



VCU Procurement Services

January 24th, 2023

Innovative Turf Application &
Consulting
Attn: Rodney Hopkins
3018 Black Friar Ln
Sandy Hook, Virginia 23153-2247

RE: Contract #: 7878728AZ
Extension

**Business Services
And Treasurer**
Procurement Services
University Purchasing

10 South 6th Street, Suite 200
P.O. Box 980327
Richmond, Virginia 23298-0327

804 828-1077
Fax: 804 828-7837
TDD: 1-800-828-1120
www.vcu.edu/procurement

Dear Mr. Brownson:

Your firm's contract with Virginia Commonwealth University (VCU) for Turf Maintenance Services for the soccer field at Sports Backers Stadium for Virginia Commonwealth University expires on 4/8/2023. VCU wishes to extend this contract through October 8, 2023 to provide additional time to conduct the RFP process.

Your signature constitutes your firm's acceptance of this extension, to include the optional use language and the eVA registration requirement provisions below.

OPTIONAL USE CONTRACT:

This contract is an optional use, requirements based contract. VCU is in no way required to make purchases from the Contractor and may, in its sole discretion, purchase the identical and/or similar goods/services from other sources. Services shall be provided in accordance with the contract through October 8th, 2023.

- Pricing remains the same as the previous contract period.
- Attached is the revised pricing in accordance with the contract terms.
- By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, P.O. Box 843040, Richmond, VA.

Please return this document to me as soon as possible. Your response may be emailed to me at bschuler@vcu.edu.

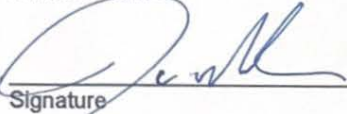
Sincerely,

Brian Schuler
Senior Buyer

Contract #: 7878728AZ

RESPONSE:

Innovative Turf Application & Consulting
Name of Firm


Signature

JASON MELTON
Name Printed

GENERAL MANAGER
Title

1/27/23
Date



VCU Procurement Services

Date: February 24, 2022

Innovative Turf Applications and Consulting, Inc. (ITAC)

RE: Contract # : 7878728AZ
Renewal No.: 3 of 3

Procurement Services
University Purchasing

912 W Grace Street, 5th Floor
Box 980327
Richmond, Virginia 23284

804 828-1077
Fax: 804 828-7837
TDD: 1-800-828-1120
www.vcu.edu/procurement

Dear Mr. Hopkins:

Your firm's contract with Virginia Commonwealth University (VCU) for Turf Maintenance expires on April 8, 2022. VCU intends to exercise the renewal of this contract in accordance with Contract # 7878728AZ:

Your signature constitutes your firm's acceptance of this renewal, to include the optional use language and the eVA registration requirement provisions below.

OPTIONAL USE CONTRACT:

This contract is an optional use, requirements based contract. VCU is in no way required to make purchases from the Contractor and may, in its sole discretion, purchase the identical and/or similar goods/services from other sources. Any estimates/quantities identified on a purchase order issued against this contract do not represent a purchase commitment by VCU. Services shall be provided in accordance with the contract for the renewal period: April 9, 2022 through April 8, 2023.

- Pricing remains the same as the previous contract period.
- Attached is the revised pricing in accordance with the contract terms.
- By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, Box 843040, Richmond, VA.

Please return this document to me no later than April 1, 2022. Your response emailed to me at apzaremba@vcu.edu. If you have any questions, please contact me at (804) 828-1072.

Sincerely,

Abigail Zaremba, CUPO
Category Manager

Contract #: 7878728AZ

RESPONSE:

Signs Unlimited INNOVATIVE Turf Applications AND CONSULTING, INC.

Name of Firm

Signature



Name Printed

JASON MELTON

Title

GENERAL MANAGER

Date

2/25/22



VCU Procurement Services

Date: March 31, 2020

Innovative Turf Applications and Consulting, Inc. (ITAC)

RE: Contract # : 7878728AZ
Renewal No.: 2 of 3

Procurement Services
University Purchasing

912 W Grace Street, 5th Floor
Box 980327
Richmond, Virginia 23284

804 828-1077
Fax: 804 828-7837
TDD: 1-800-828-1120
www.vcu.edu/procurement

Dear Ms. Stanford:

Your firm's contract with Virginia Commonwealth University (VCU) for Turf Maintenance expires on April 8, 2021. VCU intends to exercise the renewal of this contract in accordance with Contract 7878728AZ:

Your signature constitutes your firm's acceptance of this renewal, to include the optional use language and the eVA registration requirement provisions below.

OPTIONAL USE CONTRACT:

This contract is an optional use, requirements based contract. VCU is in no way required to make purchases from the Contractor and may, in its sole discretion, purchase the identical and/or similar goods/services from other sources. Any estimates/quantities identified on a purchase order issued against this contract do not represent a purchase commitment by VCU. Services shall be provided in accordance with the contract for the renewal period: April 9, 2021 through April 9, 2022.

- Pricing remains the same as the previous contract period.
- Attached is the revised pricing in accordance with the contract terms.
- By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, Box 843040, Richmond, VA.

Please return this document to me no later than April 7, 2021. Your response emailed to me at apzaremba@vcu.edu. If you have any questions, please contact me at (804) 828-1072.

Sincerely,

Abigail Zaremba, CUPO
Senior Buyer

Contract #: 7878728AZ

RESPONSE:

Signs Unlimited

Name of Firm

Innovative Turf Applications And Consulting, Inc

Signature



Name Printed

JASON MELTON

Title

General Manager

Date

4/15/21



VCU

Procurement Services

Date: March 31, 2020

Innovative Turf Applications and Consulting, Inc. (ITAC)

RE: Contract # : 7878728AZ
Renewal No.: 1 of 3

Procurement Services
University Purchasing

912 W Grace Street, 5th Floor
Box 980327
Richmond, Virginia 23284

804 828-1077
Fax: 804 828-7837
TDD: 1-800-828-1120
www.vcu.edu/procurement

Dear Ms. Stanford:

Your firm's contract with Virginia Commonwealth University (VCU) for Turf Maintenance expires on April 8, 2020. VCU intends to exercise the renewal of this contract in accordance with Contract 7878728AZ:

Your signature constitutes your firm's acceptance of this renewal, to include the optional use language and the eVA registration requirement provisions below.

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This contract is an optional use, requirements based contract. VCU is in no way required to make purchases from the Contractor and may, in its sole discretion, purchase the identical and/or similar goods/services from other sources. Any estimates/quantities identified on a purchase order issued against this contract do not represent a purchase commitment by VCU. Services shall be provided in accordance with the contract for the renewal period: April 9, 2020 through April 9, 2021.

- Pricing remains the same as the previous contract period.
- Attached is the revised pricing in accordance with the contract terms.
- By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, Box 843040, Richmond, VA.

Please return this document to me no later than April 7, 2020. Your response emailed to me at apzaremba@vcu.edu. If you have any questions, please contact me at (804) 828-1072.

Sincerely,

Abigail Zaremba, CUPO
Senior Buyer

Contract #: 7878728AZ


RESPONSE:

Signs Unlimited

INNOVATIVE TURF APPLICATIONS AND CONSULTING, INC.

Name of Firm

Signature



JASON MELTON

Name Printed

General MANAGER

Title

5/4/20

Date



VCU Procurement Services

COMMONWEALTH OF VIRGINIA STANDARD CONTRACT

Contract Number: 7878728AZ

This contract entered into date by **Innovative Turf Applications and Consulting, Inc. (ITAC)**, hereinafter called the "Contractor" and Commonwealth of Virginia, Virginia Commonwealth University, called the "Purchasing Agency".

WITNESSETH that the Contractor and the Purchasing Agency, in consideration of the mutual covenants, promises and agreements herein contained, agree as follows:

PERIOD OF THE PERFORMANCE: From April 9, 2018 through April 8, 2020 with three (3) successive one (1) year renewal options.

SCOPE OF CONTRACT: The Contractor shall provide the goods to the Purchasing Agency as set forth in the Contract Documents.

The contract documents shall consist of:

- (1) This signed form;
- (2) The Request for Proposals #7878728AZ dated 03/05/18 including
- (3) The Contractor's Proposal dated 03/14/2018; and

All of which documents are incorporated herein by reference. Any conflict or inconsistency between the incorporated documents shall be resolved by giving precedence in the following order 1.) This signed form, 2.) The RFP# 7878728AZ, 3.) The Contractor's proposal.

IN WITNESS WHEREOF, the parties have caused this Contract to be duly executed intending to be bound thereby.

CONTRACTOR:

Innovative Turf Applications and Consulting, Inc. (ITAC)

By: *Rodney A. Hopkins* Name Printed: Rodney A. Hopkins
 Date: 4/9/18 Title: owner

PURCHASING AGENCY:

Virginia Commonwealth University

By: *Brenda Mowen* Name Printed: Brenda Mowen
 Date: 4-11-18 Title: Director of Procurement



VCU Procurement Services

Request for Proposals

**VIRGINIA COMMONWEALTH UNIVERSITY
REQUEST FOR PROPOSALS (RFP)
#7878728AZ**

Issue Date: March 5th , 2018
Title: Turf Maintenance; Sport Backers Stadium
Issuing and Using Agency: Virginia Commonwealth University (VCU)
Direct Inquiries to: Abigail P. Zaremba, CUPO, Senior Buyer
apzaremba@vcu.edu

Proposal Due Date (Firm): March 20th, 2018
11:00 AM EST Time

Proposal Delivery Addresses: VCU
Procurement Services – Proposal Processing
912 W. Grace Street, 5th Floor
Richmond, VA 23284

Note: Do not send via US Mail.

Access to Solicitation: This solicitation and any addenda are posted and may be accessed at any time at: <http://www.eva.virginia.gov>



A VASCUPP Member Institution

**VIRGINIA COMMONWEALTH UNIVERSITY
REQUEST FOR PROPOSALS (RFP)
Turf Maintenance; Sport Backers Stadium
#7878728AZ**

OFFER FORM

In compliance with this request for proposals and to all conditions imposed therein and hereby incorporated by reference, the undersigned offers and agrees to furnish the services described herein in accordance with the attached signed proposal or as mutually agreed upon by subsequent negotiation. Furthermore, the undersigned agrees not to start any work relative to this particular solicitation until a resulting formal signed Purchase Order is received by the Contractor from University Purchasing. Any work relative to this solicitation performed by the Contractor prior to receiving a formal signed Purchase Order shall be at the Contractor's own risk and shall not be subject to reimbursement by the University. **Signature below constitutes acknowledgement of all information contained through links referenced herein.**

A. GENERAL INFORMATION:

Name & Address of Firm:

_____ Date: _____
 _____ By (Signature In Ink): _____
 _____ Zip Code _____ Name Typed: _____
 E-Mail Address: _____ Title: _____
 Telephone: (____) _____ Fax Number: (____) _____
Toll free, if available **Toll free, if available**
 DUNS NO.: _____ FEI/FIN NO.: _____

B. SMALL, MINORITY & WOMAN OWNED BUSINESS INFORMATION

MINORITY-OWNED BUSINESS: () YES () NO WOMEN-OWNED: () YES () NO
 REGISTERED WITH eVA: () YES () NO SMALL BUSINESS: () YES () NO
 VIRGINIA DSBSD CERTIFIED: () YES () NO VIRGINIA DSBSD CERTIFICATION#: _____

C. PROPRIETARY OR CONFIDENTIAL INFORMATION

Check the box to the left "if" your proposal contains proprietary or confidential information. If so, <i>add an attachment sheet to this form with details.</i>	See Paragraph X for more information
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D. ACKNOWLEDGEMENT OF ADDENDA: Acknowledge your receipt of any addenda that may have been issued under this solicitation.

See Paragraph VIII for more information

Addendum #			Addendum #
Addendum Date	___/___/___		Addendum Date
Addendum #			Addendum #
Addendum Date	___/___/___		Addendum Date

Affix this Form as the FIRST PAGE of your proposal.

Table of Contents

I.	PURPOSE	4
II.	THE UNIVERSITY	4
III.	PRE-PROPOSAL CONFERENCE	5
IV.	STATEMENT OF NEEDS	5
V.	THE REQUEST FOR PROPOSALS PROCESS – GENERAL	5
VI.	PREPARATION OF WRITTEN PROPOSALS - GENERAL	6
VII.	SUBMISSION OF PROPOSALS	6
VIII.	PROPOSAL RESPONSE FORMAT	7
IX.	SMALL, WOMEN-OWNED, AND MINORITY-OWNED BUSINESS COMMITMENT (SWAM):	8
X.	ADDENDA.....	9
XI.	PROPOSAL ACCEPTANCE PERIOD:.....	9
XII.	CONFIDENTIAL / PROPRIETARY DATA AND INFORMATION	9
XIII.	LATE PROPOSALS.....	10
XIV.	QUESTIONS AND EXPLANATIONS TO OFFERORS	10
XV.	COMMUNICATIONS WITH VCU DURING THE RFP PROCESS:	10
XVI.	ORAL PRESENTATIONS.....	10
XVII.	BEST AND FINAL OFFERS (BAFO):	10
XVIII.	QUALIFICATIONS OF OFFERORS:	11
XIX.	CANCELLATION OF SOLICITATION	11
XX.	EVALUATION CRITERIA	11
XXI.	AWARD OF CONTRACT.....	11
XXII.	GENERAL TERMS AND CONDITIONS.....	12
XXIII.	SPECIAL TERMS AND CONDITIONS.....	18
XXIV.	ATTACHMENTS:.....	22

I. PURPOSE

- A. The intent and purpose of this Request for Proposals (RFP) is to solicit sealed proposals for Turf Maintenance Services for the soccer field at Sports Backers Stadium for Virginia Commonwealth University (the lead issuing institution), an agency of the Commonwealth of Virginia.
- B. The initial contract term shall be two (2) year(s), with the option of up to three (3) one (1) year renewals, to be executed upon mutual signed agreement of both parties.
- C. COOPERATIVE PROCUREMENT: It is the intent of this solicitation and resulting contract(s) to allow for cooperative procurement, at the contractor's discretion. Accordingly, any public body, public or private health or educational institution or lead-issuing institution's affiliated foundations may access any resulting contract(s) if authorized by the contractor.

Participation in this cooperative procurement is strictly voluntary. If authorized by the Contractor(s), the resultant contract(s) may be extended to the entities indicated above to purchase at contract prices in accordance with contract terms. Upon request, the Contractor shall notify the lead-issuing institution in writing of any entities accessing the contract. No modification of this contract or execution of a separate contract is required to participate. The Contractor shall provide usage reports for all entities accessing the Contract upon request. Participating entities shall place their own orders directly with the Contractor(s) and shall fully and independently administer their use of the contract(s) to include contractual disputes, invoicing and payments without direct administration from the lead-issuing institution. The lead-issuing institution shall not be held liable for any costs or damages incurred by any other participating entity as a result of any authorization by the Contractor to extend the contract. It is understood and agreed that the lead-issuing institution is not responsible for the acts or omissions of any entity, and will not be considered in default of the Agreement no matter the circumstances. Use of this contract(s) does not preclude any participating entity from using other contracts or competitive processes.

- D. OPTIONAL-USE CONTRACT: The resulting contract(s) will be an optional use contract. VCU is in no way required to make purchases from the Contractor and may in its sole discretion purchase the identical and/or similar goods/services from other sources. Any estimates/quantities contained herein do not represent a purchase commitment by VCU.

II. THE UNIVERSITY

Located on two downtown campuses in Richmond, VCU enrolls more than 31,000 students in 216 certificate and degree programs in the arts, sciences and humanities. Sixty-nine of the programs are unique in Virginia, and 28 graduate and professional programs are ranked among the best in the nation in U.S. News & World Report's "America's Best Graduate Schools," including the No. 1 ranked sculpture and nurse anesthesia programs. As one of the nation's top research universities, VCU attracts more than \$255 million a year in sponsored research funding.

VCU Medical Center is one of the nation's leading and Central Virginia's only academic medical center. It includes the 865-bed MCV Hospitals and outpatient clinics, MCV Physicians - a practice of more than 600-physician-faculty, and the health sciences schools of VCU.

VCU is an urban leader, forging ties with business, industry and government in such innovative projects as the collocation of the schools of Business and Engineering, the da Vinci Center for Innovation in Product Design and Development and the Virginia BioTechnology Research Park.

The university and its medical center are the largest-single employer in the Richmond area, with more than 18,650 employees, including almost 2,000 full-time instructional faculty — many of them nationally and internationally recognized in their fields. VCU's direct economic impact to Virginia is estimated to be \$3.6 billion in annual spending that supports 43,705 jobs.

VCU's 16 varsity sports compete at the NCAA Division I level as members of the Colonial Athletic Association. In recent years, VCU has participated in NCAA Tournaments in men's and women's basketball, baseball, golf, men's soccer and men's and women's tennis, including the VCU men's basketball's run to the Final Four in 2011.

III. PRE-PROPOSAL CONFERENCE

There will not be a proposal conference.

IV. STATEMENT OF NEEDS

This Section describes VCU's requested goods and/or services and the areas to be addressed in Offeror's Proposal. Please note that utilization of the words "shall" or "must" indicates a mandatory requirement.

A. General

The Contractor shall provide all materials, labor and equipment necessary to provide appropriate soccer field maintenance at Sports Backers Stadium, located at 100 Avenue of Champions, Richmond, Virginia.

The field shall be kept to the highest standards of athletic field maintenance, and meet or exceed all NCAA rules & regulations for soccer fields and playing surfaces. The Contractor should provide field maintenance services including but not limited to a general field maintenance plan, general field consulting, equipment maintenance (if any), mowing schedule, fertilization plan, aeration schedule, over seeding plan/schedule, winter coverage plan, sodding, fungicide & herbicide applications, soil testing, and irrigation schedule. In addition to the services listed above, event related maintenance should include (but not be limited to) proper edging, line-painting, and other preparations deemed necessary to keep the field ready for competition. The Contractor should adjust services due to weather, turf conditions, practices and/or game schedules, and other factors that will influence the condition of the field.

VCU *estimates* the usage of the soccer field to be as follows:

- (20 - 30) Intercollegiate soccer games (Aug. 1 – Nov. 30)
- (6 – 8) High School Soccer Games (November)
- (6-8) Intercollegiate Soccer Scrimmages (March – April)
- (8) Intercollegiate, High School & Youth Track & Field Meets
- (1) Youth soccer camp – (summer)
- Potential for other games, special events, camps, etc.

Please note Sports Backers Stadium is 5-7 Acres.

V. THE REQUEST FOR PROPOSALS PROCESS – GENERAL

- A. **Written Proposals:** To properly respond to this Request for Proposals, offerors are required to prepare a written proposal in the format described below. This includes the submission of certain forms.
- B. **Physical Delivery Required:** As noted on the solicitation cover sheet, proposals must be physically delivered to a specific address prior to a FIRM deadline. Electronic submissions shall not be accepted.
- C. **Initial Evaluation and Oral Presentations:** Proposals will be evaluated against criteria specified below in this solicitation, after which firms may be invited to participate in oral presentations.
- D. **Discussions/Negotiations, Final Offers and Selection:** Following initial evaluations and oral presentations (if applicable), discussions and/or negotiations with at least the top two firms may occur. If so, these firms shall be invited to submit any written changes to their proposals and a final selection

decision shall be made based on the initial proposals, oral presentations (if applicable) and any negotiated, written changes to proposals.

- E. Each of the above steps are described below in detail. It is incumbent upon all offerors to read the entire solicitation to understand the entire solicitation process.

VI. PREPARATION OF WRITTEN PROPOSALS - GENERAL

- A. Offerors shall submit:
 - 1. **Required Forms:** The following forms must be completed and returned with the proposal
 - a) The Offer Form on Page 2 of the RFP
 - b) Fully completed Appendix I (unless Offeror is a DSBSD-certified SWaM business), and
 - c) Fully completed Appendix II.
 - d) All forms must be executed by an official representative of the Offeror.
 - 2. **Hard Copy and Electronic Copy of Entire Proposal**
 - a) One original hard copy (paper) document of the entire proposal, including all attachments and proprietary information.
 - b) One electronic copy (on a flash drive) of the entire proposal including all attachments and proprietary information.

VII. SUBMISSION OF PROPOSALS

- A. Hard copy, original proposals, along with an electronic version on flash drive, must be received in Virginia Commonwealth University's Office of Procurement Services on or before the date and time designated on the solicitation cover sheet.
- B. Electronic and facsimile submissions shall not be accepted in lieu of a hard-copy submission.
- C. Offerors are responsible for the timely delivery of their proposal. Proposals received after the official date and time specified on the solicitation cover sheet shall be rejected. The official date and time used in the receipt of responses is that time on the clock or automatic time stamp in the Office of Procurement Services.
- D. The RFP number, date and time of proposal submission deadline, as reflected in the solicitation, must clearly appear on the face of the envelop or box used to deliver proposals. Example:

From:

_____	_____	_____
Name of Contractor	Due Date	Time
_____	_____	
Street or Box Number	RFP No.	
_____	_____	
City, State, Zip Code +4	RFP Title	
Name of Contract/Purchase Officer or Buyer:	_____	

If a proposal is not clearly identified, the Contractor takes the risk that the proposal may be inadvertently opened and the information compromised, which may cause the proposal to be disqualified. Proposals may be hand-delivered to the designated location in the office issuing the solicitation. No other correspondence or other proposals should be placed in the envelope.

VIII. PROPOSAL RESPONSE FORMAT

A. General

Proposal responses must be written in the same order as outlined below. Proposals should be prepared simply and economically, providing a straightforward, concise description of capabilities. Emphasis should be placed on completeness and clarity of content. Proposals which are substantially incomplete or lack key information may be rejected.

B. Introduction

Provide an introduction of the Offeror and all major subcontractors who will be involved in the performance of the work. Include primary business experience, length of time in business, ownership, office locations, and specific location of the principal office from where VCU work will be performed and any other information of an introductory nature.

C. Qualifications of the Firm

Provide a response and describe how your firm's overall experience demonstrates your ability to successfully complete the Statement of Needs. Provide a detailed list of services you have provided to clients over the past three years which are similar to those required by VCU.

D. Qualification of the Staff

Provide a response and identify the staff members who will provide the services required by the proposal, including years and type of experience for each person. Experience should include number of years at current firm as well as all prior service.

E. References

A list of three (3) references for whom similar services were provided, preferably institutions of higher education, or similarly-sized organizations.

F. Work Plan

The Work Plan must contain a comprehensive description of services including the following elements:

1. General – This section of the proposal must contain sufficient detail to convey the methodology or work plan contemplated for use. Offerors must describe how the services listed in the Statement of Needs shall be performed.
 - a. Explain your firm's approach to providing field maintenance services as described in the Statement of Needs including specific plans/methodology for providing each of the goods/services to properly maintain the Sports Backers Stadium Turf on and off season. Also include the plan for game-day field operations, including personnel needed, and duties to be performed.
 - b. Explain your firm's approach to providing field maintenance services as described in the Statement of Needs including specific plans/methodology for providing each of the goods/services to properly maintain the Sports Backers Stadium Turf on and off season. Also include the plan for game-day field operations, including personnel needed, and duties to be performed.
2. Deliverables – Fully describe all of the deliverables to be submitted under the proposed contract.
3. Work Schedule/Timeline – Include a work schedule/timeline indicating when the elements of the work will be completed and when deliverables will be provided. Suggestions, if any, for streamlining the work schedule should be presented. Cost implications for streamlining the schedule should be presented, if applicable.
4. Outcomes and Performance Measurement – Describe the impacts/outcomes offerors intend to achieve, including how these outcomes would be monitored, measured and reported to the University.

5. Overall Risk - Define risks significant to the success of the work. Include how you propose to effectively monitor and manage these risks, including the reporting of risks to the University (i.e., how you will manage staff turnover or other issues that may negatively impact the work, their potential and how you would propose to mitigate them).
6. Other – Company Gross Revenue
7. Small, Women-Owned and Minority-Owned (SWaM) Business Commitment - Unless the firm is a SBSD certified small business, it must submit and complete Appendix I (see Section IX and Appendix I below). DSBSD certified small businesses must include their certification number on the coversheet of this RFP, but are not required to complete Appendix I.
8. Exceptions: Offeror must note any requested exceptions to any of the requirements and/or any of the terms and conditions stated in this RFP in *Appendix III: Exceptions*.

G. Price Proposal

The proposal should include the elements listed below.

1. Line Painting with Stringing: Dollar Amount per occurrence. Flat Rate. Estimate of 55 occurrences per year.
2. Over Seeding with additional Mowing: Flat rate; this is as necessary depending on weather.
3. Commons Area Mowing and Maintenance: Flat rate; twice a month, could change depending on weather.
4. Additional Fees: Hourly rates:
 - a. Manager: \$/hr
 - b. Assistant: \$/hr
5. Optional Services

VASCUPP Zone Map: Please refer to the link below to review the VASCUPP Zone Map. Below your pricing proposal, please identify by number which zones you are willing to service. Note Offeror must offer the same pricing as you have proposed herein to all zones serviced. Contracted Offeror(s) may add additional zones of service during the contract term at Offeror’s discretion. If no zones are identified in your proposal as being excluded, the pricing provided will apply to all zones in the Commonwealth.

<https://vascupp.org/VASCUPPzonemap.pdf>

IX. SMALL, WOMEN-OWNED, AND MINORITY-OWNED BUSINESS COMMITMENT (SWaM):

It is the policy of the Commonwealth of Virginia that 42% of its purchases be made from small businesses to contribute to the establishment, preservation, and strengthening of small businesses, and businesses owned by women and minorities, and to encourage their participation in VCU procurement activities. The Commonwealth encourages Contractors to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts or other contractual opportunities.

Offerors must submit complete Appendix I (see section XIV: Attachments) unless offeror is a DSBSD certified small business. DSBSD certified small businesses must include their certification number on the coversheet of this RFP, but are not required to complete Appendix I.

Use of Subcontractors: If the Offeror intends to use subcontractors to perform any portion of the work described in this RFP, the Offeror must clearly so state. VCU is placing an increased emphasis on its SWaM (Small, Women, and Minority Owned) business program and is interested in identifying any potential opportunities that may be available to engage SWaM vendors to be certified by the Virginia Department of Small Business and Supplier Diversity (DSBSD) through new or existing contracts. **Identify and list any such opportunities that your firm would commit to if awarded this Contract in Appendix 1- Participation in VCU Procurement Transactions Small Businesses and Businesses Owned by Women and Minority.** The Offeror's response must include a description of which portion(s) of the work will be sub-contracted out and the names and addresses of potential Subcontractor(s) under the Contract.

SWaM REPORTING AND DELIVERY REQUIREMENTS:

Unless the Contractor is a DSBSD certified small business, the Contractor shall submit quarterly reports on the direct involvement of Department of Small Business and Supplier Diversity (DSBSD) certified SWaM Businesses in the performance of the Contract. The report shall specify the actual dollars spent to date with Small Businesses, Women-Owned Businesses, and Minority-Owned Businesses based upon the Contractor's commitment for utilization of DSBSD SWaM Businesses.

The Contractor shall provide this information to:

Virginia Commonwealth University
Procurement Services Office
Attn: SWaM Coordinator
912 W. Grace Street, POB 980327
Richmond, VA 23284
Email: swamreporting@vcu.edu

Failure to submit the required information will be considered a contract compliance issue and will be addressed accordingly. In addition, failure to submit the required information will result in invoices being returned without payment.

X. ADDENDA

- A. If this solicitation is amended by published addenda, then all terms and conditions which are not modified shall remain unchanged.
- B. Offerors shall acknowledge receipt of any addendum to this solicitation by (1) signing and returning the addendum, or (2) by identifying the addendum number and date in the space provided on the Offer Form, or by (3) other written means of acknowledgement.

XI. PROPOSAL ACCEPTANCE PERIOD:

Any proposal in response to this solicitation shall be valid for sixty (60) days. At the end of the sixty (60) days, the proposal may be withdrawn at the written request of the Contractor. If the proposal is not withdrawn at that time it remains in effect until an award is made or the solicitation is cancelled.

XII. CONFIDENTIAL / PROPRIETARY DATA AND INFORMATION

Virginia Commonwealth University (VCU) is a public institution of higher education and as such is subject to the Virginia Freedom of Information Act (Code of Virginia §2.2-3700, et seq.) (FOIA). Therefore, all proposals and other documentation submitted by Offeror may be subject to disclosure to third parties as required by FOIA and other applicable provisions of law.

Pursuant to the Code of Virginia §2.2-4342(F), VCU can withhold confidential information identified as proprietary, or as a trade secret, submitted by an Offeror in connection with a procurement transaction only if, prior to or at the time of submission of such information, the Offeror invokes the protections of §2.2-4342(F), identifies the information to be protected, and states the reasons why protection is necessary. To this end, when submitting proposals containing such information, Offerors must:

1. Clearly denote on the outside of the proposal that it contains proprietary information.
2. Include as the first section of the proposal a written notice that identifies by section and page number the information to be protected as well as specific reasons why protection is necessary.
3. Clearly denote by some distinct method, such as highlighting or underlining, the words, figures or paragraphs within the proposal identified in the written notice.

Failure to follow these instructions shall result in Offeror's full proposal being subject to public disclosure.

PLEASE NOTE: Offeror may not request that its entire proposal, or pricing, or fees or total proposal cost be treated as trade secrets, proprietary or confidential information. The classification of an entire Proposal document, or line item prices, or total Proposal prices as proprietary or trade secrets is not acceptable and, if Offeror does not promptly agree to withdraw this classification following submission, shall result in rejection and return of Proposal.

XIII. LATE PROPOSALS

To be considered for selection, proposals must be received by the issuing office by the designated date and hour. The official time used in the receipt of proposals is that time on the automatic time stamp machine in the issuing office. Proposals received in the issuing office after the date and hour designated are automatically disqualified and will not be considered. The University is not responsible for delays in the delivery of mail by the U.S. Postal Service, private couriers, or the intra-university mail system. It is the sole responsibility of the Contractor to insure that its proposal reaches the issuing office by the designated date and hour.

XIV. QUESTIONS AND EXPLANATIONS TO OFFERORS

If any prospective offeror has questions about the specifications or other solicitation documents, the prospective offeror should contact the buyer whose name appears on the solicitation cover sheet. Any revisions to the solicitation will be made only by addendum issued by the buyer.

Questions concerning this RFP must be received via email no later than: March 12th, 2018 @ 4pm.

XV. COMMUNICATIONS WITH VCU DURING THE RFP PROCESS:

Communications regarding this Request for Proposals shall be formal from the date of issue for this RFP, until either a Contractor has been selected or the University rejects all proposals. Formal communications shall be directed to the buyer listed on the solicitation cover sheet. Formal communications includes; but not limited to, request for information, comments or speculations, regarding this RFP to any University employee other than the buyer on the front of the solicitation cover sheet may result in the rejection of the proposal from the non-compliant offeror.

XVI. ORAL PRESENTATIONS

- A. Offerors who submit a proposal in response to this RFP may be required to conduct an oral presentation of their proposal to VCU. This provides an opportunity for the Contractor to clarify or elaborate on the proposal. Oral presentations are an option and may or may not be conducted, at VCU's sole discretion. Should an oral presentation be required, VCU will designate the date and location for the presentation; the date is critical and alternative dates will not be available. VCU reserves the right to rescore proposals following oral presentations
- B. Offerors who are invited to conduct an oral presentation shall include the individual(s) who would be the primary point of contact for VCU on the Contractor's presentation team.

XVII. BEST AND FINAL OFFERS (BAFO):

At the conclusion of negotiations, the Contractor(s) may be asked to submit in writing, a best and final offer (BAFO). After the BAFO is submitted, no further negotiations shall be conducted with the Contractor(s). The Contractor(s) proposal will be re-evaluated to combine and include the information contained in the BAFO. The decision to award will be based on the final evaluation including the BAFO.

XVIII. QUALIFICATIONS OF OFFERORS:

The Commonwealth may make such reasonable investigations as deemed proper and necessary to determine the ability of the Offeror to perform the services/furnish the goods and the Offeror shall furnish to the Commonwealth all such information and data for this purpose as may be requested. The Commonwealth reserves the right to inspect the Offeror's physical facilities prior to award to satisfy questions regarding the Offeror's capabilities. The Commonwealth further reserves the right to reject any proposal if the evidence submitted by, or investigations of, such Offeror fails to satisfy the Commonwealth that such Offeror is properly qualified to carry out the obligations of the contract and to provide the services and/or furnish the goods contemplated therein.

XIX. CANCELLATION OF SOLICITATION

The University may cancel this Request for Proposals or reject proposals at any time prior to an award, and is not required to furnish a statement of the reason why a particular proposal was not deemed to be the most advantageous.

XX. EVALUATION CRITERIA

Proposals will be evaluated based upon the information provided in the Offeror's Proposal using the criteria specified below.

EVALUATION CRITERIA

Experience and expertise of firm and personnel	40%
Approach to providing turf maintenance services	30%
Pricing Schedule	20%
SWaM Status/Utilization*	10%

**Offeror's status as a Virginia DSBSD-certified SWaM Business, or the Offeror's plans to utilize Virginia DSBSD-certified SWaM Businesses in the Offeror's performance of the contract (see Appendix I).*

XXI. AWARD OF CONTRACT

- A. Selection shall be made of two or more offerors deemed to be fully qualified and best suited among those submitting proposals on the basis of the evaluation factors included in the Request for Proposals, including price, if so stated in the Request for Proposals. Negotiations shall be conducted with the selected offerors.
- B. After negotiations have been conducted with each offeror so selected, the University shall select the offeror which, in its opinion, has made the best proposal, and shall award the contract to that offeror.
- C. The Commonwealth reserves the right to make multiple awards as a result of this solicitation.
- D. Should the Commonwealth determine in writing and in its sole discretion that only one offeror is fully qualified, or that one offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that offeror. The award document will be a contract incorporating by reference all the requirements, terms and conditions of the solicitation and the Contractor's proposal as negotiated.

- E. Upon the award or the announcement of the decision to award a contract as a result of this solicitation, Virginia Commonwealth University will publicly post such notice electronically at <http://www.eva.virginia.gov> for a minimum of 10 days.

XXII. GENERAL TERMS AND CONDITIONS

A. **PURCHASING MANUAL:** This solicitation is subject to the provisions of the Commonwealth of Virginia's Purchasing Manual for Institutions of Higher Education and their Vendors and any revisions thereto, which are hereby incorporated into this contract in their entirety. A copy of the manual is available for review at the purchasing office. In addition, the manual may be accessed electronically at <http://procurement.vcu.edu/> or a copy can be obtained by calling University Purchasing at (804) 828-1077.

B. **APPLICABLE LAW AND COURTS:** This solicitation and any resulting contract shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation with respect thereto shall be brought in the courts of the Commonwealth. The Contractor shall comply with all applicable federal, state and local laws, rules and regulations.

C. **ANTI-DISCRIMINATION:** By submitting their proposals, Offerors certify to the Commonwealth that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act and Section 2.2-4311 of the *Virginia Public Procurement Act*. If the award is made to a faith-based organization, the organization shall not discriminate against any recipient of goods, services, or disbursements made pursuant to the contract on the basis of the recipient's religion, religious belief, refusal to participate in a religious practice, or on the basis of race, age, color, gender or national origin and shall be subject to the same rules as other organizations that contract with public bodies to account for the use of the funds provided; however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the public body. (*Code of Virginia*, § 2.2-4343.1). In every contract over \$10,000 the provisions in 1. and 2. below apply:

1. During the performance of this contract, the Contractor agrees as follows:
 - a. Virginia Commonwealth University is an equal opportunity/affirmative action institution providing access to education and employment without regard to age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability. As such, the Contractor will not discriminate against any employee or applicant for employment because of age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability or any other basis prohibited by state law related to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause
 - b. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.
 - c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting these requirements.

2. The Contractor will include the provisions of 1. above in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

D. **ETHICS IN PUBLIC CONTRACTING:** By submitting their proposals, Offerors certify that their proposals are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other Offeror, supplier, manufacturer or subcontractor in connection with their proposal, and that they have not conferred on any public employee having official responsibility for this

procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

E. IMMIGRATION REFORM AND CONTROL ACT OF 1986: By submitting their proposals, Offerors certify that they do not and will not during the performance of this contract employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986.

F. DEBARMENT STATUS: By submitting their proposals, Offerors certify that they are not currently debarred by the Commonwealth of Virginia from submitting proposals on contracts for the type of goods and/or services covered by this solicitation, nor are they an agent of any person or entity that is currently so debarred.

G. ANTITRUST: By entering into a contract, the Contractor conveys, sells, assigns, and transfers to the Commonwealth of Virginia all rights, title and interest in and to all causes of the action it may now have or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by the Commonwealth of Virginia under said contract

H. MANDATORY USE OF STATE FORM AND TERMS AND CONDITIONS: Failure to submit a proposal on the official state form provided for that purpose may be a cause for rejection of the proposal. Modification of or additions to the General Terms and Conditions of the solicitation may be cause for rejection of the proposal; however, the Commonwealth reserves the right to decide, on a case by case basis, in its sole discretion, whether to reject such a proposal.

I. CLARIFICATION OF TERMS: If any prospective Offeror has questions about the specifications or other solicitation documents, the prospective Offeror should contact the buyer whose name appears on the face of the solicitation by the deadline for questions stated in this document. Any revisions to the solicitation will be made only by addendum issued by the buyer.

J. PAYMENT:

1. To Prime Contractor:

- a. Invoices for items ordered, delivered and accepted shall be submitted by the Contractor directly to the payment address shown on the purchase order/contract. All invoices shall show the state contract number and/or purchase order number; social security number (for individual Contractors) or the federal employer identification number (for proprietorships, partnerships, and corporations).
- b. Any payment terms requiring payment in less than 30 days will be regarded as requiring payment 30 days after invoice or delivery, whichever occurs last. This shall not affect offers of discounts for payment in less than 30 days, however.
- c. All goods or services provided under this contract or purchase order, that are to be paid for with public funds, shall be billed by the Contractor at the contract price, regardless of which public agency is being billed.
- d. The following shall be deemed to be the date of payment: the date of postmark in all cases where payment is made by mail, or the date of offset when offset proceedings have been instituted as authorized under the Virginia Debt Collection Act.
- e. Unreasonable Charges. Under certain emergency procurements and for most time and material purchases, final job costs cannot be accurately determined at the time orders are placed. In such cases, contractors should be put on notice that final payment in full is contingent on a determination of reasonableness with respect to all invoiced charges. Charges which appear to be unreasonable will be researched and challenged, and that portion of the invoice held in abeyance until a settlement can be reached. Upon determining that invoiced charges are not reasonable, the

Commonwealth shall promptly notify the contractor, in writing, as to those charges which it considers unreasonable and the basis for the determination. A contractor may not institute legal action unless a settlement cannot be reached within thirty (30) days of notification. The provisions of this section do not relieve an agency of its prompt payment obligations with respect to those charges which are not in dispute (Code of Virginia, § 2.2-4363).

2. To Subcontractors:

a. Contractor awarded a contract under this solicitation is hereby obligated:

(1) To pay the Subcontractor(s) within seven (7) days of the Contractor's receipt of payment from the Commonwealth for the proportionate share of the payment received for work performed by the Subcontractor(s) under the contract; or

(2) To notify the agency and the Subcontractor(s), in writing, of the Contractor's intention to withhold payment and the reason.

b. The Contractor is obligated to pay the Subcontractor(s) interest at the rate of one percent per month (unless otherwise provided under the terms of the contract) on all amounts owed by the Contractor that remain unpaid seven (7) days following receipt of payment from the Commonwealth, except for amounts withheld as stated in 2. above. The date of mailing of any payment by U.S. Mail is deemed to be payment to the addressee. These provisions apply to each sub tier Contractor performing under the primary contract. A Contractor's obligation to pay an interest charge to a Subcontractor may not be construed to be an obligation of the Commonwealth.

K. PRECEDENCE OF TERMS: Paragraphs A-J of these General Terms and Conditions shall apply in all instances. In the event there is a conflict between any of the other General Terms and Conditions and any Special Terms and Conditions in this solicitation, the Special Terms and Conditions shall apply.

L. QUALIFICATIONS OF OFFERORS: The Commonwealth may make such reasonable investigations as deemed proper and necessary to determine the ability of the Offeror to perform the services/furnish the goods and the Offeror shall furnish to the Commonwealth all such information and data for this purpose as may be requested. The Commonwealth reserves the right to inspect Offeror's physical facilities prior to award to satisfy questions regarding the Offeror's capabilities. The Commonwealth further reserves the right to reject any proposal if the evidence submitted by, or investigations of, such Offeror fails to satisfy the Commonwealth that such Offeror is properly qualified to carry out the obligations of the contract and to provide the services and/or furnish the goods contemplated therein.

M. TESTING AND INSPECTION: The Commonwealth reserves the right to conduct any test/inspection it may deem advisable to assure goods and services conform to the specifications.

N. ASSIGNMENT OF CONTRACT: A contract shall not be assignable by the Contractor in whole or in part without the written consent of the Commonwealth.

O. CHANGES TO THE CONTRACT: Changes can be made to the Contract in any one of the following ways:

1. The parties may agree in writing to modify the scope of the contract. An increase or decrease in the price of the contract resulting from such modification shall be agreed to by the parties as a part of their written agreement to modify the scope of the contract.

2. The Purchasing Agency may order changes within the general scope of the contract at any time by written notice to the Contractor. Changes within the scope of the contract include, but are not limited to, things such as services to be performed, the method of packing or shipment, and the place of delivery or installation. The Contractor shall comply with the notice upon receipt. The Contractor shall be compensated for any additional costs incurred as the result of such order and shall give the Purchasing Agency a credit for any savings. Said compensation shall be determined by one of the following methods:

a. By mutual agreement between the parties in writing; or

- b. By agreeing upon a unit price or using a unit price set forth in the contract, if the work to be done can be expressed in units, and the Contractor accounts for the number of units of work performed, subject to the Purchasing Agency's right to audit the Contractor's records and/or to determine the correct number of units independently; or
- c. By ordering the Contractor to proceed with the work and keep a record of all costs incurred and savings realized. A markup for overhead and profit may be allowed if provided by the contract. The same markup shall be used for determining a decrease in price as the result of savings realized. The Contractor shall present the Purchasing Agency with all vouchers and records of expenses incurred and savings realized. The Purchasing Agency shall have the right to audit the records of the Contractor as it deems necessary to determine costs or savings. Any claim for an adjustment in price under this provision must be asserted by written notice to the Purchasing Agency within thirty (30) days from the date of receipt of the written order from the Purchasing Agency. If the parties fail to agree on an amount of adjustment, the question of an increase or decrease in the contract price or time for performance shall be resolved in accordance with the procedures for resolving disputes provided by the Disputes Clause of this contract or, if there is none, in accordance with the disputes provisions of the Commonwealth of Virginia's Purchasing Manual for Institutions of Higher Education and Their Vendors. Neither the existence of a claim or a dispute resolution process, litigation or any other provision of this contract shall excuse the Contractor from promptly complying with the changes ordered by the Purchasing Agency or with the performance of the contract generally.

P. DEFAULT: In case of failure to deliver goods or services in accordance with the contract terms and conditions, the Commonwealth, after due oral or written notice, may procure them from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. This remedy shall be in addition to any other remedies which the Commonwealth may have.

Q. TAXES: Sales to the Commonwealth of Virginia are normally exempt from State sales tax, State sales and use tax certificates of exemption, Form ST-12, will be issued upon request. Deliveries against this contract shall usually be free of Federal excise and transportation taxes. The Commonwealth's excise tax exemption registration number is 54-73-0076K.

R. USE OF BRAND NAMES: Unless otherwise provided in this solicitation, the name of a certain brand, make or manufacturer does not restrict Offerors to the specific brand, make or manufacturer named, but conveys the general style, type, character, and quality of the article desired. Any article, which the public body, in its sole discretion, determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted. The Offeror is responsible to clearly and specifically identify the product being offered and to provide sufficient descriptive literature, catalog cuts and technical detail to enable the Commonwealth to determine if the product offered meets the requirements of the solicitation. This is required even if offering the exact brand, make or manufacturer specified. Unless the Offeror clearly indicates in its proposal that the product offered is an "equal" product, such proposal will be considered to offer the brand name product referenced in the solicitation.

S. TRANSPORTATION AND PACKAGING: By submitting their proposals, all Offerors certify and warrant that the price offered for FOB destination includes only the actual freight rate costs at the lowest and best rate and is based upon the actual weight of the goods to be shipped. Except as otherwise specified herein, standard commercial packaging, packing and shipping containers shall be used. All shipping containers shall be legibly marked or labeled on the outside with purchase order number, commodity description, and quantity.

T. INSURANCE: By signing and submitting a proposal under this solicitation, the offeror certifies that if awarded the contract, it will have the following insurance coverages at the time the contract is awarded. For construction contracts, if any subcontractors are involved, the subcontractor will have workers' compensation insurance in accordance with §§ 2.2-4332 and 65.2-800 et seq. of the *Code of Virginia*. The offeror further certifies that the contractor and any subcontractors will maintain these insurance

coverages during the entire term of the contract and that all insurance coverage will be provided by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission. Minimum Insurance Coverages and Limits Required for Most Contracts:

1. Worker's Compensation - Statutory requirements and benefits. Coverage is compulsory for employers of three or more employees, to include the employer. Contractors who fail to notify the Commonwealth of increases in the number of employees that change their workers' compensation requirements under the *Code of Virginia* during the course of the contract shall be in noncompliance with the contract.
2. Employers Liability - \$100,000.
3. Commercial General Liability - \$5,000,000 per occurrence. Commercial General Liability is to include bodily injury and property damage, personal injury and advertising injury, products and completed operations coverage. The Commonwealth of Virginia must be named as an additional insured and so endorsed on the policy.
4. Automobile Liability - \$1,000,000 per occurrence. (Only used if motor vehicle is to be used in the contract.)

U. ANNOUNCEMENT OF AWARD: Upon the award or the announcement of the decision to award a contract as a result of this solicitation, Virginia Commonwealth University will publicly post such notice electronically at <http://www.eva.virginia.gov> for a minimum of 10 days.

V. DRUG-FREE WORKPLACE: During the performance of this contract, the Contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violation of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor. For the purposes of this section, "*drug-free workplace*" means a site for the performance of work done in connection with a specific contract awarded to a contractor, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

W. NONDISCRIMINATION OF CONTRACTORS: A bidder, offeror, or contractor shall not be discriminated against in the solicitation or award of this contract because of race, religion, color, sex, national origin, age, disability, or against faith-based organizations or any other basis prohibited by state law relating to discrimination in employment. If the award of this contract is made to a faith-based organization and an individual, who applies for or receives goods, services, or disbursements provided pursuant to this contract objects to the religious character of the faith-based organization from which the individual receives or would receive the goods, services, or disbursements, the public body shall offer the individual, within a reasonable period of time after the date of his objection, access to equivalent goods, services, or disbursements from an alternative provider.

X. As applicable, federal law requires compliance with the following for all federal government contracts:

1. 41 CFR § 60-1.4 Equal Opportunity Clause prohibiting discrimination on the basis of race, color, religion, sex, or national origin.
2. 41 CFR 60-741.5(a) and 41 CFR 60-300.5(a). These regulations prohibit discrimination against qualified individuals on the basis of disability (60-741.5(a)) and protected veteran status (41 CFR 60-300.5(a)), and require affirmative action by covered prime contractors and subcontractors to

employ and advance in employment qualified individuals with disabilities and qualified protected veterans.

Y. eVA BUSINESS-TO-GOVERNMENT CONTRACTS AND ORDERS: The solicitation/contract will result in a purchase order with the eVA transaction fee specified below assessed for each order. The Vendor Transaction Fee is:

- a. DSBSD-certified Small Businesses: 1%, capped at \$500 per order.
- b. Businesses that are not DSBSD-certified Small Businesses: 1%, capped at \$1,500 per order.

The specified vendor transaction fee will be invoiced by the Commonwealth of Virginia Department of General Services, approximately 30 days after the corresponding purchase order is issued and payable 30 days after the invoice date.

Any adjustments (increases/decreases) will be handled through purchase order changes. The eVA Internet electronic procurement solution, website portal www.eva.virginia.gov, streamlines and automates government purchasing activities in the Commonwealth. The portal is the gateway for vendors to conduct business with state agencies and public bodies.

Vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet e-procurement solution and agree to comply with the following: If this solicitation is for a term contract, failure to provide an electronic catalog (price list) or index page catalog for items awarded will be just cause for the Commonwealth to reject your bid/offer or terminate this contract for default. The format of this electronic catalog shall conform to the eVA Catalog Interchange Format (CIF) Specification that can be accessed and downloaded from www.eVA.virginia.gov. Contractors should email Catalog or Index Page information to eVA-catalog-manager@dgs.virginia.gov.

Z. FERPA: The following provision applies only if Selected Firm/Vendor will have access to the University's education records as defined under the Family Educational Rights and Privacy Act (FERPA): The Selected Firm/Vendor acknowledges that for the purposes of this agreement it will be designated as a "school official" with "legitimate educational interests" in the University education records, as those terms have been defined under FERPA and its implementing regulations, and the Selected Firm/Vendor agrees to abide by the limitations and requirements imposed on school officials. Selected Firm/Vendor will use the education records only for the purpose of fulfilling its duties under this agreement for University's and its students' benefit, and will not share such data with or disclose it to any third party except as provided for in this agreement, required by law, or authorized in writing by the University.

AA. LIMITATION OF LIABILITY: The total cumulative liability of the Commonwealth, its officers, employees and agents in connection with this Agreement or in connection with any goods, services, actions or omissions relating to this Agreement, shall not under any circumstance exceed payment of the maximum purchase price.

BB. FORCE MAJEURE: Either party will not be responsible for any losses resulting from delay or failure in performance resulting from any cause, event, or occurrence beyond the control, and without negligence of, the parties. Such events, occurrences, or causes include, without limitation: war, strikes or labor disputes, civil disturbances, fires, natural disasters, and acts of God.

CC. SOVEREIGN IMMUNITY: VCU is an agency of the Commonwealth of Virginia and is afforded the protection of sovereign immunity under Virginia law. Any claims against VCU or the Commonwealth are subject to the requirements established under Virginia law for bringing such claims against VCU or the Commonwealth, including the Virginia Tort Claims Act (Va. Code §§ 8.01-195.1 et seq.) and other applicable statutes relating to claims against the Commonwealth or its agencies. Notwithstanding any other provision, nothing in this contract shall be deemed to be or construed as a waiver of VCU's or the Commonwealth's sovereign immunity, or any other applicable requirements under Virginia law for bringing claims against VCU or the Commonwealth.

DD. AUDIT: The Contractor shall retain all books, records, and other documents relative to this contract for five (5) years after final payment, or until audited by the Commonwealth of Virginia, whichever is sooner. The agency, its authorized agents, and/or State auditors shall have full access to and the right to examine any of said materials during said period.

EE. AVAILABILITY OF FUNDS: It is understood and agreed between the parties herein that VCU shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this agreement.

FF. PROTEST:

Any Offeror who desires to protest the award or decision to award a Contract shall submit the protest in writing to:

Director of Procurement Services
Virginia Commonwealth University
912 West Grace, 5th Floor
Richmond, VA 23284

VCU will announce the award utilizing the Commonwealth of Virginia's e-Procurement system (eVA). The protest must be received no later than ten (10) days after the award or the announcement of the decision to award, whichever occurs first. However, if the protest of any actual or potential Offeror depends in whole or in part upon information contained in public records pertaining to the procurement transaction that are subject to inspection under the Rules Governing Procurement of Goods, Services, Insurance, and Construction by a Public Institution of Higher Education of the Commonwealth of Virginia Governed by Subchapter 3 of the Restricted Higher Education Financial and Administrative Operations Act,, Chapter 4.10 (§23-38.88 et seq) of Title 23 of the Code of Virginia, §34, then the time within which the protest shall be submitted shall expire ten (10) days after those records are available for inspection by such Offeror under §34, or at such later time as provided in this section.

VCU Notices of Award(s) or Notices of Intent to Award may be accessed electronically at <http://www.eva.virginia.gov>.

No protest shall lie for a claim that the selected Offeror is not a responsible Offeror. The written protest shall include the basis for the protest and relief sought.

The VCU Director of Procurement Services shall issue a decision in writing within ten (10) days of receipt stating the reasons for the action taken. This decision shall be final unless the Offeror appeals within ten (10) days of receipt of the written decision by instituting legal action as provided in Section 54 of the Governing Rules.

Nothing in this clause shall be construed to permit a proposer to challenge the validity of the terms or conditions of the RFP. "Days" as used in this paragraph refer to calendar days. If a deadline falls on a Saturday or Sunday, the next business day shall be considered to be the deadline.

GG. ADDITIONAL GOODS AND SERVICES: The University may acquire other goods or services that the supplier provides than those specifically solicited. The University reserves the right, subject to mutual agreement, for the Contractor to provide additional goods and/or services under the same pricing, terms and conditions and to make modifications or enhancements to the existing goods and services. Such additional goods and services may include other products, components, accessories, subsystems, or related services newly introduced during the term of the Agreement.

XXIII. SPECIAL TERMS AND CONDITIONS

- A. ADVERTISING: In the event a contract is awarded for supplies, equipment, or services resulting from this proposal, no indication of such sales or services to Virginia Commonwealth University will be used in product literature or advertising. The Contractor shall not state in any of the advertising or product

literature that the Commonwealth of Virginia or any agency or institution of the Commonwealth has purchased or uses its products or services.

- B. **ASBESTOS:** Whenever and wherever during the course of performing any work under this contract, the Contractor discovers the presence of asbestos or suspects that asbestos is present, he shall stop the work immediately, secure the area, notify the Building Owner and await positive identification of the suspect material. During the downtime in such a case, the Contractor shall not disturb any surrounding surfaces but shall protect the area with suitable dust covers. In the event the Contractor is delayed due to the discovery of asbestos or suspected asbestos, then a mutually agreed extension of time to perform the work shall be allowed the Contractor but without additional compensation due to the time extension.
- C. **AS-BUILT DRAWINGS:** The Contractor shall provide the Commonwealth a clean set of reproducible "as built" drawings and wiring diagrams, marked to record all changes made during installation or construction. The Contractor shall also provide the Commonwealth with maintenance manuals, and parts lists and a copy of all warranties for all equipment. All "as built" drawings and wiring diagrams, maintenance manuals, parts lists and warranties shall be delivered to the Commonwealth upon completion of the work and prior to final payment.
- D. **CANCELLATION OF CONTRACT:** The purchasing agency reserves the right to cancel and terminate any resulting contract, in part or in whole, without penalty, upon sixty (60) days written notice to the Contractor. In the event the initial contract period is for more than twelve (12) months, the resulting contract may be terminated by either party, without penalty, after the initial twelve (12) months of the contract period upon 60 days written notice to the other party. Any contract cancellation notice shall not relieve the Contractor of the obligation to deliver and/or perform on all outstanding orders issued prior to the effective date of cancellation.
- E. **CERTIFIED TEST REPORT:** Each Offeror shall provide a copy of a certified test report with their proposal. The certified test report shall be from a recognized independent testing laboratory or manufacturer's quality control laboratory showing all test results and full compliance with the appropriate specifications indicated herein. However, the Commonwealth reserves the right to perform any tests or inspections when and as deemed necessary to verify the certified test report.
- F. **CONTRACTOR LICENSE REQUIREMENT:** By my signature on this solicitation, I certify that this firm/individual and subcontractor is properly licensed for providing the goods/services specified.

Contractor Name: _____
Subcontractor Name: _____
License# _____ Type: _____

- G. **CONTRACTOR REGISTRATION:** If a contract for construction, removal, repair or improvement of a building or other real property is for one hundred and twenty thousand dollars (\$120,000) or more, or if the total value of all such contracts undertaken by the offeror within any 12-month period is seven hundred and fifty thousand dollars (\$750,000) or more, the offeror is required under Title 54.1-1100, *Code of Virginia* (1950), as amended, to be licensed by the State Board of Contractors as a "CLASS A CONTRACTOR". If such a contract is for seventy-five hundred dollars (\$7,500) or more but less than one hundred and twenty thousand dollars (\$120,000), or if the total value of all such contracts undertaken by offeror within any 12-month period is between one hundred and fifty thousand dollars (\$150,000) and seven hundred and fifty thousand dollars (\$750,000), the offeror is required to be licensed as a "CLASS B CONTRACTOR". If such a contract is for one thousand dollars (\$1,000) or more but less than seventy-five hundred dollars (\$7,500), or if the contractor does less than \$150,000 in business in a 12-month period, the offeror is required to be licensed as a "CLASS C CONTRACTOR". The board shall require a master tradesmen license as a condition of licensure for electrical, plumbing and heating, ventilation and air conditioning contractors. The offeror shall place on the outside of the envelope containing the proposal and shall place in the proposal over his signature whichever of the following notations is appropriate, inserting his contractor license number:

Licensed Class A Virginia Contractor No. _____ Specialty: _____
Licensed Class B Virginia Contractor No. _____ Specialty: _____

Licensed Class C Virginia Contractor No. _____ Specialty: _____

If the offeror shall fail to provide this information on his proposal or on the envelope containing the proposal and shall fail to promptly provide said contractor license number to the Commonwealth in writing when requested to do so before or after the opening of proposals, he shall be deemed to be in violation of Section 54.1-1115 of the *Code of Virginia* (1950), as amended, and his proposal will not be considered.

If an offeror shall fail to obtain the required license prior to submission of his proposal, the proposal shall not be considered.

- H. **CONTRACTOR'S TITLE TO MATERIALS:** No materials or supplies for the work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sales or other agreement by which an interest is retained by the seller. The Contractor warrants that he has clear title to all materials and supplies for which he invoices for payment.
- I. **DELIVERY AND STORAGE:** It shall be the responsibility of the Contractor to make all arrangements for delivery, unloading, receiving and storing materials in the building during installation. The Owner will not assume any responsibility for receiving these shipments. Contractor shall check with the Owner and make necessary arrangements for security and storage space in the building during installation.
- J. **SPECIAL EDUCATIONAL OR PROMOTIONAL DISCOUNTS:** The Contractor shall extend any special educational or promotional sale prices or discounts immediately to the Commonwealth during the term of the contract. Such notice shall also advise the duration of the specific sale or discount price.
- K. **EXTRA CHARGES NOT ALLOWED:** The proposal price shall be for complete installation ready for Commonwealth's use, and shall include all applicable freight and installation charges; extra charges will not be allowed.
- L. **FINAL INSPECTION:** At the conclusion of the work, the Contractor shall demonstrate to the authorized owners representative that the work is fully operational and in compliance with contract specifications and codes. Any deficiencies shall be promptly and permanently corrected by the Contractor at the Contractor's sole expense prior to final acceptance of the work.
- M. **INDEMNIFICATION:** Contractor agrees to indemnify, defend and hold harmless the Commonwealth of Virginia, its officers, agents, and employees from any claims, damages and actions of any kind or nature, whether at law or in equity, arising from or caused by the use of any materials, goods, or equipment of any kind or nature furnished by the Contractor/any services of any kind or nature furnished by the Contractor, provided that such liability is not attributable to the sole negligence of the using agency or to failure of the using agency to use the materials, goods, or equipment in the manner already and permanently described by the Contractor on the materials, goods, or equipment delivered.
- N. **INSPECTION OF JOB SITE:** My signature on this solicitation constitutes certification that I have inspected the job site and am aware of the conditions under which the work must be accomplished. Claims, as a result of failure to inspect the job site, will not be considered by the Commonwealth.
- O. **INSURANCE, MONEY AND SECURITIES:** Contractor shall maintain a Broad Form Money and Securities Insurance Policy obtained from an insurance company licensed to conduct crime insurance business in the home state of the Contractor and which has earned an A.M. Best Company, Inc. rating of A or better, as reflected in their most current publication, covering all money and property entrusted to the Contractor by the Commonwealth of Virginia, with limits of coverage of not less than \$. for Loss Inside the Premises Coverage and not less than \$. for Loss Outside the Premises Coverage, naming the Commonwealth of Virginia as additional named insured as respects this contract. Certificate of such protection must be presented to the purchasing agency prior to the start of the service showing name of insurance company, limits and type of coverage, term of coverage, additional insured provision and name and address of licensed insurance agent. The Contractor agrees to maintain such policy until the completion of the contract and all money and property of the Commonwealth is remitted to the Commonwealth.
- P. **LABELING OF HAZARDOUS SUBSTANCES:** If the items or products requested by this solicitation are "Hazardous Substances" as defined by § 1261 of the United States Code (U.S.C.) or "Pesticides" as

defined in § 136 of Title 7 of the United States Code, then the Offeror, by submitting his proposal, certifies and warrants that the items or products to be delivered under this contract shall be properly labeled as required by the forgoing sections and that by delivering the items or products the offeror does not violate any of the prohibitions of Title 15 U.S.C. § 1263 or Title 7 U.S.C. § 136.

- Q. MATERIAL SAFETY DATA SHEETS: Material Safety Data Sheets and descriptive literature shall be provided with the proposal for each chemical and/or compound offered. Failure on the part of the Offeror to submit such data sheets may be cause for declaring the proposal as nonresponsive.
- R. PREVENTIVE MAINTENANCE: The Contractor shall provide necessary preventive maintenance, required testing and inspection, calibration and/or other work necessary to maintain the equipment in complete operational condition during the warranty period.
- S. PRIME CONTRACTOR RESPONSIBILITIES: The Contractor shall be responsible for completely supervising and directing the work under this contract and all subcontractors that he may utilize, using his best skill and attention. Subcontractors who perform work under this contract shall be responsible to the prime Contractor. The Contractor agrees that he is as fully responsible for the acts and omissions of his subcontractors and of persons employed by them as he is for the acts and omissions of his own employees.
- T. PRODUCT INFORMATION: The Offeror shall clearly and specifically identify the product being offered and enclose complete and detailed descriptive literature, catalog cuts and specifications with the proposal to enable the Commonwealth to determine if the product offered meets the requirements of the solicitation. Failure to do so may cause the proposal to be considered nonresponsive.
- U. QUANTITIES: Quantities set forth in this solicitation are estimates only, and the Contractor shall supply at proposal prices actual quantities as ordered, regardless of whether such total quantities are more or less than those shown.
- V. RENEWAL OF CONTRACT: This contract may be renewed by the Commonwealth upon mutual written agreement of both parties for the initial contract term shall be two (2) year(s), with the option of up to three (3) one (1) year renewals, under the terms and conditions of the original contract except as stated in #1 below. Price increases may be negotiated only at the time of renewal. Written notice of the Commonwealth's intention to renew should be provided approximately 60 days prior to the expiration date of each contract period.
- W. SUBCONTRACTS: No portion of the work shall be subcontracted without prior written consent of the purchasing agency. In the event that the Contractor desires to subcontract some part of the work specified herein, the Contractor shall furnish the purchasing agency the names, qualifications and experience of their proposed subcontractors. The Contractor shall, however, remain fully liable and responsible for the work to be done by its subcontractor(s) and shall assure compliance with all requirements of the contract.
- X. USE OF RECYCLED MATERIALS: Notwithstanding the prohibition against used, damaged or obsolete items, vendors are encouraged to use secondary or recycled materials in the manufacture of products to the maximum extent practicable without jeopardizing the performance or intended end use of the product unless such use is precluded due to health and welfare or safety requirements or product specifications contained herein. Please provide the following information in this regard:
 - 1. Do any of the goods offered contain recycled materials? ___Yes ___No
 - 2. If so, please qualify the recycled material content: _____
- Y. WORK SITE DAMAGES: Any damage to existing utilities, equipment or finished surfaces resulting from the performance of this contract shall be repaired to the Commonwealth's satisfaction at the Contractor's expense.
- Z. WORK ESTIMATES (TIME AND MATERIAL CONTRACTS): Under this time and material contract, the Contractor shall furnish the agency with a non-binding written estimate of the total costs to complete the work required. The estimate must include the labor category(ies), the Contractor's hourly rates specified in the contract, and the total material cost. Material costs shall be billed at the Contractor's actual invoice costs (Contractor shall furnish copies of all invoices for materials) or discount off the list

price, whichever is specified in the contract. If the agency determines that the estimated price is not fair and reasonable, the agency has the right to ask the Contractor to reevaluate the estimate. If the revised estimate is determined to be not fair and reasonable, the agency reserves the right to obtain additional quotes from other vendors. A work order will be issued to the Contractor, as the authority to proceed with the work, which will incorporate the Contractor's estimate and the terms and conditions of the contract. The Contractor and his/her personnel shall log in with the designated contract administrator each day before and after work to confirm labor hours.

AA. POLICY OF EQUAL EMPLOYMENT: Virginia Commonwealth University is an equal opportunity/affirmative action employer. Women, Minorities, persons with disabilities are encouraged to apply. The University encourages all vendors to establish and maintain a policy to insure equal opportunity employment. To that end, Offerors should submit along with their proposals, their policy of equal employment.

BB. ADDITIONAL USERS OF CONTRACT: It is the University's intent to provide other Virginia Association of State College and University Purchasing Professionals (VASCUPP) with access to the University's Agreements and to provide Contractors with opportunities to do business with other VASCUPP institutions of higher education.

To that end and if agreeable with the Contractor, the following Colleges and Universities listed are the VASCUPP institutions and may have access to any agreement resulting from this solicitation: College of William and Mary, University of Virginia, George Mason University, Virginia Military Institute, James Madison University, Old Dominion University, Virginia Polytechnic Institute & State University, Radford University, University of Mary Washington, and Longwood University. Upon written request from a VASCUPP institution, the Contractor may allow access to the Contract. Although the University desires to provide access on such contract to VASCUPP, the Contractor is not required to provide such access. A firm's willingness to provide this access to VASCUPP members will not be a consideration in awarding this contract. Although the VASCUPP Agencies may have access to any resulting Agreement, VASCUPP is not bound to use the Agreement and any use of the Agreement is strictly optional.

If the VASCUPP institutions choose to access the Agreement and the Contractor agrees to such access, the terms and conditions of the Agreement will be in full force and effect as between the VASCUPP institutions and the Contractor. VCU will have no responsibility for the resolution of any contractual disputes, or for payment for services rendered which may arise from a VASCUPP institution accessing the Agreement. The Contractor understands and agrees that it shall not have any recourse against VCU with respect to any claim it may have against another VASCUPP institution that accessed this Agreement.

CC. CRIMINAL BACKGROUND CHECK:

The Contractor is required to comply with Virginia Commonwealth University's ("VCU") employment policies on criminal conviction investigations. <http://www.policy.vcu.edu/sites/default/files/Criminal%20Conviction%20Investigations.pdf> The Contractor shall perform criminal conviction investigations on all prospective candidates for full time or part time placement at VCU, including newly hired, re-hired, seasonal, and or temporary employees.

DD. IDENTIFICATION CARDS:

All Contractor employees authorized to work at VCU, must obtain a VCU identification card. Information on obtaining a card is available at <http://vcucard.vcu.edu/myid.html>. Contractor's employees must wear their VCU identification when they are on VCU property.

XXIV. ATTACHMENTS:

See below

APPENDIX I

PARTICIPATION IN STATE PROCUREMENT TRANSACTIONS SMALL BUSINESSES AND BUSINESSES OWNED BY WOMEN AND MINORITIES

The following definitions will be used in completing the information contained in this Appendix.

Definitions

- **Small business** is a business that is at least 51% independently owned and controlled by one or more individuals who are U.S. citizens or legal resident aliens, and together with affiliates, has 250 or fewer employees, or average annual gross receipts of \$10 million or less averaged over the previous three years. One or more of these individual owners shall control both the management and daily business operations of the small business. Nothing in this definition prevents a program, agency, institution or subdivision from complying with the qualification criteria of a specific state program or federal guideline to be in compliance with a federal grant or program.
- **Women-owned business** is a business that is at least 51% owned by one or more women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest is owned by one or more women who are citizens of the United States or legal resident aliens, and both the management and daily business operations are controlled by one or more women.
- **Minority-owned business** is a business that is at least 51 percent owned by one or more minority individuals who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51 percent of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is owned by one or more minority individuals who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more minority individuals, or any historically black college or university, regardless of the percentage ownership by minority individuals or, in the case of a corporation, partnership, or limited liability company or other entity, the equity ownership interest in the corporation, partnership, or limited liability company or other entity.
- **Minority Individual:** "Minority" means a person who is a citizen of the United States or a legal resident alien and who satisfies one or more of the following definitions:
 1. "African American" means a person having origins in any of the original peoples of Africa and who is regarded as such by the community of which this person claims to be a part.
 2. "Asian American" means a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands, including but not limited to Japan, China, Vietnam, Samoa, Laos, Cambodia, Taiwan, Northern Mariana Islands, the Philippines, a U.S. territory of the Pacific, India, Pakistan, Bangladesh, or Sri Lanka, and who is regarded as such by the community of which this person claims to be a part.
 3. "Hispanic American" means a person having origins in any of the Spanish-speaking peoples of Mexico, South or Central America, or the Caribbean Islands or other Spanish or Portuguese cultures and who is regarded as such by the community of which this person claims to be a part.
 4. "Native American" means a person having origins in any of the original peoples of North America and who is regarded as such by the community of which this person claims to be a part or who is recognized by a tribal organization.

PARTICIPATION BY SMALL BUSINESSES, BUSINESSES OWNED BY WOMEN

BUSINESSES OWNED BY MINORITIES

This appendix should only be completed by firms that are not Virginia Department of Small Business and Supplier Diversity (DSBSD) certified small businesses.

Offeror certifies that it will involve Small Businesses, Women-Owned Businesses, and/or Minority-Owned Businesses (SWaM) in the performance of this contract either as part of a joint venture, as a partnership, as Subcontractors or as suppliers.

VCU has an overall goal of 42% SWaM participation for all annual purchases and seeks the maximum level of participation possible from all its contractors.

SWaM Subcontracting Plan: *In the space below, please describe the areas in which you plan to utilize SWaM-certified businesses as subcontractors. Please be specific as to what types of goods and/or services these subcontractors will provide during the performance of the contract. If currently known, please list the exact SWaM-certified subcontractors you plan to utilize.*

Commitment for utilization of DSBSD SWaM Businesses:

_____ % of total contract amount that will be performed by DSBSD certified SWaM businesses.

Identify the individual responsible for submitting SWaM reporting information to VCU:

Name Printed: _____

Email: _____

Phone: _____

Firm: _____

Offeror understands and acknowledges that the subcontracting plan above represents a contractual commitment by the Offeror. Failure to achieve the percentage commitment will be considered a breach of contract and may result in contract default.

Acknowledged:

By (Signature): _____

Name Printed: _____

Title: _____

Email: _____

Note: Small, Minority and/or Women-owned business sub-contractors are required to become certified and maintain certification through the Virginia Department of Small Business and Supplier Diversity (DSBSD; <https://www.sbsd.virginia.gov/certification-division/>) to fulfill the Offeror's commitment for utilization.

APPENDIX II INVOICING AND PAYMENT

Invoicing:

The Contractor shall submit a fully itemized invoice to Virginia Commonwealth University, Accounts Payable and Support Services, Box 980327, Richmond, VA 23298-0327, that, at minimum, includes the following information: the Virginia Commonwealth University purchase order number; a description of the goods or services provided; quantities; unit prices; extended prices; and total prices. Payment will be issued in accordance with the payment method selected below and with the Commonwealth of Virginia Prompt Payment Legislation.

Upon request by VCU, the Contractor shall submit invoices electronically using the Ariba Network or other e-commerce channel utilized by VCU; and agrees to comply, within reason, with any future e-commerce initiatives including, but not limited to: procurement, procurement content, sourcing or any other electronic procurement and sourcing solutions.

Questions regarding this method of invoicing should be sent to: ecommerce@vcu.edu.

Payment:

VCU Procurement Services is automating the payment process to the greatest extent possible. Contractors are encouraged to accept payment electronically through the commercial card program. Please review the payment methods described below and select one for your firm.

By selecting the payment method below, Contractor acknowledges that the selected payment method is **not specific to the contract resulting from this solicitation and will apply to all payments made to the Contractor** by Virginia Commonwealth University. For example, if the Contractor has an existing contract(s) and is currently receiving payment by paper check, and the Contractor is now electing to receive payment by the commercial card, **all payments** will be made using the commercial card once the commercial card payment process is implemented for the firm.

Payment Methods

1. Electronically through a Wells Fargo Visa commercial card: Payment will be made ten days (10) after receipt of a proper invoice for the amount of payment due, or ten (10) days after receipt of the goods or services, whichever is later.

It is the Contractor's responsibility to contact its banking institutions to determine any credit limit that may restrict the payment of invoices. It is the Contractor's responsibility to have its credit limit raised as necessary to facilitate the timely payment of all invoices. Invoices exceeding the Contractor's credit limit will be returned unpaid.

Failure to accept the commercial card after award of contract will be considered a contract compliance issue and will be addressed accordingly. In addition, invoices will be returned without payment until the Contractor can accept the payment through the commercial card.

Questions regarding this method of payment should be sent to commcard@vcu.edu.

2. ACH: Electronic payment via automated clearing house (ACH) to the vendor provided bank account of record. Payment is processed thirty (30) days after receipt of a proper invoice for the amount of payment due, or thirty (30) days after receipt of the goods or services, whichever is later. Additional information about ACH payments is available at: <http://treasury.vcu.edu/banking/vendor-ach/>.

Contractor must indicate the method of payment selected:

- _____ Commercial Card Payment (Wells Fargo VISA)
_____ Automated Clearing House (ACH)

Invoicing and Payment Method Acknowledgement:

Signature: _____
Name Printed: _____
Title: _____
Name of Firm: _____
Date: _____

Please identify the following contact information for the individual who will serve as the appropriate point of contact within your company to be contacted by VCU Accounts Payable to implement the electronic invoicing and payment processes:

Name of the individual: _____ Title:
Mailing address: _____

Email address: _____
Phone number: _____
Fax number: _____

RFP #7878728AZ

April 10, 2018

We did not choose **BrightView Landscape Services** due to the cost of services exceeding our budgeted amount.

While the costs of services for **ABM** were in line with our budget, we did not accept this proposal because all needs were not addressed in proposal.

We chose **Innovative Turf Application & Consulting** because of the experience this vendor has with our field, as well as many others, the pricing schedule, and SWaM status.

**VIRGINIA COMMONWEALTH UNIVERSITY
REQUEST FOR PROPOSALS (RFP)
Turf Maintenance; Sport Backers Stadium
#7878728AZ**

OFFER FORM

In compliance with this request for proposals and to all conditions imposed therein and hereby incorporated by reference, the undersigned offers and agrees to furnish the services described herein in accordance with the attached signed proposal or as mutually agreed upon by subsequent negotiation. Furthermore, the undersigned agrees not to start any work relative to this particular solicitation until a resulting formal signed Purchase Order is received by the Contractor from University Purchasing. Any work relative to this solicitation performed by the Contractor prior to receiving a formal signed Purchase Order shall be at the Contractor's own risk and shall not be subject to reimbursement by the University. **Signature below constitutes acknowledgement of all information contained through links referenced herein.**

A. GENERAL INFORMATION:

Name & Address of Firm:

Innovative Turf Applications and Consulting, Inc. DBA ITAC, Inc.

2925 Three Chopt Road

Gum Spring, Virginia Zip Code 23065

E-Mail Address: rodney.hopkins@itacturf.com

Telephone: (804) 564-5080

Toll free, if available

DUNS NO.: 780324807

Date: 3/14/18

By (Signature In Ink): Rodney Hopkins

Name Typed: Rodney Hopkins

Title: Owner

Fax Number: (804) 556-0014

Toll free, if available

FEI/FIN NO.: 06-1780289

B. SMALL, MINORITY & WOMAN OWNED BUSINESS INFORMATION

MINORITY-OWNED BUSINESS: () YES (x) NO WOMEN-OWNED: (x) YES () NO
 REGISTERED WITH eVA: (x) YES () NO SMALL BUSINESS: (x) YES () NO
 VIRGINIA DSBS CERTIFIED: (x) YES () NO VIRGINIA DSBS CERTIFICATION#: 677172

C. PROPRIETARY OR CONFIDENTIAL INFORMATION

X	Check the box to the left "if" your proposal contains proprietary or confidential information. If so, <i>add an attachment sheet to this form with details.</i>	See Paragraph X for more information
----------	---	---

D. ACKNOWLEDGEMENT OF ADDENDA: Acknowledge your receipt of any addenda that may have been issued under this solicitation.

See Paragraph VIII for more information

Addendum #			Addendum #
Addendum Date	_/_/___		Addendum Date
Addendum #			Addendum #
Addendum Date	_/_/___		Addendum Date

Affix this Form as the FIRST PAGE of your proposal.



March 14, 2018

Abigail J. Zaremba, CU, Senior Buyer
Virginia Commonwealth University – Proposal Processing
912 W. Grace Street, 5th Floor
Richmond, Virginia 23284

Ms Zaremba,

Per the request on the Offer Form for RF #7878728AZ, Turf Maintenance; Sports Backers Stadium, please consider this letter fulfilling the requirement for an attachment declaring part of our response as proprietary and confidential.

The portion of our response that is to be considered proprietary and confidential is:

- Figure 10, page 30,

Respectfully,

Rodney Hopkins
Owner, ITAC



Proposal Response for Virginia Commonwealth
University (VCU) RFP #7878728AZ
Turf Maintenance; Sport Back ers Stadium

Submitted by:
Innovative Turf Applications and Consulting, Inc. (ITAC)
VA SCC: 06709323
VA DSBSD: 677172

The sections and attachments of this document are in response to the requirements listed in Virginia Commonwealth University (VCU) RFP #7878728AZ for Turf Maintenance; Sport Back ers Stadium. This response is respectfully submitted for consideration by Innovative Turf Application Consulting, Inc. (ITAC), a Louisa, Virginia based athletic turf management, maintenance and construction firm.

Table of Contents

Table of Contents	2
Introduction	4
Qualifications of the Firm	4
Examples of TAC Services	4
Fraz Mowing.....	5
Field Stripping.....	5
Spoils/D debris Material Hauling.....	6
Recycle Top Dressing	6
Linear D compaction/ Shockwaving	6
Blade Cavat (Rovers Tin Tilling).....	7
Gas Powered Hydraulic Blading.....	7
Solid Tin Aeration	8
Reel & Rotary Mowing.....	8
Core Aeration, Core Processing, and Sweeping.....	9
Verti-cutting	9
Field Rolling.....	9
Top Dressing.....	10
Sod Installation.....	10
Sod Repair.....	10
Sprigging	11
Hydro-Seeding.....	11
Silt Fence Installation.....	11
Drainage Installation and Sand Injection	11
Storm Plate, Pitching Rubber, and Pitcher's Mound Construction.....	12
Base Slope Installation	12
Infield Rip Removal	12
Pesticide Application	12
Bermudagrass Fertilization, Liming, and Sand Application.....	13
Snow Removal on Artificial Turf	13
Grooming for Artificial Turf.....	13
Qualifications of the Staff	14
References	21
Letters of Recommendation	22
Customer List	25
Work Plan	26
General	26
Deliverables	26
Consulting	26
Aeration	26
Mowing.....	27
Fungicide Application.....	27
Soil Testing	27
Liming	27
Nutrient Management and Fertilization Plan.....	27
Weed Control.....	27
Irrigation Schedule	28
Overseeding Schedule	28
Sodding	28
Common Areas.....	28

Ins ct and Dis as Control.....	28
Painting Lin s.....	28
Edging.....	28
Shot Put Ar a.....	29
Turf Wint r Cov rs.....	29
Work Sch dul /Tim lin.....	29
Outcomes and Performance Measurement.....	29
Overall Risk.....	30
Other (Company Gross Revenue).....	30
Small, Women-Owned and Minority-Owned (SWaM) Business Commitment.....	31
Sub-Consultants/Contractors.....	31
Exceptions and Assumptions.....	31
Assumptions.....	31
Exc ptions.....	31
Price Proposal.....	32
Appendices.....	37
Appendix A – ITAC Payment Methods – Completed Form From RFP.....	38
Appendix B – TAC Contractor icense Requirement and Contractor Registration Completed Form From RFP.....	41
Appendix C – TAC Vir inia Contractor’s icense, Fertilizer/ ime Contractor Applicator Permit, and Pesticide Business License.....	42
Appendix D – Rodney opkins Pesticide Applicator Certificate.....	43
Appendix E – Jeremy Parshall Pesticide Applicator Certificate.....	43
Appendix F – DP Seay Certificate – Fertilizer Applicator Certification.....	44
Appendix G – Bake Phillips Certificate – Certified Nutrient Mana ement Planner.....	44
Appendix H – Material Safety Data Sheet – MER T® 75 WP NSECT C DE.....	45
Appendix I – Material Safety Data Sheet – World Class Athletic Surfaces – Field Markin Paint.....	53
Appendix J – Material Safety Data Sheet – RONSTAR® G ERBIC DE.....	58
Appendix K – Material Safety Data Sheet – R/T 540 Liquid erbicide (Roundup).....	70

Introduction

When Innovative Turf Applications and Consulting, Inc. (ITAC) opened its doors for business nearly 15 years ago, we did so with the goal of providing a laser-focus on the unique construction and maintenance needs of athletic fields – and nothing else. As a result, we proudly have maintained a client list representing the finest natural and artificial athletic fields in the Commonwealth of Virginia. ITAC is a small, woman-owned business registered with the Virginia Department of Small Business and Supplier Diversity (DSBSD).

All work conducted for the Virginia Commonwealth University (VCU) and Sports Backers Stadium will be conducted from our Louisa, Virginia headquarters – the primary location for both ITAC operations and equipment maintenance. All labor, supervisors, materials and equipment are able to be provided by ITAC directly. Select materials are sourced from first-tier providers utilizing existing purchasing relationships. At the time of this response, no new or additional resources, equipment, suppliers (for materials), or staff are required for ITAC to fully support the needs of VCU and Sports Backers Stadium. ITAC is prepared to immediately begin performance under this contract, should it be awarded.

By ensuring that Sports Backers Stadium is always at its absolute best, both athletes and spectators will be impressed on game day and be excited to return in the future.

If you have any questions about our company or any part of our response to this RFP, you can always contact Rodney Hopkins, Founder and Owner of ITAC, directly at 804-564-5080.

Qualifications of the Firm

ITAC is one of a select few firms in the Commonwealth of Virginia fully equipped to handle the requirements of this RFP. From practice to division-I leading competition fields, all of ITAC's resources, staff, and equipment are devoted to providing the best surface for all field-based athletics. With an intimate familiarity with the Virginia Commonwealth University (VCU) and Sports Backers Stadium's needs, the ITAC team are best prepared to meet the demands of maintaining the prestigious athletic field that so many collegiate, high school, and youth athletic and special events call home.

Examples of TAC Services

ITAC has included on the next pages a list of service categories provided to clients over the past three years that are similar to what Virginia Commonwealth University (VCU) is requiring in the statement of needs. ITAC has included a description, selected client(s) from the last three years, and a full accounting of equipment available for the performance of work for each service category. A full list of ITAC's services, along with pricing, has been included with the Price Proposal later in this RFP. ITAC can additionally provide a detailed list of all available equipment on request.

Photos are included where appropriate with each description to highlight part of the process of a service.

Fraze Mowing

Equipment:

- Koro® 2000 Field Topmaker w/ John Deere™ 6115M tractor
- Koro® 1200 Field Topmaker w/ John Deere™ 4066R tractor
- Stec Dump trailer w/ John Deere™ 1070 tractor
- Dakota™ Dump trailer w/ Kubota® L3410 tractor

Process:

Fraze Mowing is the removal of unwanted surface matter, thatch, and weed seed from bermudagrass surfaces. Spoils can be removed from the site or can be re-used for sprigging in select circumstances. ITAC's Owner, Rodney Hopkins, traveled to Holland in 2014 to learn this technique at the imants headquarters.

Selected Client:

ITAC performs Fraze Mowing for a number of clients, including the Steward School and the Little League World Series in Williamsport, Pennsylvania.



Image 1 - Fraze Mowing

Field Stripping

Equipment:

- Koro® 2000 Field Topmaker w/ John Deere™ 6115M tractor
- Koro® 1200 Field Topmaker w/ John Deere™ 4066R tractor
- Stec 710 Dump trailer w/ John Deere™ 1070 tractor
- Dakota™ 550 Dump trailer w/ Kubota® L3410 tractor
- KWMI 3030 Big roll sod harvester/cutter

Process:

Field Stripping is a renovation technique used to remove existing turf from a field. Typically 1.5"-2" of existing turf is stripped and discarded from the field to prepare for tillage.

Selected Client:

Virginia Commonwealth University (VCU) Sports Backers Stadium



Image 2 - Field Stripping (1)



Image 3 - Field Stripping (2)

Spoils/Debris Material Hauling

Equipment:

- Bobcat® T870 tracked skid steer x2
- Bobcat® A770 all wheel steer rubber tire skid steer
- Bobcat® angle broom skid steer attachment
- Bobcat® sweeper skid steer attachment

Process:

Following the removal of material from a field or project site, ITAC loads and hauls discarded material away for disposal. Disposed materials are recycled where possible.

Recycle Top Dressing

Equipment:

- Koro® Recycle Dresser 1900
- Harper TV60 Turbo Vacuum/Sweeper
- Harley Rake 3-point hitch mounted

Process:

Recycle Dressing uses a slit cutting machine to pull existing sand material from the root zone to the surface. Resulting material can then be drug in as top dressing. This technique greatly reduces and, in some cases, eliminates the need for ordering additional top dressing material.

Selected Clients:

Virginia Commonwealth University (VCU) Sports Backers Stadium
City of Richmond, VA
University of Virginia (UVA)



Image 4 - Recycle Top Dressing

Linear Decomposition/Shockwaving

Equipment:

- Koro® Shockwave 2.2 x2 w/ John Deere™ 5085M
- Koro® Shockwave 2.1 w/ John Deere™ 4066R

Process:

This process is a proven European style of linear slicing aeration that shatters the profile but leaves the surface mostly undisturbed. There is little to no cleanup required and the field is immediately playable afterwards.

Selected Client:

Chesterfield Parks and Recreation



Image 5 - Linear Decomposition

Blecavate (Reverse Tine Tilling)

Equipment:

- Stecavator SV250 8' reverse tine tiller
- Rotadairon RX250 9' reverse tine tiller
- Rotadairon RDH60 skid steer mounted reverse tine tiller
- Toro® Dingo mounted soil cultivator

Process:

This process of reverse tine tilling incorporates compost to the top 8" of soil that adds nutrients to promote the growth of sprigs or sod. The process also results in a more absorbent soil that assists in water uptake. Reverse tine tilling is used as a preparation step during field renovation.

Selected Client:

Spotsylvania County Schools



Image 6 - Blecavate (Reverse Tine Tilling) (1)



Image 7 - Blecavate (Reverse Tine Tilling) (2)

Laser Guided Hydraulic Blading

Equipment:

- Bobcat® skid steer mounted 8' laser grading blade
- Bobcat® skid steer mounted 9' laser grading blade
- Bobcat® skid steer mounted 7' laser grading box blade
- Level Best PL84D skid steer mounted 7' laser grading box blade
- Level Best Dingo mounted laser grading box blade

Process:

This process uses specialized laser guided equipment that is accurate to 1/10 of an inch. This process is used to correct field surface grade issues and create an even playing surface. Also promotes surface draining. The equipment above can also be used for baseball infield grading.

Selected Client:

University of Virginia (UVA)



Image 8 - Laser Guided Hydraulic Blading (1)



Image 9 - Laser Guided Hydraulic Blading (2)

Solid Tine Aeration

Equipment:

- 1st Products AE60 aera-vator
- 1st Products AE60 agri-vator
- John Deere™ Aercore 2000
- Toro® Procore 660 aerator
- Toro® Procore 1298 aerator
- Toro® SR75 HD Deep tine aerator x3

Process:

Simple aerification practice using solid tines to shatter the soil surface 3-6" in depth with minimal surface disruption.

Selected Client:

St. Christopher's School

Reel & Rotary Mowing

Equipment:

- Reel Mowing:
 - Toro® RM5510 5 reel mower x5
 - Toro® RM5500 D 5 reel mower x4
 - Toro® RM3100 D 3 reel mower x2
 - Toro® RM6500 D reel mower
 - Toro® GM1000 walk behind reel mower
- Reel Maintenance:
 - Foley 633 ACCU-Pro reel grinder
 - Foley 650 ACCU-Master reel grinder
 - Foley 670 ACCU-Master bedknife grinder
- Rotary Mowing:
 - Toro® GM4500 D 5 deck 9' rotary mower x2
 - Toro® GM4700 D 7 deck 12.5' rotary mower
 - Toro® GM455 D deck 10.5' rotary mower x2
 - Toro® GM3500 D 3 deck 6' rotary sidewinder mower
- Zero Turn Rotary Mowing:
 - Toro® GM7210 72" zero turn mower
 - Toro® Titan Z 48" zero turn mower

Process:

Type of mowing equipment used varies by client preference and field type. ITAC also is capable of providing custom show striping patterns. Additionally, ITAC's Toro® Equipment is maintained by a Toro® certified mechanic on staff. Blades are sharpened using the latest manufacturer techniques and all service is performed in-house.

Selected Client:

Richmond Strikers

St. Catherines Sports Complex



Image 10 - Reel Mowing

Core Aeration, Core Processing, and Sweeping

Equipment:

- Core Aeration:
 - Toro® Procore 660 aerator w/ John Deere™ 5085M tractor
 - Toro® Procore 1298 aerator w/ Kioti® DK45s tractor
 - John Deere™ Aercore 2000 w/ John Deere™ 4066R tractor
 - Toro® SR75 HD Deep tine aerator x3 w/ Kioti® DK65s tractor
- Core Processing:
 - Toro® ProCore processor
 - Harley Rake 3 point hitch mounted
- Core Sweeping:
 - Harper TV60 Turbo Vacuum/Sweeper
 - John Deere™ TC125 core sweeper

Process:

ITAC maintains multiple models and depths of core aeration to fulfill the needs of specific field conditions. Following core aeration, ITAC provides both processing and sweeping of the cores, depending on the needs of the project.

Selected Client:

Steward School



Image 11 - Core Aeration

Verti-cutting

Equipment:

- Koro® 2000 Field Topmaker equipped w/ verti-cutting teeth w/ John Deere™ 6115M tractor
- Koro® 1200 Field Topmaker equipped w/ verti-cutting teeth w/ John Deere™ 4066R tractor
- Stec Dump trailer w/ John Deere™ 1070 tractor
- Dakota™ Dump trailer w/ Kubota® L3410 tractor

Process:

Process uses the Koro® field topmaker. Verti-cutting blades are precision tuned to remove a smaller percentage of thatch and detritus than in fraze mowing in order to maintain field aesthetics and playability.

Selected Client:

Bridgewater College

Field Rolling

Equipment:

- 6-ton vibratory roller
- Tow behind weighted roller w/ Toro® Workman 4200

Process:

ITAC provides field rolling services as needed. Rolling helps smooth imperfections in the athletic playing surface.

Selected Client:

The College of William and Mary

Topdressing

Equipment:

- Dakota™ Speedresser
- Dakota™ 440 Turf Tender
- Toro® Workman 3200 w/ Dakota™ 410 turf tender skid unit
- Mill Creek Manufacturing 127SS
- Bobcat® T870 tracked skid steer x2
- Bobcat® A770 all wheel steer rubber tire skid steer
- Bobcat® angle broom skid steer attachment
- Bobcat® sweeper skid steer attachment

Process:

ITAC uses the above equipment to evenly distribute a material mix on top of existing turf to introduce new soil and microbes to the existing environment. Topdressing helps to smooth the field surface after aerification.

Selected Client:

Louisa County High School



Image 12 - Topdressing

Sod Installation

Equipment:

- KWMI tracked sod installer
- Magnum M42260 wheeled sod installer

Process:

ITAC equipment is specially selected to minimize the disturbance of existing soil structure during installation following both field repair or renovation.

When sodding, extreme care is required to ensure proper seaming so that turf can return to normal use as quick as possible.

Selected Clients:

Henrico County Division of Recreation and Parks and Hanover County Parks and Recreation



Image 13 - Sod Installation

Sod Repair

Equipment:

- Classen walk behind sod cutter
- KWMI 3030 Big roll sod harvester/cutter

Process:

Removal and replacement of affected sod while maintaining proper edge alignment with existing field.

Sprigging

Equipment:

- KWMI SM48 big roll sprig planter x3
- 3pt hitch sprig crimper

Process:

ITAC has the ability to work on multiple sites at the same time with its large inventory of sprigging equipment.

Selected Client:

Henrico County Division of Recreation and Parks



Image 14 - Sprigging

Hydro-Seeding

Equipment:

- Finn 1,000 gallon tank hydroseeder
- Agri-Metal straw mulcher

Process:

ITAC is able to provide hydro-seeding services as requested using existing inventory.

Silt Fence Installation

Equipment:

- Vermeer RT450 ride on trencher
- Toro® Dingo w/ front mounted trencher

Process:

ITAC uses the above equipment to install silt fences as needed for proper site function and client preference.

Drainage Installation and Sand Injection

Equipment:

- TrenchIt Industries laser guided trencher w/ Kioti® DK45 tractor
- TrenchIt Industries rock box w/ Kioti® RX6010 tractor
- STEC GroundQuake 1000 sand injector
- Bobcat® T870 tracked skid steer x2
- Bobcat® A770 all wheel steer rubber tire skid steer
- Koro® Topdrain

Process:

It is important to match drainage technique used to the specific needs and profile of the location. ITAC's equipment utilizes laser-guiding to excavate within 1/10".

ITAC is capable of installing both French Drain, Cambridge-style Drainage, and high-flow slit drainage systems.

With the Cambridge-style system, an additional sand injection process is used. The Sand injection process injects a 3/4 inch ribbon of sand 10 inches on center perpendicular to the 50mm pipe drain lines and allows water to flow from the 50mm pipe along the sand slit and evacuate the field.

Selected Clients:

Henrico County Division of Recreation and Parks (French Drainage)

Richmond Strikers (Cambridge-style Drainage)



Image 15 - Sand Injection

Home Plate, Pitching Rubber, and Pitcher's Mound Construction

Equipment:

- Mound building pitch template
- Laser equipment

Process:

Utilizing precision-tuned equipment to 1/10 of an inch accuracy, ITAC uses a mound template or other appropriate templates to laser-grade and build the pitcher's mound to client/regulation specifications.

Selected Client:

James River High School



Image 16 - Mound Construction

Base Sleeve Installation

Equipment:

- Drive-in base anchor equipment
- Concrete base anchor install
- Steel tape measure

Process:

ITAC uses the above equipment and site measurements to accurately and securely install base sleeves in the field.

Infield Lip Removal

Equipment:

- Classen walk behind sod cutter
- Koro® 2000 Field Topmaker w/ John Deere™ 6115M tractor
- Koro® 1200 Field Topmaker w/ John Deere™ 4066R tractor
- Turf renovator w/ John Deere™ 4066R tractor

Process:

Equipment eliminates existing lip and provides smooth transition from infield to outfield.

Selected Clients:

Hampden Sydney
Steward School

Pesticide Application

Equipment:

- Toro® Multi-Pro 5800 turf sprayer
- Toro® Multi-Pro 5700 D turf sprayer

Process:

Both company and application staff maintain commercial chemical applicator licenses at the highest level available and use the latest computer equipment to ensure proper application rates. Each field is entered into a computer database that tracks and logs chemical and fertilizer treatment schedules. All federal, state, and local safety, PPE and environmental guidelines are met by ITAC staff.

Selected Client:

St. Christopher's School



Image 17 - Pesticide Application

Bermudagrass Fertilization, Lime, and Seed Application

Equipment:

- Lely SE1500 Centerline spreader w/ Kioti® DK45 tractor
- Vicon tractor mounted spreader w/ Kioti® RX6010 tractor
- Vicon skid unit w/ Toro® Workman 4200
- Redexim Speedseed 2100 3pt hitch drop seeder
- Lesco walk behind broadcast spreader
- Gandy walk behind drop spreader

Process:

ITAC Certified nutrient management planner ensures that all Department of Conservation and Recreation storm water regulations and Chesapeake Bay Act provisions are enforced and can, if required, draft a new or revised compliant nutrient management plan. Additionally, Cool Season turf fields can be treated with appropriate fertilizer/lime/seed as appropriate.

Selected Client:

Richmond Strikers

Snow Removal on Artificial Turf

Equipment:

- Skid steer mounted pivoting retrofitted snow plows x4
- TYM T1003 tractor w/ front end loader

Process:

ITAC maintains a large inventory of specially-modified snow removal equipment for artificial turf snow removal. Equipment is specifically designed/modified to not damage the turf during snow removal process.

Selected Client:

University of Richmond



Image 18 - Snow Removal on Artificial Turf

Grooming for Artificial Turf

Equipment:

- Vertitop artificial turf sweeper w/ Kioti® RX6010 tractor
- FDS 9200 spring tine turf dethatcher

Process:

ITAC owns and maintains specific, specialized equipment for the purpose of artificial turf maintenance.

Selected Client:

Woodberry Forest



Image 19 - Grooming for Artificial Turf

Qualifications of the Staff

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The TAC team consists of 11 staff, all highly skilled and experienced in their areas of assignments. ITAC also hires seasonal workers and interns each year on an as-needed basis. For those seasonal positions, TAC maintains a list of qualified personnel to ensure that even seasonal staff are of the highest possible education and certification for client work.

Brief descriptions followed by full resumes for key TAC staff are included on the following pages and include details on each person's education, certification, and recent training. ITAC's key staff include the company's founder and division supervisors.

- Rodney Hopkins, Owner:** Rodney has more than 25 years of intimate experience with the unique needs of both indoor and outdoor athletic surfaces. In addition to his degree in landscape and turf management, Rodney participates in both regular annual training as well as specialized training when available. Notably, Rodney is one of only a handful of US-based turf experts trained at the imants facility in Holland.

Rodney A. Hopkins
3018 Black Friar Lane
Sandy Hook, VA 23153
(804) 556-3213

Education and Related Training

<p>May 1993, Agriculture Technology Program: Landscape and Turf Management Virginia Tech University, Blacksburg, VA</p> <p>2004-Present ongoing training at the annual National Sports Turf Managers Conference</p> <p>2000 GCSAA National Conference New Orleans, LA</p> <p>1997 Toro Osmac Irrigation Training Abelene, TX</p> <p>1995 Toro Equipment Maintenance School Richmond, VA</p>	<p>1995 Toro Irrigation School Richmond, VA</p> <p>2014 Visited European Premier Clubs and imants factory to study European athletic field maintenance practices</p> <p>2015-Present Cooperative Research with VA Tech On Spring Deed Spot in Bermuda</p> <p>2005 Toro Pro Club</p>
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Licenses

Category 3-C Commercial Chemical Applicators
VA Class A Commercial Drivers License
VA Class A Contractor

Skills

Sports Field Renovation	Troubleshooting and repairing irrigation problems
Preparing capital and operating budgets	Designing and installing irrigation
Following budget guidelines	Reel grinding
Competitive Price bidding	Spraying pesticides and fertilizers
Maintaining Artificial Sports Field	Operating and repairing maintenance equipment
Record keeping	Maintaining Premium Athletic Surfaces
Operating and programming computers	Maintaining new USGA specification greens
Supervising and managing maintenance staff	Maintaining Bentgrass in transitional zone
Scheduling equipment maintenance	Golf course renovation and reconstruction
New golf course construction	Managing foreign labor

Honors and Activities

Member, Sports Turf grass Managers Association Of America	Board Member, Virginia Sports Turf Managers Association
Member, Virginia Turf Grass Council	Deacon, Louisa Baptist Church
Board Member Louisa Little League	Pastor search Team Louisa Baptist Church

Work Experience

January 2005 – Present Owner ITAC Inc.

<p>November 2000 – January 2007 Richmond Strikers Soccer Club 4164a Innslake Drive, Glen Allen, VA 23060 Scott Turner: Executive Director</p> <p>January 1995 – October 1999 Salisbury Country Club, Midlothian, VA Assistant Golf Course Superintendent Golf Course Superintendent: Albert Myers</p>	<p>October 1999 – October 2000 Kinloch Golf Club, Manakin-Sabot, VA Assistant Golf Course Superintendent Golf Course Superintendent: Pete Wendt</p> <p>May 1993 – January 1995 Tanglewood Shores Country Club, Bracey, VA Golf Course Superintendent Greens Committee Chairman: Ray Shurling</p>
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Figure 1 - Rodney Hopkins Resume

- **DP Seay, Assistant:** DP has more than 15 years of experience meeting the maintenance needs of school and government grounds. As a key member of the ITAC team, DP oversees the daily operations of ITAC projects and participates as a member of the construction and maintenance teams to ensure that customer requirements are met. DP uses his knowledge and experience as both a technician and foreman to execute tasks with precision.

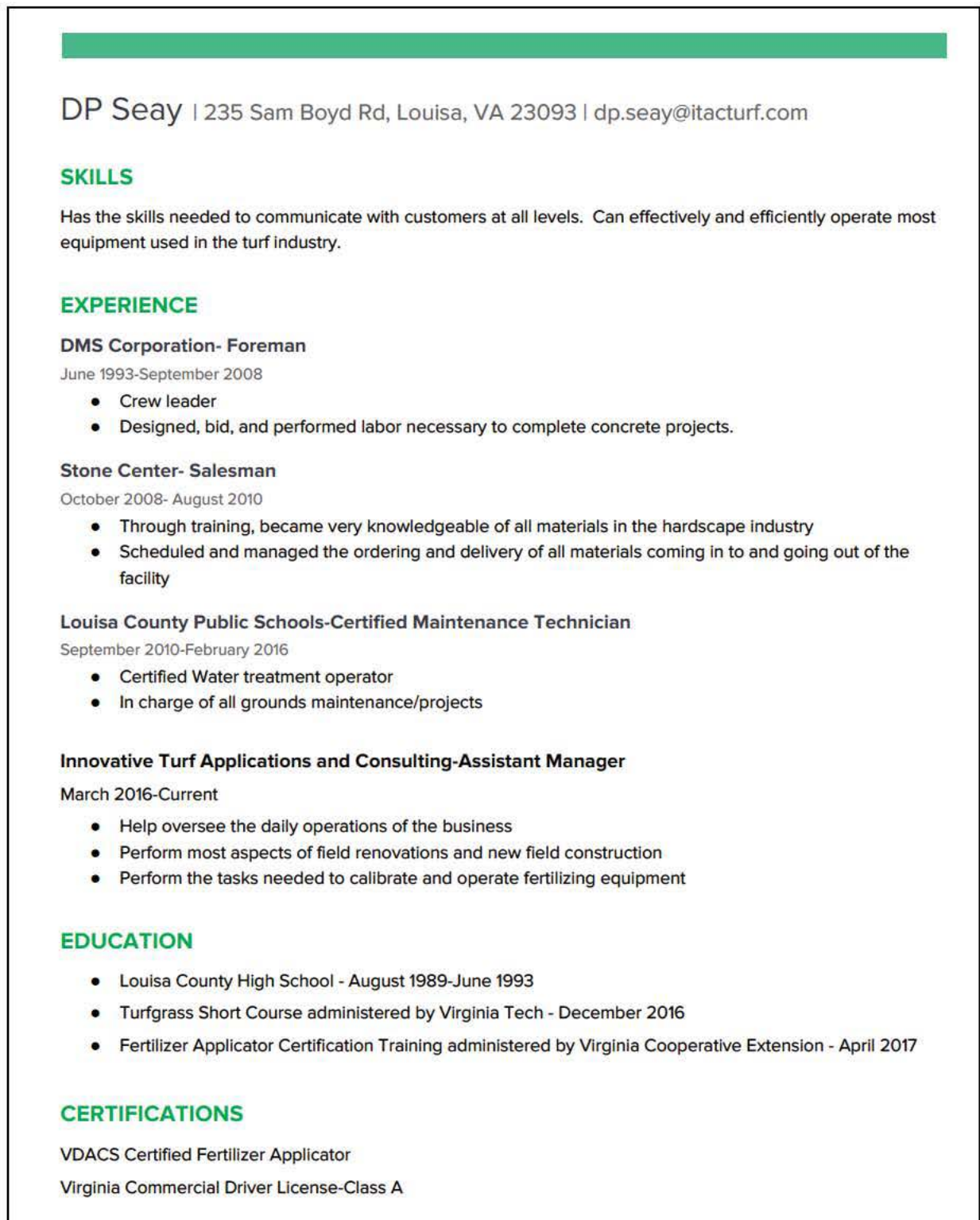


Figure 2 - DP Seay Resume

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Figure 3 - Josh Lloyd Resume

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Related Employment:	<u>Innovative Turf Applications & Consulting</u> , Gum Spring, VA Superintendent of Construction Services Employed from May of 2013 to present <ul style="list-style-type: none"> Perform all aspects of field renovation: Field stripping, Reverse tine tilling, Laser guided grading; complete field & skinned infield area, Drainage installation, Bermuda grass sod installation; big roll & pallet sod, Bermuda grass sprigging Complete turf maintenance practices: Aerification; linear & core, Topdressing, Mowing, Field layout and mound construction Received training from factory representatives and proficiently operate Campey Imants equipment: Koro Field Topmaker fraze mower, Shockwave linear aerifier, Koro Recycle dresser Perform general maintenance of artificial turf fields: Grooming, Snow removal Interact with customers and coordinate plans/duties Organize winter shop equipment maintenance & record retention with computer software <u>Carolina Green Corporation</u> , Indian Trail, NC Employed from spring of 2007 to 2010 <ul style="list-style-type: none"> Constructed athletic fields of different types: Baseball, softball, football, all natural grass, Multi-purpose artificial fields, Worked with sod, various rock types, various types of sand, organic material, mixes, and clays Installed artificial turf in bullpens, batting cages, and on collars Operated equipment equipped with and without grading lasers: Bulldozer, Bobcat track machine, Mini Excavator, Tractor with grading blade, Dump truck, Dump trailer, Tractor with various implements Installed various types of field drainage systems <u>Virginia Tech Sports Turf Management</u> , Blacksburg, VA Employed spring of 2006 to May 2007 <ul style="list-style-type: none"> Performed duties for Virginia Tech athletic games Helped maintain all collegiate athletic fields Carried out various other duties as assigned
Related Courses:	Basic Turfgrass Management, Irrigation and Drainage, Soils and Fertilizers, Pest Management, Turfgrass Management, Chemical Application, Agriculture Machinery and Mechanics, Golf and Sports Turf Management, Golf Course Design and Rules, Integrated Management of Turf Systems
Affiliations/Licenses:	National Sports Turf Manager Association member <ul style="list-style-type: none"> Continued education by attending annual national conferences Virginia Sports Turf Manager Association member <ul style="list-style-type: none"> Continued education by attending local symposiums and turf tradeshow Commercial Driver's License – Class A

Figure 3 - Josh Lloyd Resume

- **Jeremy Parshall, Superintendent of Maintenance Services:** Jeremy has more than 5 years of management experience in the turf management field, with specialized education in the equipment utilized in ITAC's maintenance services. Jeremy is a Certified Pesticide Applicator and utilizes his knowledge of fertilizer, chemical, and field needs to provide custom-tailored treatment to each field's unique needs.

JEREMY PARSHALL

jeremy.parshall@itacturf.com

540-223-7356

EDUCATION

- **Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA**
Associate of Agriculture and Life Sciences
Major: Agricultural Technology
- **Hanover Center for Trades and Technology, Hanover, VA**
Completion of Two Year Small Engine Repair Technology Course

WORK EXPERIENCE

Innovative Turf Application and Consulting- Gum Spring, VA **May 2015-Present**

- Constructed, renovated, and maintained natural grass athletic fields for recreational, high school, and collegiate levels of play and specifications
- Best management practices to bermudagrass and ryegrass to thrive in the transition zone utilizing the latest forms of technology and equipment
- Custom fertilizer, chemical, overseed, and lime applications and proper record keeping
- Operated various forms of equipment to tailor customers' needs and ultimately promote turf quality and conditions for a safe and aesthetically pleasing playing surface
- Repaired infield skin and lip to ensure proper drainage and constructed mounds, batters boxes, bases, arcs and baselines per league requirements
- Serviced, performed preventative maintenance, diagnosed and repaired various equipment

Chiles Enterprises LLC- Foreman- Louisa, VA **September 2013-April 2015**

- Provide quality lawn service to commercial and residential properties while ensuring customer satisfaction
- Daily crew scheduling, supervision, and training to ensure all jobs are completed safely in a timely manner and high quality standard
- Turf management to include fertilization, chemical applications, aeration, and fall overseeding to residential lawns and commercial businesses
- Hardscaping, and erosion control i.e. rip rap
- Prune and trim trees, shrubs, and hedges to improve overall health and appearance
- Operate, service, and maintain landscaping equipment

Spring Creek Golf Club- Intern- Gordonsville, VA **May 2012-September 2013**

- Best management practices to capture full potential of bent grass playability
- Integrated pest management including fertilizer, soil amendments and chemical applications to tees, fairways, roughs, and greens
- Aerated, seeded, and top dressed greens, tees, and roughs
- Daily setup of course for tournament play
- Daily scouting of entire course for dew patterns, dry spots, wilt, disease, and traffic patterns
- Kept in close contact with superintendent and assistant to report and discuss course conditions
- Exposure to site pro irrigation repair and maintenance

CERTIFICATIONS AND ACHIEVEMENT

- Class A Commercial Driver's License
- Commercial Pesticide Applicator's Certificate 3-B
- Virginia Turf Council Scholarship 2012
- Agricultural Technology Ambassador
- Louisa County FFA Alumni Scholarship 2011

Figure 4 - Jeremy Parshall Resume

- **Richard “Rick” Waters, Turf Equipment Technician:** Rick manages maintenance for the full ITAC equipment inventory. With 40 years of maintenance experience and top certifications from Kohler, Toro®, the Equipment and Engine Training Council, and the Outdoor Power Equipment and Engine Service Association, Rick ensures that all ITAC equipment is in top shape. With Rick overseeing maintenance and repairs, ITAC is able to limit equipment downtime.

Richard A Waters

5016 Castle Point Ct.
 Glen Allen , Va. 23060
 804-840-5982
 rick.waters@itacturf.com

BACKGROUND

At present, I have been involved in the Green Industry for 43 years, mainly in Turf Equipment Maintenance and Repair. I have also worked in Golf Course Construction, and as a parts counterman for Diesel Engines and Landscape/Turf Equipment.

EXPERIENCE

ITAC, Inc. - Gum Spring, Va. - Turf Equipment Technician

2010- Present

- Maintain and repair all types and brands of Turf Equipment used in Athletic Field Construction and Maintenance.
- Repair both company and customer Turf Equipment.
- Specialize in reel, hydraulic, engine and electrical diagnostics and repairs.
- Operate mowers, spread fertilizer, and operate chemical sprayers on athletic fields.

Smith Turf and Irrigation - Richmond, Va. - Commercial Products Shop Foreman and Service Manager

1978 - 2010

- Worked as a parts counter person, service technician, service writer, shop foreman and service manager for both golf and landscape products for the regional Toro Distributor.
- Supervised technicians, advised customers on shop repairs, answered customers repair questions, handled all service department paperwork.
- Organized annual Toro Commercial Product Service Schools, taught classes for golf technicians; presented maintenance classes at various Turfgrass Seminars.
- Handled warranty claims for various manufacturers.

Figure 5 - Rick Waters Resume – Page 1

EDUCATION

J. Sargeant Reynolds Community College - Richmond, Va.

Associate in Applied Science - Horticulture Technology / Landscape and Turf Management

2002

J. Sargeant Reynolds Community College - Richmond, Va.

Associate in Applied Science - Civil Engineering Technology

1974

CERTIFICATIONS

Virginia Pesticide Applicator Certificate - Registered Technician

Kohler Engine Certified Technician

Certified Master Technician - Equipment and Engine Training Council

Certified Technician - Outdoor Power Equipment and Engine Service Association

- Four Stroke, Two Stroke, Hydraulic, Electrical, Reels, Drive Train

Certified Technician - Toro Co.

- Groundsmasters, Reelmasters, Workman, Multipro Sprayers, Sand Pro, Greensmasters

INTERESTS

Hermitage High School - Richmond, Va. - Basketball Coach since 2001

Summer League Slow Pitch Softball

Figure 6 - Rick Waters Resume Page 2

References

Ther references for current TAC customers are below.

1. Richmond Strikers

Contact: Chris Friant
Phone: (804) 288-4625
4202D Park Place Court
Glen Allen, VA 23060

2. Henrico County Recreation and Parks

Contact: Jason Melton
Phone: (804) 727-8213

3. Steward School

Contact: Mark Roberts
Phone: (804) 740-3394
11600 Gayton Road
Richmond, VA 23238

Letters of Recommendation

RICHMOND STRIKERS

To Whom It May Concern:

I am writing this letter in support of Rodney Hopkins and his company, Innovative Turf Application and Consulting (ITAC) for your athletic fields services. I have had the pleasure of working with Rodney for 11 years at the Richmond Strikers Soccer Club. Rodney's knowledge and experience in athletic field management has provided us with top quality fields and facilities. There is no question that Rodney and his team's handling of our facilities has allowed us to grow as a club and also to host one of the country's most prestigious youth soccer tournaments. We are very fortunate to have Rodney working for us!

Rodney and ITAC are on the cutting edge of field management. They are always looking for ways to improve our fields and facilities. They have taken fields that would be unplayable for days after a rain to where we can get on them hours after a rain. They have built fields for us that withstand the wear and tear of a tournament weekend as if no games were even played on them. Their preparation of the fields before games and tournaments is unprecedented in youth soccer.

Not only has Rodney provided us with great field and facility management, he has done so with our budget in mind. He is able to creatively solve our problems in the most efficient and economical way which is important to a non-profit organization. Rodney's sage advice has allowed the Richmond Strikers to provide a quality experience, in a beautiful environment, to its members and tournament guests that is second to none.

Rodney and his ITAC team are in a class by themselves. Their understanding of our needs combined with their professional experience has been a key factor in the growth of the Richmond Strikers Soccer Club. Rodney has provided the club with great ideas, great facilities and great support over the ten years that I have known him. During this time, I have dealt with many businesses and organizations but none of the quality of ITAC. I give Rodney my highest recommendation and hope that you will give him the strong consideration that he deserves.

Sincerely,



Chris Friant
Director of Club Operations
Richmond Strikers Soccer Club

Richmond Strikers Soccer Club • 4202D Park Place Ct. • Glen Allen, VA 23060 • 804-288-4625

Figure 7 - Richmond Strikers Letter of Recommendation

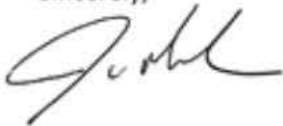
To Whom It May Concern:

I am writing this letter to serve as a reference for Rodney Hopkins and his company, Innovative Turf Application and Consulting.

I have worked with ITAC for 8 years and look forward to a continued working relationship. In February of 2017, we (Henrico Recreation and Parks) entered into an agreement with ITAC and established an athletic field maintenance and repair services contract. Currently, there are no other Sports Turf companies in the Greater Richmond area that can provide the number, variety and quality of services that ITAC offers. ITAC has the resources, staff and equipment that specialize in meeting our service needs. Rodney understands our requirements and is sensitive to our time constraints. On many occasions, he has been able to attend "last minute" meetings and provide estimates and invoices in a timely fashion. ITAC has delivered above and beyond our expectations. For example, ITAC's crew worked late into the night using our field lights to complete a sprigging project because rain was forecasted for the following day. You really cannot put or attach a definition to that type of service. The product that ITAC delivers is a testimony to their knowledge, experience and overall appreciation of their vocation. In conclusion, we are proud to be a customer of ITAC.

Please feel free to reach out for any further specifics on working with ITAC.

Sincerely,



Jason Melton

Division Manager - Grounds/Turf

Henrico County Recreation & Parks

office: 804.727.8213 | cell: 804.349.2424 | mel22@henrico.us

Figure 8 - Henrico County Letter of Recommendation



THE STEWARD SCHOOL

To Whom It May Concern,

I have known Rodney Hopkins, the owner of Innovative Turf Applications and Consulting Incorporated (ITAC), for more than 15 years. Rodney and his company are a huge asset to the Sport Turf Industry in Central Virginia; they understand the needs of the community as well as the sports turf managers who maintain the fields. ITAC- in my experience- always uses the best agronomic practices (which may not always be the cheapest, but they are what is best for the fields). Furthermore, ITAC has always placed a high value on having the best staff possible and continuing their education to keep up with the ever-changing turf industry.

As the Athletic Turf and Field Manager at the Steward School I use ITAC exclusively on any project I cannot do myself. In the seven years I have been at Steward, ITAC has built our baseball field and our field hockey/girls soccer field. They have also done all of our major aeration work on all of our athletic surfaces on campus. Additionally, they laser grade our baseball infield on a yearly basis. Finally, we collaborated together on being the first in the area to fraze mow one of our rectangle fields (which turned out phenomenally).

ITAC is a first-class organization from top to bottom. They are friendly, efficient, and especially mindful that we are a school and therefore prioritize safety. ITAC has always done exceptional work for me on our fields and has never hesitated to return if any unforeseen issues may arise.

I personally would recommend Rodney Hopkins and his company, ITAC, to anyone in the turf industry who needs field construction or maintenance done right.

Sincerely,

Mark L. Roberts, CSFM

Mark L. Roberts, CSFM
Athletic Turf & Field Manager
The Steward School
11600 Gayton Road
Richmond, Virginia 23238
January 18, 2017

11600 Gayton Road • Richmond, Virginia 23238-3432 • t (804) 740-3394 • f (804) 740-1464 • www.stewardschool.org

Figure 9 - Steward School letter of Recommendation

Customer list

Below is a full list of ITAC customers. ITAC provides a range of services for the clients and fields listed below. Within this client list are customers for each of the services mentioned in both our Qualifications of the Firm as well as in our Work Plan for this RFP. Virginia College and University customers are indicated in bold below.

Atlee High School
Bryant Park
Capitol One West Creek
Chancellor High School
Chesapeake Parks & Recreation
Christopher Newport University
City of Richmond
College of William & Mary- Collegiate Athletics
College of William & Mary- Intramural
College of William & Mary- Maintenance
Collegiate School
Colonial Heights City Schools
Courtland High School
Cove Creek
Covenant School
Douglas S. Freeman High School
Enviroscapes
Fluvanna Parks & Recreation
Fluvanna Youth Baseball
Friedricksburg Academy
Friedricksburg Public School
Glen Allen High School
Goochland County High School
Goochland County Parks & Recreation
Hampton Sydney
Hanover County Parks & Recreation
Hanover High School
Henrico County Parks & Recreation
Infrastructure Solutions, LLC
Jelstrom & Co
John Davis High School
Longwood University
Louisa County High School
Louisa County Intellectual League
Louisa County Parks & Recreation
Madison County High School
Madison County Parks & Recreation
Maggie . Walker Governor's School
Massaponax High School
Midlothian YMCA
Mills Godwin High School
Mineral Baptist Church
Patrick Henry High School
Patrick Henry YMCA
Powhatan County
Powhatan High School
Randolph Macon College
Richmond Flying Squirrels
Richmond Strikers
Riversbend High School
Royal Virginia Golf Course
Saint Catherine's School
Saint Christopher's School
Seven Hills School
Shady Grove YMCA
Spotsylvania High School
Spotsylvania County Parks & Recreation
St. Edwards School
Steward School
Stuarts Draft High School
Swift Creek YMCA
Trinity Episcopal School
Tuckahoe YMCA
University of Mary Washington
University of Richmond
University of Virginia
Virginia Commonwealth University
Washington & Lee University
William Monroe High School
Woodberry Forest
World of Intellectual League

Work Plan

TAC has prepared the below work plan to address the statement of needs that Virginia Commonwealth University (VCU) provided for turf maintenance and Sports Backers Stadium in the RFP.

General

In order to meet the complex and diverse needs of sports turf surfaces, ITAC offers a complete range of services. While the services mentioned in the descriptions below are those selected for the purpose of responding to this RFP, TAC always remains available to provide additional optional services from our other services list, included in the Price Proposal section of this response.

Deliverables

Our planned deliverables below include a brief mention of both methodology and schedule. Pricing for these services, unless otherwise stated, are covered within the base bid offered in our Pricing Proposal. Selected services are offered as a per-occurrence price as requested in the RFP.

Consulting

Consulting for Sports Backers Stadium will be provided as needed to keep the highest standards of all NCAA rules and regulations for the playing surfaces. Telephone access to TAC Monday through Saturday 8am to 6pm at (804) 564-5080.

Aeration

Aeration Schedule

Aeration will be performed to the athletic complex three times during the year (May-August).

First Aeration: Linear Aeration or Shockwaving

This process is a proven European style of linear slicing aeration that shatters the profile but leaves the surface mostly undisturbed. There is little to no clumping required and the field is immediately playable afterwards (May).

Second Aeration: Recycle Dressing

Recycle Dressing uses a slit cutting machine to pull existing sand material from the root zone to the surface. Resulting material can then be dragged in as top dressing. This technique greatly reduces and, in some cases, eliminates the need for ordering additional top-dressing material.

Third Aeration: Shallow Solid Tine

This aeration is a minimally invasive aeration that leaves the surface ready for play after completion. Its purpose is to relieve shallow compaction and improve air exchange with the roots to stimulate growth.

Mowing

Mowing Schedule

Regular Mowing will be completed as often as turf growth dictates to provide a superior athletic playing surface. Excess clippings are present, they will have to be collected or blown off. Special attention will be given to game preparation and mowing patterns will be present (striping). Track will be blown free of grass clippings after each mowing.

Equipment is maintained by a Toro certified mechanic on staff. Blades are sharpened using the latest manufacturer techniques and all services are performed in-house.

Fungicide Application

Applications of fungicides will be made if needed to the grass. TAC's chemical treatment licenses are included as appendices to this proposal. Chemicals used in the treatment of fungi will be provided at the best market rate available, leveraging ITAC's purchasing relationships with providers.

Soil Testing

Soil tests will be completed once annually, and conditions will be corrected as needed. Chemicals and supplies used in the treatment of soil will be provided at the best market rate available, leveraging ITAC's purchasing relationships with providers.

Lime

Lime will be applied per soil test recommendations, if needed.

Nutrient Management and Fertilization Plan

A Certified Nutrient Management plan will be updated every two years to meet state regulations. Fertilizer will be applied throughout the growing season to optimize the full potential of the bermudagrass and ryegrass being grown. ITAC team member Blak Phillips is a Certified Nutrient Planner (Certification attached as Appendix G).

Fertilizer will be applied as estimated seasons during the growing season, depending on the weather conditions and plant available nutrients in the soil per soil test recommendations.

Two applications of a balanced foliar fertilizer at .25lb N/M (pounds of nitrogen per 1,000 sq. ft.) will be applied mid-December and again in early February.

Micronutrients will be managed as needed.

Weed Control

3lb ai/ac (active ingredient per acre). Ronstar® will be applied as a pre-emergent for crabgrass and goosegrass in late March.

Post-emergent herbicide will be applied to control broadleaf weeds, if needed.

Irrigation Schedule

Field irrigation will be monitored and adjusted to provide optimal growth and playing conditions. Only minor irrigation repairs will be provided by ITAC. Examples of minor irrigation repairs include improper arc adjustments, removal of trash in heads, and repair of bad solenoids (no more than two heads per occurrence).

Overseeding Schedule

Overseeding shall be performed twice at a rate of 350 lbs/ac (pounds per acre) of Field General ryegrass (or approved certified seed equivalent) per application for a total of 700 lbs/season (pounds per season).

A starter fertilizer will be used during each application at a rate of 1lb N/M (pounds of nitrogen per 1,000 sq. ft.).

In addition to the overseeding mentioned above, ryegrass will also be sprayed out in June with a transitional herbicide.

Sodding

Sodding of the goalmouths, sand pits, and lining dug areas will occur if needed during the summer before the start of soccer season.

Common Areas

Common Areas will be mowed once a week during the growing season. General shrub/trail maintenance and general upkeep of the common areas will be done as needed.

Aerification and overseeding will be performed once in September. Roundup® will be sprayed on fence lines as needed.

Insect and Disease Control

Application of MERIT® will be applied in June to control grubs. Additional monitoring and testing for diseases can be completed as needed, based on the performance of the field. Some treatment services for unusual insect or disease infestations will incur an additional cost on a per occurrence basis.

Painting Lines

TAC will provide high quality field marking paint and high-pressure paint sprayers to complete this task. String lines will be pulled for guidance for each application.

Lines will be painted as needed. Line painting requests must be submitted no less than two weeks prior to the event being held. Pricing for this is provided in addition to the Base Bid on a per occurrence basis.

Edging

Edging will be completed as needed during regular maintenance visits to keep bermudagrass from encroaching into the track and field surfaces.

Shot Put Area

This area will be kept wide from utilizing the same width treatment timeline mentioned above and the surface will be groomed as needed.

Turf Winter Covers

Covers will be installed and removed on the playing surface at the request of VCU based on planning conducted in partnership with the TAC team. Due to the nature of the covers it is not recommended for the covers to be in place for more than two months during the winter.

Pricing for this is provided in addition to the Base Bid on a per occurrence basis.

Work Schedule/Timeline

In addition to the timelines provided for the specific services proposed to meet the Statute of Needs, TAC constantly monitors the highly variable factors that could influence maintenance needs or overall efficiency for budget purposes.

As an example of ITAC's work to ensure that maximum value is achieved even during unexpected timeline events, we recently worked with Henrico County to mobilize and complete a large sprigging operation prior to an announced rain event. ITAC staff was able to work well beyond the normal confines of a work day to deliver results based on the opportunity to streamline and deliver value to the customer.

Outcomes and Performance Measurement

As part of the performance of the work awarded under this proposal TAC will regularly measure the outcomes and performance of the services described above. Any TAC-provided services are subject to rigorous quality review by the TAC supervisor on-site at the time of the service.

Performance measurement will be apparent in the various observational tests conducted during the course of the contract (soil tests, fungal observation, weed occurrence following treatments). ITAC considers state and national standards as a baseline for performance of the athletic surfaces and works to exceed those baseline measurements where appropriate to do so.

Following the completion of a service, TAC will remedy any discrepancies in performance identified by Virginia Commonwealth University (VCU) personnel. Beyond the final inspection of a field after the completion of a work order, no additional warranties are provided on the work or materials. VCU personnel are always welcome to raise any issues directly with the TAC supervisor for a given service effort.

Overall Risk

TAC already has intimate familiarity with both the stadium, region, and Sports Backers Stadium. That familiarity significantly lowers the risk inherent in any effort to control natural growth. ITAC's experience not only offsets its familiarity with the specific playing surface, but also with numerous collegiate-level playing surfaces across the state of Virginia.

TAC's commitment to the quality of work performed by ITAC staff offers a reduction in risk as well. ITAC considers itself a close partner with each of our customers and will work with the Virginia Commonwealth University (VCU) team to make sure that all surfaces under TAC's care are always performing at their best.

Small, Women-Owned and Minority-Owned (SWaM) Business Commitment

As a certified Small, Woman-Owned business, TAC has proposed this RFP as the 100% prime contractor. TAC's Virginia Department of Small Business and Supplier Diversity (DSBSD) number is 677172 and has been included on the cover sheet of this RFP.

Sub-Consultants/Contractors

TAC does not use sub-consultants or sub-contractors in the performance of athletic field maintenance and construction. ITAC does have experience coordinating with other authorized client vendors in the event of simultaneous work taking place at a site. For major irrigation work, TAC has an existing relationship with a trusted partner.

All athletic field maintenance and construction services are performed by ITAC staff and supervised by those mentioned earlier in this response.

Exceptions and Assumptions

Assumptions

The fixed pricing provided includes the assumption that key materials (sod and top dressing, for example) maintain their current pricing and do not increase in cost more than 3% per year, in line with the average increase of prices. In the event that market conditions cause key material costs to ITAC to increase more than 3% in a given year, related pricing may need to be adjusted. Adjustments beyond the allowed 3% will NOT be required for any services provided entirely by ITAC, only those that require market-driven materials.

Exceptions

With the submission of this response, ITAC declares that it has no noted exceptions for any of the services requested and defined in the RFP or any of its attachments.

Price Proposal

The pricing below represents ITAC’s understanding of the Statement of Needs from the RFP. Price clarifications or quotations for additional services not identified on the following pages may be requested at any time by emailing or calling Rodney Hopkins, Owner of ITAC at (804) 564-5080.

Base Bid to include Ryegrass Overseed	\$47,840 annually for maintenance tasks described in the Statement of Needs, not including line painting, commons area maintenance, or the installation of winter covers.
Line Painting with Stringing	\$125 per occurrence (including 5 gallons of paint per occurrence).
Commons Area Mowing and Maintenance	\$8,500 annual flat rate to include weekly maintenance during the growing season.
Installation and Removal of Winter Covers	\$3,200 per install at Sports Backers Stadium (includes removal).
Additional Fees – Hourly Rates	Manger/Supervisor: \$65 per hour Assistant/Laborer: \$45 per hour <i>Please note that labor costs are included in ITAC service pricing and these rates are for additional labor related work conducted outside of a fixed service.</i>
Optional Services	Pricing for optional services are included in the table below.

VASCUPP Zone Pricing: ITAC is delighted to offer our optional service catalog to VASCUPP zones 2-8 at the pricing in the table below.

ITAC Optional Service Catalog

Service	Notes/Description	Price per unit
Renovation		
10" Pitcher's Mound Construction	Complete w/ Premium Clay Bricks, Height set by Laser (Rubber Included)	\$3,500.00/mound
10" Pitcher's Mound Construction	Complete w/ Premium Bagged Clay, Height set by Laser (Rubber Included)	\$3,000.00/mound
6" Pitcher's Mound Construction	Complete w/ Premium Clay Bricks, Height set by Laser (Rubber Included)	\$3,000.00/mound
6" Pitcher's Mound Construction	Complete w/ Premium Bagged Clay, Height set by Laser (Rubber Included)	\$2,700.00/mound
Base Plug Layout and Installation	Layout and installation of base anchor plugs, field specific (Base Anchors Included)	\$600.00/infield

ITAC Optional Service Catalog

Service	Notes/Description	Price per unit
Construction Fence Installation	Chain Link Fence Panels (120' minimum & 6 month minimum)	\$7.50/linear foot/6 months
Foul Pole Installation	Installation of Customer Provided Foul Pole	\$2,300.00/pair
Home Plate Area Construction	Complete w/ Premium Clay Bricks (Plate Included)	\$2,500.00/home plate area
Home Plate Area Construction	Complete w/ Premium Bagged Clay (Plate Included)	\$2,000.00/home plate area
Home Plate Installation	Remove and Re-Install new Home Plate (Plate Included)	\$600.00/each
Infield Lip Removal	Removal w/ Sod Cutter	\$150.00/1,000 square feet
Infield Lip Removal	Removal w/ Turf Renovator	\$75.00/1,000 square feet
Laser Guided Grading	Field Renovation	\$110.00/1,000 square feet
Laser Guided Grading	Baseball Infield w/o Baselines	\$3,500.00/infield
Laser Guided Grading	Softball Infield	\$3,800.00/infield
Laser Guided Grading	Baseball Infield w/ Baselines	\$3,700.00/infield
Machine Rate	Dozer w/ Operator (8 hour minimum)	\$140.00/hour
Machine Rate	Dozer w/ Operator & Laser (8 hour minimum)	\$165.00/hour
Machine Rate	Mini-Excavator w/ Operator (8 hour minimum)	\$155.00/hour
Machine Rate	Tractor & Non-Powered Implement (8 hour minimum)	\$135.00/hour
Machine Rate	Tractor w/PTO driven implement (8 hour minimum)	\$165.00/hour
Machine Rate	Skid Steer w/ Operator (8 hour minimum)	\$155.00/hour
On-Site Spoil/Debris/Material Hauling	Removal of Spoils/Debris from field to specific area on-site no further than 300 yards	\$10.00/cubic yard
Pitching Rubber Installation	Remove and Re-Install new Pitching Rubber (Rubber Included)	\$500.00/each
Reverse Tine Tilling		\$75.00/1,000 square feet
Power Rake	Finish power raking	\$55.00/1,000 square feet
Safety Fence Installation	Orange Safety Fence w/ T-Posts	\$4.00/ linear foot
Scoreboard Installation	Scoreboard & Electric not included (standard 2 pole scoreboard)	\$4,000.00/each
Silt Fence Installation	Install and removal of fence after job completion	\$5.00/ linear foot
Straw Blowing	1 bale of straw/ 1,000 square feet	\$18.00/1,000 square feet
Trenching	6" wide x 24" deep trench and backfill	\$8.00/linear foot
Hydroseed		\$2,500.00/acre
Sod/Sprigging		
Sod Installation Bermudagrass	Big roll or pallet of Bermudagrass sod installation Over 1,0000 sq. ft. prep. not included	\$0.49/square foot
Sod Repair < 2,000 sq. ft.	Soil prep. included	\$1.50/square foot
Sod Repair 2,000-5,000 sq. ft.	Soil prep. included	\$1.25/square foot
Sod Repair 5,001-10,000 sq. ft.	Soil prep. included	\$0.90/square foot
Sod Repair 10,001-30,000 sq. ft.	Soil prep. included	\$0.75/square foot
Sod Repair over 30,001 sq. ft.	Soil prep. included	\$0.60/square foot
Sod Stripping	Remove & grade area to be sodded w/ small walk behind sod cutter	\$150.00/1,000 square feet

ITAC Optional Service Catalog

Service	Notes/Description	Price per unit
Sod Stripping	Remove & grade area to be sodded w/ large 3-point hitch sod cutter	\$100.00/1,000 square feet
Sod Stripping	Remove & plane area to be sodded w/ Koro Topmaker https://www.imants.com/en/machines/product/27/koro-fieldtopmaker-2000-2500	\$120.00/1,000 square feet
Sprig Bermudagrass	Big roll sod to sprig, 800 bushels/acre	\$105.00/1,000 square feet
Grow In	60 day Grow-in of Bermudagrass to include weed control, fertility, and mowing	\$100.00/1,000 square feet
Sprig Crimping	Extra crimping off Bermudagrass after sprig install	\$10.00/1,000 square feet
Sprig Frazzle Mow Spoil	Loose sprig w/ manure style spreader http://www.millcreekspreaders.com/full-size-manure-spreaders-p/94090.htm	\$75.00/1,000 square feet
Irrigation		
Irrigation Install	1 1/2" PVC Lateral Line	\$3.15/linear foot
Irrigation Install	2 HP Booster Pump	\$1,850.00/each
Irrigation Install	2" Backflow Preventer w/ 3' x 5' Concrete Pad	\$2,500/each
Irrigation Install	2" Control Valve	\$390.00/each
Irrigation Install	2" Copper Pipe	\$40.00/linear foot
Irrigation Install	2" PVC Lateral Line	\$5.95/linear foot
Irrigation Install	2" PVC Main Line	\$8.85/linear foot
Irrigation Install	3" PVC Main Line	\$10.60/linear foot
Irrigation Install	Control Valve Wiring	\$0.40/linear foot
Irrigation Install	Controller w/ internet communication & flow meter	\$3,500.00/each
Irrigation Install	Standard Controller w/o internet communication	\$900.00/each
Irrigation Install	Controller Pedestal	\$445.00/each
Irrigation Install	Commercial Turf Rotor Head w/ Swing Joint	\$250.00/each
Irrigation Install	Quick Coupler Valve	\$375.00/each
Irrigation Install	Spring Start-Up	\$50.00/zone
Irrigation Install	Winterization	\$50.00/zone
Irrigation Install	Pump enclosure w/o heat	\$550.00/each
Irrigation Repair	Diagnose head & swing joint/ leaking valve, etc.	\$250.00/each
Water Cannon	Rental & Setup Labor	\$630.00/day
Maintenance		
Baseball Infield Dragging/Grooming/Raking	Finish Drag of Infield Skinned area	\$125.00/infield
Core Processing	Pulverizing with machine that grinds plugs and returns to surface	\$9.00/1,000 square feet
Debris Sweeping	Vacuuming debris from athletic field surface	\$15.00/1,000 square feet
Drag Mat Core Processing	Dragging cores to pulverize	\$7.00/1,000 square feet
Edging	Edging of Infield arcs & baselines (must be done in conjunction with other services)	\$800.00/infield
Fertilization	Apply granular fertilizer w/ broadcast spreader (fertilizer price at fair market value)	\$2.60/1,000 square feet +Materials
Fertilization	Apply liquid fertilizer w/ sprayer (fertilizer price at fair market value)	\$3.75/1,000 square feet +Materials
Field Layout	Layout for Line Painting	\$150.00/hour

ITAC Optional Service Catalog

Service	Notes/Description	Price per unit
Field Line Painting	50/50 dilution	\$125.00/5 gallon paint bucket
Field Painting (Color Enhancement)	Paint Entire Field 1 Color- Green	\$50.00/1,000 square feet
Field Rolling	W/ Tow Behind Roller	\$5.50/1,000 square feet
Field Rolling	W/ 6 Ton Vibratory Roller	\$10.00/1,000 square feet
Fraze Mowing	Field TopMaker w/ Universe Rotor 1/2" depth https://www.imants.com/en/machines/product/27/koro-fieldtopmaker-2000-2500	\$75.00/1,000 square foot
Hollow Core Deep Tine Aeration	1 3/8" Tine, 12" Maximum Depth, 6" x 6" hole spacing	\$22.00/1,000 square feet
Hollow Core Shallow Tine Aeration	3/4" Tine, 5" Maximum Depth, 2.5" x 2.5" hole spacing	\$12.00/1,000 square feet
Lime	Broadcast spreading of bulk lime (lime price at fair market value)	\$5.00/1,000 square feet +Materials
Line Trimming	Weed eating	\$60.00/hour
Linear Decompaction	iMants Shockwave 220 Linear decompaction https://www.imants.com/en/machines/product/17/imants-shockwave-220	\$20.00/1,000 square foot
Logo Painting - Multiple Color	Template Supplied by Customer	\$155.00/5 gallon paint bucket
Logo Painting - Single Color	Template Supplied by Customer	\$135.00/5 gallon paint bucket
Recycle Topdressing	iMants Recycling Dresser https://www.imants.com/en/machines/product/28/koro-recycling-dresser	\$35.00/1,000 square foot
Reel Mowing	At 3/4" height of cut	\$1.50/1,000 square feet
Rotary Mowing	Wide area rotary mowing, no less then 1 1/2" minimum height of cut	\$1.50/1,000 square feet
Seeding	Broadcast spreading Grass seed (seed price at fair market value)	\$5.75/1,000 square feet +Materials
Seeding	Slit seed/drill application of Fescue seed (seed price at fair market value)	\$10.00/1,000 square feet +Materials
Softball Infield Dragging/Grooming/Raking	Finish Drag of Infield Skinned area	\$125.00/infield
Solid Deep Tine Aeration	3/4" Tine, 12" Maximum Depth, 6" x 6" hole spacing	\$20.00/1,000 square feet
Solid Shallow Tine Aeration/Aggrevator	3/4" Tine, 5" Maximum Depth, 2.5" x 2.5" hole spacing	\$10.00/1,000 square feet
Spraying	Spraying of Turf Chemicals (chemical price at fair market value)	\$4.50/1,000 square feet +Materials
Topdressing 80/20 Sand Compost Mix	Topdressing to include material	\$85.00/ton
Topdressing Bio-Filter Mix	Topdressing to include material	\$95.00/ton
Topdressing Choice Infield Mix	Topdressing to include material	\$75.00/Ton
Topdressing Compost	Topdressing to include material	\$50.00/cubic yard
Topdressing Infield Conditioner	Topdressing 40 bags Turface MVP (turface price at fair market value)	\$70.00/pallet +Materials
Topdressing Premium Infield Mix	Topdressing to include material	\$100.00/Ton
Topdressing Sand	Topdressing to include material	\$65.00/ton
Topdressing Top Soil	Topdressing to include material	\$70.00/ton

ITAC Optional Service Catalog

Service	Notes/Description	Price per unit
Topdressing Warning Track Material	Topdressing to include material	\$85.00/ton
Verti-Cutting	Field TopMaker w/ Universe Rotor 1/2" depth, every other 5mm tooth, every other spiral https://www.imants.com/en/machines/product/27/koro-fieldtopmaker-2000-2500	\$46.00/1,000 square feet
Drainage		
Catch Basin Installation	12" square grate	\$200.00/each
Flat Panel Drainage	1" x 12" Panels	\$4.50/linear foot
French Drain	4" HDPE pipe w/ gravel 300 ft. minimum	\$16.50/linear foot
French Drain	6" HDPE pipe w/ gravel	\$24.00/linear foot
French Drain	10" HDPE pipe w/ gravel	\$26.00/linear foot
French Drain	12" HDPE pipe w/ gravel	\$28.00/linear foot
Pipe Fittings	HDPE pipe fittings	\$85.00/each
Sand Channel Drainage w/ pipe	4" channel on 8' centers w/ 50mm pipe, gravel, sand backfill, w/ 14" maximum depth	\$0.85/square foot
Sand Channel Drainage w/o pipe	2" channel on 3" centers w/ 10" maximum depth	\$0.75/square foot
Sand Injection/ Sand Slit Drainage	1/2" slit on 10" centers w/ 6" depth	\$0.40 /square foot
Artificial		
Artificial Turf Grooming	Drag Brushing to erect existing fibers on routine maintenance	\$5.00/1,000 square feet
Artificial Turf Reconditioning	Redexim Verti-Top 1500 http://redexim.com/product/verti-top-1500/	\$20.00/1,000 square feet
Artificial Turf Snow Removal	Removal w/ plow equipped w/ special cutting edge to ensure no damage to turf	\$20.00/1,000 square feet
Topdressing Crumb Rubber	Topdressing (Crumb Rubber priced at fair market value)	\$5.00/1,000 square feet +Materials
Miscellaneous		
Auger/ Hole Drilling	Up to 2' diameter, & 5' maximum depth	\$200.00/hole
Consultation Visit		\$125.00/hour
Disassembled Bedknife grind		\$15.00/bedknife
Disassembled Greensmower Reel Grind		\$80.00/reel
Disassembled Lightweight Fairway Reel Grind		\$85.00/reel
Disassembled Tow Behind Gang Reel Grind		\$95.00/reel
Engineering	Project Manager	\$170.00/hour
Engineering	Designer	\$115.00/hour
Engineering	Principal	\$275.00/hour
Engineering	Survey Technician	\$110.00/hour
Engineering	2 Man Crew	\$195.00/hour
Equipment Operator		\$75.00/hour
Full Service Lightweight Fairway Reel Grind		\$130.00/reel
Full Service Riding Greensmower Reel Grind		\$95.00/reel

ITAC Optional Service Catalog

Service	Notes/Description	Price per unit
Full Service Tow Behind Gang Reel Grind		\$150.00/reel
Full Service Walk Greensmower Reel Grind		\$95.00/reel
Laborer		\$45.00/hour
Laborer Overtime		\$63.00/hour
Laser Leveled Concrete Pad	4" Broom Finish	\$12.50/square foot
Laser Leveled Stone Pad	4" Depth Stone on Fabric	\$5.00/square foot
Mobile Service		\$100.00/hour
Mobilization	Equipment Mobilization	\$1.50/loaded mile
Nutrient Management Plan	Virginia Certified plan	\$250.00/each
Nutrient Soil Test	Nutrients, pH, Written Report	\$100.00/each
Physical Soil Test	Sieve analysis & graduation written report	\$150.00/each
Shop Labor		\$85.00/hour
Trucking/ Haul Rate		\$110.00/hour
Trucking/ Haul Rate	>50 miles	\$4.25/loaded mile
Winter Turf Blanket	Rental, Installation, & Removal	\$0.06/square foot

Appendices

With the exception of information included as figures within the above proposal, ITAC has included all other required and supporting documentation as appendices in the pages below. Each appendix is lettered and noted within the table of contents on page two of this response as well as in the space below.

Appendix A – ITAC Payment Methods – Completed Form From RFP

Appendix B – Contractor License Requirement and Contractor Registration Completed Form From RFP

Appendix C – ITAC Virginia Contractor’s License, Fertilizer/Lime Contractor Applicator Permit, and Pesticide Business License

Appendix D – Rodney Hopkins Pesticide Applicator Certificate

Appendix E – Jeremy Parshall Pesticide Applicator Certificate

Appendix F – DP Seay Certificate – Fertilizer Applicator Certification

Appendix G – Bake Phillips Certificate – Certified Nutrient Management Planner

Appendix H – Material Safety Data Sheet – MERIT® 75 WP INSECTICIDE

Appendix I – Material Safety Data Sheet – World Class Athletic Surfaces – Field Marking Paint

Appendix J – Material Safety Data Sheet – RONSTAR® G HERBICIDE

Appendix K – Material Safety Data Sheet – R/T 540 Liquid Herbicide (Roundup)

Appendix A – ITAC Payment Methods – Completed Form From RFP

APPENDIX II INVOICING AND PAYMENT

Invoicing:

The Contractor shall submit a fully itemized invoice to Virginia Commonwealth University, Accounts Payable and Support Services, Box 980327, Richmond, VA 23298-0327, that, at minimum, includes the following information: the Virginia Commonwealth University purchase order number; a description of the goods or services provided; quantities; unit prices; extended prices; and total prices. Payment will be issued in accordance with the payment method selected below and with the Commonwealth of Virginia Prompt Payment Legislation.

Upon request by VCU, the Contractor shall submit invoices electronically using the Ariba Network or other e-commerce channel utilized by VCU; and agrees to comply, within reason, with any future e-commerce initiatives including, but not limited to: procurement, procurement content, sourcing or any other electronic procurement and sourcing solutions.

Questions regarding this method of invoicing should be sent to: ecommerce@vcu.edu.

Payment:

VCU Procurement Services is automating the payment process to the greatest extent possible. Contractors are encouraged to accept payment electronically through the commercial card program. Please review the payment methods described below and select one for your firm.

By selecting the payment method below, Contractor acknowledges that the selected payment method is **not specific to the contract resulting from this solicitation and will apply to all payments made to the Contractor** by Virginia Commonwealth University. For example, if the Contractor has an existing contract(s) and is currently receiving payment by paper check, and the Contractor is now electing to receive payment by the commercial card, **all payments** will be made using the commercial card once the commercial card payment process is implemented for the firm.

**Payment
Methods**

1. Electronically through a Wells Fargo Visa commercial card: Payment will be made ten days (10) after receipt of a proper invoice for the amount of payment due, or ten (10) days after receipt of the goods or services, whichever is later.

It is the Contractor's responsibility to contact its banking institutions to determine any credit limit that may restrict the payment of invoices. It is the Contractor's responsibility to have its credit limit raised as necessary to facilitate the timely payment of all invoices. Invoices exceeding the Contractor's credit limit will be returned unpaid.

Failure to accept the commercial card after award of contract will be considered a contract compliance issue and will be addressed accordingly. In addition, invoices will be returned without payment until the Contractor can accept the payment through the commercial card.


Questions regarding this method of payment should be sent to commcard@vcu.edu.

2. ACH: Electronic payment via automated clearing house (ACH) to the vendor provided bank account of record. Payment is processed thirty (30) days after receipt of a proper invoice for the amount of payment due, or thirty (30) days after receipt of the goods or services, whichever is later. Additional information about ACH payments is available at: <http://treasury.vcu.edu/banking/vendor-ach/>.

Contractor must indicate the method of payment selected:

Commercial Card Payment (Wells Fargo VISA)
 Automated Clearing House (ACH)

Invoicing and Payment Method Acknowledgement:

Signature: 
Name Printed: Rodney Hopkins
Title: Owner
Name of Firm: Innovative Turf Applications and Consulting, Inc. DBA ITAC, Inc.
Date: 3/14/18

Please identify the following contact information for the individual who will serve as the appropriate point of contact within your company to be contacted by VCU Accounts Payable to implement the electronic invoicing and payment processes:

Name of the individual:	<u>Rodney Hopkins</u>	Title: <u>Owner</u>
Mailing address:	<u>2925 Three Chopt Road</u>	
	<u>Gum Spring, Virginia 23065</u>	
Email address:	<u>rodney.hopkins@itacturf.com</u>	
Phone number:	<u>(804) 564-5080</u>	
Fax number:	<u>(804) 556-0014</u>	

Appendix B – ITAC Contractor License Requirement and Contractor Registration Completed Form From RFP

F. **CONTRACTOR LICENSE REQUIREMENT:** By my signature on this solicitation, I certify that this firm/individual and subcontractor is properly licensed for providing the goods/services specified.

Contractor Name: Innovative Turf Applications and Consulting, Inc.

Subcontractor Name: _____

License# 2705146812 Type: Class A - Classifications H/H ISC RFC

G. **CONTRACTOR REGISTRATION:** If a contract for construction, removal, repair or improvement of a building or other real property is for one hundred and twenty thousand dollars (\$120,000) or more, or if the total value of all such contracts undertaken by the offeror within any 12-month period is seven hundred and fifty thousand dollars (\$750,000) or more, the offeror is required under Title 54.1-1100, *Code of Virginia* (1950), as amended, to be licensed by the State Board of Contractors as a "CLASS A CONTRACTOR". If such a contract is for seventy-five hundred dollars (\$7,500) or more but less than one hundred and twenty thousand dollars (\$120,000), or if the total value of all such contracts undertaken by offeror within any 12-month period is between one hundred and fifty thousand dollars (\$150,000) and seven hundred and fifty thousand dollars (\$750,000), the offeror is required to be licensed as a "CLASS B CONTRACTOR". If such a contract is for one thousand dollars (\$1,000) or more but less than seventy-five hundred dollars (\$7,500), or if the contractor does less than \$150,000 in business in a 12-month period, the offeror is required to be licensed as a "CLASS C CONTRACTOR". The board shall require a master tradesmen license as a condition of licensure for electrical, plumbing and heating, ventilation and air conditioning contractors. The offeror shall place on the outside of the envelope containing the proposal and shall place in the proposal over his signature whichever of the following notations is appropriate, inserting his contractor license number:

Licensed Class A Virginia Contractor No. 2705146812 Specialty: H/H ISC RFC

Licensed Class B Virginia Contractor No. _____ Specialty: _____

Page 19 of 28 RFP #7878728AZ

Appendix C – TAC Virginia Contractor's License, Fertilizer/ Lime Contractor Applicant Permit, and Pesticide Business License

EXPIRES ON
05-31-2018

COMMONWEALTH of VIRGINIA
 Department of Professional and Occupational Regulation
 9960 Mayland Drive, Suite 400, Richmond, VA 23233
 Telephone: (804) 367-8500

NUMBER
2705146812

**BOARD FOR CONTRACTORS
 CLASS A CONTRACTOR
 CLASSIFICATIONS H/H ISC RFC**



INNOVATIVE TURF APPLICATIONS & CONSULTING, INC.
 ITAC
 3018 BLACK FRIAR LANE
 SANDY HOOK, VA 23153




James W. DeBorja
 Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS) DPOR-LIC (05/2015)

not transferable

Virginia Department of Agriculture and Consumer Services
 P. O. Box 1163, Richmond, VA 23218

PERMIT
FERTILIZER/LIME CONTRACTOR - APPLICATOR

ISSUED
01-MAR-2017

EXPIRES
31-MAR-2018

Issued in accordance with application duly executed by the party shown below who has agreed to comply with all applicable laws, rules and regulations and has paid the required fee of \$50.

INNOVATIVE TURF APPLICATIONS & CONSULTING
 T/A: I. T. A. C. INCORPORATED
 3018 BLACK FRIAR LANE
 SANDY HOOK, VA 23153

Sandra J. Adams
 COMMISSIONER

not transferable

Virginia Department of Agriculture and Consumer Services
 P. O. Box 1163, Richmond, VA 23218

PERMIT
FERTILIZER/LIME CONTRACTOR - APPLICATOR

PERMIT
57-374567

EXPIRES: 31-MAR-2018 PERMIT NO: 57-374567

INNOVATIVE TURF APPLICATIONS & CONSULTING
 T/A: I. T. A. C. INCORPORATED
 3018 BLACK FRIAR LANE
 SANDY HOOK, VA 23153

BY Larry M. Nichols
 AUTHORIZED REPRESENTATIVE

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
OFFICE OF PESTICIDE SERVICES
 P O BOX 1163, RICHMOND VA 23218-1163

INVALID IF INSURANCE AND/OR CERTIFICATE OF DESIGNATED APPLICATOR
 LAPSE BEFORE EXPIRATION DATE

PESTICIDE BUSINESS LICENSE

Issued		License No.
02/21/2017		9787
Expires		Fee Paid
03/31/2018		\$50

Issued in accordance with application duly executed by the business shown below which has agreed to comply with all applicable laws, rules and regulations and has paid the required fee.

Mailing Address	Business Location
INNOVATIVE TURF APPLICATIONS & CONSULT T/A I T A C INC 3018 BLACK FRIAR LN SANDY HOOK, VA 23153	INNOVATIVE TURF APPLICATIONS & CONSULT T/A I T A C INC 3018 BLACK FRIAR LN SANDY HOOK, VA 23153

Sandra J. Adams
 Commissioner


Liza Fleeceon Trossbach
 Authorized Representative

Appendix D – Rodney Hopkins Pesticide Applicator Certificate

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
PESTICIDE APPLICATOR CERTIFICATE

Expires	COMMERCIAL	Certificate Number
06/30/2018	FOR BL# 9787	54798-C


RODNEY A HOPKINS
 INNOVATIVE TURF APPLICATIONS & CONSULTING
 3018 BLACK FRIAR LANE
 SANDY HOOK, VA 23288



Liza Fleeson Trossbach
 Authorized Representative

(Fold Here)

VALID ONLY FOR CATEGORIES LISTED
 3-B TURF PEST CONTROL 06/30/2018



Sign Here _____ Pesticide Applicator


Appendix E – Jeremy Parshall Pesticide Applicator Certificate

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
 P O BOX 1163, RICHMOND VA 23218-1163

PESTICIDE APPLICATOR CERTIFICATE


Issued	COMMERCIAL	Fee Paid	Certificate
06/28/2017	FOR BL# 9787		125717-C

Expires
 06/30/2019



Issued in accordance with application duly executed by the person shown below who has agreed to comply with all applicable laws, rules and regulations

JEREMY R PARSHALL
 INNOVATIVE TURF APPLICATIONS & CONSULT
 413 EBENEZER RD
 MINERAL, VA 23117



Sandra J. Adams
 Commissioner

Liza Fleeson Trossbach
 Authorized Representative

Append x F – DP Seay Certificate – Fertilizer Applicator Certification



Append x G – Blake Phillips Certificate – Certified Nutrient Management Planner



Figure 11 - The above certificate has been renewed for the 2018-2020 period but has not been received by TAC as of March 15, 2018. The current copy of this certificate will be available on request once it arrives in the mail.

Appendix H – Material Safety Data Sheet – MERIT® 75 WP INSECTICIDE

Bayer Environmental Science



Material Safety Data Sheet MERIT® 75 WP INSECTICIDE

MSDS Number: 102000007120
MSDS Version 1.2
Revision Date: 11/07/2005

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name MERIT® 75 WP INSECTICIDE
MSDS Number 102000007120
EPA Registration No. 432-1314
Product Use Insecticide for foliar and systemic insect control in turfgrass (including sod farms), landscape ornamentals, fruit and nut trees, and interior plantscapes.

Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-800-331-2867

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Imidacloprid	138261-41-3	75.00

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Caution! Harmful if swallowed, inhaled or absorbed through the skin. Causes eye irritation. Avoid contact with skin, eyes and clothing. Avoid breathing dust or vapor.

Physical State solid powder

Odor none

Appearance light brown

Routes of Exposure Ingestion, Eye contact, Skin contact, Skin Absorption, Inhalation

Immediate Effects

Eye Causes eye irritation. Avoid contact with eyes.

Skin Harmful if absorbed through skin. Avoid contact with skin and clothing.



Material Safety Data Sheet

MERIT® 75 WP INSECTICIDE

MSDS Number: 102000007120
MSDS Version 1.2

Ingestion	Harmful if swallowed. Do not take internally.
Inhalation	Harmful if inhaled. Avoid breathing dust or vapor.

SECTION 4. FIRST AID MEASURES

General	Have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin	Take off all contaminated clothing immediately. Rinse immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.
Ingestion	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Notes to Physician Treatment	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	not applicable
Suitable Extinguishing Media	water, carbon dioxide (CO2), foam, dry chemical
Fire Fighting Instructions	Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated. In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES



Material Safety Data Sheet

MSDS Number: 102000007120
MSDS Version 1.2

MERIT® 75 WP INSECTICIDE

Personal Precautions	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
Methods for Cleaning Up	Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional Advice	Use personal protective equipment. Do not allow material to enter streams, sewers, or other waterways.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	Do not allow children and pets to enter the treated area until it has dried. Handle and open container in a manner as to prevent spillage.
Storing Procedures	Do not freeze. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.
Work/Hygienic Procedures	Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before re-use. Before removing gloves clean them with soap and water. As soon as practical, wash thoroughly and change into clean clothing. Wash hands always before eating, drinking, smoking or using the toilet.
Min/Max Storage Temperatures	30 day average temperature not to exceed 38°C (100°F).

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection	Train employees in safe use of the product. Follow all label instructions. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.
Engineering Controls	Ensure adequate ventilation. Use with local exhaust ventilation.
Eye/Face Protection	tightly fitting safety goggles
Hand Protection	Chemical resistant gloves made of waterproof material such as polyethylene or polyvinyl chloride



Material Safety Data Sheet

MERIT® 75 WP INSECTICIDE

MSDS Number: 102000007120
MSDS Version 1.2

Body Protection	Wear long-sleeved shirt and long pants and shoes plus socks.			
Respiratory Protection	When respiratory protection is necessary under the conditions of use, wear a respirator approved by the National Institute for Occupational Safety and Health (NIOSH).			
Exposure Limits				
Sodium aluminium silicate	1344-00-9	ACGIH	TWA	2 mg/m3
		Expressed as NIOSH	REL	as Al 2 mg/m3
		Expressed as OSHA Z1A	TWA	as Al 2 mg/m3
		Expressed as US CA OEL	TWA PEL	as Al 2 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light brown
Physical State	solid powder
Odor	none
pH	7 (1 %) suspension in water
Bulk Density	30 lbs/cu.-ft.
Water Solubility	dispersible

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions.
Hazardous Decomposition Products	Thermal decomposition hydrogen cyanide (hydrocyanic acid) Carbon monoxide nitrogen oxides (NOx) hydrogen chloride (HCl)

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been conducted on this product as formulated. The non-acute information pertains to the active ingredient, imidacloprid.



Material Safety Data Sheet

MERIT® 75 WP INSECTICIDE

MSDS Number: 102000007120
MSDS Version 1.2

Acute Oral Toxicity	male rat: LD50: 2,591 mg/kg female rat: LD50: 1,858 mg/kg
Acute Dermal Toxicity	male/female rat: LD50: > 2,000 mg/kg
Acute Inhalation Toxicity	male rat: LC50: 2.65 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. (actual) female rat: LC50: 2.75 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. (actual) male rat: LC50: 10.6 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50. (actual) female rat: LC50: 11.0 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50. (actual)
Skin Irritation	rabbit: Slight irritation.
Eye Irritation	rabbit: Mild eye irritation.
Sensitization	guinea pig: Non-sensitizing.
Subchronic Toxicity	In a 3-week dermal toxicity study, rabbits treated with imidacloprid showed no local or systemic effects at levels up to and including 1000 mg/Kg, the limit dose. In a 4-week inhalation study, rats exposed to high concentrations of imidacloprid exhibited decreased body weight gains and changes in clinical chemistries and organ weights.
Chronic Toxicity	In chronic dietary studies in rats and dogs exposed to imidacloprid, the target organs were the thyroid and/or liver.
Assessment Carcinogenicity	In oncogenicity studies in rats and mice, imidacloprid was not considered carcinogenic in either species.
ACGIH	None.
NTP	



Material Safety Data Sheet
MERIT® 75 WP INSECTICIDE

MSDS Number: 10200007120
MSDS Version 1.2

None.
IARC
None.
OSHA
None.

Reproductive & Developmental Toxicity

REPRODUCTION: In a two-generation reproduction study in rats, imidacloprid was not a primary reproductive toxicant. Offspring exhibited reduced body weights at the high dose and in conjunction with maternal toxicity.

DEVELOPMENTAL TOXICITY: In developmental toxicity studies in rats and rabbits, there was no evidence of an embryonic or teratogenic potential for imidacloprid. In both species, developmental effects were observed only at high doses and in conjunction with maternal toxicity.

Neurotoxicity

In acute and subchronic neurotoxicity screening studies in rats, imidacloprid produced slight neurobehavioral effects in each study at the highest dose tested. There were no correlating morphological changes observed in the neural tissues.

Mutagenicity

The imidacloprid mutagenicity studies, taken collectively, demonstrate that the active ingredient is not genotoxic or mutagenic.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions

Highly toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Ecological Information

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.



Material Safety Data Sheet
MERIT® 75 WP INSECTICIDE

MSDS Number: 10200007120
MSDS Version 1.2

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
Container Disposal	Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:
Not regulated for Domestic Surface Transportation

FREIGHT CLASSIFICATION:
Insecticides or Fungicides, N.O.I., other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-1314

US Federal Regulations

TSCA list

None.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

None.

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA



Material Safety Data Sheet

MERIT® 75 WP INSECTICIDE

MSDS Number: 102000007120
MSDS Version 1.2

None.
Clean Water Section 307 Priority Pollutants
None.
Safe Drinking Water Act Maximum Contaminant Levels
None.

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):
Health - 1 Flammability - 1 Reactivity - 1 Others - none
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: Updated Active Ingredient percent in Section 2.

Revision Date: 11/07/2005

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.

Append x – Material Safety Data Sheet – World Class Athletic Surfaces – Field Marking Paint



Post Office Box 152
 land, MS 38756
 (800) 748-9649

MATERIAL SAFETY DATA SHEET

Emergency Telephone No. 1-800-748-9649	HAZARD RATING 4 = Extreme 3 = High 2 = Moderate 1 = Slight 0 = Insignificant * = See Section V	Health Hazard +1 Flammability Hazard +0 Reactivity Hazard +0 Max. Pers. Protection +** **Personal Protection Rating to be supplied by user depending on conditions.
Date of Preparation February 20, 2012		

PRODUCT IDENTIFICATION

Product

Name: FIELD MARKING PAINT, Premium Colors
 Synonyms: Line Marking Paint
 Product Class:
 CAS Number: Mixture

PRECAUTIONARY MEASURES

EMERGENCY OVERVIEW: Colored liquid with mild odor.

POTENTIAL HEALTH HAZARDS:

- SKIN: Prolonged or repeated exposure may be irritating. Skin absorption is unlikely. There is no evidence of sensitization.
- INGESTION: Possible gastric disturbance.
- INHALATION: Inhalation is not a likely route of exposure.
- EYES: SEVERE EYE IRRITANT.

EMERGENCY FIRST AID

SEE SECTION 5
 DOT Hazard Class: Not Regulated
 UN/UA # :

HAZARDOUS COMPONENTS

COMPONENTS	CAS#	PCT	ACGI	TLV (OSHA PEL)
None Known				

SECTION I – Physical Data

Appearance:	White Liquid	- Solubility in Water:	100%
Odor:	Very Slight	- Boiling Point:	212°F
Specific Gravity (Water=1):	1.114	- Melting Point:	N/A
% Volatile (Organic x wt):	2.0	- Vapor Density (air = 1):	1.0+
% Volatile (Inorganic wt):	59.3	- Vapor Pressure mm Hg:	N/A

SECTION II – Fire and Explosion Information

FIRE AND EXPLOSION HAZARDS: None Known.
Auto-ignition temperature: Over 400°F
Flash Point: Over 200°F
LEL: N/A
VEL: N/A

Fire Extinguishing Media: This material will not support combustion.
If involved in a fire, use the extinguishing method appropriate for the surrounding fire.
Water may be ineffective.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards: None known.

SECTION III – Reactivity Data

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Burning may produce carbon monoxide.

Hazardous Polymerization: Will not occur.

Incompatibilities: None known.

SECTION IV – Leak/Spill Disposal Information

Spill: If material is released or spilled, stop discharge and dam up to limit spreading.

Mop up or absorb on inert material and place in suitable container for further handling and disposal.

Disposal: Whatever cannot be saved for recovery may be burned in an approved Incinerator or disposed in an approved waste facility.

Ensure compliance with local, state, and federal regulations.

SECTION V – Health Hazard Data

A. Exposure / Health Effects

Inhalation: Symptoms from excessive inhalation may include coughing and difficulty breathing.

Ingestion: Large dose may cause abdominal spasms and diarrhea.

Skin contact: May cause skin irritation. Constant exposure to excessive amounts may cause eczema.

Eye contact: May cause redness, pain.

Aggravation of pre-existing conditions:

Persons with pre-existing skin disorders, impaired respiratory function, or a history of pulmonary disease should not be exposed to vapors or dusts.

B. FIRST AID

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: Treat symptomatically and supportively. Seek medical attention.

Skin contact: Wash exposed area with soap and water. Get medical attention if irritation develops.

Eye contact: Wash thoroughly with running water. Get medical advice if irritation develops.

C. TOXICITY DATA

ACUTE: This formulation has not been tested for acute or chronic toxicity. However, due to the presence of a surfactant, the formulation may be irritating to the eyes and mildly irritating to the skin.

CHRONIC: This material has not been identified as a carcinogen by NTP, IARC, OSHA. Individual monomer content does not exceed 0.1%.

Use of this product may in some circumstances generate the same hazards associated with the monomers. The user should evaluate use to determine if hazards from residual monomer exist.

TARGET ORGANS: Eyes.

SECTION VI – Occupational Control Measures

Airborne Exposure Limits: -OSHA Permissible Exposure Limit (PEL): N.E.
-ACGIH Threshold Limit Value (TLV): N.E.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposure below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, “Industrial Ventilation, A Manual of Recommended Practices”, most recent edition, for details.

Personal Respirators: If the TLV is exceeded, a dust/mist respirator may be worn up to ten times the TLV. Consult respirator supplier for details.

Skin Protection: Gloves and lab coat, apron or coveralls.

Eye Protection: Use chemical safety goggles. Contact lenses should not be worn when working with this material.

SECTION VII – Storage and Special Information

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Separate from incompatibilities.

SECTION VIII – Regulatory Information

CERCLA SUPERFUND, 40 CFR117, 302:

Under the Comprehensive Environmental Response, Compensation and Liability Act, a release of this product in excess of 40,000 gallons could require reporting to the National Response Center.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

All components are included in the TSCA inventory.

SARA HAZARD CATEGORY:

Fire Hazard: Non Combustible
Sudden Release of Pressure: No
Reactivity Hazard: No
Active Health Hazard: Yes
Chronic Health Hazard: No

SARA 313 INFORMATION:

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires reports of release of chemicals that appear in 40 CFR 372. This information must be included in all MSDSs that are copied and distributed for this product. Components present in this product which could require reporting under the statute are: None.

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, World Class makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, World Class Athletic Surfaces, Inc. will not be responsible for damages of any kind that result from the use of, or reliance upon such information.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR TO THE PRODUCT TO WHICH THE INFORMATION REFERS.

Appendix J – Material Safety Data Sheet – RONSTAR® G HERBICIDE

Bayer Environmental Science
SAFETY DATA SHEET



RONSTAR® G HERBICIDE

Version 3.0 / USA
102000004005

1/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name RONSTAR® G HERBICIDE

Product code (UVP) 05950651

SDS Number 102000004005

EPA Registration No. 432-886

Relevant identified uses of the substance or mixture and uses advised against

Use Herbicide

Restrictions on use See product label for restrictions.

Information on manufacturer

Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

Emergency Telephone
Number (24hr/ 7 days) 1-800-334-7577

Product Information
Telephone Number

SDS Information or Request SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Eye irritation : Category 2B

Signal word: Warning

Hazard statements

Causes eye irritation.

Precautionary statements

Wash thoroughly after handling.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Other hazards

No other hazards known.



RONSTAR® G HERBICIDE

Version 3.0 / USA
102000004005

2/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Average % by Weight
Oxadiazon	19666-30-9	2.00
Titanium dioxide	13463-67-7	0.92
Naphthalene	91-20-3	0.42

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms	To date no symptoms are known.
Indication of any immediate medical attention and special treatment needed	
Risks	Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	None known.

Bayer Environmental Science

SAFETY DATA SHEET



RONSTAR® G HERBICIDE

Version 3.0 / USA
102000004005

3/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

Special hazards arising from the substance or mixture	Dangerous gases are evolved in the event of a fire.
Advice for firefighters	
Special protective equipment for fire-fighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
Further information	Use appropriate extinguishing media for material that is supplying fuel. Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
Flash point	not applicable
Autoignition temperature	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Explosivity	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
Methods and materials for containment and cleaning up	
Methods for cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations. Decontaminate tools and equipment following cleanup.
Additional advice	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.
Reference to other sections	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Handle and open container in a manner as to prevent spillage.
Advice on protection	Take measures to prevent the build up of electrostatic charge.



RONSTAR® G HERBICIDE

Version 3.0 / USA
102000004005

4/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

against fire and explosion

Hygiene measures

Keep away from food, drink and animal feedingstuffs.
Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Naphthalene	91-20-3	10 ppm (TWA)		OES BCS*
Naphthalene	91-20-3	10 ppm (TWA)	02 2012	ACGIH
Naphthalene	91-20-3	15 ppm (STEL)	02 2012	ACGIH
Naphthalene	91-20-3	10 ppm (TWA)	02 2013	ACGIH NIC
Naphthalene	91-20-3	50 mg/m ³ /10 ppm (REL)	2010	NIOSH
Naphthalene	91-20-3	75 mg/m ³ /15 ppm (STEL)	2010	NIOSH
Naphthalene	91-20-3	50 mg/m ³ /10 ppm (PEL)	02 2006	OSHA Z1
Naphthalene	91-20-3	75 mg/m ³ /15 ppm (STEL)	1989	OSHA Z1A
Naphthalene	91-20-3	50 mg/m ³ /10 ppm (TWA)	1989	OSHA Z1A
Naphthalene	91-20-3	75 mg/m ³ /15 ppm (STEL)	06 2008	TN OEL
Naphthalene	91-20-3	50 mg/m ³ /10 ppm (TWA)	06 2008	TN OEL
Naphthalene	91-20-3	10ppb (AN ESL)	07 2011	TX ESL
Naphthalene	91-20-3	38ppb (ST ESL)	02 2013	TX ESL
Naphthalene	91-20-3	50ug/m ³ (AN ESL)	07 2011	TX ESL

Bayer Environmental Science
SAFETY DATA SHEET



RONSTAR® G HERBICIDE

Version 3.0 / USA
102000004005

5/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

Naphthalene	91-20-3	200ug/m3 (ST ESL)	02 2013	TX ESL
Naphthalene	91-20-3	75 mg/m3/15 ppm (STEL)	08 2010	US CA OEL
Naphthalene	91-20-3	50 mg/m3/10 ppm (TWA PEL)	08 2010	US CA OEL
Cellulose	9004-34-6	10 mg/m3 (TWA)	02 2012	ACGIH
Cellulose (Total)	9004-34-6	10 mg/m3 (REL)	2010	NIOSH
Cellulose (Respirable.)	9004-34-6	5 mg/m3 (REL)	2010	NIOSH
Cellulose (Total dust.)	9004-34-6	15 mg/m3 (PEL)	02 2006	OSHA Z1
Cellulose (Respirable fraction.)	9004-34-6	5 mg/m3 (PEL)	02 2006	OSHA Z1
Cellulose (Total dust.)	9004-34-6	15 mg/m3 (TWA)	1989	OSHA Z1A
Cellulose (Respirable fraction.)	9004-34-6	5 mg/m3 (TWA)	1989	OSHA Z1A
Cellulose (Respirable fraction.)	9004-34-6	5 mg/m3 (TWA)	06 2008	TN OEL
Cellulose (Total dust.)	9004-34-6	15 mg/m3 (TWA)	06 2008	TN OEL
Cellulose (Particulate.)	9004-34-6	50ug/m3 (ST ESL)	02 2013	TX ESL
Cellulose (Particulate.)	9004-34-6	5ug/m3 (AN ESL)	02 2013	TX ESL
Kaolin (Respirable fraction.)	1332-58-7	2 mg/m3 (TWA)	02 2012	ACGIH
Kaolin (Total)	1332-58-7	10 mg/m3 (REL)	2010	NIOSH
Kaolin (Respirable.)	1332-58-7	5 mg/m3 (REL)	2010	NIOSH
Kaolin (Total dust.)	1332-58-7	15 mg/m3 (PEL)	02 2006	OSHA Z1
Kaolin (Respirable fraction.)	1332-58-7	5 mg/m3 (PEL)	02 2006	OSHA Z1
Kaolin (Total dust.)	1332-58-7	10 mg/m3 (TWA)	1989	OSHA Z1A
Kaolin (Respirable fraction.)	1332-58-7	5 mg/m3 (TWA)	1989	OSHA Z1A
Kaolin (Total dust.)	1332-58-7	10 mg/m3 (TWA)	06 2008	TN OEL
Kaolin (Respirable fraction.)	1332-58-7	5 mg/m3 (TWA)	06 2008	TN OEL
Kaolin (Particulate.)	1332-58-7	20ug/m3 (ST ESL)	02 2013	TX ESL
Kaolin	1332-58-7	2ug/m3	02 2013	TX ESL



RONSTAR® G HERBICIDE

Version 3.0 / USA
102000004005

6/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

(Particulate.)		(AN ESL)		
Kaolin (Respirable dust.)	1332-58-7	2 mg/m3 (TWA PEL)	08 2010	US CA OEL
Calcium carbonate (Respirable.)	471-34-1	5 mg/m3 (REL)	2010	NIOSH
Calcium carbonate (Total)	471-34-1	10 mg/m3 (REL)	2010	NIOSH
Calcium carbonate	471-34-1	50ug/m3 (ST ESL)	07 2011	TX ESL
Calcium carbonate	471-34-1	5ug/m3 (AN ESL)	07 2011	TX ESL
Titanium dioxide	13463-67-7	10 mg/m3 (TWA)	02 2012	ACGIH
Titanium dioxide (Respirable fraction.)	13463-67-7	1 mg/m3 (TWA)	02 2013	ACGIH NIC
Titanium dioxide (Total dust.)	13463-67-7	15 mg/m3 (PEL)	02 2006	OSHA Z1
Titanium dioxide (Total dust.)	13463-67-7	10 mg/m3 (TWA)	1989	OSHA Z1A
Titanium dioxide (Total dust.)	13463-67-7	10 mg/m3 (TWA)	06 2008	TN OEL
Titanium dioxide (Respirable particles.)	13463-67-7	50ug/m3 (ST ESL)	02 2013	TX ESL
Titanium dioxide (Respirable particles.)	13463-67-7	5ug/m3 (AN ESL)	02 2013	TX ESL
Oxadiazon	19666-30-9	0.28 mg/m3 (TWA)		OES BCS*
Oxadiazon	19666-30-9	5ug/m3 (AN ESL)	07 2011	TX ESL
Oxadiazon	19666-30-9	50ug/m3 (ST ESL)	07 2011	TX ESL

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit.



RONSTAR® G HERBICIDE

Version 3.0 / USA
10200004005

7/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

Hand protection	Chemical resistant nitrile rubber gloves
Eye protection	Tightly fitting safety goggles
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	grey to tan
Physical State	granular
Odor	slight
Odour Threshold	no data available
pH	no data available
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Bulk density	44.0 - 50.0 lb/ft ³ (loose)
Evaporation rate	no data available
Boiling Point	not applicable
Melting / Freezing Point	not applicable
Water solubility	insoluble
Minimum Ignition Energy	no data available
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	no data available
Viscosity	not applicable
Flash point	not applicable
Autoignition temperature	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Explosivity	no data available



RONSTAR® G HERBICIDE

Version 3.0 / USA
102000004005

8/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	no data available
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid	no data available
Incompatible materials	Strong bases, Strong acids, Strong oxidizing agents
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Inhalation, Eye contact, Skin contact, Ingestion
Immediate Effects	
Eye	Causes redness, irritation, tearing.
Skin	Causes irritation, redness, swelling.
Ingestion	Harmful if swallowed.
Inhalation	May cause upper respiratory tract irritation. Harmful if inhaled.
Information on toxicological effects	
Acute oral toxicity	LD50 (rat) > 5,000 mg/kg
Acute inhalation toxicity	LC50 (rat) > 200 mg/l Exposure time: 1 h Determined in the form of dust.
Acute dermal toxicity	LD50 (rabbit) > 2,000 mg/kg
Skin irritation	Moderate skin irritation. (rabbit)
Eye irritation	Moderate eye irritation. (rabbit)
Sensitisation	Non-sensitizing. (guinea pig)

Assessment repeated dose toxicity

Oxadiazon caused specific target organ toxicity in experimental animal studies in the following organ(s): liver, blood. The observed effects do not appear to be relevant for humans.

Assessment Mutagenicity

Oxadiazon was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

Oxadiazon caused at high dose levels an increased incidence of tumours in in the following organ(s):



RONSTAR® G HERBICIDE

Version 3.0 / USA
10200004005

9/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

liver. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

ACGIH

Titanium dioxide	13463-67-7	Group A4
Naphthalene	91-20-3	Group A4

NTP

Naphthalene	91-20-3
-------------	---------

IARC

Titanium dioxide	13463-67-7	Overall evaluation: 2B
Naphthalene	91-20-3	Overall evaluation: 2B

OSHA

None.

Assessment toxicity to reproduction

Oxadiazon caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Oxadiazon is related to parental toxicity.

Assessment developmental toxicity

Oxadiazon caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Oxadiazon are related to maternal toxicity.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 1.2 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient oxadiazon.
Toxicity to aquatic invertebrates	EC50 (Water flea (Daphnia magna)) > 2.4 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient oxadiazon.
Toxicity to aquatic plants	EC50 (Skeletonema costatum) 0.0056 mg/l Exposure time: 120 h The value mentioned relates to the active ingredient oxadiazon.
Biodegradability	Oxadiazon: ; not rapidly biodegradable
Koc	Oxadiazon: Koc: 1294
Bioaccumulation	Oxadiazon: Bioconcentration factor (BCF) 243; Does not bioaccumulate.
Mobility in soil	Oxadiazon: Slightly mobile in soils
Environmental precautions	Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.



RONSTAR® G HERBICIDE

Version 3.0 / USA
102000004005

10/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

Contaminated packaging Do not re-use empty containers.
Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities.
If burned, stay out of smoke.

RCRA Information Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR

UN number	3077
Class	9
Packaging group	III
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (NAPHTHALENE)

RQ Reportable Quantity is reached with 23,809 lb of product.

IMDG

UN number	3077
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (OXADIAZON MIXTURE)

IATA

UN number	3077
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (OXADIAZON MIXTURE)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.



RONSTAR® G HERBICIDE

Version 3.0 / USA
102000004005

11/12
Revision Date: 03/10/2014
Print Date: 02/28/2018

Freight Classification: COMPOUNDS, TREE OR WEEDKILLING, N.O.I., other than poison; HAVING A DENSITY OF GREATER THAN 20 LBS. PER CUBIC FOOT

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-886

US Federal Regulations

TSCA list

Titanium dioxide 13463-67-7

Naphthalene 91-20-3

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Oxadiazon 19666-30-9 25,000lbs

Naphthalene 91-20-3 0.1%

US States Regulatory Reporting

CA Prop65

This product contains a chemical known to the State of California to cause cancer.

Oxadiazon 19666-30-9

Titanium dioxide 13463-67-7

Naphthalene 91-20-3

This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Oxadiazon 19666-30-9 Developmental toxin.

US State Right-To-Know Ingredients

Oxadiazon 19666-30-9 NJ

Titanium dioxide 13463-67-7 MN

Naphthalene 91-20-3 CA, CT, MN, NJ

Canadian Regulations

Canadian Domestic Substance List

Titanium dioxide 13463-67-7

Naphthalene 91-20-3

Environmental

CERCLA

Naphthalene 91-20-3 100 lbs

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)



RONSTAR® G HERBICIDE

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Oxadiazon	19666-30-9
Titanium dioxide	13463-67-7
Naphthalene	91-20-3

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word:	Warning!
Hazard statements:	Causes eye irritation. Causes skin irritation. Harmful if inhaled. Do not get in eyes, on skin, or on clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Instability - 0 Others - none

HMS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 2 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 03/10/2014

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.

Appendix K – Material Safety Data Sheet – R/T 540 Liquid Herbicide (Roundup)

Monsanto Canada
R/T 540 Liquid Herbicide

Version: 1.3

Page: 1 / 8
Effective date: 10/09/2015

Monsanto Canada Safety Data Sheet Commercial Product

1. PRODUCT AND COMPANY IDENTIFICATION

Product name

R/T 540 Liquid Herbicide

PCP Reg. No.
28487

Product use
Herbicide

Chemical name
Not applicable.

Synonyms
None.

Company
Monsanto Canada, 900 - One Research Road, Winnipeg, MB, R3T 6E3
Telephone: 204-985-1000 or 800-667-4944 **Fax:** 204-488-9599
E-mail: safety.datasheet@monsanto.com

Emergency numbers

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CANUTEC - Day or Night: 613-996-6666 (collect calls accepted) or MONSANTO: 314-694-4000 (collect calls accepted).
FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

2. HAZARDS IDENTIFICATION

Emergency overview

Appearance and odour (colour/form/odour): Amber - Brown / Liquid / Odourless

CAUTION!
POISON
HARMFUL IF SWALLOWED
HARMFUL IF INHALED
CAUSES SKIN IRRITATION
CAUSES EYE IRRITATION

Potential health effects

Likely routes of exposure

Skin contact, eye contact

Eye contact, short term

May cause temporary eye irritation.

Skin contact, short term

Irritating to skin.

Inhalation, short term

Harmful by inhalation.

Single ingestion

Harmful if swallowed.

Refer to section 11 for toxicological and section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient

Potassium salt of N-(phosphonomethyl)glycine; {Potassium salt of glyphosate}

Composition

COMPONENT	CAS No.	% by weight (approximate)
Potassium salt of glyphosate	70901-12-1	49
Other ingredients		51

The specific chemical identity is being withheld because it is trade secret information of Monsanto Company.

4. FIRST AID MEASURES

Use personal protection recommended in section 8.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

Eye contact

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Skin contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation

If inhaled, move person to fresh air. If person is not breathing, call emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Ingestion

Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

Advice to doctors

This product is not an inhibitor of cholinesterase.

Antidote

Treatment with atropine and oximes is not indicated.

5. FIRE-FIGHTING MEASURES

Flash point

Does not flash.

Extinguishing media

Recommended: Water, foam, dry chemical, carbon dioxide (CO₂)

Unusual fire and explosion hazards

Minimise use of water to prevent environmental contamination.

Environmental precautions: see section 6.

Hazardous products of combustion

Carbon monoxide (CO), phosphorus oxides (P_xO_y), nitrogen oxides (NO_x)

Fire fighting equipment

Self-contained breathing apparatus.
Equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions

SMALL QUANTITIES:

Low environmental hazard.

LARGE QUANTITIES:

Minimise spread.

Keep out of drains, sewers, ditches and water ways.

Methods for cleaning up

Absorb in earth, sand or absorbent material.

Dig up heavily contaminated soil.

Collect in containers for disposal.

Refer to section 7 for types of containers.

Flush residues with small quantities of water.

Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

Handling

Avoid contact with eyes, skin and clothing.

Avoid breathing vapour or mist.

When using do not eat, drink or smoke.

Wash hands thoroughly after handling or contact.

Thoroughly clean equipment after use.

Do not contaminate drains, sewers and water ways when disposing of equipment rinse water.

Emptied containers retain vapour and product residue.

FOLLOW LABELLED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.

Storage

Compatible materials for storage: stainless steel, aluminium, fibreglass, plastic, glass lining

Incompatible materials for storage: galvanised steel, unlined mild steel, see section 10.

Keep out of reach of children.

Keep away from food, drink and animal feed.

Keep only in the original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne exposure limits

Components	Exposure Guidelines
Potassium salt of glyphosate	No specific occupational exposure limit has been established.
Other ingredients	No specific occupational exposure limit has been established.

Engineering controls

No special requirement when used as recommended.

Eye protection

If there is significant potential for contact:
Wear chemical goggles.
Applicators and other handlers must wear eye protection.

Skin protection

Wear chemical resistant gloves.
Applicators and other handlers must wear:
Wear long sleeved shirt, long pants and shoes with socks.
If there is significant potential for contact:
Wear face shield.
Wear chemical resistant clothing/footwear.
Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment.
If no such instructions for washables, use detergent and hot water.
Keep and wash personal protective equipment separately from other laundry.

Respiratory protection

No special requirement when used as recommended.
If airborne exposure is excessive:
Wear full facepiece/hood/helmet respirator.
Respiratory protection programs must comply with all local/regional/national regulations.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Amber - Brown
Odour:	Odourless
Form:	Liquid
Physical form changes (melting, boiling, etc.):	
Melting point:	Not applicable.
Boiling point:	No data.
Flash point:	Does not flash.
Explosive properties:	No explosive properties
Auto ignition temperature:	No data.
Specific gravity:	1.3522 20 °C / 15.6 °C
Vapour pressure:	No significant volatility; aqueous solution.
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	No data.
Kinematic viscosity:	No data.
Density:	No data.
Solubility:	Water: Completely miscible.
pH:	4.8 67.7 g/l
Partition coefficient:	log Pow: -3.2 @ 25 °C (glyphosate)

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions of handling and storage.

Oxidizing properties

none

Materials to avoid/Reactivity

Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

Hazardous decomposition

Thermal decomposition: Hazardous products of combustion: see section 5.

Self-accelerating decomposition temperature (SADT)

No data.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Data obtained on similar products and on components are summarized below.

Similar formulation

Acute oral toxicity

Rat, LD50: > 5,000 mg/kg body weight
Practically non-toxic.

Acute dermal toxicity

Rat, LD50: > 5,000 mg/kg body weight
Practically non-toxic.

Skin irritation

Rabbit, 3 animals, OECD 404 test:
Days to heal: 14
Primary Irritation Index (PII): 2.2/8.0
Moderate irritation.

Eye irritation

Rabbit, 3 animals, OECD 405 test:
Days to heal: 10
Moderate irritation.

Acute inhalation toxicity

Rat, LC50, 4 hours, aerosol: > 1.20 mg/L
Slightly toxic. No mortality. For purposes of the inhalation test, product was artificially aerosolized. Since this material will not become aerosolized to a hazardous concentration during transport, it is classified as non-hazardous under the transportation regulations in accordance with 2.6.2.2.4.7(b) and (c) of the UN Recommendations on the Transport of Dangerous Goods.

Skin sensitization

Guinea pig, 3-induction Buehler test:
Positive incidence: 0 %

N-(phosphonomethyl)glycine; { glyphosate acid}

Genotoxicity

Not genotoxic.

Carcinogenicity

Not carcinogenic in rats or mice.

Reproductive/Developmental Toxicity

Developmental effects in rats and rabbits only in the presence of significant maternal toxicity.
Reproductive effects in rats only in the presence of significant maternal toxicity.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on similar products and on components are summarized below.

Similar formulation

Aquatic toxicity, fish

Rainbow trout (*Oncorhynchus mykiss*):
Acute toxicity, 96 hours, semi-static, LC50: 3.13 mg/L
Moderately toxic.

Aquatic toxicity, algae/aquatic plants

Green algae (*Selenastrum capricornutum*):
Acute toxicity, 72 hours, static, EbC50 (biomass): 0.124 mg/L
Highly toxic.

Arthropod toxicity

Honey bee (*Apis mellifera*):
Contact, 48 hours, LD50: > 250 µg/bee
Practically non-toxic.

Honey bee (*Apis mellifera*):
Oral, 48 hours, LD50: > 238.8 µg/bee
Practically non-toxic.

Soil organism toxicity, invertebrates

Earthworm (*Eisenia foetida*):
Acute toxicity, 14 days, LC50: > 10,000 mg/kg dry soil
Practically non-toxic.

Soil organism toxicity, microorganisms

Nitrogen and carbon transformation test:
40 L/ha, 28 days: Less than 25% effect on nitrogen or carbon transformation processes in soil.

Similar formulation

Aquatic toxicity, invertebrates

Water flea (*Daphnia magna*):
Acute toxicity, 48 hours, static, EC50: 8.0 mg/L
Moderately toxic.

N-(phosphonomethyl)glycine; { glyphosate acid}

Avian toxicity

Bobwhite quail (*Colinus virginianus*):
Acute oral toxicity, single dose, LD50: > 3,851 mg/kg body weight
Practically non-toxic.

Bioaccumulation

Bluegill sunfish (*Lepomis macrochirus*):
Whole fish: BCF: < 1
No significant bioaccumulation is expected.

Dissipation

Soil, field:

Half life: 2 - 174 days
Koc: 884 - 60,000 L/kg
Adsorbs strongly to soil.

Water, aerobic:

Half life: < 7 days

13. DISPOSAL CONSIDERATIONS

Product

Keep out of drains, sewers, ditches and water ways.
Recycle if appropriate facilities/equipment available.
Burn in proper incinerator.
Follow all local/regional/national/international regulations.

Container

See the individual container label for disposal information.
Emptied containers retain vapour and product residue.
Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.
Empty packaging completely.
Triple or pressure rinse empty containers.
Do NOT contaminate water when disposing of rinse waters.
Ensure packaging cannot be reused.
Do NOT re-use containers.
Store for collection by approved waste disposal service.
Recycle if appropriate facilities/equipment available.
Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Not hazardous under the applicable DOT, ICAO/IATA, IMO, TDG and Mexican regulations.

15. REGULATORY INFORMATION

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.

Follow all local/regional/national/international regulations.

Please consult supplier if further information is needed.

In this document the British spelling was applied.

Full denomination of most frequently used acronyms: BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), IM. (intramuscular), IP. (intraperitoneal), IV. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MID (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary

Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), STOT SE (Specific Target Organ Toxicity, Single Exposure), STOT RE (Specific Target Organ Toxicity, Repeated Exposure), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE Pest Management Regulatory (PMRA)- APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by product labeling and provincial legislation, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the PMRA-approved label.

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