STATEMENT OF WORK
FOR
LANDSCAPE AND TURF MAINTENANCE,
IRRIGATION MAINTENANCE
AND
GROUND LITTER CONTROL
AT
RONALD REAGAN WASHINGTON NATIONAL AIRPORT

PREPARED BY: Metropolitan Washington Airports Authority
Ronald Reagan Washington National Airport
Engineering and Maintenance Department (MA-120)
Maintenance and Engineering Division (MA-126)
July, 2011
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01 INTRODUCTION

The Metropolitan Washington Airports Authority (the Authority) is responsible for the operation, maintenance and repair of Ronald Reagan Washington National Airport (referred to herein as "DCA"). The Airport is located in Arlington County, Virginia herein after referred to as the "job site" (Appendix A). The Airport served over 18 million passengers in 2010.

02 SUMMARY OF WORK

This contract provides for comprehensive Landscape and Turf Maintenance, Irrigation System Maintenance, Repair and Installation, and Grounds Litter Control services in all contractor maintained landscape zones (Appendix B), turf areas (Appendix C) irrigation zones (Appendix D), and ground litter control zones (Appendix E) at DCA. This contract also provides for as required supplemental services for related landscaping, irrigation and litter control services.

The contractor shall provide all necessary supervision, labor, administrative support, tools, parts, materials, supplies, equipment and transportation necessary to fulfill all the requirements of the SOW.

The term of this requirement is intended to consist of a one (1) year base period with the option to extend for three (3) additional one (1) year periods.
SECTION III - DEFINITIONS

ACCEPTANCE - The act of an authorized representative of the Authority accepting ownership of existing or identified supplies or services, as being partially or totally complete, as it pertains to the performance of the Statement of Work.

AIRPORT – Ronald Reagan Washington National Airport also known as "DCA".

AOA - Aircraft Operation Area - The portion of the Airport used or intended to be used for landing, takeoff or surface maneuvering of aircraft and the runway and taxiway portion of the Airport. This is a security area requiring security badge. Workers in this area are required to obtain and display an AOA photo ID credential. Drivers in this area are required to obtain an Aerodrome Vehicle Operator's Permit.

AUTHORITY - The Metropolitan Washington Airports Authority

AUTHORITY BUSINESS OFFICE HOURS - 6:00 A.M. through 4:30 P.M. EST/DST, Monday through Friday, excluding weekends and holidays.

CALL ORDER – Contains a detailed description of the Services, cost estimate, and schedule required from the contractor for any work performed under Supplemental Services. All Supplemental Services require a COTR signed Call Order.

CFM – Cubic feet per minute.

CLEAN – The absence of dirt, litter, debris, dust, surface marks, fingerprints, spills, oils, gum, grime, film, stains, streaks, spots, blemishes, chemical residue, and/or any other foreign matter, chemical residue, or undesirable debris that can be removed without permanently damaging the underlying surface.

CMMS - Computerized Maintenance Management System that is used to schedule and generate work orders for all maintenance and repair activities performed under this Contract.

COB - The Authority’s headquarters space at the Corporate Office Building.

CONTRACTING OFFICER (CO) - The Contracting Officer (CO) is the Authority representative responsible for executing all administrative functions, such as the terms, scope, price, or conditions of this contract on behalf of the Authority.

CONTRACTING OFFICER’S TECHNICAL REPRESENTATIVE (COTR) - The Contracting Officer’s Technical Representative (COTR) is an Authority employee, designated by the Contracting Officer to ensure the contractor is meeting the terms of the contract.

CONTRACTOR - Pertaining to this document, the word “Contractor” refers to the company awarded this contract. It also defines all personnel and sub-contractors hired by the contractor to perform any services specified within this contract.

CORRECTION - The elimination of a deficiency.


DECIDUOUS TREES AND SHRUBS - Woody trees and shrubs that shed all their leaves annually, usually in the fall. Examples: Trees - Pin Oak, Aristocrat Pear; Shrubs - Forsythia, Burning Bush Euonymus.
EVERGREEN TREES AND SHRUBS - Woody trees and shrubs that retain all or most of their foliage from one growing season to the next. Examples: Trees - Leyland Cypress, Virginia Cedar; Shrubs - Japanese Holly, Sargent’s Juniper.

GROUND COVER - Woody plants that survive through winter, either deciduous or evergreen, 8” - 12” tall, that have stems that run along the ground. Example: Periwinkle or Vinca, Ivy, St. John’s Wort or Hypericum.

HCS - Hazardous Communication Standard also known as “HAZCON”.

HOLIDAYS - Holidays observed by the Authority

HORTICULTURAL CONSULTANT - A professional horticulturalist contracted by the Authority to provide technical guidance in support of the landscape maintenance services.

JOB SITE - The areas defined within this Statement of Work where work will be required.

LITTER - Litter shall include, but not be limited to, debris, waste paper, branches detached from trees and shrubs, beverage containers, dead birds, and dead animals etc.

MSDS - Material Safety Data Sheet

METROPOLITAN WASHINGTON AIRPORTS AUTHORITY (the Authority) - The public body responsible for the operation and management of both Ronald Reagan Washington National Airport (DCA) and Washington Dulles International Airport (IAD).

NON-GROWING SEASON - The period of November 1 through March 31 of each year

OSHA - U. S. Occupational Safety and Health Administration is the Federal Government agency responsible for providing the rules and regulations on safety and health requirements in the work place.

PERENNIALS - Herbaceous plants that survive through the winter. The foliage of perennials dies back to the crown (ground) during the winter. Examples: Liriope, Black-eyed Susan.

OPS – Operations – MA-110 – The Operations Department is responsible for the day-to-day operation of the Airport, AOA, and the coordination of all activities Airport wide.

QUALITY ASSURANCE - A means by which the Authority is able to confirm that the quantity and quality of services received conformed to Contract requirements. These methods/procedures are not intended to aid the contractor in the performance of the Contract requirements and shall not be a substitute for Contract quality control.

QUALITY CONTROL PROGRAM - A method used by the contractor to assure that quality services are provided to satisfy the Contract requirements.

RECYCLABLES – Any material which retains useful properties that can be reclaimed after the production or consumption process.

SEASONAL FLOWERS - Plants used during one season to provide color interest in the landscape. Example: Petunia, Pansy, Impatiens.

SERVICES - Includes services performed, workmanship, and material furnished or utilized in the performance of services.
SHOPS – Authority Divisions responsible for similar type work in other zones at DCA.

SIDA – Secured Identification Display Area, (AOA), the airfield and associated area.

STATE - The Commonwealth of Virginia

STREETSIDE – All areas located on the Airport property that are outside of the SIDA area.

TURF - Landscape areas planted in grass and that are maintained by regular mowing. Turf grasses at DCA are primarily cool season grasses (bluegrass and fescues).

TURF MAINTENANCE – Includes regular mowing, trimming, application of fertilizers and lime, management and control of weeds, aeration and overseeding.

VANDALISM - Willful or malicious abuse and/or destruction of property

VINE - Woody plants that survive through winter, either deciduous or evergreen, that have stems that run along the ground and also adhere to vertical structures. Example: Wisteria, Ivy, Virginia Creeper.

VOC – Volatile Organic Compounds

WORK ORDER DESK - Unit that is primarily responsible for receiving, dispatching and tracking service requests. (703) 417-8063

YARD WASTE – Debris generated on site, debris such as, but not limited to grass trimmings, severed limbs dirt generated from bed preparation, dead and/or dying plants.
SECTION IV - BASE SERVICES – LANDSCAPE AND TURF MAINTENANCE

01 DESCRIPTION OF SERVICES

The contractor shall provide all management, supervision, administrative support, labor, materials, tools, parts, supplies, equipment and transportation necessary to fulfill all the requirements of the SOW.

The Airport grounds are divided into twelve (12) Landscape Zones (APPENDIX B). An estimated quantity of contractor maintained landscape is shown in (APPENDIX F). The contractor shall provide all Landscape and Turf Maintenance services within each zone in accordance with the requirements set forth in this document. Listed below are the contractor’s responsibilities within each zone.

Zone 1:
Turf maintenance

Zone 2:
Turf maintenance
Plant maintenance
Weed control in paved areas
Pest Control

Zone 3:
Turf maintenance

Zone 4:
Turf maintenance
Plant maintenance
Weed control in paved areas
Pest Control

Zone 5:
Turf maintenance
Plant maintenance
Weed control in paved areas
Pest Control

Zone 6:
Turf maintenance

Zone 7:
Turf maintenance

Zone 8:
Turf maintenance
Plant maintenance
Weed control in paved areas
Pest Control

Zone 9:
Turf maintenance
Zone 10:
Turf maintenance

Zone 11:
Turf maintenance
Plant maintenance
Weed control in paved areas and along shoreline
Hand watering
Pest Control

Zone 12:
Turf maintenance
Plant maintenance
Weed control in paved areas
Hand watering
Pest Control

**Landscape and Turf Maintenance Task Definitions**

**02 TURF MAINTENANCE**

The contractor shall have sole responsibility for turf maintenance in **ALL** landscape zones at DCA.

A. Mowing, Edging and Trimming

   i. All trash and debris shall be policed prior to mowing.

   ii. Cool season grasses, a mixture of Bluegrass and Tall Fescue, exist throughout the Airport grounds and shall be mowed at no less than 3.0 inch to no more than 4.0 inch height. No more than 1/3 of the green leaf areas shall be removed at any one mowing. The Authority’s Horticulturists shall determine the need to adjust the cutting height. The turf is mowed once per week throughout the growing season. The growing season is considered to be the period of March 1st through November 30th. One mowing shall also be performed in December. All turf shall be mowed on the same day weather permitting.

   iii. All areas bordering the turf shall be edged at each cutting. This includes all curbs boarding all roadways at the Airport. A string trimmer or a steel blade edger may be used to edge. Waste from edging shall be removed from the area.

   iv. Mowing equipment shall be well maintained and cutting blades shall be sharpened monthly. Properly sized mowing equipment shall be used throughout the Airport. The Authority’s Horticultural Consultant shall assist in this determination.

   v. Mowers and other Landscape equipment shall not be used close to the stems or trunks of shrubs and trees.

   vi. Mowers shall not leave ruts. The contractor shall be responsible for all damage to plants, structures, vehicles, and irrigation systems caused by their efforts.

   vii. Only mulching and/or bagging mowers shall be used by the contractor. In the event clippings become too heavy, such as in the spring, the contractor shall use bagging devices to remove the excessive clippings.
viii. Contractor shall utilize blowers to ensure turf clippings are not left in planting beds, tree rings, streets, sidewalks.

ix. All turf areas around structures or trees rings shall be string trimmed to mowing height each time the turf is mowed. Mowing shall precede string trimming.

B. Ornamental grasses, perennials and Liriope

i. Once per year, usually in February, the contractor shall cut back all ornamental grasses, perennials and Liriope in each zone and shall remove resulting waste.

C. Fertilizer and Lime

i. Approximate dates and rates (actual nitrogen) of application shall be:
   - April: 1 lb. per 1000 sq. ft.
   - September: 2 – 3 lbs. per 1000 Sq. Ft.

ii. At the direction of the COTR, additional nitrogen (1 lb per 1000 sq. ft.) shall be applied in May/June in localized areas to improve color.

iii. Lime shall be applied at the direction of the COTR according to soil sampling and analyses done by the Horticultural Consultant.

D. Weed Control

i. Turf areas shall be kept weed-free at all times.

ii. Pre-emergent herbicides
   i. In the Spring between March 1 and April 15, timed to be applied before weed seed germination.
   ii. Control of crabgrass, goose grass, foxtail

iii. Post-emergent herbicides
   i. Multiple applications Spring through the Summer as needed.
   ii. Timed to treat young actively growing weeds
   iii. Control of broadleaf weeds.

E. Aeration

i. All Turf areas shall be core aerated one time per year between August 15 and September 30.

ii. Core aeration shall be done prior to over seeding.
F. Over seeding

i. All turf areas shall be over seeded, between August 15 and September 30, with a mixture of MD, VA Certified Turf-type tall fescue (80% by weight) and Kentucky bluegrass (10% by weight).

ii. A Brillon slit seeder or approved equivalent shall be used to over seed. The slit seeder shall mechanically drill the seed into the soil surface and shall be run in a crisscross pattern. Readily soluble nitrogen at a rate of 0.5 lb per 1000 square feet shall be applied at the time of seeding.

iii. Bare areas shall be seeded at a rate of 10 lbs per 1000 square feet.

iv. Areas with 75% or less stand shall be seeded at a rate of 8 lbs per 1,000 square feet.

v. Areas with greater than 75% stand shall be seeded at a rate of 6 lbs per 1,000 square feet.

G. Leaf Litter

i. Turf areas shall be kept leaf litter-free at all times.

03 PLANT MAINTENANCE

A. Mulch

i. Mulch shall be double shredded hardwood, aged, and dark in color. Proposed mulch shall be approved by the COTR prior to purchase and installation.

ii. At the time of the first mowing of the season, all beds and tree rings shall be defined and edged at a right angle and a depth of three (3) inches. Edging debris shall not be placed in the beds or rings. They shall be physically removed from the bed and ring. All tree rings shall be evenly concentric around the tree and all bed edges shall be maintained as a smooth and continuous line. The COTR shall designate proper disposition of the edging debris into storage trash, or low spots.

iii. Contractor shall provide two (2) inches of fresh mulch to all beds, planters and tree rings between March 1 and April 15. All mulch existing from previous years that is in excess of one (1) inch deep shall be removed before new mulch is applied. The mulch must be kept away at least two (2) inches from the base of tree trunks and at least at two (2) inches from the crown of all shrubs.

iv. A one (1) inch application of fresh mulch shall be applied by the contractor in late summer or early fall to all beds, planters and tree rings.

B. Weed Control

i. All beds, tree rings, and planting areas shall be kept weed-free at all times. Weeds shall be manually removed or treated with an approved herbicide and all dead vegetation removed.

ii. Post-emergent herbicides shall be applied as needed. The herbicide used shall be approved by the COTR before application.
iii. Pre-emergent herbicide for use with ornamental trees shrubs and perennials shall be applied according to label directions and before weed seeds germinate. The herbicide used shall be approved by the COTR before application.

iv. Herbicides shall be applied according to the label directions. Applications shall not be made under windy conditions and shall not be applied to wet vegetation. The public shall not be exposed to the materials during applications.

C. Pruning

i. Hedges shall be pruned by hand three times between May 1 and August 30 to maintain a neat and trim appearance, improve sight distance, and/or improve plant condition. Hedges shall be maintained at an exact and equal height for the entire length of the hedge and shall be shaped at the bottom of the hedge slightly wider than the top. Hedge height may not be drastically altered at any time.

ii. Massed shrubs shall be pruned to maintain a neat appearance, improve sight distance, remove dead wood and/or improve plant condition. Woody plants that are massed in beds and not pruned into a hedge shall not be sheared unless directed by the COTR. Instead they shall be hand-pruned. Only cuts above the nodes are allowed. All cuts shall be hidden within the shrub mass.

iii. Vines, ivy, and groundcover shall be pruned by hand regularly, at least once per month between April 15 and September 30, in an effort to maintain a neat and manicured appearance. They shall be pruned at the nodes, with the cut hidden. Groundcover shall be maintained within the bed boundaries and not allowed to grow over paved areas or on structures, unless directed by the COTR. Ivy and groundcover shall be maintained 4-6 inches away from the trunks of all trees and shrubs. String trimmers and shearing equipment shall not be used to prune vines, ivy, or groundcover.

iv. Spring-flowering shrubs shall be pruned immediately after blooming (May 30).

v. Broadleaf evergreen trees and shrubs shall be pruned after new growth hardens off (July).

vi. Shrubs that flower during the summer shall be pruned in late fall (November).

vii. Trees shall be pruned to remove co-dominant leaders, crossed branches, and/or sprouts to elevate the canopy as needed, improve sight distance, eliminate hazardous condition, and/or improve appearance and condition of the trees. Structural pruning (crossing branches, removing co-dominant branches, thinning) shall be performed one time per year on each tree as directed by the COTR. Deadwood, broken, damaged or hazardous branches shall be removed immediately, and shall be performed as needed at anytime of the year. Deciduous trees may be pruned at any time except during the periods between bud break to leaf elongation, and during leaf drop.

viii. Perennial plants shall be cut back to the ground by February 28. All ornamental grasses shall be cut back to the ground in February of each year. Flowering perennial plants shall be deadheaded as necessary during the growing season to maintain a neat appearance.

ix. All pruning shall be done in accordance with the American National Standards Institute ANSI 300 Standards for Tree Care Operations. All cuts shall be made without cutting into the branch collar and without leaving a protruding branch stub. Clean cuts shall be made at all times. All branches that are too heavy to handle shall be precut to prevent splitting. All debris shall be
properly disposed by the contractor. The contractor shall notify the COTR, prior to the start of any structural pruning, obtain approval of the type of pruning, percent of canopy to be reduced and maximum cut size.

D. Removal of Diseased, Dying, or Hazardous Plants
   i. All diseased, dying, or dead trees, shrubs, groundcover, and perennials shall be removed upon approval by the COTR. Trees shall be removed by sound arboreal practices. Removal of trees shall include grinding the entire crown of the tree below ground level. The contractor shall properly dispose of all associated debris.
   ii. All hazardous conditions shall be corrected or removed in trees located within the contract area. Hazardous conditions are any parts of a tree (branches, trunk, roots), which may be structurally compromised due to disease or injury, and pose a risk to property or the public if these parts failed. The contractor shall bring the existence of any hazardous trees to the attention of the COTR. The COTR shall confer with the horticultural consultant to assess hazards in trees and make recommendations for pruning or removal of trees.

E. Application of Fertilizers
   i. Deciduous trees and shrubs shall be fertilized at a rate of one pound of actual nitrogen per 1,000 square feet of exposed root area.
   ii. Evergreen trees and shrubs shall be fertilized every other year at a rate of one pound of actual nitrogen per 1,000 square feet of exposed root area.
   iii. Groundcover shall be fertilized at a rate of one pound of actual nitrogen per 1,000 square feet of exposed root.
   iv. Perennials and ornamental grasses shall be fertilized at a rate of one pound of actual nitrogen per 1,000 square feet of bed area.
   v. Fertilizers shall be applied between May 15 and July 1.

F. Installation and Care of Seasonal Flowers
   i. The contractor shall be supplied with seasonal (Spring and Fall) flowers in 6” pots.
   ii. The contractor shall install the flowers as directed by the COTR.
   iii. The flowers shall be fertilized with Osmocote 14-14-14 immediately after installation.
   iv. Flowerbeds shall be irrigated as needed to keep the plants flourishing.
   v. The flowerbeds shall be kept free of weeds.

G. Leaf Litter
   i. All beds, tree rings, and planting areas shall be kept leaf litter-free at all times.
04 WEED CONTROL IN PAVED AREAS AND SHORELINE
A. All paved areas, cracks and expansion joints of all walks and curbs shall remain free of grass, crackweed or plant growth.
B. Weeds in paving may be manually removed or treated with approved herbicide and the dead vegetation shall be removed.
C. In April, July and October, the contractor shall apply Aqua-Neat along the Four Mile Run river bank in zone 11.

05 HAND WATERING
A. During the growing season, the contractor shall hand water all landscape beds in zones 11 and 12 to provide 1 inch of water per week in the absence of rainfall.
B. The contractor shall use green fire hydrants to hand water, or to fill water trucks. An Authority certified Backflow preventer shall be issued to the contractor for this purpose.
C. All hose bibs that are not functioning properly shall be reported to the COTR.
D. To fulfill this requirement the contractor shall provide and utilize a 500 gallon water truck along with all necessary hoses.
E. The contractor shall maintain sufficient soil moisture levels around all plant materials to prevent die back or death.
F. When required, hand watering shall continue throughout the weekends and on holidays.

06 PEST CONTROL
An Integrated Pesticide Program is essential for proper Landscape Maintenance. The contractor shall be responsible for all pesticide applications. The contractor shall adhere to good green industry standards, when deciding which pesticide to recommend, how and when to apply it. The contractor shall have full responsibility for pesticide applications. The contractor shall abide by the following requirements when applying pesticides:
A. The contractor shall inspect plants for insect egg masses and remove as necessary.
B. Apply dormant oils for scale, if present, when temperature is consistently above 45 degrees and buds are not open (Feb-March).
C. Application of all pesticides shall adhere to all federal, state, and local laws including the Department of Agriculture Regulations for Commercial Application of Pesticides.
D. Pesticides shall be applied according to the methods, rates and precautions described on the manufacturer's label.
E. Possession a current Commonwealth of Virginia Department of Agriculture and Consumer Services Commercial Pesticide Applicator Certificate/License is mandatory for all persons that will be performing on-site pesticide service.
F. Individual pesticide applicators have sole responsibility for record keeping including satisfying all regulatory and pesticide label requirement and securing respective Material Safety Data Sheets (MSDS) for all pesticides and providing copies of same to the COTR prior to their use on the airport.

G. MSDS sheets shall be submitted to the COTR prior to pesticide applications.

H. The COTR and/or the Authority’s Horticultural Consultant shall provide the contractor with Authorization to apply pesticides. The contractor shall notify the COTR at least three days before applying a pesticide.

I. The contractor shall submit to the COTR, records of pesticide applications, 48-hours after completion of the pesticide application.

J. Pesticide applications shall be stopped immediately if it is determined that the application poses a safety hazard to the public or property. If necessary, in order to avoid exposure to any unintended target, the Contractor shall apply treatments during the evening hours, between 10:00 p.m. and 5:30 a.m. as directed by the COTR.

07 APPROVED MATERIALS

A. Mulch

Mulch shall be double shredded hardwood mulch, aged, and dark in color

B. Fertilizers

   i. All fertilizers shall be granular, free flowing, in its original packaging with the analysis clearly marked.

   ii. Turf: Sulfur coated urea (37-0-0)

   iii. Trees and shrubs: Sulfur coated urea (37-0-0), Osmocote 14-14-14 or complete (10-10-10 or 10-6-4) fertilizers with at least 50% slow release nitrogen.

   iv. Seasonal flowers: Osmocote 14-14-14.

   v. Supplemental fertilizers: Super phosphate (0-20-0), potassium sulfate (0-0-53)

   vi. Lime: Natural limestone ground so that not less than 90% passes a 10-mesh sieve and not less than 50% passes a 100-mesh sieve.

C. Plant Material

   vii. Landscape plant material shall be true to name in accordance with the following:


   x. All material shall comply with the nursery stock standards described in “American Standard for Nursery Stock” ANSI Z60.1.
xi. All material shall be healthy, free of pests, disease and injury.

xii. Balled and burlapped (B&B) plant material shall have full solid soil balls securely bound in burlap.

xiii. Container grown material shall not be pot bound.

xiv. Turf seed shall be a mixture of MD, VA Certified Turf-type tall fescue (80% by weight) and Kentucky bluegrass (10% by weight).

xv. Turf sod shall be MD, VA Certified Sod Turf-type tall fescue.

D. Topsoil

i. Topsoil shall be friable, dry, and free of noxious weeds or toxic chemicals. Textures shall be loam or sandy loam.

ii. Soil analyses shall be submitted before delivery. Minimum requirements include: pH 5.5-6.5, phosphate 120 lbs. per Acre, potassium 200 lbs. per Acre, soluble salt concentration less than two mmhos/cm.

E. Organic Soil Amendment

Organic soil amendment shall be milled pine bark, aged, potting mix grade.

F. Lime

Natural limestone ground so that not less than 90% passes a 10-mesh sieve and not less than 50% passes a 100-mesh sieve.

G. Submittals

i. Prior to use of any landscape products or materials, the contractor shall provide the following submittals for review and approval by the COTR. Contractor shall furnish three copies of each submittal.

a. Manufacturer’s product data and literature

b. Manufacturer’s installation recommendations

c. Samples, if required by the COTR.

d. Material Safety Data Sheets (MSDS)
SECTION V - BASE SERVICES – IRRIGATION MAINTENANCE

01 DESCRIPTION OF SERVICES

A. The contractor shall provide all management, supervision, administrative support, labor, materials, tools, parts, supplies, equipment and transportation required to successfully perform winterization, spring start up, inspection, installation and repair services for all irrigation systems at DCA (Appendix D) with the exception of those Point of Control (POC) zones mentioned below in item C.

B. The airport’s irrigation system is currently divided into 280 individual irrigation zones, which are operated from twenty five (25) Points of Control. Maintenance responsibility is delineated by the POC zones.

C. Point of connection zones 1, 3, 12, 13, 14, 15, 16 and 17 covering Hangar 11, Hangar 12, the COB, Terminal B/C terraces and Terminal A are the responsibility of the DCA Shops. The contractor will have no responsibility in these zones other than as needed supplemental services work. The contractor shall have full maintenance responsibility in all other POC zones.

D. The contractor shall be responsible for all inspection, monitoring, oversight, preventive maintenance and corrective maintenance for all irrigation systems and components within their respective POC zones.

E. The contractor shall pay all Rain Master ICentral service fees for each controller located within their respective POC zones. The contractor will incorporate these costs into their monthly irrigation maintenance line item rates on the pricing schedule.

F. The contractor shall flag and mark on a zone map and verify that existing locations of all POCs, valves, and valve boxes, are correctly plotted on the existing zone map. This function shall be performed once at Spring Start-up and once at Fall Winterization during each year of the contract.

G. During the months in which irrigations systems are active, the contractor shall inspect each zone for which they are responsible ensuring proper operation of each system.

H. The contractor shall document all work and/or inspections performed. Documentation shall include plotting on the map, and maintaining a written list of needed repairs, potential repairs, and breaks.

I. Each required repair which costs less than $500 in materials shall be performed under Base Services at no additional cost to the Authority. The only exception is validated instances of abuse and/or vandalism; repairs under these conditions will be performed under the Supplemental Services portion of this SOW. Repairs with material costs in excess of $500 will be paid for under Supplemental Services for parts and labor.

J. All COTR approved modifications and or alterations to the existing irrigation system shall be performed under the Supplemental Services portion of this SOW.

02 WINTERIZATION SERVICES

A. Winterization shall be performed in October annually; the exact start date will be determined by the COTR.

B. The contractor shall provide a minimum of one crew for winterization. The contractor shall have the capacity to provide a second crew for support and to make all as needed repairs in timely manner.
C. Neither Winterization nor required repairs shall be delayed or postponed due to a lack of contractor manpower.

D. Winterization for each zone shall include the following procedures:

- Blow out water using appropriate size air compressor. The compressor shall have a capacity range of 185 to 250 CFM (cubic feet per minute), and shall be regulated to an industry acceptable range of 45 to 60 PSI, by use of a pressure regular. Contractor shall take measures to preclude excessive friction and heat build-up, due in part, to the rapid induction of forced pressurized air into the irrigation system during blowout.
- Reseal piping to prevent infiltration of ground water.
- Provide tag out/lock out of all irrigation main line valves.

03 SPRING START UP SERVICES

A. Spring start up shall be performed annually between April 1st and May 30th, the exact start date will be determined by the COTR.

B. The contractor shall provide a minimum of one crew for Spring Start-up. The contractor shall provide a second crew to make needed repairs.

C. Neither Spring Start-up nor repairs shall be delayed or postponed due to a lack of contractor manpower.

D. Spring Start-Up for each zone shall include the following procedures:

- Check the system for obvious external damage and missing heads
- Fill the system and check for breaks/leaks, proper operation and water distribution.
- Remove, clean, and replace clogged heads.
- Recalibrate and adjust all aspects of each system and zone.
- Provide documentation of the conditions found and the work performed.

04 IRRIGATION CONTROL AND MONITORING

- Irrigation points of connection and controller locations are identified below. The in ground equipment includes Rain Bird PEB remote valves, Rain Bird 1800 series pop up heads, Hunter PGP rotary sprinklers and dripper line (Garage A decks).

<table>
<thead>
<tr>
<th>P.O.C.</th>
<th>Location</th>
<th>Controller</th>
<th>Zones</th>
</tr>
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<tbody>
<tr>
<td>2</td>
<td>Ramp A</td>
<td>Rain Master Eagle</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>West Entrance Roadway</td>
<td>Rain Master Eagle</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Garage A South Decks and Ground</td>
<td>RainBird ESP</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>Garage A North Decks</td>
<td>RainBird ESP</td>
<td>4</td>
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<tr>
<td>7</td>
<td>Garage B/C</td>
<td>RainMaster Eagle</td>
<td>48</td>
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<tr>
<td>8</td>
<td>QTA</td>
<td>RainBird ESP</td>
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<td>233 Entrance</td>
<td>RainMaster Eagle</td>
<td>6</td>
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<tr>
<td>11</td>
<td>Metro</td>
<td>RainMaster Eagle</td>
<td>36</td>
</tr>
</tbody>
</table>
A. Points of Connections with RainMaster Eagle controllers

- The contractor shall monitor messages (email/text) from the RainMaster iCentral system and respond to any signals of “no flow” indicating zones did not run and “over flow” indicating a break in the zone lines or heads. In response to the iCentral messages, the contractor shall have the system repaired and working within 48 hours.

- The contractor shall visually monitor, in the field, every zone and every head of each point of connection every 2 weeks, when the systems are operating. This can be completed using the RainMaster Pro Max Remote Control System. The contractor shall be responsible for purchasing the remote controller and having it set for each RainMaster Eagle controller at the Airport. All adjustments shall be done in the field during the monitoring. All repairs shall be completed within 48 hours of detection.

B. Points of Connections with RainBird ESP controllers

- The contractor shall visually monitor, in the field, every zone and every head of each point of connection every 2 weeks when the systems are operating. All adjustments shall be done in the field during the monitoring. All repairs shall be completed within 48 hours of detection.

C. Regulation of watering times.

The Contractor shall be responsible for regulation of the controllers. This includes setting watering times, days of watering, number of days watered. Controller regulation shall be done according to the specific watering requirements in the field. The Contractor shall monitor field conditions and adjust controllers as necessary. The Contractor shall also consult with the COTR and any designated COTR representatives to aid with regulating the controllers. The Contractor shall have staff that is knowledgeable with the existing irrigation controller equipment.

- Rain Master Eagle Controllers are equipped with Rain Master iCentral Communication cards. The Contractor shall have staff trained to use the RainMaster iCentral system and utilize all of the features of the equipment including but not limited to; internet communications and messaging with each controller, monitoring of system status, use of weather (evapotranspiration) data that is downloaded to each controller. The Airport shall be responsible for paying the user fees associated with the iCentral system.

- RainBird ESP Controllers shall be regulated by setting the controller on site.
05 SYSTEM REPAIR STANDARDS

The contractor shall repair, install and maintain all equipment covered under this Contract in compliance with the requirements of all local codes and manufacturers installation specifications and guidelines.

The contractor shall perform all services utilizing, at a minimum, the following guidelines:

1. Monitoring – All underground irrigation zones shall be operated and visually checked for leaks, broken heads, heads out of adjustment and improperly functioning electric valves. Many existing systems are equipped with remote terminals for use with “remote bird” portable control units.

2. Broken Irrigation Lines – Broken underground irrigation lines shall be repaired in accordance with all applicable local-plumbing codes.

3. Broken Heads – Broken heads shall be replaced with new identical heads or repaired with original manufacturer’s parts, to function according to the manufacturer’s specifications.

4. Faulty Valves – Faulty valves shall be replaced with new identical valves or repaired to original manufacturer’s specifications.

5. Clogged Heads – Any head that is not properly functioning shall be examined for material(s) lodged in the head. The head shall be disassembled, cleaned, reassembled, and checked.

6. Wiring Problems - An underground wire tracer shall be used to locate wiring breaks. Breaks shall be repaired in accordance with all applicable local codes and with waterproof connectors.

7. Underground Installations – New underground main pipe installations shall be marked with metallic tape or low voltage wires prior to backfill. New underground irrigation shall be installed in accordance with local plumbing codes.

8. The contractor shall restore all landscaping to its original condition, including re-seeding, re-planting shrubs, mulching, and providing straw as needed.

9. The contractor shall remove, from the Airport proper, all debris resulting from installation and repair of irrigation systems.

10. Trenching and Backfilling - Minimum depths shall be measured from the soil surface to the top of the pipe. Piping shall be buried at the following depth – open areas: Main lines – 24”, Lateral lines – 18”, and under paving – 36” utilizing a 4” sleeve. All backfilled trenched shall be adequately settled, and/or compacted as per code requirements.

11. Fittings - All PVC pipes shall be cut evenly and wiped clean without any burs or rough edges before fitting. Primer and solvent shall be applied per manufacturer’s specifications. The pipe and fitting shall be assembled and allowed to cure according to manufacturer specifications before lines are charged with water.

12. Threaded Connections – All threaded connections shall be made watertight without leakage. Teflon tape or approved pipe joint compound shall be used where appropriate.

13. Valves – All valves shall be set at least 18” deep (measured from the soil surface to the top of the valve stem) and positioned so that the top of the valve can be easily removed and serviced.
The valve(s) shall be supported from the bottom with a clay or concrete standard brick (2 ¼" x 3 ½" x 7 ¾") and at least 2-3 inches of washed ¾" gravel shall be placed below the valve(s). The valve box shall be set to cover all valves so that there is sufficient space to service the valves and also so that the top of the valve box is even with the surrounding grade. At least, two sides of the bottom of the valve box shall be supported with a clay or concrete standard brick. The bottom of the valve box shall be a minimum of 4" above the top of irrigation pipe.

14. Gate Valves – All gate valves shall be at least 18" deep (measured from the top of the valve casing to the soil surface) and shall have a valve box placed over the valve with the top of the box even with the surrounding grade. The bottom of the valve box shall be a minimum of 4" above the top of the irrigation pipe.

15. Wiring - Wire shall be color-coded so that the common wire is the same color throughout the site, and the individual zone wires shall be a different color from the common wire. The wire shall be run in the pipe trenches and buried a minimum of 18" deep. Loose wire shall be bundled together with plastic “keepers” or electric friction tape every 24". At the Authority’s request, the contractor may have to install wires in metal conduit, or gray PVC electrical conduit. Outdoors from irrigated area to controller, the control wires shall be run through PVC electrical conduit. Two extra wires shall be included in the bundle. Indoors, wiring shall be run through PVC electrical conduit.

16. Electrical Connections – All electrical connections shall be made with waterproof King one-step connectors or approved equivalent. All splices of wiring shall have a valve box installed around the splices. The wiring connections at the valve shall be made so that at least eight (8) extra inches of wire is left for each connection. At least, two sides of the bottom of the valve box shall be supported with a clay or concrete standard brick. The bottom of the valve box shall be a minimum of 4” above the top of the irrigation pipe.

17. Cleaning of Pipes – All main and lateral lines shall be thoroughly blown out with water before connecting any sprinkler heads.

18. Installation of Sprinkler Heads - Heads shall be connected to the lateral lines with flexible pipe and threaded adapters.

19. Setting and Adjustment of Sprinkler Heads – All heads shall be set so that they can adequately/properly cover the area. The Rain Bird 1800 series heads shall be set flush with the soil surface. The Hunter G-series shall be set slightly (1/2" to 1") below the soil surface. Heads next to walks or curbs shall be set 4" to 6" away from paving or concrete, and shall be selected for use, according to manufacturer’s recommendations. Heads shall be adjusted to cover the areas according to manufacturer’s specifications.

20. Location of in-ground utilities –

Prior to making repairs or installation of in-ground irrigation systems, the contractor shall contact Miss Utility at 800- 357-7777, and obtain all site inspections and written approval to proceed. The contractor shall provide the COTR with copies of these documents. The contractor shall also notify the COTR, who will issue a work order to in-house employees, who will locate MWAA specific in-ground utilities. The contractor shall proceed only after written COTR approval.
06 REPLACEMENT PARTS AND MATERIAL STANDARDS

All equipment and materials to be supplied and utilized by the contractor to install, maintain, and repair the underground landscape irrigation systems at the Airport shall be new and in perfect condition.

1. Pipe - Polyvinyl Chloride (PVC) SCH 40 – 2.5” main lines. Class 200 (PVC), FDR-21-1120 – lateral lines.

2. Fittings – Schedule 40 PVC as manufactured by LASCO (or equivalent).

3. Solvent/Primer – Compatible with PVC pipe or manufacturer’s specifications.

4. Flexible Pipe - Rain Bird SP 100 R 22 EK 1 or equivalent and manufacturer’s approved fittings.


6. Wiring – Low voltage UL listed type PE 14 gauge copper, approved for underground installation; UL listed multi-strand 18 gauge copper; King one-step or approved equivalent.

7. Valve Boxes – Ametek irrigation plastic valve boxes with black base and green cover, or approved equivalent. Boxes shall be of sufficient size to allow enough space for replacing internal components of valves.


SECTION VI - BASE SERVICES – GROUNDS LITTER CONTROL

01 DESCRIPTION OF SERVICES

The contractor shall provide all management, supervision, administrative support, labor, materials, tools, parts, supplies, equipment and transportation necessary to perform grounds litter policing and removal services from within each of the five (5) Ground Litter Zones identified herein (Appendix E). Responsibilities shall include the removal and disposal of all natural debris, (tree limbs, dry brush, dead animals, etc.), removal and disposal of all manmade debris, servicing of trash cans, recycling cans, ash-trash receptacles, cigarette urns, and doggie stations and cleaning of bus shelters. The contractor shall police zones at frequencies as specified below. Under no circumstances shall litter become unsightly in any zone.

Requirements for servicing trash cans, recycling cans, ash/trash cans, and doggie stations:

A. Can bags shall be changed once per day at a minimum. In no instance shall cans be allowed to overflow.
B. Cigarette urns and ash receptacles shall be cleaned daily and black sand/aggregate shall be replenished as needed.
C. All cans, cigarette urns, and doggie stations shall be wiped clean daily or as often as required to ensure cleanliness and freshness.
D. The contractor shall ensure all cans are located in their proper locations or as directed by the COTR.
E. Contractor shall supply all necessary bags.
F. Contractor shall use clear bags in recycling cans and tan bags in trash cans.
G. Bags collected from recycling cans shall be disposed of in Authority provided recycling compactors and containers only.

Requirements for bus shelter cleaning:

A. Daily spot cleaning to remove all dirt, spider webs, fingerprints, smudges etc. from all surfaces.
B. Quarterly power-washing of all surfaces of the bus shelters followed by an effective wipe down.
C. Notify COTR of all issues at Bus Shelters (i.e., broken glass, peeling paint, etc).

Zone 1 – Terminal A, B, and C, and the Corporate Office Building (COB).
This zone pertains to the public (non-AOA) side of the Terminals as well as the COB. The concrete sidewalks and terraces abutting Terminals A, B, and C are not included in this zone. This route shall be policed 365 days per year continuously between the hours of 6:00AM through 6:00PM (including holidays). The first tour shall begin promptly at 6AM. The final tour shall ensure that new can liners have been installed for the night.

Zone 2 – Parking Garages A, B, C, Abingdon Ruins, West Entrance Road, Metro Rail Area, East Building, West Building, and Shops Building Area, Hangars 11 and 12 Area, Route 233 Bridge and associated Ramps, Footprints, CNG Lot, Pedestrian Ramps, and Associated Grass Areas.
Shall be policed five (5) days per week, Monday through Friday (including holidays), between the hours of 7:00 AM to 3:30 PM. At a minimum, this route shall be completed once every 3 hours (or 2 times per day).

Zone 3 – Hangars 2 through 7, Employee Parking Lots and Crew Lots, Air mail facility, Flight Kitchen, Cargo Buildings, and Non-AOA side of ARFF and the River’s Edge
Shall be policed five (5) days per week, Monday through Friday (including holidays), between the hours of 7:00 AM to 3:30 PM. At a minimum, this route shall be completed once every 3 hours (or 2 times per day).

Zone 4 – AOA
Shall be policed five (5) days per week, Monday through Friday (including holidays), between the hours of 7:00 AM and 12:00 PM. At a minimum, this route shall be completed once per day.
Zone 5 – Riverbank
In May and November of each year the contractor shall remove all man-made litter from the riverbank. This effort shall be performed during a one week period in the specified months between the hours of 7:00 AM to 3:30 PM Monday – Friday.
SECTION VII - SUPPLEMENTAL SERVICES

01 DESCRIPTION OF SERVICES

A. The Authority may, during the term of this Contract, request that the contractor perform Supplemental Services which are outside the requirements of the Base Services Section of this Contract, i.e., landscape improvements as recommended by the horticulturist, alteration of the irrigation system, vandalism repairs, etc.

B. The contractor shall provide all supervision, labor, administrative support, materials, tools, parts, supplies, equipment, and transportation necessary to perform these Services. Such work shall be compensated at the rates listed in the contract price schedule.

C. There shall be no interference with tasks and frequencies or baseline responsibilities set forth in this SOW for contractor personnel assigned to this contract. The contractor will advise the Authority if any of the contractor’s assigned personnel are not available for such work. Call Order labor shall be escorted by a badged contractor employee.

D. Supplemental Services for landscaping shall be performed outside of regular duty hours unless otherwise approved by the COTR.

E. The Authority shall incur no obligation for out of scope work that is not authorized in advance, by a Call Order.

02 CONTRACT SERVICES CALL ORDER

A. All supplemental Services work will be requested and approved in advance with a signed Call Order by the COTR using the “Contract Services Call Order” form shown in (Appendix G). The Call Order will contain a detailed description of the services that are required from the contractor. The contractor shall provide the COTR with a detailed cost estimate which includes an itemized breakdown for all labor, parts and materials, as well as a schedule with critical milestones for completing the Call Order. The contractor shall pictorially document all call order work with before, during and after photos.

B. Labor rates included on the contract price schedule for the contract will be used in preparing estimates. Both the cost breakdown and schedule shall be made part of the Call Order. The contractor shall not proceed with any work described in such Call Orders until authorized in advance and in writing by the COTR.

C. The contractor shall be reimbursed for the labor and materials to complete such tasks in accordance with the provision of this SOW entitled "Method of Payment".

03 CORRECTIVE REPAIR SERVICES

Repairs that are not covered under the Base Services Sections of this SOW shall be performed under supplemental services. The contractor shall provide the COTR with a call order which includes a detailed description of the work to be performed and cost estimate, which includes an itemized breakdown for labor hours, parts and materials and a schedule with critical milestones.

04 ALTERATIONS/MODIFICATIONS

The Authority may, during the term of the contract, request that the contractor perform supplemental services which are outside of the terms of the Base Services Section i.e. improvements, new installations and
modifications. The contractor shall provide the COTR with a call order which includes a detailed description of the work to be performed and cost estimate, which includes an itemized breakdown for labor hours, parts and materials and a schedule with critical milestones.

05 VANDALISM/ABUSE REPAIRS

Repairs for validated instances of vandalism and/or abuse, when validated by the COTR, will be reimbursed by the procedures described in "Method of Payment".
SECTION VIII - GENERAL REQUIREMENTS

01 CONTRACTOR’S QUALIFICATIONS

The contractor shall have at least ten (10) years experience in the business of providing comprehensive Landscape maintenance, Irrigation maintenance and Litter control services of the size and scope described in this SOW.

02 ACCIDENTS/INJURIES

The contractor shall be responsible for promptly notifying the COTR and Airport Police of any accidents arising from the performance of this contract involving bodily injury to workers, building occupants, visitors, or other persons. The COTR will provide information necessary concerning whom to contact and the specific form of the follow-up written notice. All Accidents/Injuries shall be pictorially documented and the contractor shall obtain a police report.

03 TIMELY PERFORMANCE

The contractor shall adhere and fulfill all the time and frequency requirements described in the SOW.

04 RESPONSE TIMES

A. When notified of a landscape related issue, the contractor shall respond to the site within 30 minutes during contract duty hours.

B. When notified of an irrigation related issue, the contractor shall respond to the site within 30 minutes during contract duty hours.

C. When notified of a grounds litter related issue, the contractor shall respond to the site within 15 minutes during contract duty hours.

05 DUTY HOURS

A. Landscape and Turf maintenance duty hours are defined as Monday through Friday (including holidays), between the hours of 6:00 AM and 2:30 PM.

B. Irrigation maintenance duty hours are defined as Monday through Friday (excluding holidays), between the hours of 7:00 AM and 3:30 PM.

C. Grounds litter control duty hours are defined as 6:00AM through 6:00PM 365 days per year (including holidays).

06 ROAD CLOSURES

The contractor shall follow all procedures as outlined in MUTCD at http://mutcd.fhwa.dot.gov/ and as approved by the Airport Operations, Police, and Fire Departments. All road closures, lane reductions and/or traffic detours involving roads on or leading to the Airport property shall be scheduled in advance and approved in writing by the COTR.
07 DAMAGE CAUSED BY CONTRACTOR

The contractor shall be solely responsible for any and all damage caused by their work efforts under this contract.

08 LANDSCAPE IMPROVEMENTS

A. All plant material shall be inspected and approved by the COTR or their representatives, prior to installation.

B. All planting bed areas shall be laid out in the field. Round up shall be applied to existing vegetation in all bed areas seven days prior to planting. After this seven day period, 3” of milled pine bark will be evenly spread over the planting bed and tilled in 6” - 8” deep with a roto-tiller and then evenly graded. The application of 4” - 6” of approved topsoil may also be specified in areas where existing soil cannot be conditioned with pine bark.

C. All plants shall be inspected for size, trueness to name, and health and rejected if not supplied as specified. Any soil located around the top of the root ball shall be removed so as to expose the crown of the stems or trunk. Trees shall be installed so that the crown is 4" - 5" above the surrounding grade. Shrub shall be installed so that the crown is 3” above the surrounding grade. Ornamental grasses and perennials shall be installed with outer edge of root ball 1” above the surrounding grade. Ground covers shall be installed with the edge of the root ball slightly above the surrounding grade. Soil shall be banked around the outer edge of root balls, but not placed on top of the root ball. Plants shall be thoroughly watered the same day of installation.

D. All planting bed areas shall be edged and 2” of aged shredded hardwood mulch applied to the tops of the beds. Mulch shall be kept away from the trunks of trees and shrubs.

E. A complete fertilizer (10-10-10) or (10-6-4) with a slow release form of nitrogen shall be applied to all planting bed areas at a rate of 2 lbs. of actual nitrogen per 1,000 sq. ft.

F. New areas for turf installations shall be rototilled to a 4" - 6" depth and graded. Certified turf-type tall fescue seed shall be broadcast at a rate of 10 lbs. per 1,000 sq. ft. on bare ground and 6 lbs. per 1,000 sq. ft. on sparse stands of existing grass. Sulfur coated urea (37-0-0) shall be applied at a rate of 1 lb. per 1,000 sq. ft. Sod shall be certified turf-type tall fescue sod.

G. All plants shall be guaranteed for a period of one year after project completion. Any dead or dying plants with 25% or more of the canopy missing shall be replaced at no cost to the Authority.

H. The contractor shall be responsible for maintenance of all installed materials during the guarantee period (one year after project completion). Maintenance shall include, but not be limited to, watering, weeding, mulching, mowing, trimming, pruning, pest management, herbicide applications, maintaining trees in upright position with stakes & guy wires, and cutting back perennial plants.

09 CONTRACTOR CHECK-IN/CHECK-OUT PROCEDURE

A. The individual contractor employees shall, immediately upon arriving to the job site, check-in with the Authority’s Work Control Desk (417-8572), and call the COTR.

B. The individual contractor employees shall, prior to his or her departure from the job site, checkout by telephone with the Authority’s Work Control Desk (417-8572), and call the COTR.
C. In the event of emergency callback, the contractor shall advise the Work Control desk as to purpose of the visit. Upon completion of the emergency task, and during checkout, the contractor shall apprise the Work Control Desk of the status of the completed assignment, for which the contractor responded.

10 COMMUNICATION AND COORDINATION

A. The contractor shall maintain an effective communication and coordination policy with the Authority utilizing email, telephones, faxes, text messaging devices, etc. to ensure the Authority is kept up to date for the term of the contract.

B. Contractor employees shall be required to immediate notify their manager and the COTR of any suspicious packages, articles, luggage, or persons encountered while performing work at the Airport. The onsite manager shall be capable of communicating by telephone with both the contractor’s employees and the COTR.

11 DELIVERY OF SUPPLIES

The contractor shall schedule its own supply deliveries and the supply deliveries of its vendors and subcontractors.

12 FIRE PREVENTION AND PROTECTION

A. Fire prevention and protection at Authority facilities and grounds is essential. The Authority shall provide limited fire prevention equipment within the Authorities facilities. The availability of fire protection equipment provided by the Authority shall not limit the contractor’s responsibility or liability for maintaining a reliable fire prevention and protection program for its employees, contractor facilities, and the property serviced.

B. The contractor shall be knowledgeable of and provide adequate and appropriate training for all employees in the proper method of reporting a fire. All pertinent information regarding fire-reporting procedures may be obtained from the COTR.

13 FIXED IMPROVEMENTS AND OPERATING FACILITIES

During the period of performance of the Contract, title to the Fixed Improvements made by the contractor on the Job Site shall remain with the contractor. “Fixed Improvements” includes any improvements, fixtures, additions, annexations or alterations to the Job Site or a portion thereof which cannot be removed or changed without material damage to, or destruction of, either itself or the Job Site or a portion thereof. All fixed improvements on the Job Site shall require the prior written approval of the Authority.

The contractor shall have no right during the term of this Contract to demolish or remove, in whole or in part, any Fixed Improvements on the Job Site except with the prior written consent of the Authority, which may, at the discretion of the Authority, be conditioned on the obligation of the contractor to replace the same by a building structure or improvements, shall be left in place and title to them shall transfer to the Authority unless otherwise acquired in writing by both the contractor and the Authority.

14 CONTRACTOR RECYCLING

The contractor shall participate in the Airport’s recycling program. The contractor shall recycle all plastic, paper, cardboard, pallets and landscaping waste generated as part of their work at the Airport. The contractor shall also, during their regular policing activities, ensure that all recyclable materials collected throughout the
jobsite are disposed of in appropriate recycling contains. The Authority will provide the necessary recycling containers and compactors throughout the jobsite for the contractor’s use.

15 WORK AREA PROTECTION

The contractor shall, at all times, secure work areas utilizing Authority approved barricades, barriers and signage to ensure the safety of the public and/or airport employees.

16 LOST AND FOUND PROPERTY

The contractor shall turn in to the Authority Police Department all property found on the property of Ronald Reagan Washington National Airport immediately, any violations or disregard of the rules, regulations and/or policies may be cause for immediate termination. The contractor shall notify the COTR of all items found during the performance of their work.

17 SMOKE FREE ENVIRONMENT

The Authority's facilities are smoke free. The contractor and its employees shall adhere to all applicable rules and regulations regarding maintenance of a smoke free environment.

18 RODENT ACTIVITY

The contractor shall be responsible for identifying, flagging and reporting to the COTR, all rodent activity (i.e., rodent burrows), found. The Authority’s pest control contractor will be responsible for treating these identified areas. After treatment of burrows the landscaping contractor shall be responsible for filling in all holes.

19 QUALITY CONTROL PROGRAM

The contractor shall develop and implement a quality control program to ensure all services are performed in accordance with established standards. The contractor shall develop and implement procedures to identify, prevent, and ensure non-recurrence of defective services. This program shall ensure the contractor fulfills all the requirements of this SOW and shall include all elements of the Quality Control Program described in the Technical Proposal that the contractor submitted in response to the Authority's solicitation for this contract.

20 SAFETY

A. The contractor and each of his employees shall comply with all applicable OSHA and Authority rules and practices, including directives issued by the Airport Manager, Airport Operations, MWAA Police and Fire Departments, Federal Aviation Administration, and Authority Divisions while on the job site.

B. The contractor shall provide and ensure that all personnel at the work site wear the safety devices/apparel described below when in areas designated by the Authority.

- Approved back support and protective devices
- Eye protection in compliance with ANSIZ87.1. -1968.
- Approved hearing protection
- Approved hand protection
- Safety Vests
- Other safety devices/apparel when conditions warrant

C. The contractor shall furnish documentation as directed by the COTR of the completion of the approved safety training of equipment operators and other personnel, at a minimum, once per month. The safety
training shall comply with all OSHA standards and a sample program shall be submitted to the COTR within 15 days of contract start.

D. The Authority reserves the right to inspect all areas for safety violations at its discretion, direct the contractor to make immediate improvement of necessary conditions and/or procedures, and/or stop the work if other hazards are deemed to exist.

E. In the event that the Authority should elect to stop work because of any type of existing safety hazards after the contractor has been notified and provided ample time to correct, the contractor shall bear all costs for eliminating the hazard(s) and shall not be granted compensation for the work stoppage. The contractor shall pay all additional expenses.

F. The contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the contract. The contractor shall take all necessary precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to persons, properties, equipment and vehicles.

G. Damage caused by the contractor to any properties shall be repaired or replace to the satisfaction of the Authority at the expense of the contractor. The Authority, at its sole direction, may elect to repair or replace the damaged property, and deduct such costs from monies due the contractor.

H. The contractor shall, within fifteen (15) days of contract award, submit its own detailed safety and protection plan/program that shall comply with all safety, environmental protection, property protection and health provisions of the Contract.

I. Prior to use of any products or materials, the contractor shall provide the following submittals for review and approval by the COTR. Contractor shall furnish three copies of each submittal.

   1. Manufacturer’s product data and literature
   2. Manufacturer’s installation recommendations
   3. Samples, if required by the COTR
   4. Material Safety Data Sheets (MSDS)

21 MEETINGS

The contractor’s representative(s), including the project manager and on-site manager shall attend all meetings as required by the COTR to perform inspections, discuss, coordinate and evaluate the status and performance of services under this Contract. These meetings will be held on a weekly basis or as frequently as the COTR deems it necessary.

22 SECURITY REQUIREMENTS

A. The contractor shall not permit any employee to have keys for access to locked rooms until it has been determined that permitting such person(s) to have such access shall not be contrary to the Authority’s interest, and that the individual(s) is authorized to be admitted in accordance with applicable security orders, rules, regulations and instructions as determined by Authority.

B. The contractor shall secure and safeguard all keys, key cards, and any other entry devices and codes provided by the Authority. The contractor shall maintain a record of the key numbers issued to its employees. These prohibitions and requirements shall also be applicable to all individuals with regard to access, removal, and/or possession of any information, confidential data, materials, supplies, or equipment. The contractor shall not duplicate and shall not allow any such issued items to be
duplicated or removed from the job site. All keys and other entry devices used by the contractor’s employees in the performance of the work shall be returned to the Authority when the contract expires.

C. The contractor shall safeguard all the identification cards, issued its employees and subcontractors by the Authority to fulfill the requirements of this Statement of Work. The contractor shall ensure these cards are visibly displayed by the respective individual at all times while employed on site at the Airport to fulfill this requirement.

D. The contractor shall immediately report to the Authority all keys issued to it by the Authority that are lost or stolen. The contractor shall be responsible for all loss, damages and expenses that the Authority incurs as a result of the contractor’s loss of Authority keys. These costs include the expense of changing all locks to which the lost keys provided access. The cost of changing locks or keys to the building rooms or areas accessible by the lost or stolen keys will be deducted from the contractor’s invoice to the Authority for the Services performed under the contract.

E. The contractor shall ensure that, under no circumstances shall any of its employees enter an area not authorized for access by the contractor.

F. The Authority will not issue keys for sensitive security areas. Instead, the Authority will require the contractor’s employees to be accompanied at all times in this area by either Authority employees or the contractor’s own employees who have authorized access to the area.

G. The contractor, its subcontractors, and all its employees shall be subject to, and shall at all times, conform with any and all rules, regulations, policies, and procedure pertaining to security at the Airport. Any violations of the rules, regulations, policies, and procedures may be cause for immediate removal from the job site.

H. The contractor shall be responsible for, at its own expense, obtaining the proper security clearance, fingerprinting, training, badges and custom seal required to access the restricted areas of the Airport including the Air Operations Area (AOA), Security Identification Display Area (SIDA), Customs and Immigration. Identification badges issued by the Authority must be visibly worn at all times while in the SIDA.

I. The contractor shall not leave any tools, parts and/or supplies unattended in the public area at anytime while performing work at the Airports.

J. The contractor shall be responsible for, at its own expense, compliance with the requirements and procedures to obtain approval of any motor vehicle to operate in the Air Operations Area (AOA).

K. Mechanical repair of vehicles on airport property is not allowed.
SECTION IX - REGULATORY REQUIREMENTS

01 PERMITS AND RESPONSIBILITIES

A. The contractor shall, without additional expense to the Authority, be responsible for obtaining and renewing all necessary licenses and permits. The contractor shall also be responsible for all damages to persons or property that occur as a result of the contractor’s negligence and shall take proper safety and health precautions to protect the work, the workers, the public and the property of others. In addition, the contractor shall be responsible for all materials delivered and work performed until completion and acceptance of the entire work.

B. The contractor shall comply with all applicable revisions, additions, changes and/or upgrades to any Federal, state, and municipal laws, codes, and regulations which are in effect on the date of Contract and which affect the performance of the work. The contractor shall also obtain and pay the costs of any royalties and licenses for any patented or copyrighted items used in the performance of the work.

C. It shall be the responsibility of the contractor to promptly notify the COTR if an official in charge of compliance with the Occupational Safety and Health Act visits the work site.

02 REGULATION REQUIREMENTS

A. The contractor shall comply with all applicable Federal, state, local, Authority and the Airports regulatory, code and procedural requirements. This shall include but not be limited to the contractor complying with the following Authority requirements:

1. The Authority provided:
   - Construction Safety Manual
   - Orders and Instructions
   - Design Manual

2. The Airport’s:
   - Advisories
   - Orders and Instructions
   - Security, Traffic and Parking Requirements
   - Safety Procedures including Lockout/Tagout, Confined Space Entry, Hazardous Materials, Material Safety Data Sheets etc.

B. The contractor shall report all incidents and accidents immediately to the Authority in accordance with Federal and State laws and regulations and Authority Orders and Regulations.

03 ASBESTOS CONTAINING MATERIALS/LEAD BASED PAINT

A. Most facilities at the Airport except for current CDP construction were constructed prior to 1981. Therefore, these facilities should be presumed to have both Asbestos Containing Materials (ACM) and paint containing lead in their construction.

B. Prior to undertaking any activities that could disturb these materials the contractor shall obtain prior written approval from the Authority to proceed with such activities.
04 HAZARDOUS/CARCINOGENIC MATERIALS

A. The contractor, its employees, or subcontractors or their employees shall not bring, produce, use, or store on the job site any hazardous or carcinogenic products without prior written approval by the Authority. All hazardous and/or carcinogenic waste transported or generated on-site at the Airport by the contractor must be properly disposed off the Airport site by the contractor as required by law and at no cost to the Authority.

B. The contractor shall provide the Authority with complete, legible copies of all regulatory notices, violations, citations, etc. received by the contractor that pertain directly or indirectly to the fulfillment of this SOW.

05 VOC REQUIREMENT

The contractor shall use on the job site only chemicals and cleaning products that do not exceed the national Volatile Organic Chemical (VOC) limitations rule(s) published by the U.S. Environmental Protection Agency (EPA).

06 HAZARDOUS WASTE

A. The contractor shall initiate Hazardous Waste Management training and enforcement programs to ensure employees are aware that the domestic drains, and storm drains shall not be used to dispose of gasoline, paint, thinners, hydraulic fluid, solvents, concentrated cleaning agents and other toxic material.

B. The contractor is responsible for collecting, accumulating, recycling, and/or off site disposal of its hazardous and toxic waste off the Airport in compliance with Federal, state and local laws governing hazardous waste storage and disposal.

C. The contractor shall provide the Contracting Officer and the COTR with documentation of hazardous materials or wastes that are accumulated, handled, generated, or disposed of by the contractor’s operations. The documentation shall demonstrate the adequacy of the handling and disposal operations used by the contractor and will demonstrate that the contractor activities will not result in contamination of Airport properly. The Authority shall provide this documentation upon request during periodic environmental inspections of the contractor’s premises. The Authority shall be copied on all correspondence with regulatory agencies concerning the contractor’s compliance with environmental regulations.

D. If the contractor generates hazardous waste in an amount that makes it subject to state and EPA hazardous waste requirements, the contractor shall apply for a Hazardous Waste Generator Identification Number. Hazardous waste shall be shipped off the Airport using the contractor’s Hazardous Waste Generator Identification Number documented on a complete and properly signed Uniform Hazardous Waste Manifest. The contractor shall be required to submit an Annual Hazardous Waste Report to the State of Virginia Department of Environmental Quality.

E. The contractor shall be responsible for developing a Resource and Conservation Act Contingent (RCRA) Plan if the amount of hazardous waste generated places it into a category that requires a plan.

F. The contractor shall be responsible for notification and reporting required under SARA, Title III regulations.
G. The contractor shall, at start of contract, implement a written hazardous waste spill contingent plan listing materials used, spill prevention procedures, containment equipment and procedures to be used in the event of spill, personnel protective equipment requirements, notification procedures, in accordance with the Resource Conservation and Recovery Act (RCRA) and the Occupational Safety and Health Administration (OSHA) regulations.

H. In the event of the spill, the contractor shall notify the Airport Fire Department at (703) 417-8250 at DCA and (703) 512-2980 at IAD. The contractor shall be responsible for all cleanups, site remediation and disposal costs including hazardous waste response teams that may be required at the site. All procedures shall be in accordance with applicable Federal, state and local environmental and OSHA regulations. The contractor shall remove all hazardous waste materials from the Airport at the end of each workday. Hazardous materials that are temporary, stored on site during normal working hours, shall be placed in containment devices that are capable of containing 110 percent of the volume of the substance in the event of a spill.

I. The contractor shall initiate a training program for its employees and subcontractors on the proper disposal of hazardous materials such as gasoline, paint thinners, hydraulic fluid, solvents, etc.
SECTION X - DOCUMENTATION AND REPORTING

01 THE AUTHORITY’S COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS)

A. The contractor shall use for the term of this contract an Authority provided computerized maintenance management system (CMMS) to manage and document all maintenance and repair activities performed under this Contract.

B. The contractor shall use for the term of this contract the Authority provided handheld computers as an extension of the CMMS. The contractor shall access and enter data on Work Orders on the handheld computers.

C. The contractor shall request work orders for all service calls, improvement plans, Vandalism/abuse repairs and corrective maintenance repairs. PM’s will be generated each month by the CMMS and provided to the contractor for scheduling and accomplishing all recurring work under this contract. Upon completion of work the contractor shall be responsible for closing out the work order by inputting all relevant information data in the CMMS that relates to work performed by the contractor. This information data shall include, but not be limited to; asset number, name of mechanic(s), date of service, duration of work performance, specific repairs accomplished, part numbers, labor, date completed and any comments necessary to explain corrective action or work performed.

D. The Authority will provide the contractor five (5) business days prior to the end of each month, a CMMS generated Work Order Status Report that details all incomplete and completed work orders generated by the contractor during the month.

E. If access to the CMMS program is not available from the Authority, the contractor shall meet these requirements by providing the required information on paper copies of the work orders, which will be provided by the Authority.

F. The Authority will provide the necessary training to the contractor on the proper use of the CMMS program.

02 DAILY WORK SCHEDULE

The contractor shall submit, no later than 7AM each day, a report documenting all work scheduled to occur that day along with a list of employees tasked with each responsibility. This report shall be provided to the COTR electronically via email.

03 DAILY WORK REPORT

The contractor shall submit, no later than 4PM each day, a pictorial report documenting all work completed that particular day. This report shall include photographs of the work in progress along with a brief narrative explaining the work completed. Also included in this report shall be notifications of contractor witnessed pest activity within the landscape zones, any landscape and/or turf damage found and a brief description of any found personal belongings/property. This report shall be provided to the COTR electronically via email.

04 WEEKEND WORK REPORT

The contractor shall submit, no later than 9AM each Monday, a pictorial report documenting all work completed over the weekend. This report shall include photographs of the work in progress along with a brief narrative explaining the work completed. This report shall be provided to the COTR electronically via email.
05 MONTHLY WORK SCHEDULE

The contractor shall submit to the COTR, by the 20th of each month, a detailed schedule for all work in the upcoming month; this report shall include a list of employees tasked with each responsibility.

06 IRRIGATION EQUIPMENT LOCATION MAP

A. Each year during Spring start-up, the Contractor shall update the Irrigation Zone map verifying locations of all POCs, valves, and valve boxes.

B. The Contractor shall convert all hand drawn zone maps to CAD, an electronic copy shall be provided to the COTR no later than 14 days after Spring start up is completed. Drawings shall be compatible with the Authority’s CAD system.
SECTION XI - PERSONNEL

01 PROJECT MANAGER

A. The contractor shall provide a Project Manager. The Project Manager shall have full authority to act for the contractor and serve at all times to carry out all the provisions of the contract.

B. The Project Manager shall have a minimum of five (5) years experience in successfully managing Landscape, Irrigation and Litter Control Contracts of the size and scope described in this Statement of Work.

C. The names of the Project Manager and an alternate who shall assume the Project Manager's duties when the primary Project Manager is absent shall be designated in writing to the COTR fifteen (15) business days prior to the Contract start date.

D. The Project Manager shall possess sufficient computer software skills for the purpose of creating and receiving electronic reports, notices, requests, and communications to/from the COTR.

E. The Project Manager shall be available for calls 24 hours a day, seven (7) days a week. The project manager shall meet as promptly as possible with the COTR at the COTR's request to discuss the performance of the work or other provisions of the contract. The project manager's time shall be considered as overhead.

02 ON-SITE MANAGER

A. As a minimum, the contractor must provide one on-site manager to direct all contract personnel and maintenance operations. The on-site manager shall have a minimum of five (5) years experience managing landscape maintenance, irrigation maintenance and litter control service contracts at similar size facilities and quality standards as stated in the contract documents. The manager shall remain on site 6AM to 2:30PM Monday through Friday, including holidays. The on-site manager's time shall be considered as contractor overhead during this time-period.

B. The on-site manager shall represent the interests of the contractor with regards to all matters involving work performance under this contract.

C. The on-site manager shall be fluent in the English language to effectively communicate with the contractor's employees and/or subcontractors as well as the COTR and other Authority personnel. The Authority reserves the right to require the contractor to replace the on-site manager who cannot meet this requirement.

D. If the on-site manager is not on site or absent due to illness or other reasons, the contractor shall provide an alternate manager to be on site managing and directing all contract personnel and maintenance operations. The alternate manager shall have similar job qualifications to those required for the on-site manager.

E. The onsite manager shall be available for phone calls during all working hours.

03 EMPLOYEES

The contractor agrees to utilize responsible, capable employees in the performance of all Services of this contract. Irrigation technicians shall be experienced and knowledgeable with all of the irrigation equipment at
the Airport. The contractor shall provide all the management, supervision, labor, and administrative support necessary to fulfill the requirements of the SOW.

04 ATTIRE

A. All employees, including managers and subcontractors of the contractor shall at all times, while on the job site in an official capacity be attired in a distinctive company uniform, which is acceptable to the Authority.

B. Manager uniforms shall be distinctly different from those of their employees.

C. The uniform shall have the contractor's name easily identifiable, affixed thereon in a permanent or semi-permanent manner such as a badge or monogram. Any color combination, as appropriate, may be used for the uniforms as long as they are distinct from that used by the Authority.

D. These uniforms must be supplied and maintained by the contractor at no cost to the Authority. As part of their uniform, the contractor's employees shall conspicuously display the following identification:

- Airport Photo Identification Security Badge issued by the Airport Operations Division.
- Photo Identification Badge issued by the employee’s respective employer.

05 CONDUCT

The contractor's employees shall at all time while on the job site, whether on or off duty, shall conduct themselves in a professional, orderly and safe manner. Rudeness, fighting, being under the influence of alcohol and/or drugs or bringing and/or consuming alcohol and/or drugs, gambling, soliciting, stealing, and any immoral or otherwise undesirable conduct shall not be permitted on the job site and shall result in immediate and permanent removal from the job site of any employee engaging in such conduct from work.
SECTION XII - CONTRACT START UP

01 KEY CONTRACTOR PERSONNEL

The contractor shall provide the COTR with a list of names and cell phone numbers of its key personnel that will be responsible for fulfilling the requirements of this contract no later than fifteen (15) days prior to the start date of the contract.

02 AIRPORT SECURITY BADGES

Contractor employees scheduled to work on the AOA shall obtain security badges no later than fifteen (15) days prior to the start date of the contract. All other contractor employees shall have badges no later than thirty (30) days after contract award.
SECTION XIII - CONTRACTOR FURNISHED RESOURCES

01 GENERAL

A. The contractor shall furnish all resources (i.e. supervision, labor, materials, tools, parts, supplies and equipment) necessary to fulfill all the requirements and satisfactorily perform all services described in this SOW in a safe, orderly, timely, efficient and workmanlike manner. The contractor shall provide any additional resources to fulfill the contract requirements as written at no additional cost to the Authority.

B. The contractor shall provide all the equipment stated in its proposal and all other equipment necessary to fulfill the requirements of this SOW. The contractor shall provide a complete detailed itemized inventory of this equipment to the COTR no later than thirty (30) working days prior to the start of this contract. The equipment inventory list shall identify the location where each piece of equipment is to be stored. The contractor shall immediately advise the COTR in writing of all changes in inventory.

C. Contractor’s vehicles shall be equipped with appropriate safety devices to ensure safe operations. These devices shall include, but not be limited to, amber dome type flashing light mounted on top of the vehicle, front and tail lights, horns, safety striping and/or triangles, ‘CAUTION , Frequent Stops’ signage and other safety devices as necessary.

D. Contractor shall have identification (ID) decals or other identification on all vehicles as approved by the Authority. All vehicles shall have an approved ID decal on both the left and right side panels of the vehicle.

E. In the event of equipment failure, the contractor shall either return the equipment to good operating condition within 24 hours or provide a replacement in good operating condition within 24 hours.

F. The contractor may request that the COTR approve other materials, supplies and/or equipment to be substituted for those described in this SOW. Alternate items will be approved by the COTR if it is satisfactorily demonstrated to the COTR that the salient features of the proposed items are equal to the brands/models specified.

02 SAFETY EQUIPMENT

A. The contractor shall provide all safety equipment/devices, personal protective equipment and clothing as required for its workers and equipment.

B. The contractor is prohibited from the using propane-fueled portable equipment in the performance of the work required by this contract.

03 COMMUNICATION EQUIPMENT

The contractor shall provide cellular telephones with a radio feature on a business network and full cellular/radio/text messaging service for all on-site personnel. Telephone numbers shall be provided to the COTR and service shall be maintained in a current status at all times during the Contract term. The contractor’s on site staff shall during all Duty Hours carry the communication equipment with them in good operating condition.

04 OFFICE EQUIPMENT

A. The contractor shall be responsible for providing at its sole expense all materials, supplies (print cartridges, paper, etc.), furniture, fixed improvements and equipment it may require in the office space.
B. The contractor shall have capabilities to send and receive faxes at the contractor’s off site office and shall provide a fax machine for on-site use during the Contract term.

C. The contractor shall maintain internet access, with e-mail capabilities. Provide e-mail addresses for all on-site personnel to the COTR and maintain them in a current status at all times during the contract term.

D. The contractor shall provide a digital camera capable of taking time/date stamped photos. The camera shall remain onsite at all times when the contractor is performing work.

05 ON –SITE SERVICE VEHICLE

The contractor shall provide at a minimum of one service vehicle, which is equipped, licensed, insured and AOA inspected. The service vehicle shall be on site anytime the contractor’s employees are working at the Airport. The service vehicle is required to transport materials and supplies, contractor’s employees and tools to various equipment locations.

06 SUFFICIENT RESOURCES

The contractor shall provide sufficient manpower and equipment at all times to ensure that all contract requirements are being met in a timely manner. At any time during the contract period, if the COTR determines that work is not being performed in a timely manner or that the work is deficient, the contractor shall be required to increase the manpower and/or equipment levels to correct deficiencies at no additional cost to the Authority. These increased levels shall be maintained in order to perform all required work.

07 CONTRACTOR SPACE

A. The Authority will provide a space at the north end of Lot X, near the Airport’s Warehouse, which the contractor shall utilize for an on-site combination office trailer and break room.

B. The contractor shall use Lot X storage area to support this Contract only, and for no other purpose.

C. The contractor shall be responsible for maintaining its designated area in a clean and safe condition at all times, free of debris, odors, fire hazards and other potentially dangerous situations.

D. The contractor is solely responsible for establishing and maintaining the security of its staging area, equipment and materials.

A. Contractor facilities shall comply with the Metropolitan Washington Airports Authority (MWAA) Design Manual, 2007 edition, and all applicable laws and regulations of authorities having jurisdiction, including but not limited to:

1. Building code requirements.

2. Health and safety regulations.

3. Utility company regulations.

4. Police, Fire Department and Rescue Squad rules.

5. Environmental protection regulations.
D. Construction permits and inspections shall be obtained by the contractor from the Authority’s Engineering Department prior to the installation and use of the temporary facilities.

E. Contractor shall comply with all federal, state and local laws and regulations concerning storage and disposal of hazardous materials used by the contractor.

F. All temporary facilities, toilets, and storage sheds, and other construction of temporary nature shall be removed from the site at the conclusion of the contract period. The contractor shall properly restore the site to a condition acceptable to the COTR.
SECTION XIV - AUTHORITY FURNISHED RESOURCES

01 GENERAL

Unless otherwise indicated, the Authority will furnish the following resources to the contractor at no cost. These resources shall only be used by the contractor to fulfill the requirements of the contract.

A. Access to dumpsters and/or compactors for contract generated waste.
B. Electricity in Lot X.
C. Hot and cold water will be provided from existing outlets. No new supply locations or special temperature sources of hot or cold water will be provided.
D. The contractor shall protect from damage all utility outlets it uses and shall immediately report to the COTR any damage to these utility outlets resulting from its failure to exercise reasonable care in performing the work. In addition, the contractor shall use all reasonable care to conserve the utilities provided.

02 ON-SITE STAGING AREA

A. To facilitate fulfilling the requirements of this SOW, the Authority will provide the contractor space at Lot X. The contractor shall use the space provided to the contractor at the Airport to locate its office for managing its day-to-day operations to fulfill the requirements of this SOW.
B. The contractor shall keep such area clean and orderly at all times.
C. The contractor shall not store any items not related to the contract in the on-site office.

03 SHARED USE COMPUTER

The Authority will provide, for the contractor’s use, an Authority computer which will be located in the COTR’s office area. This computer may be used by the contractor for managing the irrigation system via Rain Master ICentral.

04 THE AUTHORITY’S COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS)

The Authority will provide the contractor use of the Authority’s CMMS to manage all maintenance and repair activities performed under this Contract.
SECTION XV - DELIVERABLES

01  FIFTEEN (15) CALENDAR DAYS PRIOR TO CONTRACT START DATE
A. CONTRACT EQUIPMENT INVENTORY LIST
B. KEY PERSONNEL CONTACT INFORMATION
C. MSDS
D. CONTRACTOR’S QUALITY CONTROL PLAN
E. CONTRACTOR’S SAFETY PLAN
F. AOA EMPLOYEE SECURITY BADGE VERIFICATIONS

02  QUARTERLY
A. PAYROLL REPORTS FOR VERIFICATION OF LIVING WAGE PAYMENTS

03  MONTHLY
A. MONTHLY WORK SCHEDULE

04  WEEKLY
A. WEEKEND WORK REPORT

05  DAILY
A. DAILY WORK SCHEDULE
B. DAILY WORK REPORT

06  FOURTEEN (14) CALENDAR DAYS AFTER COMPLETION OF SPRING START-UP
A. IRRIGATION EQUIPMENT LOCATION MAP

07  AS NECESSARY
A. MISS UTILITY DOCUMENTATION
B. CALL ORDER ESTIMATES
C. MANUFACTURER’S PRODUCT DATA AND LITERATURE
D. MANUFACTURER’S INSTALLATION RECOMMENDATIONS
E. SUPPLEMENTAL SERVICES REPORT
SECTION XVI - METHOD OF PAYMENT

The contractor shall submit an invoice on a monthly basis for all services completed to the satisfaction of the COTR at the end of the month in which the services were performed. The Authority shall incur no obligation for out of scope work that is not authorized.

01 BASE SERVICES

A. The contractor shall present a copy of the invoice to the COTR prior to submitting it to MWAA for payment. The contractor and COTR shall review the invoice for accuracy and completeness.

B. The Authority reserves the right to withhold a portion of the monthly payment to the extent the contractor has not fulfilled the requirements of the SOW for the month in which the services were performed.

02 SUPPLEMENTAL SERVICES

A. The contractor shall be reimbursed for the labor and materials required to complete supplemental service tasks in accordance with the fully loaded labor rates specified in the pricing schedule. The contractor shall be reimbursed for all parts/materials not identified in the pricing schedule which are used in the performance of supplemental services at contractor’s cost plus 10 percent. There shall be no mark up for shipping cost.

B. The contractor’s invoice shall contain an itemized cost break down (parts and labor hours). The contractor shall attach a copy of; approved call order, Authority’s CMMS work order, contractor’s service ticket and supplier’s original invoice for the parts/materials provided.

C. The contractor shall be aware that the Not-To-Exceed, (NTE), Call Order may not be the actual cost of the service provided to MWAA, it may be only an approximation, and shall not exceed this amount.

D. The contractor shall not invoice the Authority for any work unless a call order signed by the COTR has been received or for any work described in a call order until after all the work described in the call order has been completed to the satisfaction of the COTR.
SECTION XVII - CONTRACT CLOSE OUT

01   AUTHORITY PROVIDED RESOURCES

Upon expiration/termination of the contract, the contractor shall return to the Authority, in good working order less any reasonable wear and tear, all Authority provided resources.

02   SECURITY DEVICES

Upon expiration and/or termination of the Contract, or discontinuance of employment of any of contractor personnel working in the Airport, all Airport keys, security badging and all other Authority identification shall be surrendered to the COTR, prior to submittal of the final invoice.

03   RECORDS AND DOCUMENTATION

Upon Contract termination or the end of the Contract period, all records and documentation, including, but not limited to, Databases, Drawings, O&M Manuals, all CAD drawings, maps, records and other documents, shall remain the sole property of the Authority. The contractor shall present these documents to the COTR, prior to submittal of final invoice.
SECTION XVIII - APPENDICES

The following appendices are included in this Statement of Work:

APPENDIX A  SITE PLAN

APPENDIX B  LANDSCAPE MAINTENANCE ZONES

APPENDIX C  TURF AREAS

APPENDIX D  IRRIGATION ZONES

APPENDIX E  GROUND LITTER CONTROL ZONES

APPENDIX F  LANDSCAPE MANAGEMENT QUANTITIES

APPENDIX G  CONTRACT SERVICES CALL ORDER FORM
APPENDIX A

SITE PLAN
APPENDIX B

LANDSCAPE MAINTENANCE ZONES
APPENDIX C

TURF AREAS
APPENDIX D

IRRIGATION ZONES
APPENDIX E

GROUND LITTER CONTROL ZONES
APPENDIX F

LANDSCAPE MANAGEMENT QUANTITIES
## APPENDIX F

**LANDSCAPE MANAGEMENT QUANTITIES**

(Do not use for estimating. Actual numbers will vary. Use for background information only).

<table>
<thead>
<tr>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
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<th>Zone 10</th>
<th>Zone 11</th>
<th>Zone 12</th>
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<tr>
<td>Landscape Beds SF</td>
<td>0</td>
<td>94,000</td>
<td>0</td>
<td>89,500</td>
<td>10,000</td>
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<td>0</td>
<td>115,000</td>
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<td>Turfgrass SF</td>
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<td>36,300</td>
<td>1,650</td>
<td>94,259</td>
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<td>63,700</td>
<td>31,900</td>
<td>19,550</td>
<td>18,050</td>
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APPENDIX G

CONTRACT SERVICES CALL ORDER FORM
## CONTRACT SERVICES CALL ORDER

**Prepared:** ___________________________  **Date Prepared:** ___________________________

**Type of Work:** ___________________________  **Requested By:** ___________________________

**Contractor:** ___________________________  **Contract #:** ___________________________

**Address:** ___________________________  **Contractor POC:** ___________________________

**Office Telephone:** ___________________________  **Emergency Phone:** ___________________________

**Other Data:**  **Account Code:** 00-0000-0000-0000-0000  **Contractor Fax:** ___________________________

---

### Location and Description of Work

All work is to be performed in accordance with the current SOW

#### Work Estimates

<table>
<thead>
<tr>
<th>Work Item(s):</th>
<th>Unit Cost</th>
<th>QTY</th>
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<tbody>
<tr>
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</table>

**10% Contractor Mark Up**

**Estimated Shipping**

**Estimated Cost:** $0.00  **PO/Contract #:**

---

### APPROVALS / ACCEPTANCE OF TASK

**NOTE:** By signing this Call Order, the Contractor acknowledges that he/she will only perform the work described herein after this Call Order is approved in writing by the COTR. Furthermore, the cost to the Authority for this work shall not exceed the estimated cost listed.

---

**Call Order #:** CO-12-00

**Date Issued:** ___________________________  **Date Completed:** ___________________________

**COTR:** ___________________________  **Date Issued:** ___________________________  **Date Invoiced Rev’d:** ___________________________

**Contractor:** ___________________________  **Date:** ___________________________  **Invoice Amount:** ___________________________

**Remarks:** ___________________________