

INVITATION TO BID

TOWN OF MORRIS, CT WHITTLESEY-HARRISON RECREATIONAL FACILITY 83 EAST SHORE ROAD

COMPANY:

ADDRESS:

CONTACT PERSON:

PHONE NUMBER:

FAX NUMBER:

REFERENCES: (Please provide a minimum of 3)

WEBSITE:

EMAIL ADDRESS:

CONTRACT DATES: January 31, 2014 – January 31, 2015

BID DROP OFF DEADLINE: Jan. 13, 2014.

INSURANCE: \$2,000,000.00 MINIMUM LIABILITY REQUIRED

INSURANCE CARRIER:

POLICY NUMBER:

EFFECTIVE DATE:

MOWING AND TRIMMING

NO MOWINGS DURING TIME OF DROUGHT STRESS

Mowing may not be done during summer camp hours due to safety.

(Summer camp conducted from June 23, 2014 – August 15, 2014 8:30 A.M. – 3:30 P.M.)

Mowing to be done on Thursday or Friday.

MOWING OF SOCCER FIELD: \$ per mowing _____

Specifications: Turf cut no lower than 2.75" during summer months.

Turf cut at 2" to 2.5" during soccer season (September 1 – November 15)

Mowing includes all perimeter grassed areas.

MOWING OF LITTLE LEAGUE FIELD: \$ per mowing _____

Specifications: Turf cut at 2" to 2.5" during baseball season (April 15 – June 30)

Turf cut no lower than 2.75" during summer months.

Mowing includes all perimeter grassed areas.

MOWING OF UPPER LEVEL MULTI-PURPOSE FIELD: \$ per mowing _____

Specifications: Turf cut no lower than 2.75" during summer months.

Turf cut at 2" to 2.5" during soccer season (September 1 – November 15)

Mowing includes all perimeter grassed areas, behind goals,
and southwest corner bank.

MOWING OF PICNIC AREA: \$ per mowing _____

Specifications: Turf cut no lower than 2.75" during summer months.

Includes area around Recreation Building down to lakefront.

MOWING OF WALKING TRAIL: \$ per mowing _____

Specifications: Turf cut no lower than 2.75" during entire season.

Mowing on an as needed basis.

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MOWING OF EMBANKMENTS NORTH OF MULTI PURPOSE FIELD:

Specifications: Turf cut no lower than 2.75" during entire season. \$ per mowing _____

TRIMMING OF EMBANKMENT:

\$ per trimming _____

Specifications: String trim or Gravely trim embankment north of baseball field.

Area includes bank west of stairs behind Recreation Building but not behind horseshoe courts.

BRUSH HOG OPEN FIELDS EAST AND SOUTH OF MULT-PURPOSE FIELD AND NORTH OF LOWER SOCCER FIELD:

Specifications: One cutting mid-season to maintain open area. \$ per cutting _____

MOW BOTH SIDES OF ACCESS ROAD:

\$ per cutting _____

Specifications: Area from access gate to beginning of parking lot.

LITTLE LEAGUE FIELD GROOMING

WEEKLY MAINTENANCE:

\$ per week _____

Specifications: Fill holes, rake, nail drag and screen drag infield.

Recreation Commission may only require bi-weekly maintenance, or on an as-needed basis.

VOLLEYBALL COURT GROOMING

WEEKLY MAINTENANCE:

\$ per week _____

Specifications: Rake, nail drag, weeds, general maintenance of court and perimeter. Keep vines and brush away from perimeter.

Recreation Commission may only require bi-weekly maintenance, or on an as-needed basis.

TURF MAINTENANCE

CORE AERATION OF FIELDS:

Specifications: twice during the season;

core aeration minimum of ¾" core size

Hollow Core, 2 Directions

Soccer Field:

\$ per core aeration _____

Baseball Field:

\$ per core aeration _____

Upper Level Multi-Purpose Field:

\$ per core aeration _____

Core aerate all fields in 2 directions and drag in cores.

SLIT OVERSEEDING: (As needed)

Specifications: Sports turf seed mix.

\$ per 1000 sq. ft. _____

Kentucky Blue, perennial rye and turf type tall fescue @ 4 lbs. / 1000 sq. ft. and at a minimum of ¼ inch depth.

Cleat seeding on worn areas of fields during playing season per 100 sq. ft. as needed.

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\$ per 100 sq. ft. _____

TOWN OF MORRIS, CT WHITTLESEY-HARRISON RECREATIONAL FACILITY 83 EAST SHORE ROAD

STATE OF CONNECTICUT D.E.E.P. SUPERVISORY LICENSE REQUIRED
COPY OF LICENSE REQUIRED WITH BID APPLICATION ATTACHED _____
RECREATION DIRECTOR MUST BE NOTIFIED PRIOR TO ANY OF THE LISTED APPLICATIONS.
AREA MUST BE POSTED PER D.E.E.P. GUIDELINES FOR THE LISTED APPLICATIONS. REFER
TO ATTACHED IPM PLAN.

DO YOU INTEND TO SUBCONTRACT ANY PART OF YOUR BID? _____
IDENTIFY INTENDED SUBCONTRACTOR AND LICENSE NUMBER: _____

ABOVE GUIDELINES APPLY TO APPLICANT AND ALL SUBCONTRACTORS.
PLEASE ATTACH A LIST OF EQUIPMENT YOU INTEND TO USE TO PERFORM MAINTENANCE.
MAINTENANCE TO BE DONE IN ACCORDANCE WITH ATTACHED IPM PROGRAM.

STANDARD SOIL TESTING REQUIRED ON ALL THREE FIELDS

FERTILIZER APPLICATION ON FIELDS:

Soccer Field \$per application _____
Baseball Field \$ per application _____
Upper Level Multi-Purpose Field
\$ per application _____

Specifications: 3 applications fertilizer based on soil testing – May 1, September 1, and November 1

In case of infestation, and only at the discretion of the Recreation Commission and as outlined in attached
IPM plan, please give quotes for:

INSECTICIDE APPLICATION: Surface feeding insects: \$ per M sq. ft. _____
Specifications: Application made on an "As needed" basis.

Root feeding insects: \$ per M sq. ft. _____

BROADLEAF WEED CONTROL: \$ per M sq. ft. _____
Specifications: Application made on an "As needed" basis.

FUNGICIDE APPLICATION: \$ per M sq. ft. _____
Specifications: Application made on an "As needed" basis.

TICK CONTROL: \$ per application _____
Specifications: Application to be done in May and again in September.
Area to be treated is picnic area adjacent to beach. No tick control for ball fields.
The Connecticut Agricultural Experiment Station has one plan which is recommended.

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SITE VISITATIONS ARE ENCOURAGED. AN APPOINTMENT WITH THE RECREATION DIRECTOR MAY BE NECESSARY FOR ACCESS TO THE FACILITY. MAINTAINANCE WORK WILL ONLY BE DONE IF THE RECREATION COMMISSION DEEMS IT NECESSARY. WORK WILL BE SCHEDULED ON AN AS NEEDED BASIS BY THE RECREATION COMMISSION OR RECREATION DIRECTOR. FURTHER INFORMATION REQUIRED MAY BE OBTAINED BY CONTACTING:

BRIAN LEONARD, RECREATION DIRECTOR 860-567-7436

ALL BIDS MUST BE RECEIVED BY THE MORRIS TOWN CLERK N.L.T. 3:30 P.M. ON JANUARY 13, 2014. ALL BIDS TO BE SUBMITTED IN A SEALED ENVELOPE LABELED "MAINTENANCE BID FOR RECREATION FACILITY". BID OPENING 7 PM JANUARY 13TH, 2014 IN THE RECREATION OFFICE.

THE BEACH AND RECREATION COMMISSION RETAINS THE RIGHT TO VERIFY INSURANCE COMPLIANCE AND REFERENCES.

THE BEACH AND RECREATION COMMISSION WILL ALSO ACCEPT PROPOSALS FOR TWO YEAR BIDS.

VENDOR PAYMENTS ARE MADE MONTHLY.

SIGNED:

TITLE:

DATE:

**TOWN OF MORRIS, CT.
WHITTLESEY-HARRISON RECREATIONAL FACILITY
83 EAST SHORE ROAD**

**Integrated Pest Management (IPM) Contract
Specifications
For Commercial Landscaping Services**

Ornamental & Turf - Full Service

1. GENERAL

a. Description of Service

This contract is part of a comprehensive Integrated Pest Management (IPM) program for all areas specified herein. The goal of IPM is to deliver effective pest control while at the same time reducing the volume and toxicity of pesticides used and human and environmental exposure to pesticides. IPM is a process for achieving long term, environmentally sound pest control through the use of a wide variety of technological and management practices. Control techniques in an IPM program include a combination of pest monitoring, good sanitation practices, education, grounds maintenance, alternative physical, mechanical, and biological pest control, and the use of pesticides when warranted according to a predetermined hierarchy of pest management choices, formulations, and application techniques, which will minimize the exposure and potential risk to people and the environment.

The contractor shall furnish all supervision, labor, materials and equipment necessary to accomplish the surveillance, trapping, and pesticide application components of the IPM program. The Contractor shall also provide detailed, site-specific recommendations for procedural modifications that may be necessary to achieve pest prevention.

b. Requirements for Bidding

In order for a company to qualify for the bidding process, it must meet the following requirements:

(1) Possess a valid commercial pesticide application business certificate of registration from the Connecticut Department of Environmental Protection;

(2) Employ a minimum of one certified commercial supervisory applicator for every five certified commercial operational applicators employed;

(3) Provide proof of appropriate insurance with minimum \$2,000,000 liability.

(4) Provide three references attesting to the company's knowledge or experience in the field of IPM.

c. Initial Inspection

The Contractor shall conduct a thorough, initial inspection of the entire site when the Recreation Commission gives authorization. The purpose of the initial inspection is for the Contractor to identify problem areas and any equipment, landscape features, or management practices that are contributing to pest infestations. Soil samples shall be collected and sent for analysis to determine the need for any soil amendments necessary to correct pH and/or fertility. The initial inspection shall be conducted by a certified commercial supervisory applicator employed by the Contractor. The attached IMP Monitoring Form shall be completed during the initial inspection and when any signs of treatment or seeding may be needed.

Access to the site shall be coordinated with the Contracting Officer's Representative (COR) – usually the Recreation Director. The COR will inform the Contractor of any restrictions or areas requiring special scheduling.

Ideally, the COR should have oversight of maintenance staff to ensure that sanitation practices and maintenance procedures associated with proper pest control are accomplished, and should interact with all facility staff members to ensure that pest sightings and other pest control related items are promptly brought to the attention of the Contractor.

d. Pest Control Plan

Prior to initiation of service, the Contractor shall submit to the COR a written Pest Control Plan for the site within **ten (10)** working days following the initial inspection. Upon receipt of the Pest Control Plan, the COR will render a decision regarding its acceptability upon authorization of the Recreation Commission. If aspects of the Pest Control Plan are incomplete or disapproved, the Contractor shall have **five (5)** working days to submit revisions. The Contractor shall initiate services outlined in the terms and conditions of the contract following notice of approval.

The Pest Control Plan shall include:

(1) Proposed methods for control, including labels and Material Safety Data Sheets (MSDS) for all pesticides to be used. A list of types of rodent bait boxes, pest monitoring devices, and any other control devices or equipment should also be included;

(2) A proposed pest population level referred to as a predetermined tolerance threshold, if thresholds exist for the targeted pest;

- (3) A service schedule for the site;
- (4) A description of any operational changes that would facilitate the pest control effort;
- (5) A copy of the Commercial Pesticide Applicator Certificate for every Contractor's representative who will be performing on-site service under contract.
- (6) A description of the Contractor's Quality Control Program as described in Section Five of this document.
- (7) Any additional information as required by RCSA Sec. 22a-66I-1. Application of pesticides by State Agencies.

It shall be the Contractor's responsibility to carry out work according to the approved Pest Control Plan for the site. The Contractor shall receive approval of the COR prior to implementing any changes to the approved Pest Control Plan, including additions or replacements to the pesticide list and to on-site service personnel.

e. **Pesticide Application**

The Contractor shall not apply any pesticide product that has not been included in the Pest Control Plan or approved in writing by the COR. The COR will make a timely decision on any matter that requires a written approval.

Pesticide application shall be according to need and not by schedule. As a general rule, application of pesticides shall not occur unless visual inspections or monitoring devices indicate the presence of pests in that specific area.

Preventive pesticide treatments of areas determined to be at high risk for infestation by weeds, insects or disease, through inspection at the onset of the program or as part of a maintenance program, are acceptable. These applications must be conducted in accordance with the pesticide use hierarchy found in section 2 WEED, INSECT AND DISEASE CONTROL of this document.

The Contractor shall not store any pesticide product on the property of the contractee.

f. **Employing Best Management Practices**

Turf - Soil fertility and pH

The Contractor is expected to utilize best management practices at all times to maintain turf health and appearance. Prior to the application of any fertilizer or pesticide, composite soil samples will be collected and analyzed for pH and fertility. The Contractor will be expected to perform soil sampling on an annual basis throughout the term of the contract, either in late fall or early spring when the frost has left the ground. The Contractor will be responsible to apply amendments to the soil as recommended by the soil analysis reports. Organic fertilizers should be used whenever possible; otherwise, fertilizer with 50% slow release nitrogen shall be used. Fertilizer applications are to be performed when grasses are actively growing, usually late May/early June and late August/early September. Fertilizer applications will not exceed 2 1/2 pounds of

nitrogen per 1000 square feet unless soil sample analysis reports indicate a necessity to further amend the soil.

The Contractor will be responsible for mowing turf grass to a height of 2"-3" on a schedule that is frequent enough to avoid clumping of grass clippings. Clippings will remain on the lawn and allowed to degrade. The Contractor will be responsible for the removal and proper disposal of grass clippings if the mowing schedule is not maintained and results in excessive grass clippings being deposited on the lawn area.

Weed Control

Herbicide applications are not to be relied upon as a sole method of controlling weeds. Proper cultural practices are to be employed to encourage dense, healthy turf, which will help to prevent the germination of weed seeds and survival of seedlings. The Contractor will be required to perform spot applications of herbicide on an as needed basis to small or limited areas. Widespread applications of broadleaf herbicides may be required in areas where invasive weed species have invaded greater than 25% of the total turf area. Widespread applications of pre-emergent herbicides may be necessary to control invasive annual grasses.

Pre-emergent applications of herbicide may be necessary in flowerbeds and areas of formal landscaping.

Insect and Disease Control

A certified supervisor employed by the Contractor will be expected to conduct visual inspections monthly, April through September, to monitor for evidence of destructive turf pests and conduct additional sampling as necessary to confirm the presence of such pests. Applications of insecticide to turf areas are to be limited to locations where unacceptable levels of activity have been identified in an effort to preserve populations of beneficial insects and nematodes.

g. General Requirements

The Contractor will be expected to perform spring and fall clean-up (April & November) by raking and removal of leaves, branches and other debris to maintain the appearance of the property. The Contractor will be expected to remove and properly dispose of trash on each service, prior to mowing.

Bark mulch shall be placed in areas of formal landscaping and flowerbeds at a depth no greater than 3" and tapered to a shallow depth around the base of trees to reduce weed growth and retain moisture. Mulch beds shall be restored annually throughout the term of the contract. Black plastic mulch is not to be used.

h. Record Keeping

The Contractor shall be responsible for maintaining a pest control logbook or file for each site specified in this contract. These records shall be kept on the property of the contractee and maintained on each visit by the Contractor.

Each logbook or file shall contain at least the following items:

(1) A copy of the Pest Control Plan for the site, including labels and MSDS sheets for all pesticides which may be used, and the Contractor's service schedule for the facility;

(2) The Pesticide Application Record and IPM Monitoring Form will be supplied to the Contractor by the COR, and will be used to document the performance of all work, including emergency work. Upon completion of each service visit to the site, the Contractor's representative performing the service shall complete, sign and date the form, and return it to the logbook or file on the same or succeeding day of the services rendered.

The Contractor's representative shall provide recommendations in writing whenever appropriate as to what steps the facility must take to reduce or eliminate conditions that are favorable for pests covered by the terms of the contract.

(3) Copies of soil test analysis reports.

(4) Maps or graphs indicating the placement of insect monitoring devices and/or rodent bait boxes.

*i. **Contractor Personnel***

Throughout the life of this contract, all Contractor personnel providing on-site pest control service must meet state requirements for training and certification as Commercial Pesticide Applicators. Uncertified individuals working under the supervision of a Certified Applicator will not be permitted to provide service under the terms of this contract.

*j. **Manner and Time to Conduct Service***

The Contractor shall perform routine services that do not adversely affect occupant health or productivity during the regular hours of operation in the buildings. No pesticides may be applied when the immediate area to be treated is occupied. When it is necessary to perform work outside of the regularly scheduled hours set forth in the Pest Control Plan, the Contractor shall notify the COR at least one day in advance.

The Contractor shall observe all safety precautions throughout the performance of this contract. Certain areas within some buildings may require special instructions for persons entering the building. Any restrictions associated with these special areas will be explained by the COR. The Contractor shall adhere to these restrictions and incorporate them into the Pest Control Plan for the specific building or site.

All Contractor personnel working in or around buildings designated under this contract shall wear distinctive uniform clothing. The Contractor shall determine and provide additional personal protection equipment required for the safe performance of work. Protective clothing, equipment, and devices shall, as a minimum, conform to Occupational Safety and Health Administration (OSHA) standards for the products being used.

k. **Special Requests and Emergency Service**

On occasion, the COR may request that the Contractor perform corrective, special, or emergency service (s) that are beyond routine service requests. The Contractor shall respond to these exceptional circumstances and complete the necessary work within one (1) working day after receipt of the request. In the event that such services cannot be completed within one working day, the Contractor shall immediately notify the COR and indicate an anticipated completion date.

2. **WEED, INSECT AND DISEASE CONTROL**

a. ***Non-pesticide Products and Use***

The Contractor shall use non-pesticide methods of control wherever possible and economically feasible.

b. ***Pesticide Products and Use***

The goal of IPM is to deliver effective pest control while at the same time reducing the volume and toxicity of pesticides used and human and environmental exposure to pesticides. When it is determined that a pesticide must be used in order to obtain adequate control, the Contractor shall employ the use of formulations and treatment techniques which minimize the amount of pesticides used and the potential exposure of people and the environment.

The Contractor shall be responsible for application of pesticides according to the product label. All pesticides used by the Contractor must be registered with the Environmental Protection Agency (EPA) and the state Department of Environmental Protection. Transport, handling and use of all pesticides shall be in strict accordance with the manufacturer's label instructions and all applicable federal and state laws and regulations.

The Contractor will use the following pesticide use hierarchy as a guide to minimize the amounts of pesticides applied as well as the potential for exposure.

(1) Biological Pesticides

(2) Insecticidal Soaps/Horticultural Oil

(3) Spot treatments - As differentiated from overall, broadcast, or complete coverage, spot treatment is application to localized or restricted areas no more than (2) square feet where weeds, insects or disease are present.

(a) Wettable powders

(b) Microencapsulated products

(c) Emulsifiable concentrates

(4) Granular pesticides

(5) General sprays

(6) Fogging or Aerosolized Sprays

Application of pesticides shall be restricted to situations where no alternative measures which will result in timely control within the predetermined tolerance thresholds, are practical. In the event that these applications become necessary, a formulation with the least potential for exposure will be chosen. As a general rule, biologicals, insecticidal soaps, horticultural oil, wettable powder and microencapsulated formulations will be considered as first choices. Solvent-based pesticides will be used only as a last resort when no other effective alternatives exist. All application shall be made only to areas unoccupied at the time of application and shall remain unoccupied until the treated areas have dried, or longer if the label specifies a longer re-entry time. The Contractor and COR will determine, on a case-by-case basis, if any pre-notification is needed. The Contractor will make recommendation to the COR when fields need to be closed and when they can be reopened.

The Contractor shall obtain the approval of the COR prior to any widespread application of pesticide. The Contractor shall take all necessary precautions to ensure occupant and employee safety, and all necessary steps to ensure the containment of the pesticide to the site of application. No applications shall be made while persons other than those employed by the Contractor are present in the area to be treated.

3. PROGRAM EVALUATION

The contracting agency reserves the right to evaluate the progress of this contract in terms of effectiveness and safety, and to require such changes as necessary. The Contractor shall take prompt action to correct all identified deficiencies.

4. QUALITY CONTROL PROGRAM

The Contractor shall establish a complete quality control program to assure the requirements of the contract are provided as specified. Within five (5) working days prior to the starting date of the contract, the Contractor shall submit a copy of their program to the COR. The program shall include, but not be limited to the following:

- a. An inspection system covering all the services stated in this contract. A checklist used in inspecting contract performance during regularly scheduled or unscheduled inspections. The name (s) of the individuals (s) who will perform the inspections;
- b. The checklist shall include every area of the operation serviced by the Contractor as well as every task required to be performed;
- c. A system for identifying and correcting deficiencies in the quality of services before the level of performance becomes unacceptable;
- d. A file of all inspections conducted by the Contractor and the corrective actions taken. This documentation shall be maintained locally and made available upon request.

5. PERFORMANCE - LESS THAN SATISFACTORY RATING

The contractor, upon receiving two "less than satisfactory" ratings of the same nature in the same treatment area, must document all procedures done, to date, and establish the extent of the pest level. If the pest levels are outside the predetermined tolerance thresholds (if thresholds exist for the given pest), the Contractor shall have five (5) days to submit to the COR an acceptable recommendation to alleviate the unsatisfactory situation.

Any treatment area receiving three consecutive "less than satisfactory" ratings of the same nature may result in the filing of a formal complaint from the COR to the Contracting Agent with intent to terminate the contract. The Contractor will not be terminated if the "less than satisfactory" rating is a result of circumstances outside of the Contractor's control, such as failure of the COR to make operational changes that would facilitate the pest control effort.

6. SAFETY AND HEALTH

- a. All work shall comply with all applicable state and federal safety and health requirements. Where there is a conflict between applicable regulations, the most stringent will apply.
- b. The Contractor shall assume full responsibility and liability for compliance with all applicable regulations pertaining to the health and safety of personnel during the execution of work.

DEP/PMD
03/30/05
Rev. 05/08
MB/R 12/09

**TOWN OF MORRIS, CT.
WHITTLESEY-HARRISON RECREATIONAL FACILITY
83 EAST SHORE ROAD**

**Integrated Pest Management Plan For
Ornamental & Turf**

The Whittlesey/Harrison Recreation Area will be inspected by the approved landscaping/pest control company (LCO) for the purpose of identifying areas of pest infestation (weed, insect & disease) on the grounds of the facility, making recommendations for corrective measures that should be implemented and developing a comprehensive integrated pest management (IPM) plan. The IPM plan will utilize all methods of pest control which may include modifying cultural practices, monitoring for pest populations, mechanical and biological control and the judicious use of pesticides. If possible, pesticides will not be applied on a routine basis; however, they may be used as a tool to maintain pest populations at or below an acceptable level while maintaining plant health and aesthetic quality. The selection of pesticides that may be used will be based on a pre-determined hierarchy that will utilize least toxic products as first choice. Whenever practicable, biological controls such as predatory insects, beneficial nematodes or microbial pesticides will be used. Proper implementation of this program will reduce the volume, toxicity and frequency of application of pesticides and other chemicals, thereby reducing negative environmental impact and the risk of potential exposure of building occupants and visitors to the grounds who may be sensitive to their use.

The LCO and Morris Beach and Recreation Director (Contracting Officer's Representative) (COR) shall meet to discuss areas that have been problematic or sensitive. (e.g.; wet, shady and/or high traffic areas or areas where there is a history of high pest pressure) Areas that are sensitive to pesticide use will also be discussed. (e.g.; daycare areas, elderly residence, work area of sensitive employees, etc.)

Once these areas have been identified, the LCO and COR will discuss various pest control options and determine the speed of control necessary as well as threshold/action levels based on pest population, species, plant health and aesthetic considerations.

The LCO will submit recommendations for corrective measures in writing to the Recreation Commission/Director specifying action that should be taken by the facility (e.g.; correct drainage/runoff problems) prior to the application of any pesticides. The Director is responsible for scheduling and coordinating maintenance activities at the facility and will act on the recommendations as soon as possible. He/she will report in writing which recommendations will not be followed and state the reasons if no action is to be taken as required by CSR Sec.22a-661-1(c). Otherwise, all IPM methods that are recommended will be followed.

Pest control services will be supervised by the LCO certification number : _____, and performed by _____ *name & certification number(s) of*
_____ *name of landscaping/pest control company & business*
registration number. The IPM program will begin on _____ *(date)* with six weekly visits in order to start the program. Subsequent service calls will be performed twice a month or as needed depending upon pest pressure. Service calls will be scheduled on _____ *(day of week & approx. time)* and involve a visual inspection of potential

problem areas, with the assistance of monitoring devices where appropriate and application of pesticides where pest populations exceed threshold levels. Records will be completed at the conclusion of each service call and will include written recommendations of corrective measures that need to be made by building maintenance personnel.

The certified supervisor of the LCO will monitor/scout the grounds of the facility at least once monthly April through September. Additional monitoring may be required during peak periods (June-August) to monitor for weeds and diseases. Off-season (October-March) monitoring may also be scheduled on an as needed basis.

All pest problem areas and written recommendations for structural, sanitary or procedural modifications will be recorded on "**Ornamental & Turf Pesticide Application Record /Monitoring Report**" forms or substantially similar substitute. These forms will be kept in a file that will be maintained in the Recreation Director's office. Additional records that will be maintained in this file will include a copy of this plan, copies of all soil sample analysis reports, a diagram indicating the placement of all pest monitoring devices and copies of the pesticide product label information provided at the time of contract by the LCO. The Recreation Director will act as a liaison between the landscaping/pest control company and Recreation Commission and will be responsible for notifying the appropriate personnel of corrective actions that are needed (e.g.; correct drainage and/or runoff problems).

****The certified supervisor shall conduct a follow up inspection to confirm the presence of the pest(s) and verify damage level estimates prior to **any widespread application** of pesticide if the landscape/pest control technician has identified weed, insect and/or disease infestation.****

Pest sighting report logs provided by the LCO will be reviewed by the landscape/pest control technician at the beginning of each service call. The log will be maintained in the Recreation Director's office and will serve as a tool to facilitate communication between all personnel and the landscape/pest control technician. All pest sightings should be reported in the logs and should include specific information as to the location and type of pest, if known. Whenever possible, a sample will be provided to the landscape/pest control technician for identification purposes.

Service call/monitoring inspections include list specific areas that will be inspected.

Turf Plan

Best management practices will be implemented at all times in an effort to maintain turf health and appearance. Turf will be mowed to a 2"- 3" height or as high as possible on an as needed basis. Mowing should be done when the grass is dry to avoid spread of turf diseases. Mower blades should be maintained with sharp cutting edges to avoid excessive wounding and stress of the turf-grass.

Upon implementation of the IPM program and prior to the application of any fertilizer or pesticides, soil samples will be collected by the landscape/pest control technician and analyzed. Soil samples will also be collected and analyzed annually to assess soil fertility and pH. Annual sampling will be performed in late fall or early spring after the frost has left the ground. Amendments will be made to the soil as recommended by the analysis reports. Proper soil pH and fertility will help to prevent many turf-grass diseases and promote plant vigor, thereby reducing the occurrence of insect and weed invasion.

When practicable, organic fertilizers may be used, otherwise, fertilizer with 50% slow release nitrogen shall be utilized. Fertilizer should be applied no later than October 15. Late fall applications of lime will be avoided if possible to reduce the risk of **snow mold**. Over-fertilization may result in an increase of some plant diseases, more frequent mowing, increased thatch layer and risk of leachate into groundwater in some circumstances.

Proper management of grass clippings is an important part of maintaining the lawn. Grass clippings will remain on the lawn and allowed to degrade, returning 50% of available nitrogen back to the lawn. This will help to increase the soil organic matter and promote beneficial earthworm activity.

Watering may be done once a week to a depth of 6" between the hours of **5:00 am and 8:00 am**. The second best time to water is late evening/early morning after the dew has fallen. Watering in the evening is not recommended on hot, humid nights because it may increase the occurrence of diseases. **Necrotic ring spot and summer patch** may be prevented by keeping the upper soil layers moist.

A thatch layer up to 1/2-3/4 inches thick is beneficial. An excessive layer is undesirable because it will block moisture, fertilizers and/or pesticides from reaching the root zone of the turf. Over-development of thatch can be prevented by reducing fertilizer applications and maintaining proper soil pH. If de-thatching is necessary, it will be done mechanically during the spring or late summer (September) when grasses are actively growing and can recover faster.

Fertilizer applications should be performed when grasses are actively growing, usually late May/early June and late August/early September. Fertilizer applications will not exceed 2-2 1/2 pounds of nitrogen per 1000 square feet per year unless soil sample analysis reports indicate a necessity to further amend the soil.

Turf Insects

Visual inspection of the turf areas will be done monthly, April through September, by the certified supervisor to monitor for evidence of chinch bug, sod webworm, billbug and/or other destructive turf pests. Additional sampling may be performed to confirm the presence of these pests and/or White Grubs.

Applications of insecticide to turf areas will be limited in an effort to preserve populations of beneficial insects and nematodes. Pesticide application will be considered if monitoring indicates the following pest populations or up to 20% damage can be anticipated.

- | | |
|---|---|
| 1) White Grubs | 10 Larvae/square foot |
| 2) Chinch Bug | 30 - 50 Nymphs & adults/square foot or when damage is evident |
| 3) Sod Webworms/Cutworms | Areas will be treated only when damage is evident. |
| 4) Hyperodes weevil (annual bluegrass weevil) | tolerance |
| 5) Black turfgrass ataenius | tolerance |
| 4) Ticks | tolerance |

Merit or Dylox contact insecticides can be applied to control Japanese beetle, European chafer, Masked chafer, Oriental beetle and/or Asiatic garden beetle or other beetle species during late August/early September when larvae are present.

Dylox will be applied to control chinch bug, billbug and sod webworm when damage is evident. (Damage periods normally occur during hot, dry weather - late June/July/early August).

Weed Control

A lawn area that is properly managed should produce dense, thick turf-grass, which ideally will help to prevent invasive weed species from getting established. Some weed growth should be anticipated, and tolerated to some degree. Widespread applications of broadleaf herbicides will not be performed unless weed species have invaded greater than **25%** of the entire turf area. Spot applications will be performed to small areas on an as needed basis.

2, 4 D or Ester may be applied as a spot application to control annual and perennial broadleaf weeds in the turf. The same product(s) may be applied when and if a widespread application of pesticides is deemed necessary.

Over seeding the area in late summer/early fall with improved turf-grass and raising the mower height during the growing season will help to prevent crabgrass encroachment. Drive may be applied as a post-emergent crabgrass control only when cultural practices have failed and providing that the area is not widespread. This will prevent problems with soil erosion in areas where the crabgrass has been killed off. Pendimethalin pre-emergent herbicide, may be applied the following season to help prevent redevelopment of crabgrass.

Prograss or Drive may be applied as a spot application to control invasive annual grasses. The same product(s) may be applied when and if a widespread application of pesticides is deemed necessary.

A complete re-evaluation of any area requiring a broad application of pesticide will be performed by name of certified supervisor to assess and re-implement proper cultural practices to maintain turf density and vigor.

Disease Management

Pesticide applications for control of turf diseases will be performed only if evidence of disease has been found and significant areas (**10-15% of the total turf area**) of permanent damage can be anticipated and all proper cultural practices have been employed. The Contractor's Certified Supervisor will discuss pest control options with the COR to determine the appropriate course of action.

Flower Beds & Formal Landscaping

Best management practices will also be followed for the care and management of all flowerbeds and ornamental plantings. Insect and disease resistant plant varieties will be selected for planting in any flowerbeds and/or formal landscaping areas whenever possible. The landscape/pest control technician will visually inspect plants for insect and/or disease infestation prior to planting. Plants found to have any infestation will be rejected in an effort to eliminate damage on a large scale. Plants will be planted at the proper depth to avoid plant stress. Mulch will be placed in all garden areas and around individual trees and shrubs. Mulch materials will be placed at sufficient depth to reduce weed growth and help to retain moisture. Mulch placement will also be placed to provide a buffer area to eliminate mechanical damage that may result from use of string trimmers or mechanical edgers.

Foundation plantings and vines will be trimmed at least 12" away from the building to eliminate rodent harborage and access to the building and allow for monitoring of rodent activity.

The landscape/pest control technician will remove and dispose of dead and dying vegetation from plants and plant beds monthly to prevent spread of disease. Leaves will also be raked away to prevent accumulation and development of rodent harborage. Branches and plant material will be properly disposed of at the end of each day that work has been performed.

Ornamental Insect Control

Visual inspections will be conducted during routine maintenance activities and pest monitoring traps will be utilized, where appropriate, to indicate the presence of harmful pests. Wherever pest activity is found and if practicable, infested plant(s) or branches will be washed off using a strong stream of water or removed and properly disposed of.

In an effort to preserve beneficial and predatory insects, pesticides will be applied only on an as needed basis. Application of pesticide may be considered if it is anticipated that pest activity will result in unacceptable levels of damage to ornamental plants. For this facility, up to **15%** damage or defoliation to ornamental plants will be considered acceptable.

Pesticide application will be limited to only the infested area(s). General applications of pesticides will not be done. Bio-insecticides, insecticidal soaps, dormant oil or summer oil will be utilized if possible.

The timing of each application will be based first on whether the pest is present and causing damage, the pest life cycle and at what stage the pest is most vulnerable to pesticides.

Preventive pesticide applications may be performed only to areas where the previous year's monitoring has shown evidence of insect pests that may over-winter on ornamental plants.

Weed Control

Pendimethalin may be applied as a pre-emergent weed control in annual flower beds and ornamental shrub gardens. Pre-emergent weed control may also be used in perennial flower gardens where pesticide labeling allows. Scythe may be used for post-emergent spot applications. Where practicable, hand weeding will be performed in flower gardens and areas of ornamental plantings on a limited basis due to labor expenses. Borders and walkways will be edged using a string trimmer or mechanical edger.

Disease Management

Pesticide applications for control of ornamental diseases will be performed if evidence of disease has been found and significant areas (**15% or greater**) of permanent damage can be anticipated and all proper cultural practices have been employed.

Preventive pesticide applications may only be performed when the previous year's monitoring has indicated a likelihood of disease or if certain plant species, prone to disease problems, are present. Preventive applications should be made only to specific problem areas

The LCO's Certified Supervisor will discuss pest control options with the COR to determine the appropriate course of action.

*****Pesticide applications will be performed after regular business hours or on the weekend when the building is unoccupied.*****

Pesticide Plan

Pesticides may be applied if pest populations exceed an acceptable level. Applications will be performed after regular business hours or on the weekend when the facility is unoccupied. Priority is given to those pesticides having the lowest toxicity, taking into consideration the method and frequency of application and the risk of exposure to building occupants. Whenever practicable, biological pest control such as predatory insects, beneficial nematodes or microbial pesticides will be utilized. Please list pesticides for possible use;

First Choice (Products having the lowest toxicity and/or least risk of exposure based on the formulation, method and frequency of application.)

Turf Herbicides

- a)
- b)
- c)

Turf Insecticides

- a)
- b)

Ornamental Insecticides

- a)
- b)
- c)

Second Choice (*Products having moderate toxicity and/or risk of exposure based on the formulation, method and frequency of application.*)

Turf Herbicides

- a)
- b)

Turf Insecticides

- a)
- b)

Ornamental Insecticides

- a)
- b)
- c)

Third Choice (*Products having moderate to high toxicity and/or risk of exposure based on the formulation, method and frequency of application.*)

Use of any third choice pesticide product requires written approval of COR prior to application

Turf Herbicides

- a)

Turf Insecticides

- a)

Turf Fungicides

- a)
- b)

Ornamental Insecticides

- a)
- b)

Ornamental Fungicides

- a)
- b)

An appraisal of this IPM program will be conducted bi-monthly by the COR and the LCO's certified supervisor. A determination will be made as to the effectiveness of the program and revisions will be made to correct potential problems.

An evaluation of the potential to contaminate water will be made. Maps will be copied from the "Atlas of the Public Water Supply Sources and Drainage Basins of Connecticut" which identify the location of any public water supply, watershed or wellfield and will be attached to this plan as required by CSR Section 22a-66l-1(6)(F).

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IPM Monitoring Form

Ornamental Checklist

Site/ Area	Host Plant	Size	Stage	Pest	Stage	Damage Site	Damage Level	Natural Enemies	Control Action

Key to Codes:

Host Plant Size:	Host Plant Stage:	Pest Stage:	Damage Site:	Damage Level:	Natural Enemies:	Action:
< 1ft. Seedling=1	seedling=2	egg=1	bark=1	none(0%)=0	rare=1	no action=1
1-3 ft. tall=2	budding=3	early instar=2	bud =2	trace (<5%)=1	few=2	mechanical=2
3-6 ft. Tall=3	flowering=4	late instar=3	flower=3	light (5-10%)=2	common=3	cultural=3
6-8 ft. Tall=4	fruiting=8	pupa=4	fruit=4	moderate (10-30%)=3	abundant=4	biological=4
> 8 ft. Tall=5	leafing out=9	adult=5	foliage=5	heavy (30-90%)=4		chemical=5
	mature=10	damage only,	miner = 6	total damage (100%)=5		
	dormant =11	past damage=6	borer = 7			
			roots=8			
			general dieback=9			
			gall=10			

Turf Checklist

Recommendations

Turfgrass Species Present	Kentucky Bluegrass _____ Tall Fescue _____ Perennial Ryegrass Fine Leaf Fescue _____ Other: _____			
Lawn Establishment	Age: _____ Seed: _____ Sod: _____ Sun: _____ Shade: _____			
Thatch Accumulation	_____ < 1/2" _____ 1/2 to 1" _____ > 1"			
Turf Density	Thick (TK) Thin (TN) Moderately Thick (MTK) Sparce (SP)			
Turf Color	Dark Green (DG) Light Green (LG) Yellow Green (YG) Turf Dormant (TD)			
Soil	Texture: _____ Depth: _____ Condition: _____			
Weeds	Dandelion _____ Crabgrass _____ Plantain _____ Oxalis _____ Spurge Knotweed _____ Ground Ivy _____ Yellow Nutsedge _____ Other: _____			
Insects	_____ Avg.No./Sq. Ft. _____ Avg.No./Sq. Ft.		_____ Avg.No./Sq. Ft. _____ Avg.No./Sq. Ft.	
Disease	Affected Species: _____ Affected Species: _____		%Area of Turf Infected _____ Disease: %Area of Turf Infected _____ Disease:	
Cultural Practices	Mowing: _____ Watering: _____			

Comments:

Figure 1

Service Location	Servicing Company	
		B-

Date:	Supervisor:	Certification No.
Time In: Out:	Operator:	Certification No.

Specific Recommendations/Actions Needed *(See also - inspection report)*

Pesticide Application Record				
Pesticide Formulation	Rate/Acre	Amount Applied/Dilute	Target Pest	Area Treated (Sq. Feet)

Landscape Diagram (Use Additional Sheet if Necessary)

A large grid of 20 columns and 15 rows, intended for drawing a landscape diagram. The grid is composed of small squares, with the first row being slightly larger than the others, possibly for a title or header. The grid is empty, with no lines or text inside the squares.