as per above-mentioned details; Liquidated Damages of INR 800/Gardener/day (Man-days) to be levied on the Service Provider.
- Utility vehicle will be operational all days in a month. Supervisor/mechanic or other supporting staff with valid driving license can drive vehicle during weekly off/short leave of driver.
- Maximum 8 holidays per year may be allowed to the Service Provider. The Service Provider will submit his holiday calendar on the Effective Date.
- Maximum 27 Leave /year are allowed for each person otherwise LD of INR 1000/person /day to be levied on the service provider.
- In case ,any staff/worker resigns from the service , then replacement must be joining within 15 days from relieving of the separating staff. Else, Liquidated damages of INR 1000 /person/day to be levied on the service provider for next one month and it will increase up to INR 2000/person/day afterwards. Gardeners are exempted from this condition.
- All personnel of Service Team shall wear proper uniform approved by DIAL; otherwise a liquidated damages of INR 50/worker/day to be levied on Service Provider. Same will be applicable after one month from Effective Date and newly joined person will be exempted for next one month.
- Service provider will provide Biometric attendance system within three months after starting of the Agreement. Fixed biometric attendance system will be installed at four different locations at site. Service provider may also explore and implement some mobile system of biometric attendance.

SCHEDULE 1
SERVICE AREA

Sr. No.	Location	Description	Unit	Quantity	Remarks
A	IGI Airport, New Delhi	Landscape maintenance from (1) Airport entry at Radisson Junction side to end at Central Spine Road. (2) Service road from Centaur hotel junction to New Udaan Bhavan (NUB) & South VIP side of Terminal 3 (SVIP). (3) Roadside leading to T3 Passenger Terminal Building (PTB), Airport Services Building (ASB), Multi Level Car Parking (MLCP), Metro station & North VIP side of the Terminal 3 (NVIP). (4) Area at the both side of T3 Down ramp (on ground). (5) Area in front of NUB, SVIP, NVIP area. (6) Central Spine Road (7) NUB to PTC road (via GA Terminal) (8) T2-Cargo Roadside and T2-T3 connectivity. (9) Norther Access Road, T-1 Landside Road. side (10) Hanuman Mandir Interchange (Both side of road network) (11) Premises of NUB (12) TMT workshop, MRSS & DCP office (Mehram Nagar)	Sqm	3,20,000	