VENDOR CONTRACT

Between AstroTurf, LLC **and**

(Company Name)

THE INTERLOCAL PURCHASING SYSTEM (TIPS)

For

JOB ORDER CONTRACTING – 1012116

General Information

The vendor contract shall include the contract, the terms and conditions, special terms and conditions, any agreed upon amendments, as well as all of the sections of the solicitation and the awarded vendor's proposal. Once signed, if an awarded vendor's proposal varies or is unclear in any way from the TIPS contract, TIPS, at its sole discretion, will decide which provision will prevail. Other documents to be included are the awarded vendor's proposals, task orders, purchase orders and any adjustments which have been issued.

The following pages will constitute the contract between the successful vendors(s) and TIPS. Bidders shall state, in a separate writing, and include with their proposal response, any required exceptions or deviations from these terms, conditions, and specifications. If agreed to by TIPS, they will be incorporated into the final contract.

The Vendor Contract ("Contract") made and entered into by and between The Interlocal Purchasing System (hereinafter referred to as "TIPS" respectfully) a government cooperative purchasing program authorized by the Region VIII Education Service Center, having its principal place of business at 4845 US Hwy 271 North, Pittsburg, Texas 75686. This contract consists of the provisions set forth below, including provisions of all Attachments referenced herein. In the event of a conflict between the provisions set forth below and those contained in any Attachment, the provisions set forth shall control.

Definitions

CITY COST INDEX, Defined pricing indices published by R.S. Means (see R.S. Means) as local modifiers to the national cost data.

CLIENT MEMBER is any ISD/USD, ESC, University, Municipality, County, Federal or State Agency or non-taxed entity empowered to enter into an agreement with TIPS via their governing boards or trustees. In the State of Texas an interlocal agreement must be signed by the client.

In other states, the client is responsible for meeting their state requirements.

COEFFICIENT is the contractors' coefficient multiplier that is applied to the local city cost index and the total sum of line item estimates for each individual Job Order. It will include all overhead items such as office, safety equipment, vehicles and fuel, computers, communication devises, printers, programs, insurance maintenance, two percent TIPS management fee, final site cleanup and all contingencies.

DELIVERY ORDER (DO) is the scope of services approved from the Job Order Proposal and reviewed and approved by the Client for the PO.

JOB ORDER is a line item estimate taken from a job order proposal using the coefficient and R.S. Means which, upon agreement to by the client member, becomes a lump sum fixed price contract and a notice to proceed for the stated scope attached to the purchase order.

JOB ORDER CONTRACTING (JOC) is a variable term indefinite delivery, indefinite quantity contract for construction services on an on call basis through negotiated line item delivery orders (job orders) to include minor construction, repair, renovation, alterations, maintenance projects and limited design for architectural and engineering services. It is based upon the contracts priced coefficient applied to the city cost index and the line items in the unit price book (RS Means). When the line items are agreed to it becomes a lump sum firm fixed price contract for that negotiated scope of services.

JOB ORDER PROPOSAL is the response from the contractor to the client member from the clients request for a specific project. It will contain the line item estimate for the project as defined in the UPB and include a written scope of work for services to be performed.

JOB ORDER PROPOSAL REQUEST is originated from the client and provides a general scope of project services or architectural drawings, a requested schedule and any special addendum requirements. From this information the contractor will develop the scope of work for his job order proposal.

NON PRE-PRICED ITEMS are those items that cannot be found or reasonably compared to listed line items in the UPB.

PREMIUM HOURS are defined as those hours not included in regular hours or recognized holidays. Premium hours are to be approved by the member entity for each delivery order and noted in the delivery order proposal as a line item during negotiations.

REGULAR HOURS are defined as those hours between the hours of 7 AM and 6 PM Monday thru Friday.

UNIT PRICE BOOK (UPB) will be the current addition of RS Means Facilities Construction Cost Data or if published RS Means Job Order Contracting Cost Data – the published quarterly updates will be allowed.

PURCHASE ORDER is the TIPS member's approval providing the authority to proceed with the negotiated delivery order under the contract. Special terms and conditions as agreed to between the vendor and TIPS member will be added as addendums to the PO. Items such as certificate of insurance, bonding requirements, small or disadvantaged business goals are some of the addendums possible.

SCOPE OF WORK (SOW) is the specific work that has been agreed to be undertaken and accomplished under the TIPS contract via the delivery order process.

Terms and Conditions

Freight

All deliveries shall be freight prepaid, F.O.B. destination and shall be included in all pricing offered unless otherwise clearly stated in writing.

Warranty Conditions

All supplies equipment and services shall include manufacturer's minimum standard warranty unless otherwise agreed to in writing. Vendor shall be an authorized dealer, distributor or manufacturer for all products. All equipment proposed shall be new unless clearly stated in writing.

Customer Support

The Vendor shall provide timely and accurate customer support to TIPS members. Vendors shall respond to such requests within one (1) working day after receipt of the request. Vendor shall provide training regarding products and services supplied by the Vendor unless otherwise clearly stated in writing at the time of purchase. (Unless training is a line item sold or packaged and must be purchased with product.)

Contracts

All contracts and agreements between Vendors and TIPS Members shall strictly adhere to the statutes that are set forth in the Uniform Commercial Code as most recently revised.
Contracts for purchase will normally be put into effect by means of a purchase order(s) executed by authorized agents of the participating government entities.
Davis Bacon Act requirements will be met when Federal Funds are used for construction and/or repair of buildings.

Tax exempt status

A taxable item sold, leased, rented to, stored, used, or consumed by any of the following governmental entities is exempted from the taxes imposed by this chapter:(1) the United States; (2) an unincorporated instrumentality of the United States; (3) a corporation that is an agency or instrumentality of the United States and is wholly owned by the United States or by another corporation wholly owned by the United States;(4) the State of Texas; (5) a Texas county, city, special district, or other political subdivision; or (6) a state, or a governmental unit of a state that borders Texas, but only to the extent that the other state or governmental unit exempts or does not impose a tax on similar sales of items to this state or a political subdivision of this state. Texas Tax Code § 151.309.

Assignments of contracts

No assignment of contract may be made without the prior written approval of TIPS. Payment can only be made to the awarded Vendor or vendor assigned dealer.

Disclosures

1. Vendor affirms that he/she has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to a public servant in connection with this contract.
2. Vendor shall attach, in writing, a complete description of any and all relationships that might be considered a conflict of interest in doing business with participants in the TIPS program.
3. The vendor affirms that, to the best of his/her knowledge, the offer has been arrived at independently, and is submitted without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give an unfair advantage over other vendors in the award of this contract.

Renewal of Contracts

The contract is for one (1) year with an option for renewal for 2 consecutive years. Total term of contract can be up to 3 years if sales are reported through the contract and both parties agree.

Shipments

The Vendor shall ship ordered products within five (5) working days after the receipt of the order. If a product cannot be shipped within that time, the Vendor shall notify TIPS and the requesting entity as to why the product has not shipped and shall provide an estimated shipping date, if applicable. TIPS or the requesting entity may cancel the order if estimated shipping time is not acceptable.

Invoices

The Vendor or vendor assigned dealer shall submit invoices, to the TIPS participant. Each invoice shall include the TIPS participant's purchase order number. The shipment tracking

number or pertinent information for verification of TIPS participant receipt shall be made available upon request. The Vendor or vendor assigned dealer shall not invoice for partial shipments unless agreed to in writing in advance by TIPS and the TIPS participant.

Payments

The TIPS participant will make payments directly to the Vendor or vendor assigned dealer at net 30 days after receiving invoice.

Pricing

The Vendor contracts to provide pricing to TIPS and its participating governmental entities that is the lowest pricing available to like cooperative purchasing customers and the pricing shall remain so throughout the duration of the contract.

All pricing submitted to TIPS shall include the participation fee to be remitted to TIPS by the Vendor. Vendor will not show adding the fee to the invoice presented to customer. The normal fee is 2%, but can be negotiated with the Vendor.

Participation Fees

Vendor agrees to pay the participation fee for all contract sales to TIPS on a monthly scheduled report. Vendor must login to the TIPS database and use the "Submission Report" section to report sales. The Vendor is responsible for keeping record of all sales that go through the TIPS contract. Failure to pay the participation fee will result in termination of contract. Please contact TIPS at tips@tips-usa.com or call (866) 839-8477 if you have questions about paying fees.

Indemnity

1. **Indemnity for Personality Contracts.** Vendor agrees to indemnify and hold harmless and defend TIPS, TIPS member(s), officers and employees, from and against all claims and suits for damages, injuries to persons (including death), property damages, losses, and expenses including court costs and attorney's fees, arising out of, or resulting from, Vendor's performance of this contract, including all such causes of action based upon common, constitutional, or statutory law, or based in whole or in part, upon allegations of negligent or intentional acts on the part of the Vendor, its officers, employees, agents, subcontractors, licensees, invitees, whether or not such claims are based in whole or in part upon the negligent acts or omissions of the TIPS, TIPS member(s), officers, employees, or agents.

2. **Indemnity for Performance Contracts.** The Vendor agrees to indemnify and hold harmless and defend TIPS, TIPS member(s), officers and employees from and against all claims and suits for damages, injuries to persons (including death), property damages, losses, and expenses including court costs and attorney's fees, arising out of, or resulting from, Vendor's work under this contract, including all such causes of action based upon

common, constitutional, or statutory law, or based in whole or in part, upon allegations of negligent or intentional acts on the part of the Vendor, its officers, employees, agents, subcontractors, licensees, or invitees. Vendor further agrees to indemnify and hold harmless and defend TIPS, TIPS member(s), officers and employees, from and against all claims and suits for injuries (including death) to an officer, employee, agent, subcontractor, supplier or equipment lessee of the Vendor, arising out of, or resulting from, Vendor's work under this contract whether or not such claims are based in whole or in part upon the negligent acts or omissions of the TIPS, TIPS member(s), officers, employees, or agents.

Attorney's Fees--Texas Local Government Code § 271.159 is expressly referenced.
Pursuant to §271.159, TEXAS LOC. GOV'T CODE, in the event that any one of the Parties is required to obtain the services of an attorney to enforce this Agreement, the prevailing party, in addition to other remedies available, shall be entitled to recover reasonable attorney's fees and costs of court.

Multiple Vendor Awards

TIPS reserves the right to award multiple vendor contracts for categories when deemed in the best interest of the TIPS membership. Bidders scoring 80% or above will be considered for an award. Categories are established at the discretion of TIPS.

State of Texas Franchise Tax

By signature hereon, the bidder hereby certifies that he/she is not currently delinquent in the payment of any franchise taxes owed the State of Texas under Chapter 171, Tax Code.

Miscellaneous

The Vendor acknowledges and agrees that continued participation in TIPS is subject to TIPS sole discretion and that any Vendor may be removed from the participation in the Program at any time with or without cause. Nothing in the contract or in any other communication between TIPS and the Vendor may be construed as a guarantee that TIPS participants will submit any orders at any time. TIPS reserves the right to request additional proposals for items already on contract at any time.

Purchase Order Pricing Deviation

If a deviation of pricing on a purchase order occurs, TIPS is to be notified within 24 hours of receipt of order.

Cancellation for non-performance or contract deficiency

TIPS may terminate any contract if TIPS Members have not used the contract, or if purchase volume is determined to be "low volume" in any 12-month period. TIPS reserves the right to cancel the whole or any part of this contract due to failure by awarded vendor to carry out any

obligation, term or condition of the contract. TIPS may issue a written deficiency notice to awarded vendor for acting or failing to act in any of the following:

- Providing material that does not meet the specifications of the contract;
- Providing work and/or material that was not awarded under the contract;
- Failing to adequately perform the services set forth in the scope of work and specifications;
- Failing to complete required work or furnish required materials within a reasonable amount of time;
- Failing to make progress in performance of the contract and/or giving TIPS reason to believe that awarded vendor will not or cannot perform the requirements of the contract; and/or
- Performing work or providing services under the contract prior to receiving a TIPS reviewed purchase order for such work.

Upon receipt of the written deficiency, awarded vendor shall have ten (10) days to provide a satisfactory response to TIPS. Failure to adequately address all issues of concern may result in contract cancellation. Upon cancellation under this paragraph, all goods, materials, work, documents, data and reports prepared by awarded vendor under this contract shall become the property of the TIPS Member on demand.

TIPS Member Purchasing Procedures

Proposal Process: Vendor gives TIPS member scope of work and price.
Vendor gives TIPS scope of work, line item estimate and price.

Purchase Order Process:

Purchase orders are issued by participating TIPS member to the awarded vendor indicating on the PO "Contract Number". Purchase Order is emailed to TIPS at tipspo@tips-usa.com.

- Awarded vendor delivers goods/services directly to the participating member.
- Awarded vendor invoices the participating TIPS member directly.
- Awarded vendor receives payment directly from the participating member.
- Awarded vendor reports sales monthly to TIPS (unless prior arrangements have been made with TIPS to report monthly).

Form of Contract

The form of contract for this solicitation shall be the Request for Proposal, the awarded proposal(s) and best and final offer(s), and properly issued and reviewed purchase orders referencing the requirements of the Request for Proposals. If a vendor submitting an offer requires TIPS and/or TIPS Member to sign an additional agreement, a copy of the proposed agreement must be included with the proposal.

Vendor contract documents: TIPS will review proposed vendor contract documents. Vendor's contract document shall not become part of TIPS's contract with vendor unless and until an authorized representative of TIPS reviews and approves it.

Licenses

Awarded vendor shall maintain in current status all federal, state and local licenses, bonds and permits required for the operation of the business conducted by awarded vendor. Awarded vendor shall remain fully informed of and in compliance with all ordinances and regulations pertaining to the lawful provision of services under the contract. TIPS reserves the right to stop work and/or cancel contract of any awarded vendor whose license(s) expire, lapse, are suspended or terminated.

Novation

If awarded vendor sells or transfers all assets or the entire portion of the assets used to perform this contract, a successor in interest must guarantee to perform all obligations under this contract. TIPS reserves the right to accept or reject any new party. A simple change of name agreement will not change the contractual obligations of awarded vendor.

Site Requirements (when applicable to service or job)

Cleanup: Awarded vendor shall clean up and remove all debris and rubbish resulting from their work as required or directed by TIPS Member. Upon completion of work, the premises shall be left in good repair and an orderly, neat, clean and unobstructed condition.

Preparation: Awarded vendor shall not begin a project for which TIPS Member has not prepared the site, unless awarded vendor does the preparation work at no cost, or until TIPS Member includes the cost of site preparation in a purchase order. Site preparation includes, but is not limited to: moving furniture, installing wiring for networks or power, and similar pre-installation requirements.

Registered sex offender restrictions: For work to be performed at schools, awarded vendor agrees that no employee of a sub-contractor who has been adjudicated to be a registered sex offender will perform work at any time when students are or reasonably expected to be present. Awarded vendor agrees that a violation of this condition shall be considered a material breach and may result in the cancellation of the purchase order at the TIPS Member's discretion. Awarded vendor must identify any additional costs associated with compliance of this term. If no costs are specified, compliance with this term will be provided at no additional charge.

Safety measures: Awarded vendor shall take all reasonable precautions for the safety of employees on the worksite, and shall erect and properly maintain all necessary safeguards for protection of workers and the public. Awarded vendor shall post warning signs against all hazards created by the operation and work in progress. Proper precautions shall be taken pursuant to state law and standard practices to protect workers, general public and existing structures from injury or damage.

Stored materials

Upon prior written agreement between the contractor and Member, payment may be for materials not incorporated in the work but delivered and suitably stored at the site or some other location, for installation at a later date. An inventory of the stored materials must be provided to Member prior to payment. Such materials must be stored and protected in a secure location, and be insured for their full value by the contractor against loss or damage. Contractor agrees to provide proof of coverage and/or addition of Member as an additional insured upon Member's request. Additionally, if stored offsite, the materials must also be clearly identified as property of buying Member and be separated from other materials. Member must allow reasonable opportunity to inspect and take inventory of stored materials, on or offsite, as necessary.

Upon final acceptance by the Member, it shall be the Contractor's responsibility to protect all materials and equipment. The Contractor warrants and guarantees that title for all work, materials and equipment shall pass to the Member upon final acceptance. Payment for stored materials shall not constitute final acceptance of such materials.

Smoking

Persons working under contract shall adhere to local smoking policies. Smoking will only be permitted in posted areas or off premises.

Invoices

The awarded vendor shall submit invoices to the participating entity clearly stating "Per TIPS Contract". The shipment tracking number or pertinent information for verification shall be made available upon request.

Marketing

Awarded vendor agrees to allow TIPS to use their name and logo within website, marketing materials and advertisement. Any use of TIPS name and logo or any form of publicity, inclusive of press release, regarding this contract by awarded vendor must have prior approval from TIPS.

Supplemental agreements

The entity participating in the TIPS contract and awarded vendor may enter into a separate supplemental agreement to further define the level of service requirements over and above the minimum defined in this contract i.e. invoice requirements, ordering requirements, specialized delivery, etc. Any supplemental agreement developed as a result of this contract is exclusively between the participating entity and awarded vendor. TIPS, its agents, TIPS members and employees shall not be made party to any claim for breach of such agreement.

Legal obligations

It is the responding vendor's responsibility to be aware of and comply with all local, state and

federal laws governing the sale of products/services identified in the RFP and any awarded contract thereof. Applicable laws and regulations must be followed even if not specifically identified herein.

Audit rights

Awarded Vendor shall, at their sole expense, maintain appropriate due diligence of all purchases made by TIPS Member that utilizes this Contract. TIPS and Region 8 ESC each reserve the right to audit the accounting for a period of three (3) years from the time such purchases are made. This audit right shall survive termination of this Agreement for a period of one (1) year from the effective date of termination. TIPS shall have authority to conduct random audits of Awarded Vendor's pricing that is offered to TIPS Members. Notwithstanding the foregoing, in the event that TIPS is made aware of any pricing being offered to eligible entities that is materially inconsistent with the pricing under this agreement, TIPS shall have the ability to conduct the audit internally or may engage a third-party auditing firm. In the event of an audit, the requested materials shall be provided in the format and at the location designated by Region 8 ESC or TIPS.

Force Majeure

If by reason of Force Majeure, either party hereto shall be rendered unable wholly or in part to carry out its obligations under this Agreement then such party shall give notice and fully particulars of Force Majeure in writing to the other party within a reasonable time after occurrence of the event or cause relied upon, and the obligation of the party giving such notice, so far as it is affected by such Force Majeure, shall be suspended during the continuance of the inability then claimed, except as hereinafter provided, but for no longer period, and such party shall endeavor to remove or overcome such inability with all reasonable dispatch.

SERVICES

It is the intention of TIPS to establish an annual contract with highly qualified vendor(s) for **Job Order Contracting**. Vendor(s) shall, at the request of TIPS member, provide these products and/or covered services under the terms of this CONTRACT and the CONTRACT TERMS AND CONDITIONS. Vendor shall assist the end user TIPS member with making a determination of its individual needs, as stated below.

TIPS is seeking electronically sealed proposals for job order contracts for this procurement in accordance with Texas Government Code Chapter 2269, Subchapter (I) Job Order Contracting. The purpose of this procurement is to award job order contract(s) for the minor construction, repair, rehabilitation, or alternation of a facility for work of a recurring nature in which the delivery times are indefinite and indefinite quantities and orders are awarded substantially on the basis of pre-described and pre-priced tasks.

The contractor shall furnish all necessary labor, materials, tools, supplies, equipment, transportation, supervision, management and shall perform all operations necessary and required for construction work. All work shall be performed in accordance with the requirements set forth in the resulting contract and each mutually agreed upon work request or purchase order issued by TIPS client partner.

A contract will be established with standard specifications and pricing based upon a coefficient that is applied to a Unit Price Book (UPB). When a specific project or job order is issued, TIPS member and the contractor will agree on the scope of work and the cost is determined by applying the coefficient to the appropriate units in the UPB.

Information to Bidders

TIPS intends to enter into multiple Job Order Contracts to provide indefinite delivery, indefinite quantity (IDIQ) contracts for minor construction, renovation, repairs and alteration services. These contracts will be available for use by all public entities such as ESC's, ISD's, universities, city and county governments, community colleges, state and federal agencies in these United States and other jurisdictions. It may also be used by certain private non-taxed entities.

The contractor agrees to use, as required, Davis Bacon (See the UPB) or local wage rate that apply with some of the TIPS client members. The client member must supply any Davis Bacon or local wage rates requested.

The current annual edition of RS Means and quarterly adjustments will be the UPB used.

TIPS will receive **2% of the total revenue** from each PO executed under this contract. This fee will be included in the contractors priced coefficient and will not be issued as a separate line

item in any job order proposals issued to client members. This contract management fee will be required to be paid within thirty (30) days of the completion of any job order. If the job order has progress payments on large DOs the contractor will be required to pay in proportion to these payments within thirty (30) days of the invoice date.

RS Means will be the unit price for this contract using the RS Means right hand column ("Total Inc. O&P") and the most recent edition including any quarterly RS Means 12-digit line number. Contractors, at their expense, will make copies of the UPB available to the client member upon request via electronic or printed media.

While division one of the UPB will not be generally allowed, special requirements out of division one may be allowed with the approval of the client member and listed as a separate line item with an attachment giving an explanation as to the special need. One example would be a dedicated onsite safety officer and/or delivery order manager and/or superintendent at all times during construction. Unless this is very large DO, it would not be covered in the JOC coefficient. The mere signing of the Purchase Order without the noted exception and approval is not sufficient.

As defined, the contractor's bid coefficient shall include all overhead items such as office, safety equipment, vehicles and fuel, communication equipment, computers, printers, programs, insurance maintenance, two percent TIPS management fee, final site cleanup and all contingences. The contractor, at his expense and included as part of overhead, will provide adequate insurance coverage meeting at a minimum the statutory requirements. All project management, administration, and sufficient jobsite supervision are to be included in contractor's bid coefficient as well as any other main office or project overhead and profit items.

Items that are not found in the UPB will be listed as "non-pre-priced". This does not include previously discussed design and engineering costs. The contractor will provide three prices to establish the average bare cost for each item and add in the Overhead and Profit (OH/P) based upon the contractors coefficient. This line item will then be negotiated with the client member and as approved the item will then be added to the price book for future projects and no longer is non-pre-priced. The need for this special treatment needs to be addressed in the line item estimate and agreed to by the client member and TIPS.

Performance bonds will be required on all Job Orders over $100,000 and payment bonds on all Job Orders over $25,000 or meeting the client member's local and state requirements. A letter from a surety company that is licensed to do business in the state of Texas, or client member state, attesting to its willingness to bond your company for $1 million dollars must be submitted. Contractors may need to provide additional capacity as job orders increase. Bonds will not require that a fee be paid to TIPS. The actual cost of the bond will be a pass through to the client member and added to the purchase order.

SCOPE OF SERVICES

The specific scope of work for each job order shall be determined in advance and in writing between TIPS Client Member and Contractor.

It is okay if the client member provides a general scope, but the contractor should provide a written scope of work to the client member as part of the proposal. Once the scope of the job order is agreed to, the client member will issue a PO with the line item estimate referenced as an attachment along with bond and any other special provisions agreed to for the client member. If special terms and conditions other than those covered within this solicitation and awarded contracts are required, they will be attached to the PO and shall take precedence over those in the base contract.

CONTRACT AND DOCUMENTS

The contract shall include the contract, the terms and conditions, special terms and conditions, any agreed upon amendments, as well as all of the sections of the solicitation and the contractor's proposal. Once signed, if the contractor's proposal varies or is unclear in any way from the TIPS contract, TIPS, at its sole discretion, will decide which provision will prevail.

The Unit Price Book (UPB) will be the current edition of RS Means Facilities Construction Cost Data or if published RS Means Job Order Contracting cost data. The current edition AIA Master Text specifications and all applicable national, state, and local laws, codes, standards and regulations shall be followed.

Other documents to be included are the contractor's proposals, task orders, purchase orders and any adjustments which have been issued.

PROJECT DELIVERY ORDER PROCEDURES

The client member, having approved and signed interlocal agreement, may make a request of the contractor under this contract when the member has services that need to be undertaken. Notification may occur via phone, the web, email, fax, or in person.

Upon notification of a pending request, the contractor shall make contact with the client as soon as possible, but must make contact with the client member within two working days. Contractor shall visit the member's site and conduct a walk-through/project scoping with the member's representative to define the scope. Contractor's representative shall perform due diligence to request and gather all available project relevant existing conditions and record

documents from client member to include, but not limited to, hazardous materials survey and other relevant documents.

The contractor and the member will agree on the time when the job order proposal will need to be reviewed for approval by the client member. The contractor will then prepare a job order proposal including a written scope of work using an automated software system that will provide a line item estimate of the individual tasks, the quantities, the city cost index, his bid coefficient, and any applicable cost additions including any possible division one line items and design work that may be required and in need of approval. Information on those division one items that may be included can be found in information for offerors.

Contractors will be required to submit Job Order proposals and shall provide a line estimate based upon their coefficient and the UPB for that SOW which must be reviewed and agreed to by the client member prior to their issuance of a PO and DO.

When design work is necessary, the A/E selection shall confirm and be based upon qualifications of the design personnel according to applicable state law for selection. The client member may select an architectural consultant or use their own design capabilities providing the plans to the contractor.

The line items taken from the UPB and the estimated quantities totaled will be modified with the application of the city cost index and the contractor's coefficient. Any adjustment factors from division one will be added to establish the final price agreed to for the project. Cost adjustment factors, as allowed, must clearly identify those individual tasks (line items) to which they are applicable and include corresponding percentage.

The client member will then review the proposal and if the member's representative is in agreement with the proposed pricing and schedule, then other terms and requirements of the job order will be issued that will contain the approved job order proposal (scope of work) and the Purchase Order ("PO"). The PO will include the lump sum price, start date, schedule and notice to proceed and will be signed by both parties as a lump sum fixed price contract. After the agreement is signed, a copy of the purchase order shall be sent to TIPS representative completing the contracting and interlocal requirements. Each job order proposal shall be good for a period of 30 days unless an extension is agreed to by both the contractor and client member.

SCHEDULING OF PROJECTS

Scheduling of projects will be accomplished when the client member issues a purchase order that will serve as "the notice to proceed" and will contain the job order as an attachment based upon the negotiated line estimate and approved Job Order proposal. For large projects a Construction Project Management (CPM) schedule should be included in the proposal. The

construction performance period for the delivery order will include the mobilization, materials purchase, installation and delivery, design, weather, and site cleanup and inspection. No additional claims may be made for delays as a result of these items. When the tasks have been completed the contractor shall notify the client and have the client member inspect the work for acceptance under the scope and terms in the PO. The client will issue in writing any corrective actions that are required. Upon completion of these items the client will issue a completion notice and final payment will be issued.

SUPPORT REQUIREMENTS

If there is a dispute between the contractor and client, TIPS or its representatives will assist in conflict resolution or third party (mandatory mediation), if requested by either party.

TIPS, or its representatives, reserves the right to inspect any project and audit the contractors TIPS project files, documentation and correspondence.

The contractor will be required to furnish and maintain a field office in an awarded region. All of the expenses of maintaining these offices including furnishings, supplies, fax, and mobile and local phone services are the contractor's overhead responsibilities.

Utilities at the job sites will be furnished free of charge to the contractor by the client member. Water will be furnished free, with all of the taps, connections and associated equipment supplied free of charge to the contractor or supplied by the contractor and charged to the client. Upon project completion, the connections will be removed at the direction of the client.

Estimating Requirements: Awarded contractor must use Cost Works, JOC Works, RS Means Online, 4 Clicks, or Other approved estimating software. "Other software" than one of the four software programs listed above **must be approved by TIPS**.

Special Terms and Conditions

It is the intent of TIPS to contract with a reliable, high performance vendor to supply products and services to government and educational agencies. It is the experience of TIPS that the following procedures provide TIPS, the Vendor, and the participating agency the necessary support to facilitate a mutually beneficial relationship. The specific procedures will be negotiated with the successful vendor.

- **Contracts:** All vendor purchase orders must be emailed to TIPS at tipspo@tips-usa.com. Should an agency send an order direct to vendor, it is the vendor's responsibility to forward the order to TIPS at the email above within 24 business hours and confirm its receipt with TIPS.
- **Promotion of Contract**: It is agreed that Vendor will encourage all eligible entities to purchase from the TIPS Program. Encouraging entities to purchase directly from the Vendor and not through TIPS contract is not acceptable to the terms and conditions of this contract and will result in removal of Vendor from Program. Vendor is expected to use marketing funds for the marketing and promotion of this contract.
- **Daily Order Confirmation**: All contract purchase orders will be approved daily by TIPS and sent to vendor. The vendor must confirm receipt of orders to the TIPS member (customer) within 24 business hours.

Check one of the following responses to the General Terms and Special Terms and Conditions:

☑ We take no exceptions/deviations to the **general** and/or **special terms and conditions**.

(Note: If none are listed below, it is understood that no exceptions/deviations are taken.)

☐ We take the following exceptions/deviations to the **general** and/or **special terms and conditions**. All exceptions/deviations must be clearly explained. Reference the corresponding general or special terms and conditions that you are taking exceptions/deviations to. The proposer must clearly state if you are adding additional terms and conditions to the general or special terms and conditions. Provide details on your exceptions/deviations below:

Exceptions:

The Interlocal Purchasing System (TIPS Cooperative)
Supplier Response

Bid Information

Bid Creator	Mr. David Mabe General Manager
Email	david.mabe@tips-usa.com
Phone	+1 (903) 243-4759
Fax	+1 (866) 749-6674
Bid Number	1012116
Title	Job Order Contracting
Bid Type	RFP
Issue Date	11/02/2015
Close Date	12/11/2015 3:00:00 PM CT
Need by Date	

Contact Information

Address	Region VIII Education Service Center 4845 US Highway 271 North Pittsburg, TX 75686
Contact	David Mabe, Construction Contracts Manager
Department	
Building	
Floor/Room	
Telephone	+1 (866) 839-8477
Fax	+1 (866) 839-8472
Email	bids@tips-usa.com

Ship to Information

Address	
Contact	
Department	
Building	
Floor/Room	
Telephone	
Fax	
Email	

Supplier Information

Company	AstroTurf
Address	809 Kenner Dalton, GA 30720
Contact	
Department	
Building	
Floor/Room	
Telephone	1 (800) 7238873
Fax	1
Email	
Submitted	12/10/2015 10:12:30 PM CT
Total	$0.00

Signature Sydney Stahlbaum Email sstahlbaum@astroturf.com

Supplier Notes

Bid Notes

Bid Activities

Bid Messages

Please review the following and respond where necessary

#	Name	Note	Response
1	Yes - No	Disadvantaged/Minority/Women Business Enterprise - D/M/WBE (Required by some participating governmental entities) Vendor certifies that their firm is a D/M/WBE? Vendor must upload proof of certification to the ”Response Attachments” D/M/WBE CERTIFICATES section.	No
2	Yes - No	Highly Underutilized Business - HUB (Required by some participating governmental entities) Vendor certifies that their firm is a HUB? Vendor must upload proof of certification to the ”Response Attachments” HUB CERTIFICATES section.	No
3	Yes - No	The Vendor can provide services and/or products to all 50 US States?	Yes
4	States Served:	If answer is NO to question #3, please list which states can be served. (Example: AR, OK, TX)	
5	Company and/or Product Description:	This information will appear on the TIPS website in the company profile section, if awarded a TIPS contract. (Limit 750 characters.)	The inventor of synthetic turf, AstroTurf® is one of the most iconic brands in American sports — as legendary as the athletes who’ve battled on it. The brand that created the category is once again the leading innovator in synthetic turf. American-owned and operated, AstroTurf is the only synthetic turf brand with true vertical asset integration, ensuring that every inch of product meets and exceeds the highest standards of performance, quality and durability. With over 40 years of experience and 160,000,000 square feet of turf in use worldwide, AstroTurf brings more technological expertise and real world know-how to the game than any other brand. AstroTurf is backed by Textile Management Associates, Inc. (TMA), one of the leading suppliers to the synthetic turf industry. Textile Management Associates, Inc. is part of a 35-year-old, family owned manufacturing group based in Dalton, Georgia. The company has owned the AstroTurf brand, including all assets and intellectual property, since 2004. Today, AstroTurf products benefit from proprietary innovations in manufacturing, extrusion, installation and recycling that are outpacing industry trends. Guided by the philosophy of “More Fiber, Less Fill™,” AstroTurf is producing superior products that perform more like natural grass, and bringing new advances to market faster than the competition.

6	Primary Contact Name	Primary Contact Name	Sydney Stahlbaum
7	Primary Contact Title	Primary Contact Title	Director of Sales Support
8	Primary Contact Email	Primary Contact Email	sstahlbaum@astroturf.com
9	Primary Contact Phone	Enter 10 digit phone number. (No dashes or extensions)	5124235164
10	Primary Contact Fax	Enter 10 digit phone number. (No dashes or extensions)	
11	Primary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions)	5124235164
12	Secondary Contact Name	Secondary Contact Name	Troy Squires
13	Secondary Contact Title	Secondary Contact Title	Global Director of Sales and Marketing
14	Secondary Contact Email	Secondary Contact Email	tsquires@astroturf.com
15	Secondary Contact Phone	Enter 10 digit phone number. (No dashes or extensions)	7062179243
16	Secondary Contact Fax	Enter 10 digit phone number. (No dashes or extensions)	
17	Secondary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions)	7062179243
18	Admin Fee Contact Name	Admin Fee Contact Name. This person is responsible for paying the admin fee to TIPS.	Steve Parson
19	Admin Fee Contact Email	Admin Fee Contact Email	sparson@astroturf.com
20	Admin Fee Contact Phone	Enter 10 digit phone number. (No dashes or extensions)	7062724283
21	Purchase Order Contact Name	Purchase Order Contact Name. This person is responsible for receiving Purchase Orders from TIPS.	Sydney Stahlbaum
22	Purchase Order Contact Email	Purchase Order Contact Email	sstahlbaum@astroturf.com
23	Purchase Order Contact Phone	Enter 10 digit phone number. (No dashes or extensions)	5124235164
24	Company Website	Company Website (Format - www.company.com)	www.astroturf.com
25	Federal ID Number:	Federal ID Number also known as the Employer Identification Number. (Format - 12-3456789)	85-0486703
26	Primary Address	Primary Address	2680 Abutment Road
27	Primary Address City	Primary Address City	Dalton
28	Primary Address State	Primary Address State (2 Digit Abbreviation)	GA
29	Primary Address Zip	Primary Address Zip	30721
30	Search Words:	Please list search words to be posted in the TIPS database about your company that TIPS website users might search. Words may be product names, manufacturers, or other words associated with the category of award. YOU MAY NOT LIST NON-CATEGORY ITEMS. (Limit 500 words) (Format: product, paper, construction, manufacturer name, etc.)	Turf synthetic turf artificial turf playing fields JOC Construction field astroturf infilled turf 3D turf

31	Yes - No	Do you wish to be eligible to participate in a TIPS contract in which a TIPS member utilizes federal funds on contracts exceeding $100,000? (Non-Construction) (If YES, vendor should download the Federal Regulations for Contracts document from the Attachments section, fill out the form and submit the document in the "Response Attachments" FEDERAL FUNDS section.) (Vendor must also download the Suspension or Debarment Certificate document from the Attachments section, fill out the form and submit the document in the "Response Attachments" SUSPENSION OR DEBARMENT section.)	Yes
32	Yes - No	Certification of Residency (Required by the State of Texas) Company submitting bid is a Texas resident bidder?	No
33	Company Residence (City)	Vendor's principal place of business is in the city of?	Dalton
34	Company Residence (State)	Vendor's principal place of business is in the state of?	GA
35	Felony Conviction Notice:	(Required by the State of Texas) My firm is, as outlined on PAGE 5 in the Instructions to Bidders document: (Questions 36 - 37)	(No Response Required)
36	Yes - No	A publicly held corporation; therefore, this reporting requirement is not applicable?	No
37	Yes - No	Is owned or operated by individual(s) who has/have been convicted of a felony? If answer is YES, a detailed explanation of the name(s) and conviction(s) must be uploaded to the "Response Attachments" FELONY CONVICTION section.	No
38	Pricing Information:	Pricing information section. (Questions 39 - 42)	(No Response Required)
39	Yes - No	In addition to the typical unit pricing furnished herein, the Vendor agrees to furnish all current and future products at prices that are proportionate to Dealer Pricing. If answer is NO, include a statement detailing how pricing for TIPS participants would be calculated in the PRICING document that is uploaded to the "Response Attachments" PRICING section.	Yes
40	Yes - No	Pricing submitted includes the TIPS administration fee?	Yes
41	Yes - No	Vendor agrees to remit to TIPS the required administration fee?	Yes
42	Yes - No	Additional discounts to TIPS members for bulk quantities or scope of work?	Yes
43	Start Time	Average start time after receipt of customer order is ____ working days?	21
44	Years Experience	Company years experience in this category?	10
45	Prices are guaranteed for?	(___Month(s), ___ Year(s), or Term of Contract) (Standard term is "Term of Contract")	1 Year

Line Items

Response Total:	$0.00

CONTRACT Signature Form

The undersigned hereby proposes and agrees to furnish goods and/or services in compliance with the terms, specifications and conditions at the prices quoted unless noted in writing. The undersigned further certifies that he or she is an authorized agent of the company and has authority to negotiate and contract for the company named below.

Company Name:	AstroTurf, LLC
Mailing Address:	2680 Abutment Road
City:	Dalton
State:	GA
Zip:	30721
Telephone Number:	(800) 723-8873
Fax Number:	(706) 277-5220
Email Address:	tsquires@astroturf.com
Authorized Signature:	
Printed Name:	Troy Squires
Position:	Global Director, Sales and Marketing

This contract is for a total TERM of one year with the option of two additional years. Vendors shall honor the participation fee for any sales made based on the TIPS contract. Failure to pay the fee will be grounds for termination of contract and will affect the award of future contracts.

Blenda McNatt — TIPS Authorized Signature — 1/21/16 — Date

David Wayne Fitts — Approved by Region VIII ESC — 1/21/16 — Date

References

**** Must have at least 3 References. References must be School, City, County, University, State Agency or Other Government.**

Organization	City	State	Contact Name	Contact Phone
A.C. Reynolds High School	Asheville	NC	Marshall Roberts	828.255.5916
Appleton East High School	Appleton	WI	Mark Hansel	920.832.6306
Appleton North High School	Appleton	WI	Mark Hansel	920.832.6306
Bryant University	Smithfield	RI	Bill Smith	401.232.6078
Chattanooga, University of Tennessee	Chattanooga	TN	Mike Davis	423.421.4103
Cheney School District (Installing 2015)	Cheney	KS	David Grover	316.542.3512
Clear Creek ISD (Installing 2015)	League City	TX	Bill Daws	281.284.2845
Delaware, University of	Newark	DE	Joe Shirley	302.831.8586
Duke University	Durham	NC	Ryan Cakerice	919.812.8271
Kearney Public Schools (Installing 2015)	Kearney	NE	Mitchell Stine	308.698.8066
Hutchinson Community College	Hutchinson	KS	Don Rose	620.665.3597
Liberty University	Lynchburg	VA	Mickey Guridy	434.582.2100
Missouri Western State University	St. Joseph	MO	Kurt McGuffin	816.271.5623
Sapulpa High School	Sapulpa	OK	Kevin Burr	918.224.3400
Soquel High School (Installing 2015)	Soquel	CA	Trevor Miller	831.429.3904
Sioux Falls, University of	Sioux Falls	SD	Josh Snyder	605.331.6895
South Carolina, University of	Columbia	SC	Ray Tanner	803.777.4202
West Florida, University of (Installing 2015)	Pensacola	FL	Dave Scott	850.474.3003
Alamodome	San Antonio	TX	Sharon Guerrero	210.207.7260

Annapolis High School	Annapolis	MD	Les Phelps	410.255.2535
Canyon High School	Canyon County	CA	Gail Pinsker	661.259.0033 x 227
Carrollton Exempted Village Schools	Carrollton	OH	Mark Spears	330.627.8410
Chaffey High School	Ontario	CA	Mike Harrison	909.988.8511 x2510
Cheyenne Mountain High School	Colorado Springs	CO	Kris Roberts	719.630.4115
City View High School	Wichita Falls	TX	Rudy Hawkins Jr.	940.855.7511 x358
Clear Creek ISD	League City	TX	Bill Daws	281.284.2845
Cloudcroft High School	Cloudcroft	NM	Danny Ward	575.601.4416
Fredericksburg ISD	Fredericksburg	TX	Lance Moffett	830.997.6893
Ft. Worth Christian School	North Richland Hills	TX	Scott Smiley	817.520.6513
Garden City High School	Garden City	TX	Matthew Odom	325.220.1204
Hampton University	Hampton	VA	Buster Jackson	757.727.5516
Huguenot High School	Richmond	VA	Shea Collins	804.320.7967
Independence High School	Independence	OH	Tony DiGeronimo	216.469.1317
Independence High School	Independence	KS	Chuck Schmidt	620.332.1800
John F. Kennedy High School	Sacramento	CA	Cathy Allen	916.643.9212
Kennedy Catholic High School	Burien	WA	Gus Ripple	206.382.4370
Marshall University	Huntington	WV	Tim Malcomb	304.757.0880
Marshall University	Huntington	WV	Tim Malcomb	304.757.0880
Massachusetts - Amherst, University of	Amherst	MA	Dan Markowski	413.545.4085
Monett High School	Monett	MO	Daryl Bradley	417.235.5445
Moon Area High School	Coraopolis	PA	Ricci Rich	412.264.9440 x 1142
Moreau Catholic High School	Hayward	CA	Christine Krisman	510.881.4314
Nativity School	Rancho Santa Fe	CA	Margaret Heveron	858.756.6763
Nolan Catholic High School	Fort Worth	TX	Steve Prud'homme	817.781.4613
Ohio University	Athens	OH	Jim Schaus	740.593.0982
Oklahoma State University	Stillwater	OK	Judy Terwilliger	402.416.7095
Orlando Citrus Bowl	Orlando	FL	Greg Thompson	407.849.2560

Oxford High School	Oxford	MS	Johnny Hill	662.236.7951
Paloma Valley High School	Menifee	CA	Nick Newkirk	951.943.6369 x 80231
Paragould High School	Paragould	AR	Dale Schenk	870.236.7744 x170
Pigeon Forge High School	Pigeon Forge	TN	Jim Lethco	865.654.2598
Pittsburg High School	Pittsburg	TX	Jonathan Hill	903.856.3646
Rice University	Houston	TX	Joe Karlgaard	713.348.4077
Red Mesa High School	Teec Nos Pos	AZ	Alfred Begay	928.656.4122
Rogers High School	Puyallup	WA	Michael Meadows	253.841.1301
Rose Hill High School	Rose Hill	KS	Dave Hull	316.776.3350
Rosemont High School	Sacramento	CA	Cathy Allen	916.643.9212
Russell High School	Russell	KS	Sean Spoonts	785.483.5631
Scranton Area School District	Scranton	PA	Jeff Brazil	570.348.3464
South Dakota State University	Brookings	SD	Rob Peterson	605.688.6287
Sevier County High School	Sevierville	TN	Jack Parton	865.453.4671
St Rita High School	Chicago	IL	Gary DeCesare	917.567.1616
Summerville High School	Tuolumne	CA	Warren Van Bolt	209.928.3498
Township of Bridgewater	Bridgewater	NJ	Thomas Forsythe	908.725.6300 X6010
Union High School	Tulsa	OK	Charlie Bushyhead	918.357.4321
University Liggett School	Grosse Pointe Woods	MI	Jon Neville	313.884.4444 X420
Waynesville Middle School	Waynesville	MO	Michele Sumter	573.842.2550
Wilson High School	Portland	OR	Patrick Leboeuf	503.964.0043
Wisconsin-River Falls, University of	River Falls	WI	Roger Ternes	715.425.3246
Wyandotte High School	Kansas City	KS	Michael Lockett	913.627.7650
Wynne High School	Wynne	AR	Corey Throckmorton	870.238.5070 X 0239
Andrews ISD	Andrews	TX	Ralph Mason	432.524.2145
Back of the Yard High School	Chicago	IL	Chicago Public Schools	773.553.1000
Baldwin County BOE	Bay Minette	AL	Nathan McDaniel	251.932.9209
Blue Springs High School	Blue Springs	MO	Dan Anderson	816.228.4476

Blue Springs South High School	Blue Springs	MO	Dan Anderson	816.228.4476
Brigham Young University	Provo	UT	Terry Lynn Hatch	801.422.7001
Brigham Young University	Provo	UT	Terry Lynn Hatch	801.422.7001
Clarion University	Clarion	PA	Jay Foster	814.393.2258
Brighton High School	Brighton	MI	John Thompson	810.299.4184
Brighton High School	Brighton	MI	John Thompson	810.299.4184
Brownsburg High School	Brownsburg	IN	John Voight	317.852.5726
Clearwater High School	CLearwater	KS	Mike Roth	620.584.2091
Dartmouth College	Hanover	NH	Richard Whitmore	603.646.2673
Danville High School	Danville	IN	Jon Regashus	317.745.6431
Delaware, University of	Newark	DE	Joe Shirley	302.831.8586
East Bridgewater High School	East Bridgewater	MA	Brian Kiely	508.378.1620
El Paso Gridley High School	El Paso	IL	Mike Lindy	309.527.4410
Frederick Douglass High School	Baltimore City	MD	Blaine Lipski	410.396.8670
Garry Berry Stadium	Colorado Springs	CO	Bob Purvine	719.477.6018
Greenville High School	Greeneville	TN	Randy Richards	423.787.8040 x2257
Hazel Park High School	Hazel Park	MI	Fred Nix	248.789.8921
Hazel Park High School	Hazel Park	MI	Fred Nix	248.789.8921
Jacksonville Univeristy	Jacksonville	FL	Bo McDougal	904.256.7421
Liberty University	Lynchburg	VA	Mickey Guridy	434.582.2100
Liberty University	Lynchburg	VA	Mickey Guridy	434.582.2100
Manhattan High School	Manhattan	KS	Mike Marsh	785.587.2100
Maple Heights Stadium	Maple Heights	OH	Robert McGruder	216.438.6400 X 1320
Maple Shade Woodlawn Sports Complex	Maple Shade	NJ	Robert Frett	856.482.6012
Marion High School	Marion	AR	Dusty Duncan	870.739.5100
Mary Hardin Baylor, University of	Belton	TX	Pete Fredenburg	254.295.4226
Mississippi State University	Starkville	MS	Bart Prather	262.418.5842
Montville Twp High School	Montville	NJ	Cheryl Murtagh	617.373.2828

Murray High School	Murray	UT	David Dunn	801.264.7460
Naperville, City of	Naperville	IL	Mike Piszynski	(630)848-5012
North Broward Prep	Coconut Creek	FL	Rex Nottage	954.643.9101
North High School, Riverside Unified School District	Riverside	CA	Kenneth Mueller	951.788.7135
North Murray High School	Chatsworth	GA	Coach Gann	706.581.1076
Northampton HS-Stadium Field	Northampton	PA	Bob Yanders	610.261.0585
Northglenn High School	Northglenn	CO	Kevin Delohery	720.972.4266
Northview Academy	Sevierville	TN	Jack Parton	865.453.4671
Ohio Northern University	Ada	OH	Tom Simmons	419.772.2462
Ohio University	Athens	OH	Jim Schaus	740.593.0982
Oklahoma State University	Stillwater	OK	Judy Terwilliger	402.416.7095
Oklahoma State University	Stillwater	OK	Judy Terwilliger	402.416.7095
Paramus Catholic High	Paramus	NJ	Jim Vail	201.445.4466
Pomona USD . Diamond Ranch High School	Pomona	CA	Nathaniel C. Holt	909.397.4800 x3902
Pomona USD . Garey High School	Pomona	CA	Nathaniel C. Holt	909.397.4800 x3902
Pomona USD . Pomona High School	Pomona	CA	Nathaniel C. Holt	909.397.4800 x3902
Rancho Buena Vista High School	Vista	CA	John Wathen	760.726.2170 x2899
Saint Paul High School	Santa Fe Springs	CA	Dan O'Melveny	949.389.7260
San Leandro USD	San Leandro	CA	Greg Dyer	510.667.3530
Somerset Berkley Regional High School	Somerset	MA	Kim Docoutok	508.324.3115
Tates Creek High School	Lexington	KY	Joe Ruddell	859.381.3649
Tatum ISD	Tatum	TX	Andy Evans	903.947.6482
Texas A&M Commerce	Commerce	TX	Colby Carthel	903.886.5566
Washington Senior High School	Washington	MO	Bill Deckelman	636.231.2180
Alabama State University	Montgomery	AL	Melvin Hines	334.202.3473

Arlington High School - RUSD	Riverside	CA	Darrell Hamlow	951.906.5029
Boston College	Boston	MA	John Kane	617.552.8840
Belding Areas Schools- High School	Belding	MI	Joel Wilker	616.794.4957
Berkley School District	Oak Park	MI	Larry Gallagher	248.837.8029
Betsy Layne High School	Betsy Lane	KY	Ricky Thacker	606.478.9138
California - Los Angeles, University of	Los Angeles	CA	Jim Mora	310.825.4321
Bryan Independent School District	Bryan	TX	Harry Francis	979.209.7990
Bryan Independent School District	Bryan	TX	Harry Francis	979.209.7990
Columbia High School	Columbia	IL	Joe Iorio	618.281.2512
Edison High School	Edison	NJ	Jeff DiCoco	732.650.5200 x 5261
Fayetteville High School	Fayetteville	AR	Steve Jacoby	479.444.3050
Georgia, University of	Athens	GA	Charlie Whittemore	706.542.9036
Glacier Peak High School	Snohomish	WA	Bob Blair	360.563.7500
Greenwood High School	Greenwood	IN	Larry Slone	317.889.4099
Gwinnett County	Loganville	GA	Grant Guess	770.822.8855
Gwinnett County	Suwannee	GA	Grant Guess	770.822.8855
Judson ISD	Converse	TX	Mike Miller	210.945.1252
Kalamazoo College	Kalamazoo	MI	Paul Manstrom	269.337.7310
Lebanon High School	Lebanon	MO	Bob Bushyhead	913.371.7933
Madison Central High School	Richmond	KY	Todd Wilson	859.625.6109
Memphis, Town of	Memphis	TN	Mollie Sammon	901.729.4344
Markham, Town of	Markham, ON	CAN	Rob Hartnett	905.471.8755
Maryville High School	Maryville	TN	Richard Harbison	865.982.7121
Mayfield High School	Mayfield Village	OH	Frank Sever	440.995.7219
ME Global Field	Lacombe, AB	CAN	Wayne Gustafson	403.358.8515
Mercer University	Macon	GA	Bobby Lamb	478.957.4679
North Dakota State University	Grand Forks	ND	Cheryl Swanson	701.792.1200

Northwood University	Midland	MI	Pat Riepma	989.600.7466
Olympic Park .Fields#8 & #9.	Schaumburg	IL	Todd King	847.985.2115
Poly High School - RUSD	Riverside	CA	Darrell Hamlow	951.906.5029
Prestonsburg High School	Prestonsburg	KY	John Derossett	606.886.2252
Rhea County High School	Evansville	TN	Micah Ruehling	423.775.7889
Riverside North High School	Riverside	CA	Darrell Hamlow	951.906.5029
San Jose City College	San Jose	CA	Percy Carr	408.288.3731
South Dakota, University of	Vermillion	SD	David Herbster	605.677.5333
Snohomish High School	Snohomish	WA	Mark Perry	360.563.4080
Southern California, University of	Los Angeles	CA	Steve Lopes	213.740. 4158
Southmoore High School	Moore	OK	Carl Franks	405.735.4200 x4255
Springfield PS . Glendale High School	Springfield	MO	Tim Cowan	901.494.4440
Springfield PS . Hillcrest High School	Springfield	MO	Tim Cowan	901.494.4440
Springfield Public Schools . Kickapoo High School	Springfield	MO	Tim Cowan	901.494.4440
Taylorville High School	Taylorsville	UT	Randy Boudrero	801.450.1791
Union County	Elizabeth	NJ	Joe Graziano	908.789.3677
Utah State University	Logan	UT	Jana Doggett	435.757.9183
Vernon Hills High School	Vernon Hills	IL	Brian McDonald	847.932.2022
Washburn High School	Minneapolis	MN	Dan Pratt	612.668.3456
Westmoore High School	Oklahoma City	OK	Carl Franks	405.735.4200 x4255
Albion College	Albion	MI	Mark Frever	517.629.0227
Albemarle High School	Charlottesville	VA	Joe Letteri	434.975.9340
Auburn University	Auburn	AL	Jeff Steele	334.844.2389
Allegheny County	Allison Park	PA	John Deighan	412.350.4495
Barber Hill ISD	Mont Belivieu	TX	Ronnie Gage	972.979.1845
Corpus Christi ISD	Corpus Christi	TX	Brenda Marshall	361.814.9900
Dalhart ISD	Dalhart	TX	David Foote	806.244.7810
Enumclaw, City of	Enumclaw	WA	Chris Searey	360.615.5721

First Baptist Academy	Houston	TX	Don Massey	713.290.2593
Fort Smith Northern High School	Fort Smith	AR	Jim Rowland	479.785.2501
Fort Smith Northern High School	Fort Smith	AR	Jim Rowland	479.785.2501
Fort Smith Southern High School	Fort Smith	AR	Jim Rowland	479.785.2501
Freeburg High School	Freeburg	IL	Steve Sergesketter	618.539.5533
Fremont High School	Los Angeles	CA	Mohammad Kashani	213.241.4233
Gateway High School	Saint Louis	MO	Bryan Turner	314.776.3300
Gordon Lee High School	Chickamauga	GA	Greg Ellis	423.402.5794
Kansas State University	Manhattan	KS	Sean Snyder	785.535.5879
John C. Fremont High School	Los Angeles	CA	Amy McCabe	323.565.1200
Kansas, University of	Lawrence	KS	Bill Dickerson	785.864.7933
Lincoln High School	Portland	OR	Jeff Peeler	503.807.3713
Lowell High School	San Francisco	CA	Rob Ray	415.759.2730
Madison Southern High School	Berea	KY	Doug Salle	859.625.6148
Michigan State University	East Lansing	MI	Amy Fouty	517.355.1647
McCallie School	Chattanooga	TN	Bubba Simmons	423.280.5530
Nebraska, University of	Lincoln	NE	Maggi Thorne	402.472.1000
Muhlenberg High School	Greenville	KY	Brad Devine	270.338.2871
Naperville Park District	Naperville	IL	Mike Piszynski	(630)848-5012
Nellis Air Force Base.US Air Force	Nellis AFB	NV	Steve Zohner	702.876.7524
New Orleans, City of	New Orleans	LA	Vic Richards	504.658.3000
Newport High School	Newport	OR	Rich Belloni	541.265.9211
North Hills School District	West View	PA	Kevin Swindell	412.318.1049
North Hills School District	Pittsburgh	PA	Kevin Swindell	412.318.1049
Norwood High School	Norwood	MA	Brian McDonough	781.352.3529
Oregon State University	Corvallis	OR	Bill Calendar	541.737.6827
Oxford High School	Oxford	MI	Jim Reis	248.802.9905
Rainier Beach High School	Seattle	WA	Eric McCurdy	206.252.1800

Riverside Community College	Riverside	CA	Mike Byrd	951.222.8474
South Brunswick, Township of	Cranbury	NJ	Tom Morris	732.329.4000
Steubenville High School	Steubenville	OH	Mike Bauman	740.283.3767 x204
Utah State University	Logan	UT	Jana Dogget	435.757.9183
Toledo High School	Toledo	OR	Rich Belloni	541.265.9211
Urbana High School	Urbana	IL	Greg Hall	217.384.3533
Urbana High School	Urbana	IL	Greg Hall	217.384.3533
Virginia . Wise, University of	Wise	VA	Danny Sterling	276.328.0204
Vanderburgh Evansville High School	Evansville	IN	Paul Neidig	812.435.0966
Cincinnati, University of	Cincinnati	OH	Perry Siler	513.556.2170
Vista High School	Vista	CA	Steve Presley	760.726.1800
Walled Lake Northern High School	Walled Lake	MI	Brian Swineheart	248.956.2074
Watson Chapel High School	Pine Bluff	AR	Leslie Byrd	870.879.3230
West Albermarle High School	Crozet	VA	Jason Bauman	434.982.4653
West Memphis High School	West Memphis	AR	Bill Cook	870.735.1915
Allen Academy	Bryan	TX	Dave Bliss	979.776.0731
Brenham High School	Brenham	TX	Glen West	979.277.3790
Choctaw Middle School	Choctaw	OK	Carl Glencross	405.769.5696
Cincinnati, University of	Cincinnati	OH	Perry Siler	513.556.2170
Citrus Bowl Stadium	Orlando	FL	Greg Thompson	407.849.2560
Corpus Christi ISD	Corpus Christi	TX	Brenda Marshall	361.878.4880
Douglas High School	Douglas	AZ	Randy Walker	520.364.3451
Fort Scott Community College	Fort Scott	KS	J.D. Ettore	620223-2700
El Dorado High School	El Dorado	AR	Phillip Lansdell	870.864.5002
Fluvana County High School	Palmyra	VA	Scott Morris	434.591.2077

Franklin College	Franklin	IN	Mike Leonard	317.753.3221
Georgia State University	Atlanta	GA	James Greenwell	404.413.4007
Harve De Grace	Havre de Grace	MD	Dave Goodwin	410.638.3550
Hinsdale High School	Hinsdale	IL	Dr. Nick Wahl	630.655.6110
Hinsdale High School	Darien	IL	Dr. Nick Wahl	630.655.6110
Hinsdale High School	Hilsdale	IL	Dr. Nick Wahl	630.655.6110
Hinsdale High School	Hilsdale	IL	Dr. Nick Wahl	630.655.6110
Lewis & Clark College	Portland	OR	Clark Yeager, Mark Minty	503.768.7548
Kirkwood High School	St. Louis	MO	Jeff Townsend	314.213.6100
Lee's Summit High School	Lee's Summit	MO	Darwin Rold/ Tom Kurucz	816.986.1038
Lee's Summit North High School	Lee's Summit	MO	Darwin Rold/ Tom Kurucz	816.986.1038
Lee's Summit West High School	Lee's Summit	MO	Darwin Rold/ Tom Kurucz	816.986.1038
Liberty Bell	Johnson city	TN	Keith Turner	423.232.2195
Lincoln Piux X High School	Lincoln	NE	Tim Aylward	402.488.0931
M.L. King High School - Riverside USD	Riverside	CA	Ken Mueller	951.788.7496
McClymonds High School/Oakland Unified School District	Oakland	CA	Ms. Tinisha Hamberlin	510.879.3030
Missouri Western State University	St. Joseph	MO	Kurt McGuffin	816.271.5623
Muleshoe High School	Muleshoe	TX	David Wood	806.273.7303
New Rochelle	New Rochelle	NY	Bill Zimmerman	914.654.2092
Newcomb High School	Newcomb	NM	Dennis Fieldsted	505.598.6626
NJ Special Olympics	Lawrenceville	NJ	Gene Swanhart	609.896.8000
Olathe East High School	Olathe	KS	Lane Green	402.416.7095
Olathe North High School	Olathe	KS	Lane Green	402.416.7095
Olathe Northwest High School	Olathe	KS	Lane Green	402.416.7095
Olathe South High School	Olathe	KS	Lane Green	402.416.7095
Penn Harris High School	Mishawaka	IN	Ben Karasiak	574.254.2854
Pomona College	Claremont	CA	Mark Matsumoto	909.621.8266

Ptt Meadow Secondary School	Maple Ridge, BC	CAN	Bruce Mcleod	604.467.7338
Ramona High School . Riverside USD	Riverside	CA	Ken Mueller	951.788.7496
Ridgeland High School	Rossville	GA	Mark Mariakis	706.820.1342
Rome/Floyd Parks and Recreation	Rome	GA	Richard Garland	706.291.0766
Science Hill High School	Johnson City	TN	Keith Turner	423.232.2190
Scottsdale Christian Academy	Phoenix	AZ	Scott Baughman	602.992.5100
Southwestern Oklahoma State Univ.	Weatherford	OK	Todd Thurman	580.774.3701
Stanford Drive Park	Berkeley Heights	NJ	Joe Graziano	908.789.3677
Stanford University	Stanford	CA	Dave Schinski	650.725.7947
Tara Stadium	Jonesboro	GA	Kevin May	770.473.2845
Tennessee, University of	Knoxville	TN	Kevin Zurcatr	865.974.8479
Traverse City Area Public Schools	Traverse City	MI	Paul Mahon	231.933.1935
Troy Athens High School	Troy	MI	Ken Miller	248.823.4067
Troy High School	Troy	MI	Ken Miller	248.823.4067
Twelve Oaks Stadium	Hampton	GA	Kevin May	770.473.2845
Union County	Berkeley Heights	NJ	Joe Graziano	908.789.3660
Van Horn High School	Independence	MO	Bob Robinson / Jason Dial	816.521.2800
Warrenton High School	Warrenton	MO	Dr. John Long/ Craig Fraizer	636.456.4311
West Texas A&M University	Canyon	TX	Michael McBroom	806.651.4400
Westfield High School	Chantilly	VA	Wayne Pullen	703.898.3330
Calhoun High School	Calhoun	GA	Hal Lamb	706.629.9213
Davis High School	Davis	CA	Mike Adell	530.759.2182
Dearborn High School	Dearborn	MI	Jeff Burek	313.580.1960
Durham County Government	Durham	NC	Neil Wilkes	919.828.7782
Franklin High School	El Paso	TX	Robert Morales	915.525.3771
Freestate High School	Lawrence	KS	Tom Bracciano	785.832.5975

Friends of City Park	New Orleans	LA	Meg Adams	504.482.4888
Lake Shore High School	St. Clair Shores	MI	Donald Kling	586.285.8550
Lawrence High School	Lawrence	KS	Tom Bracciano	785.832.5975
Meadows School, The	Las Vegas	NV	Carolyn Goodman	702. 254.1610
Meadows School, The	Las Vegas	NV	Carolyn Goodman	702. 254.1610
Monticello High School	Charlottesville	VA	Fitzgerald Barnes	434.244.3131
Morehead State University	Morehead	KY	Brian Hutchinson	606.783.2089
Notre Dame College Prep	Niles	IL	Mike Shaunessy	847.965.2900
Oak Park High School	Oak Park	MI	Rona Head	248.336.7740
Old Dominion University	Norfolk	VA	Bobby Wilder	402.416.7095
Robert E. Lee High School	Springfield	VA	Lee Ann Pender	703.246.6905
Smith Lake Park	Stafford	VA	Chris Hoppe	540.658.4870
Watauga High School	Boone	NC	Mike Kesterson	828.268.9848
Andress High School	El Paso	TX	Don Brooks	915.525.3771
Bryant Park	Fairfax	VA	Deb Garris	703.324.8742
Burges High School	El Paso	TX	Don Brooks	915.525.3771
Carl Junction High School	Carl Junction	MO	Dr. Phil Cook	417.439.7520
Coronado High School	El Paso	TX	Don Brooks	915.525.3771
Denver Public Schools	Denver	CO	Josh Griesbach	720.490.6995
Fellowship Christian School	Roswell	GA	Hunter Chadwick	770.993.1650
Filmore High School	Fillmore	CA	Bob Sube	805.524.8047
Franconia Park	Fairfax	VA	Deb Garris	703.324.8742
George C. Marshall High School	Falls Church	VA	Deb Garris	703.324.8742
George C. Marshall High School	Falls Church	VA	Deb Garris	703.324.8742
Girard High School	Girard	OH	Joe Cappuzzello	330.565.5471
Greeneville High School	Greeneville	TN	Jeff Idell	423.823.2854
Hollywood West Sports Complex	Hollywood	FL	Oscar Petty	954.921.3404
Huron High School	Ann Arbor	MI	Rowdy Sherer	419.656.6135
Jackson High School	Jackson	MI	Russell Davis, III	517.841.3710
Lakeshore High School	Stevensville	MI	Jim Sanford	269.921.6430

Marysville High School	Marysville	MI	Rick DeNardin	810.364.7811
McKinney Boyd High School	McKinney	TX	Keith Garringer	469.667.6176
McKinney High School	McKinney	TX	Keith Garringer	469.667.6176
Mendham High School	Mendham	NJ	Charlie Shouberg	973.895.4025
Midwood High School	Brooklyn	NY	Jessica Sultzer	212.450.2466
Monroe High School	Monroe	NC	Johnny Sowell	704.296.3130
Muhlenberg College	Allentown	PA	Mike Donnelly	484.664.3385
NFL Youth Football Clinics	Central Park	NY	Jessica Sultzer	212.450.2466
Old Dominion University	Norfolk	VA	Bobby Wilder	757.683.6150
Pisgah High School	Canton	NC	Steve Williams	828.456.2400
Saunders Field	Boston	MA	Scott Dupuis	617.961.3016
Shawnee Mission East High School	Shawnee Mission	KS	Rusty Newman	913.993.6414
Shawnee Mission Northwest High School	Shawnee Mission	KS	Rusty Newman	913.993.6414
Truman State University	Kirksville	MO	Mark Schultz	660.785.4120
Tuscola High School	Waynesville, NC	NC	Steve Williams	828.456.2400
Vanderbilt University	Nashville	TN	Dan Barge	615.356.9911
Bryan Station High School	Lexington	KY	Chad Luhman	859.381.3310
Burke High School	Omaha	NE	Kyle Rohrig	402.557.3211
Campbell University	Buies Creek	NC	Stan Williamson	910.893.1326
Fayetteville State University	Fayetteville	NC	Dr. Edward McClean	910.672.1315
Fenton High School	Fenton	MI	Mike Bakker	810.591.2608
Fordson High School Football	Dearborn	MI	Jeff Burek	313.827.3204
Frankford Pop Warner	Philadelphia	PA	Rick Horrow	561.743.6408
Harrison High School	Harrison	AR	Tom Tice	870.741.3280
Hialeah, City of/Dade County Schools	Hialeah	FL	Manny Ferrara	305.687.2650
Howell Parker High School	Howell	MI	Dan Hutcheson	517.548.6335
Joplin High School	Joplin	MO	Jeff Starkweather	417.625.5242

McKinney Boyd High School	McKinney	TX	Brian Rose	972.658.2389
Monsignor Bonner High School	Drexel Hills	PA	Bryan Dempsy	215.283.2490
Nicholls State University	Thibodaux	LA	Rob Bernardi	985.448.4795
Plainwell High School	Plainwell	MI	Dave Price	269.685.9554
Rogers High School	Rogers	AR	Mark Holderbaum	479.636.3910
Shawnee Mission West High School	Shawnee Mission	KS	Rusty Newman	913.993.6414
Columbus East High School	Columbus	IN	Bob Gaddis	812.376.4365
Columbus North High School	Columbus	IN	Jeff Hester	812.376.4265
Franklin High School	Franklin	IN	Noel Hemminger	371.847.5811
Franklin High School	Seattle	WA	Joann Fukuma	206.252.6164
Fraser High School	Clinton Township	MI	Brad Robinson	586.879.2315
Johnson High School	St. Paul	MN	Karl Dickman	651.290.8396
Liberty Christian High School	Argyle	TX	Mark Bowles	940.294.2118
Parker High School	Howell	MI	Dan Hutcheson	517.548.6335
Plymouth Educational Center	Detroit	MI	Jessie Kilgore	313.999.1793
Rash Stadium	Owensboro	KY	Chris Gaddis	270.686.1084
Thurston High School	Redford	MI	Al Chambo	313.535.4000
Vicksburg High School	Vicksburg	MI	Mike Roy	269.321.1164
Walnut Hills High School	Cincinnati	OH	Dave Dierker	513.363.0410
A.C. Reynolds High School	Asheville	NC	Marshall Roberts	828.255.5916
Adams High School	Rochester	MI	Jason Rapp	248.726.5208
Asheville High School	Asheville	NC	Marshall Roberts	828.255.5916
Catholic Central High School	Novi	MI	Bob Santello	248.596.3828
Charles D. Owen High School	Black Mountain	NC	Marshall Roberts	828.255.5916
Chippewa Valley High School	Clinton Township	MI	Al Kastl	586.723.2400

Clyde A. Erwin High School	Asheville	NC	Marshall Roberts	828.255.5916
Drury University	Springfield	MO	Dr. Edsel Matthews	417.873.7294
Enka High School	Chandler	NC	Marshall Roberts	828.255.5916
Ferndale High School	Ferndale	MI	Shaun Butler	248.586.8626
Florida State University	Tallahassee	FL	Titus Queen	850.645.1580
John Glenn High School	Westland	MI	Brian Swinehart	734.419.2311
Lake Orion High School	Lake Orion	MI	Bill Reiss	248.693.5458
McKinney ISD . Boyd High School	McKinney	TX	Nancy James	469.742.4113
North Buncombe High School	Weaverville	NC	Marshall Roberts	828.255.5916
Platte County High School	Platte County	MO	Dr. Mike Reik	816.858.5420
Ralston High School	Omaha	NE	Dan Mussman	402.898.3515
Renaissance High School	Detroit	MI	Scot Norris	313.898.5437
Rochester High School	Rochester	MI	Mike Watson	248.726.5408
Stoney Creek High School	Rochester	MI	Shane Redshaw	248.726.5708
T.C. Roberson High School	Skyland	NC	Marshall Roberts	828.255.5916
Tennessee, University of Chattanooga	Chattanooga	TN	Bill Wilkerson, AIA	423.266.4816
Walled Lake Central High School	Commerce Township	MI	Bill Chatfield	248.956.3060
Walled Lake Western High School	Commerce Township	MI	Bill Chatfield	248.956.3060
Wayne Memorial High School	Wayne	MI	Dewie Cole	734.419.2200
Western Hills High School	Cincinnati	OH	Dave Dierker	513.363.0410
Ardrey Kell Road High School	Charlotte	NC	Scott Watkins	704.759.3704
Churchill High School	Livonia	MI	Marc Hage, CMAA	734.744.2650
East Kentwood High School	Grand Rapids	MI	Todd Bell	616.698.8848
Franklin High School	Livonia	MI	Ron Hammye	734.744.2655
Howell High School	Howell	MI	Dan Hutcheson	517.548.6335
Lahser High School	Bloomfield Hills	MI	Eve Clara	248.341.5760
Midland Public Schools	Midland	MI	Doug Fillmore	989.923.5001

Olivet College	Olivet	MI	Larry Colvin	269.749.7159
South Carolina, University of	Columbia	SC	Kelly Lewis	803.446.6599
Stevenson High School	Livonia	MI	Lori Hyman, CAA	734.744.9417
West Bloomfield High School	West Bloomfield	MI	Dewayne Jones	248.865.6743
Westside High School	Omaha	NE	Ken Baldwin	402.390.2167
Martin Luther King Jr. High School	Detroit	MI	Scott Norris	313.461.6357
Oscar A. Carlson High School	Gibraltar	MI	Tracy Richardson	734.379.7108
Thornapple Kellogg High School	Middleville	MI	Tony Koski	269.795.5405

Company Profile

Please provide the following:

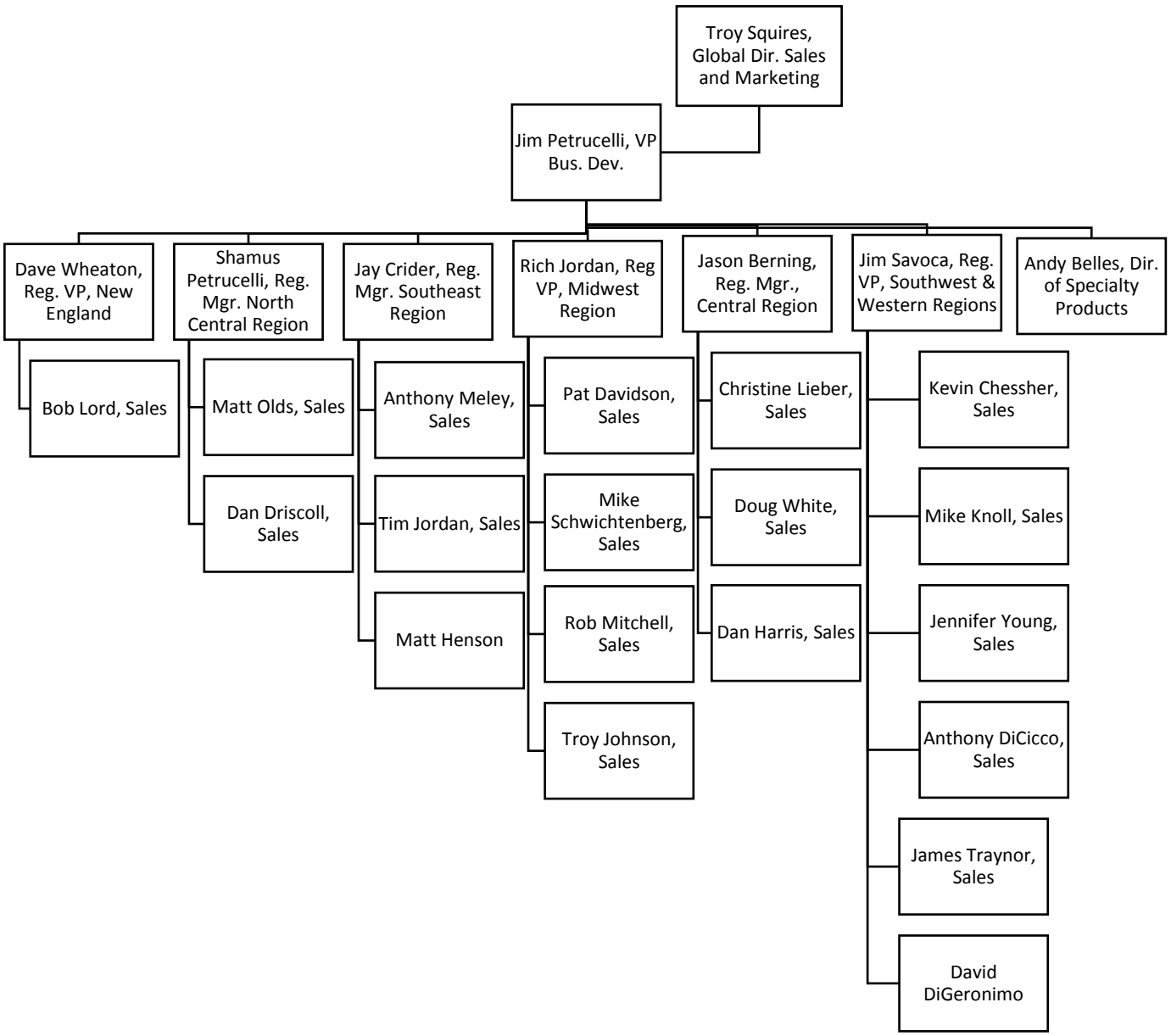
1. Company's official registered name.
   AstroTurf®, LLC

2. Brief history of your company, including the year it was established.
   For many athletes and sport enthusiasts, the AstroTurf brand has redefined the way the game is played. AstroTurf invented the synthetic turf industry in 1965 and has, for decades, been known as a company focused on innovation, specialty manufacturing, and customer service. 2015 is an especially important year to the company, as it marks the 50th anniversary of AstroTurf's invention, an innovation that would change the landscape of athletics forever.

   Textile Management Associates, Inc. ("TMA"—AstroTurf's PARENT COMPANY), a company founded by the Peeples family (Shelby, Tom and Bryan Peeples) of Dalton, Georgia, owns not only the AstroTurf® brand (which they bought in the early 2000s), but the varied manufacturing, IP and installation assets necessary for AstroTurf's success. This includes (1) Synthetic Turf Resources, LLC ("STR") the original AstroTurf *tufting/knitting/fiber extrusion plant* and sports surfacing *laboratory*; (2) the industry's preeminent *polyurethane coating* plant , Universal Textile Technologies, LLC ("UTT") in Dalton, GA; (3) the turf primary backing cloth *weaving plant*, Carpet and Rug Backings, LLC ("CRB") in Birmingham, AL; (4) ACCUCUT®, a robotic, water-jet logo and markings cutting facility in Chatsworth, GA; and, (5) the turf PRE-FAB and inspection facility in Chatsworth, Georgia. TMA and AstroTurf have been fixtures in the turf and carpet industry for over 30 years. The Peeples family is one of the larger private employers in the state of Georgia, with interests in banking, real estate and textile industries.

3. Corporate office location.
   2680 Abutment Road
   Dalton, GA 30721

4. List the total number of sales persons employed by your organization within the United States, broken down by market.



5. List the number of location of offices, or service centers for all states being bid in solicitation. Additionally, list the names of key contacts at each location with title, address, phone and e-mail address.

Center Type	Location	Distributor & Service Firm	Contact
Service/	Boston, MA	All American	Scott Koesterich, Principal

Support		Sports Group	855.274.8873 ScottK@aasportsgroup.com
Service/ Support	Rockland, MA	RAD	Rob Delmonico, President 781-871-4400 rmd@radsports.com
Service/ Support	Bath, PA	Grace Industries	Bob Demyan, President 484-223-7468 bobd@graceind.net
Service/ Support	Montville, NJ	Applied Landscape Technologies	Phil Pirro, Principal 973-402-6544 Phil@appliedlt.com
Service/ Support	Pittsburgh, PA	TPK	Tim Keen, President 412-913-4875 Tpkinc2@verizon.net
Service/ Support	Lexington, NC	Sports Construction Management	Leroy Lawson 336-238-9060 leroy.lawson@scminc.net
Service/ Support	Dalton, GA	AstroTurf, LLC	Thomas Green, Warranty Claims Manager 706-996-6086 tgreen@astroturf.com
Service/ Support	Atlanta, GA	SportsTurf	Todd Weber, Director 770-301-7500 todd.weber@sportsturf.net
Service/ Support	Kansas City, KS	Mid America Sports Construction	Kirk Grego, President 816-524-0010 kgrego@mid-americagolf.com
Service/ Support	Austin, TX	Swank Sports	Kevin Swank, President 512-635-2651 kevin@swanksports.com
Service/ Support	Brecksville, OH	Sports Contracting Group	Paul Franks, President 216-536-2225 pfranks@scgfields.com
Service/ Support	Denver, CO	Graff's Turf	James Graff, President 970-867-8873 jgraff@graffsturf.com
Service/ Support	Los Angeles, CA	AFE	Doug Coulter, President 310-261-3837 dcoulter@asphaltfabeng.com
Service/ Support	Spreckles, CA	Colony Landscape	Ed Ott, President ed@colonylandscape.com
Service/ Support	Sacramento, CA	Valley Precision Grading	Kip Olson, President 916-752-5645 kip@vpgrading.com

	Service/ Support	Seattle, WA	Coast to Coast	Steve Webb, President 509-953-1607 steve@coasttocoastturf.com
	Service/ Support	Phoenix, AZ	General Acrylics	Jonnie Deremo, President 602-569-9377 jderemo@generalacrylics.com

6. Please provide contact information for the person(s) who will be responsible for the following areas, including resumes:

   A. Sales
      Jim Petrucelli
   B. Sales Support
      Sydney Stahlbaum
   C. Marketing
      Sydney Stahlbaum
   D. Financial Reporting
      Steve Parson
   E. Executive Support
      Troy Squires

7. Define your standard terms of payment.
   Net 30 days from date of invoice

8. Overall annual sales for the last three (3) years; 2013, 2014, 2015

	2013	2014	2015 YTD
TOTAL	$ 41,430,732.05	$ 55,288,189.19	$ 69,777,261.75

9. What differentiates your company from competitors?

Marketing/Sales

1. Detail how your organization plans to market this contract within the first 90 days of the award date. This should include, but not be limited to:

   a. A co-branded press release within first 30 days
   b. Announcement of award through any applicable social media sites
   c. Direct mail campaigns

d. Co-branded collateral pieces
e. Advertisement of contract in regional or national publications
f. Participation in trade shows

AstroTurf has extensive experience in the public market in general, and employing co-ops to serve the public market in particular. To drive home the advantages of the TIPS/TAPS network and promote its use within our organization, AstroTurf will:

- Within 30 Days— Develop talking points and marketing materials for our sales staff to inform customers (both TIPS/TAPS Member Agency Members and future Members, i.e., schools with which we have existing relationships) of our new Agreement and the opportunities presented therein.
- Within 30 Days— Put out a co-branded press release announcing the new TIPS / TAPS – AstroTurf partnership
- Within 30 Days – Post press release to Twitter, Facebook, and Linked In
- Within 30 Days—Provide a special commission on sales made by means of the co-op.
- Within 60 days—Have signs printed to be included in trade show displays indicating we are a TIPS/TAPS vendor
- Continually—Exhibit our dedication to the long-term success of this agreement by reviewing our sales and methodology employed for each Member Agency on a quarterly basis and making adjustments as necessary.

2. Describe how your company will demonstrate the benefits of this contract to eligible entities if awarded.

AstroTurf will train our sales force, emphasizing the specific features, benefits, and advantages of co-operative purchasing in general and TIPS/TAPS specifically. Especially

a. How using the co-op can save clients time and funds
b. How the co-op allows clients to get the special product features and systems it really desires, without having to bring unwanted features in from other vendors through a separate bid
c. How using the co-op option allows school personnel to focus on more pressing tasks at hand, thus leading to enhanced staff efficiency

Astroturf will also mandate that each eligible sales rep introduce TIPS/TAPS when applicable. This means

a. Introducing the concept of TIPS/TAPS/Member Agency Cooperative Purchasing
b. Providing written FAQ/Sell sheet with initial literature placement or mailings
c. Explaining that the advantages provided by the co-op option include obtaining the best pricing available from the company
d. Explaining that even if a bid is solicited, AstroTurf will make the co-op option available in a cover letter to the bid itself, demonstrating that the product bid can be purchased more inexpensively by means of TIPS/TAPS

3. Explain how your company plans to market this agreement to existing government customers.

By far, government institutions compose the greatest segment of AstroTurf's customer base. For this reason, our seasoned sales, management, and administrative forces have developed an expert understanding of the intricacies of doing business with both the educational and municipal markets. A review of our list of references reveals that AstroTurf has extensive experience selling to and servicing the public sector, with hundreds and hundreds of sports fields sold over the past few years alone. We have collective staff experience of hundreds of years specializing in sports facility sales to public institutions. The vital importance of this market has driven us to develop a consistent, managed, and focused approach to serving governmental institutions. For example, we comprehend the roles that are played at every level of the educational setting and realize that the complex interactions between facilities managers, coaches, athletic directors, school boards, and superintendents ultimately determine a school's selection of an athletic surface. As such, we strive to cultivate relationships with each of these players and facilitate communication between them. Our drive to entrench ourselves within the public market is evidenced by our sales figures. Our reputation for outstanding customer service and product excellence is critical for properly serving this market and testifies to our dedicated approach to providing the highest quality athletic facilities to this market.

Our extensive experience with the government market and our commitment to quality are the bedrock of our firm belief in the co-operative purchasing model. Time and again, we have seen schools and municipalities, in the face of diminished resources, waste time and dollars conducting bids at the local level. Frequently, these schools select the lowest priced, worst quality products and services, often in direct opposition to the wishes of users and administrators within the organization. These choices are driven by short-term financial constraints, ignorance of other options, and customary practices; but they come at the long-term expense of students' safety and ultimately result in greater expense to the institutions and to taxpayers (through early replacements, the hassles of warranty claims, etc.). It is our belief and experience that customers buying AstroTurf products via a co-operative agreement pay consistently fair prices and receive consistently superior quality.

In order to make synthetic turf buyers aware of the opportunity to procure AstroTurf fields via the TIPS/TAPS co-op, AstroTurf will aggressively market its association with TIPS/TAPS. Marketing strategies include but are not limited to:

- Communicate with TIPS/TAPS regarding trade show schedules and ensure that staff from both AstroTurf and co-op are available to answer questions from attendees.
- Display signs to signify that AstroTurf is an TIPS/TAPS/Member Agency vendor to ensure we are easily identified as such at trade shows.
- Modify AstroTurf's website to announce TIPS/TAPS relationship and provide information about the co-op. Provide AstroTurf information to TIPS/TAPS/Member Agency for their use.
- Include TIPS/TAPS logo in AstroTurf's email marketing footer.
- Add co-op purchasing information to AstroTurf's Sales PowerPoint Presentations.
- Create a brochure to explain TIPS/TAPS advantages and processes
- Attend meetings hosted by TIPS/TAPS.
- Invite TIPS/TAPS and/or regional co-ops to present information to AstroTurf sales reps
- Create a video educating viewers on means to procure, including co-op advantages.
- Keep co-ops informed of sales opportunities and invite them to provide help as required or effective.
- Provide one submittal package of due diligence documents to prospects.

- Include TIPS/TAPS logo on any TIPS/TAPS logo on any email or direct mail piece.

4. Provide the revenue that your organization anticipates for the first three (3) years of this agreement.

   $_5 Million_____ in year one

   $_7 Million_____ in year two

   $_9 Million_____ in year three

2680 Abutment Road
Dalton, GA 30720
tsquires@astroturf.com
(706) 217-9243

Troy Squires

Experience:

2009 – Present	**AstroTurf –** Dalton, GA Global Director, Sales & Marketing
2002 – 2009	**FieldTurf –** Montreal, QC VP, Sales & Marketing
1991 – 2002	**Southwest Recreational Industries** – Austin, TX COO – AstroTurf Division
1986 – 1990	**All Pro/OmniTurf** -- Dallas, Texas Director of Sales
1979 – 1985	**SuperTurf International** – Garland, TX Director of Sales
Education:	**Coronado High School, El Paso, Texas (1972)** **B.A., Rice University, Houston, Texas (1977)**

Troy Squires, a long-time industry veteran, "re-joined" AstroTurf® as Global Director of Sales and Marketing in 2009. Prior to accepting this position, Troy led sales and marketing at FieldTurf International. Before this highly successful tenure at FieldTurf, Troy held a variety of senior positions at other turf companies, including C.O.O. at Southwest Recreational Industries (AstroTurf®), and Sales Director at All Pro/OmniTurf and SuperTurf. He began his career in the turf industry in 1979.

Troy graduated from Rice University in 1977, having attended on a football scholarship ("back in the old Southwest Conference days" but after leather helmets).

Troy directs an extensive network of company sales representatives and marketing support staff, including international dealers. After 20 years in Austin, TX, Troy has relocated to Dalton, Georgia. With Troy's extensive background in manufacturing and product development (he has two turf patents to his credit, including the original concept of the Root Zone®), AstroTurf is intent on translating customer needs into product innovation. Troy puts a premium on customer satisfaction, pushing AstroTurf reps in consultative selling, matching AstroTurf's many manufacturing assets with products that make a difference to clients large and small.

Perhaps Troy's biggest success at AstroTurf has been in helping assemble a "dream team" of sales and operations experts with established track records of success and merging them into the existing AstroTurf family.
Troy is continuously pushing the AstroTurf team forward to lead the industry. As mandated by Shelby Peeples, the patriarch of the AstroTurf family, this means "being the best brand in the industry, measured not by size, but by product quality, profitability and especially customer satisfaction."

2680 Abutment Road
Dalton, GA 30720
jpetrucelli@astroturf.com
412-302-8634

Jim Petrucelli

Experience:

Jim Petrucelli serves as AstroTurf's Vice President of Business Development. Jim's responsibilities include development of regional sales divisions, focusing on increased market share and brand enhancement. Additionally, Jim is charged with evaluating and structuring new business opportunities in such areas as system development, strategic partnerships and experience enhancing AstroTurf customer programs. Jim is proud to be a guiding member of team that has led AstroTurf in unparalleled sales growth with over 300 full size fields installed in 2015.

Jim's previous experience includes Managing Director of Hellas Construction Northeast, Senior VP of Sales & Marketing for FieldTurf and, as a founding member of Turf USA, Jim sold and installed the very first long pile, infilled synthetic turf football field in the world, at Ringold High School in Monongahela, PA. Jim's expertise in the sports surfacing business is extensive, encompassing both base construction and specific sport surfacing systems, including both all weather track surfaces and synthetic turf systems. As former football player at both the University of South Carolina and Youngstown State, Jim understands the needs and requirements of today's highly trained and competitive athletes.

Jim brings a highly structured level of experience and expertise to the AstroTurf Team. He is dedicated to the industry and has an emphasis on capturing and maintaining market share. Jim's past industry service includes various positions in the American Sports Builder's Association (formerly USTC & TBA), including two terms as Chairman and service with the Synthetic Turf Council as a board member. As an integral part of our senior management team, Jim's industry knowledge and experience, coupled with his highly structured motivational sales approach, will assist AstroTurf to maintain and enhance its ongoing goal to provide the industry's very best synthetic turf experience.

2680 Abutment Road
Dalton, GA 30720
sstahlbaum@astroturf.com
512-423-5164

Sydney Stahlbaum

Experience:

2012 – Present	**AstroTurf –** Dalton, GA Director of Sales Support and Marketing
2010 – 2012	**AstroTurf –** Dalton, GA Sales Team Administrator
2010	**AstroTurf –** Dalton, GA Intern
Education:	**Westwood High School, Austin, Texas (2004)** **B.A., McGill University, Montreal, QC (2009)**

Sydney Stahlbaum began as an intern for AstroTurf fresh out of school. She quickly proved herself to be a determined, hard-working professional who gains genuine satisfaction from empowering business development teams. Consequently, Sydney has become a vital part of AstroTurf's success in the industry. She thrives in the role of go-to-resource when the job has to be done.

Sydney Stahlbaum now directs all Sales Support and Marketing efforts for the company. She is responsible for understanding the needs of the sales team and delivering all resources to drive market share growth.

2680 Abutment Road
Dalton, GA 30720
sparson@astroturf.com

Steve Parson

(706) 272-4283

Experience:

2012 – Present	**AstroTurf LLC & Synthetic Turf Resources –** Dalton, GA Controller
2000 – 2012	**Schott North America Inc.** – Dalton, GA Controller
2005 – 2006	**Beaulieu of America** – Dalton, GA (One year departure from Schott N.A.) Financial Projects Manager/Senior Cost Accountant Manager
1993 – 2000	**Shaw Industries Inc.** -- Dalton, GA Billing Department Manager/Cost Accounting Supervisor
Education:	**Dalton High School, Dalton, Georgia** **B.B.A., University of West Georgia, Carrollton, Georgia**

Steve began as the Director of Accounting for AstroTurf in 2012. One year after joining the team he was promoted to Controller of AstroTurf and Synthetic Turf Resources. With the promotion he assumed the additional duties of Credit & Finance Manager. Prior to accepting this position, Steve led the Accounting Department at Schott North America for 6 separate divisions, two of which resided in Canada and Mexico respectively.

After college Steve began his career with Shaw Industries, which at the time was the world's largest carpet manufacturer. He began in the billing department but was quickly promoted to Cost Accounting Supervisor within a year. After spending several years working in cost, Steve was promoted to Billing Department Manager with over 20 staff members.

Steve brings over 20 years of financial experience to the company and over 10 years of experience in the flooring industry.

J. Smith Lanier & Co.
Insuring People And Business Since 1868

March 7, 2013

RE: AstroTurf, LLC
Bondability

To Whom It May Concern:

We have been the bonding agent for AstroTurf, LLC for several years. AstroTurf, LLC is currently bonded through the Berkley Regional Insurance Company with a bond limit of $ 20,000,000.00 per project and a $ 40,000,000.00 aggregate.

Berkley Regional Insurance Company is an "A" rated company. If you need any further information please do not hesitate to contact us.

Sincerely,

John W. Lyman
Senior Vice President
Attorney-In-Fact

JWL/bja

One Union Square, Suite 303 • Chattanooga, TN 37402
423.267.8310 • Fax 423.267.8065 • www.jsmithlanier.com

ASTROBASE

Converting an existing grass field to a top-performing synthetic turf system is now a reality which can take place in days, instead of months, thanks to the development of AstroBase.

AstroBase is a system utilizing patented panel technology to replace compacted stone bases for synthetic turf systems. This is a different concept entirely versus lightweight tiles, foam pads and extruded plastic rolls that have had limited success in the industry, mainly as drain mats—not *structural bases.* According to comparative *PLATE LOADING* test results (performed at Bathurst, Clarabut Geotechnical Testing, Inc. laboratories in Toronto), the AstroBase system has better structural integrity, even on a subbase compacted to only 70% density, than a highly compacted 6" dynamic stone base.

The advantages of AstroBase are numerous: Bottom line, AstroBase panels can save time and money, as well as provide an athletic surface which is second-to-none in terms of aesthetics (especially tolerance-to-grade), performance, consistency, and durability. The system is designed to last more than one life-cycle of turf.

In terms of time savings, a standard stone base installation (the price of which varies significantly from community to community) generally requires (with good weather) at least three weeks of construction time. In contrast, an AstroBase installation, including demo, minimal excavation, and compaction, requires less than 10 days. Other benefits include a drastic drop in truck traffic bringing tons and tons of stone to site (often going through neighborhoods unaccustomed to such a parade); a percentage of recycled material in the panels themselves; and a warranty not possible with stone bases.

AstroBase is a structural system of interlocking panels that can replace stone bases, AstroBase provides the qualities of drain mats and shock pad systems. Because

AstroBase panels absorb shock, the turf systems installed on top can be shorter, less laden with rubber and rubber “fly out”.

Each panel is made from 100% recyclable materials.

AstroBase panels weigh 9 lbs. and are engineered to conform to the shape of the earth. Each panel features tiny 3,000 barbs that help hold the turf in place during installation and play. The panels are designed to withstand loads of 1,000 lbs. per square inch, or 144,000 lbs. per square foot!

For drainage, each panel features 82 drain holes to allow for vertical drainage. Vertical water flow through 2.5” pile height turf is 175” per hour. Horizontal water flow under the panels is 96.4 inches per hour. Each panel is also designed to store 3.56 gallons of water underneath, ensuring the playing surface is always ready. This “storage capacity” is important when calculating storm water management.

The Home Depot Center

The first full-field AstroBase installation took place at the Home Depot Center in Carson, California in December 2011. The entire process took just 6 days and the installation of the AstroBase panels on the 92,000 s.f. field took just 18 hours.

Following the installation, the field hosted all five state championship football games for the California Interscholastic Federation, the AstroTurf NFLPA Collegiate Bowl, international soccer tournaments, and soccer practices for the U.S. Women’s National Team.

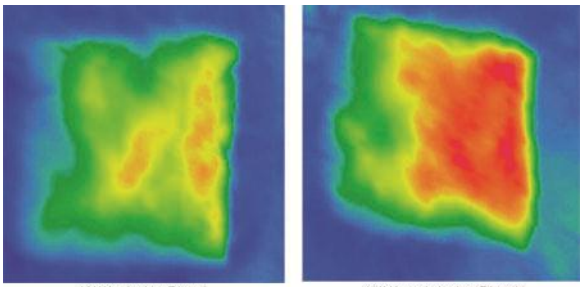
The Home Depot Center

AstroTurf
SINCE 1965

AstroFlect™
Heat Reduction Technology

Synthetic turf fields get hot. It's a fact.

Heat build-up occurs when sunlight hits the turf. The source of heat is thermal energy from the sun. Sunlight emits a broad spectrum of ultraviolet, visible light, and infrared energy. The infrared energy is nature's heat source. When the sun's infrared energy contacts a material, it is either reflected as radiated energy or absorbed as heat. We all know that dark clothing absorbs more heat than light clothing. In much the same way, certain materials absorb more energy than others. The scientific term for this is *emissivity*. AstroTurf has done the basic research on the reasons turf heats up (going back to the 1970's) and was the first company to offer solid improvement via special technology designed specifically to lower the heat created by plastic fibers.


With AstroFlect | Without AstroFlect

Light clothing will, in general, have a lower emissivity than dark clothing. Likewise, a shiny metal has a lower emissivity than a dull metal. The shiny metal reflects more infrared energy and, therefore, remains cooler. An example of this is a reflective sun shield placed behind a windshield to reduce heat build-up inside an automobile.

Synthetic turf materials can be manufactured with different emissivities. We use this knowledge to control the absorption, reflection, and emission of heat from the sunlight. Synthetic turf, compared to natural grass, absorbs more heat-causing radiation, resulting in higher surface temperatures. Physiologists have discovered that living human skin has extraordinarily high absorptivity and emissivity (0.99), greater than almost any other known substance, matte-black metals included. Consequently, we are highly responsive to changes in radiant temperature.

The challenge is to reduce the emissivity of synthetic turf without affecting the appearance. A turf that is white or shiny would be an impractical way to make a field cooler. Fortunately, there are other ways to reduce the emissivity of synthetic turf.

Professional athletes, even at the top of their game, continue to strive for improvement. AstroTurf is no different. We encourage our customers not to be

misled by confusing data (such as “heat reductions of more than 40 degrees;” “the field will be 20 percent cooler;” “tested to reduce heat up to 51 percent”). We back our AstroFlect technology with proven, tested results and are continuing our efforts to better understand heat reduction technology.
AstroTurf was the first synthetic turf manufacturer to offer AstroFlect technology incorporated during the extrusion of the yarn that allows turf fibers to reflect infrared light and dissipate the heat from the yarn rather than absorbing it. The Meadows School in Las Vegas was the first client. It was developed with lower emissivity materials, while maintaining the appearance of natural grass. It has been tested to determine actual end-use performance and the difference is significant—a reduction of about 10% with a standard infill.

Besides the obvious – that AstroFlect is proven by laboratory and real world data – this heat solution presents other advantages over other offerings. *It requires no water, comes at no extra expense, and is not subject to the effects of rot, wind, and rain like organic infills.*

AstroTurf, the first vertically integrated synthetic turf company in the industry, understands the importance of collaborating with experts. To continue our focus on cooler grass solutions, we are working with some of the world’s leading chemical companies and scientists, including InnovaNet Technology Group, a consortium of scientists, engineers and business people who specialize in new marketplace integrated systems solutions, and turf experts at the University of Tennessee’s AstroTurf-funded Center for Sports Surfacing Research.

NOTE: The issue of “heat of on artificial turf fields” is *not* an issue of “life safety”…Sports medicine experts, working with AstroTurf engineers in the 1970’s, determined that players on turf fields were not subject to elevated heat/humidity levels at chest and head levels (which is what medical experts are concerned about) versus natural grass fields. This is because of the higher humidity levels on natural grass fields. Nationwide, to reduce the incidence of heat stroke, trainers and team doctors have adopted much stricter rules on practicing during times of high heat/humidity. There is no evidence whatsoever that players suffer more heat-related injury on turf than on grass fields.

AstroFusion

Dealing with the seams in a synthetic turf sports field is a constant issue during the installation process and can affect the performance and aesthetics of a field for years to come. For years, the choices for seaming were simple….sew or glue. There are constant debates about whether sewing or gluing is the best process. While both have their advantages and disadvantages, there is a new method in the industry which is superior to both.

AstroTurf has developed a game-changing new process call AstroFusion, which provides a stronger, more durable seam in less time than traditional methods for 3D products.

Sewing seams is a labor-intensive process which is also subject to the mechanically demanding process of using a sewing machine. The process also punctures the turf and can play a role in breaking down the strength of the seam, and ultimately, the field. Additionally, the stitch involved in sewing can create bumps in the field, causing a trip hazard.

Gluing is a process which typically uses adhesive materials which are moisture-cured. This process can also be labor-intensive and is subject to the weather. Changes in temperature, humidity, and other weather factors can affect the seaming process and the performance of the field. Glued seams don't handle temperature changes well and do not readily adapt to freeze/thaw situations. The materials required for this process are also highly flammable.

The AstroFusion system involves a hot-melt adhesive system using spun-bond polyester. The adhesive is contained on a roll, much like a pest strip. By applying heat from a self-propelled cart, the heat transfers evenly into the adhesive and activates it, providing a more consistent, durable seam. The uniformity of the process also creates seams that are virtually invisible.

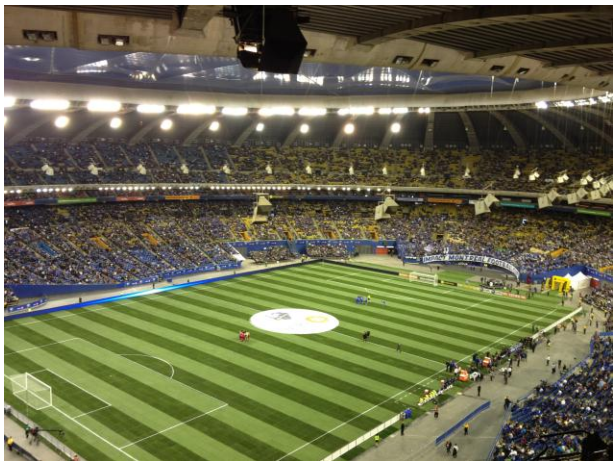
The AstroFusion system contains no hazardous materials and low VOCs. The process is easy, clean, reduces errors, and is faster. An experienced AstroTurf installation crew can apply the AstroFusion process at a rate of about 15 feet per minute, allowing for completion of the seaming process on a football field from goal line-to-goal line in eight hours.

Two parallel panels are laid out next to each other and folded back from the seam. AstroTurf technicians lay a 12” wide AstroFusion tape down between the panels and a clear plastic film is then pulled off the tape. The self propelled cart passes over the AstroFusion tape, creating a 300 degree heat source which activates the adhesive. The turf panels are laid over the seam and placed side-by-side, with no gap, and rolled with a 200 lb. roller. Just like that, the seam is in place and rock-solid!

AstroTurf’s Research and Development team has performed hundreds of freeze/thaw tests on AstroFusion to ascertain that its adhesive qualities will endure any kind of weather. Those tests have shown impressive results, with AstroFusion exhibiting a bonding ability about three times stronger than glued and sewn seams.

ASTROMOD,
POWERED BY NEXXFIELD

AstroTurf is pleased to offer a cutting-edge modular turf system—***AstroMod*, powered by Nexxfield**. The system is revolutionary in its unique flexibility and ease of installation in both removable and permanent applications, either indoor or outdoor.



Montreal Olympic Stadium

With decades of leadership in the convertible field market, AstroTurf instantly recognized the genius of Nexxfield's technology and partnered with the company to bring a novel option to venues from gyms to stadiums.

It's an easy solution, yet does not compromise player safety, comfort, or performance!

Why Owners Love AstroMod:

AstroMod installation, mid installation

- No infill required—easy and quick installation, lightweight, and clean
- Efficient drainage through the modules—permits indoor and outdoor use, even on difficult rooftop applications
- Exceptionally lightweight—each 4' by 8' panel weighs only 30 lbs.
- Panels can be rotated or moved for uniform wear across the field—greater turf longevity and a longer investment
- Ease of installation yields maximum versatility—temporary fields are possible during facility improvements
- Modules stack atop one another when not in use—creates more storage space
- Proven and trusted technology—references include the University of Vermont, the US Navy, the US Marine Corp, and Montreal's Olympic Stadium

Why Players Love AstroMod:

- Superior shock absorption made possible by the Nexxfield panels — enhanced player protection
- Firm underfoot—fast speed of play
- Delivers ball roll properties resembling best-maintained natural grass fields—allows for elite competition

Mets versus Blue Jays on Nexxfield Technology

About AstroTurf:

For athletes and sport enthusiasts, AstroTurf has redefined the way the game is played. The company offers advanced, state-of-the-art, multi-sport and specialized synthetic turf systems with proprietary engineered technologies, leveraging the industry's first vertically integrated manufacturing system. A growing number of high schools, colleges, professional sports teams and municipalities continue to select AstroTurf-branded products for their premium quality, technical superiority, and safety.

About Nexxfield:

The principals of Nexxfield Inc are respected leaders in the development, manufacturing and installation of synthetic turf playing surfaces. Accomplishments include:

- Development and international marketing of infill surfaces since 1976
- Over 16 years in development and installation of modular non-infill fields with over 1,000,000 square feet installed worldwide
- First to develop and install FIFA-recommended and UEFA-certified non-infilled fields

ASTROSHIELD

All AstroTurf products offer the advanced antimicrobial protection of AstroShield. Microbial contamination can cause a variety of issues for synthetic turf systems including stains, odors, functionality, and health concerns. The round-the-clock antimicrobial protection in AstroShield is a smart way to protect your turf investment and get the most out of your AstroTurf field.

Powered by the proven microbe shield technology, AstroShield provides long-lasting, durable protection for synthetic turf systems 24/7. This microscopic technology is effective against a wide array of bacteria, mold, fungi, and algae.

AstroShield does not interfere with the playability, appearance, or performance of AstroTurf systems. Unlike traditional disinfectants, AstroShield will not wear or wash off due to exposure and will not leach any chemicals or heavy metals into the environment or onto your players. Because of AstroShield's unique physical mode of action, microbes cannot adapt to AstroShield, so there's virtually no possibility of "super bugs" developing resistance.

AstroShield. The ultimate protection for AstroTurf field systems 24 hours-a-day, 7 days-a-week for peace of mind that lasts for years.

BASEBALL

AstroTurf has established itself as the leader in synthetic turf for the baseball market. Over the past few years, more and more teams are converting to synthetic turf systems for the benefits of increased practice time, performance, and consistency.

AstroTurf 3D systems have become the preferred choice of baseball teams, in part because AstroTurf was the first synthetic turf company to offer different turf products and pile heights for the grass areas and the skin areas of a field. AstroTurf remains the only company to offer a product specifically designed for the skin area. AstroTurf also varies infill ratios depending on the desired speed of play. By offering a combination of systems, AstroTurf can help ensure that play is consistent and high traffic areas last under constant wear.

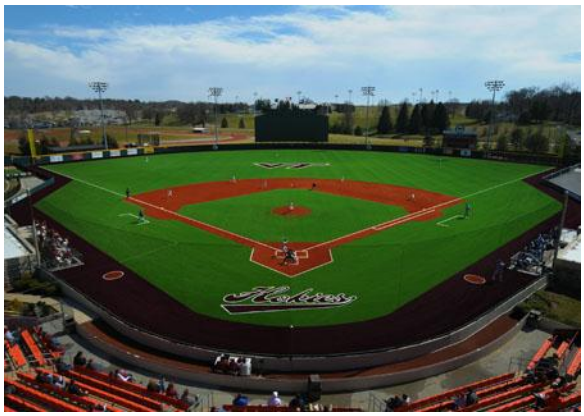
In 1958, the Ford Foundation allocated $4.5 million to establish a research group called Educational Facilities Laboratories. One of the group's findings was that inner-city schools had too little green space. The report included the following call to action: "Whoever invents for rooftop and playground a material that looks like grass and acts like grass, a turf-like substance on which a ball will bounce and a child will not, a covering that brings a slice of spring in Scarsdale to 14th Street in April, will have struck a blow for stability in the big city." A copy of the report ended up at Monsanto, and their Chemstrand division developed a new product which was tested at the Moses Brown School in Providence, Rhode Island in 1964. The product was called ChemGrass.

Meanwhile, the Astrodome had opened in Houston in 1965. It was the first ever domed stadium, and the world marveled at the feat of athletic architecture. The dome was comprised of hundreds of Lucite panels, which sparkled and gleamed. The only problem arose when the sun's rays were refracted through the ceiling. The result was so much glare that the Astros' outfielders were blinded and kept missing pop-ups! The dome was painted with a gray tint, which eliminated the glare. Unfortunately, a new difficulty arose: the grass was deprived of sunlight and withered!

Puzzled as to what to do with a brand new stadium, a professional baseball team, but no grass, Monsanto eventually stepped up and installed its ChemGrass in the Astrodome. The product was eponymously rebranded due to the popularity of its first high profile installation—hence the name, "AstroTurf." AstroTurf was the category

inventor, a position that came with a learning curve. That first installation had some problems—it played extraordinarily fast and created some very surprising bounces. Over time, those kinks were worked out, the product was refined, and technology advanced.

Today, great strides have been made in turf technology. AstroTurf, the leader of the baseball market, has developed an all-star product that is specifically engineered for baseball. In essence, AstroTurf baseball products are designed not only to play like natural grass, but to play like real *CLAY* as well. This is achieved by *proprietary fibers*, *specialized infill ratios*, and *real communication with coaches*. We actually get out there and hit balls with our customers, responding to their needs and making modifications to the speed of play onsite. We've come a long way since those early Astrodome days, but we're proud to accomplish a truly customized surface by understanding our products and the game itself. It's no wonder why AstroTurf has installed more Division I fields than any other manufacturer since 2009.



Virginia Tech University

AstroTurf is the Official Synthetic Turf of Major League Baseball and can be found on the game day surfaces of the Tampa Bay Rays and Toronto Blue Jays.

AstroTurf has become the leader in providing fields for Division I collegiate programs. Since 2009, AstroTurf has installed systems for Wichita State, James Madison, Kansas, Wake Forest, Duke, Ohio State, Virginia Tech, Kansas State, Long Island, SIU-Edwardsville, and St. Joseph's.

Here is what some of the coaches have said about AstroTurf systems for baseball:
"Ripken Baseball's mission is to grow the game at the grassroots level and with a partner like AstroTurf we will be able to achieve that much more effectively." -Cal Ripken, Jr.

"That field looks completely, 100% natural. When I saw the field at Wake Forest it was a no-brainer. It plays incredibly well and you get a very consistent ball bounce." – Virginia Tech Head Coach Pete Hughes

"This will give our program the ability to take advantage of outdoor practice time in virtually any weather condition, and it will be one of the best playing surfaces in the Big 12 for years to come." – Kansas State Head Coach Brad Hill

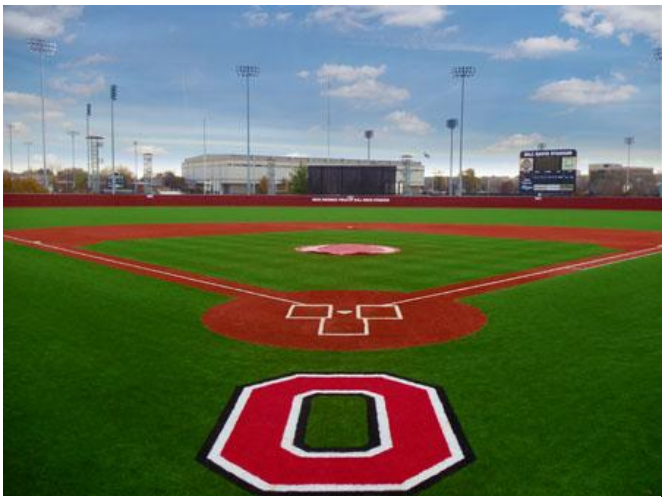

Kansas State University

"The look and feel of grass, the encapsulation of the infill, and the speed and play provided by the fiber weight made this the best product for us. I noticed that when I talked to coaches who played on AstroTurf, they talked about why they liked the brand. Coaches who had other types of fields just talked about the field and not the company." – The Ohio State University Head Coach Greg Beals


Wake Forest University

"Having played on nearly every synthetic turf system available, the decision of GameDay Grass from AstroTurf was an easy one…AstroTurf feels like grass, looks like grass, and even plays like grass… " – Wichita State Head Coach Gene Stephenson

"This is far and away the closest thing to real grass and gives the truest bounce. This field is going to give us a competitive advantage and help us to win more games. AstroTurf is the best product on the market and for us it was a no-brainer." –Wake Forest Head Coach Tom Walter


The Ohio State University

"Our new 3D AstroTurf is the finest playing surface in the country! We have been wanting to make the change to turf for quite some time, because it will ensure that when the weather permits, we will be able to get out on the field. Our players and coaches have absolutely loved it." - Kansas Head Coach Ritch Price

"AstroTurf was the only logical choice for our program when we made the decision

to install a synthetic surface. After considering the options that were presented it was clear that the aesthetics, playability, and durability of AstroTurf 3D60-H are unmatched by any other product on the market. “ –Duke Head Coach, Sean McNally

BASF ECO-EFFICIENCY ANALYSIS FREQUENTLY ASKED QUESTIONS

What is an Eco-Efficiency Analysis?
A study measuring the life cycle environmental impacts and life cycle costs at a defined level of output.

Why did BASF conduct this study?
AstroTurf®, always a leader in the industry, stepped up because this type of study has been long-overdue. AstroTurf® approached BASF about conducting the EEA, and did so while emphasizing the independence of the study results.

Why is this study so important?
This is a first-of-its-kind study comparing synthetic and natural grass fields over a 20-year period. It provides the first opportunity for stakeholders to objectively compare the two types of fields in terms of associated costs. Never before has a synthetic turf company opened itself up to such stringent measurement criteria and been compared to natural grass fields.

How was the data obtained?
Average national data was used for key input parameters such as availability, durability, maintenance requirements, and costs over time. There was no focus on one region and data was representative for different areas of the country. The evaluations of the data looked at four phases of the life cycle: production, installation, use, and end-of-life.

How was the study evaluated and verified?
It was verified independently by the NSF, the world leader in standards development, product certification, education, and risk-management for public health and safety for 65 years. The study was verified under the requirements of NSF Protocol P352, Part B: Verification of Eco-Efficiency Analysis Studies. More information on methodology and validation can be obtained at http://www.nsf.org/info/eco_efficiency.

What are the weaknesses of the study?
Data parameters were considered high or medium-high data quality. No critical uncertainties or significant data gaps were identified within the parameters and assumptions that could have a significant effect on the results and conclusions. Eco-profiles were deemed of sufficient quality and appropriateness. The input parameters that were related to the impact categories have sufficient data to support a conclusion that this study has a low uncertainty.

What criteria were looked at?
Environmentally, there were 11 categories. Those included primary energy consumption, raw material consumption, greenhouse gas emissions, ozone depletion potential, photochemical ozone creation potential, water emissions, solid waste emissions, toxicity potential, risk potential, and land use.

In terms of life cycle costs, the study looked at real costs of the process of creating and delivering the product, subsequent costs which may occur in the future, and costs having an ecological aspect, such as costs of treating wastewater during the manufacturing process.

What fields were measured?

AstroTurf® PureGrass® availability	nylon + pigment	600 hours
AstroTurf® GameDay Grass™ MT 41 availability	Polyethylene yarn + pigment	600 hours
Astroturf® GameDay Grass™ 3D 52 availability	Polyethylene/Nylon yarn + pigment	600 hours

Natural Grass	same availability as synthetic	600 hours availability
Natural Grass	28% less availability than synthetic	432 hours availability
Natural Grass	40% less availability than synthetic	360 hours availability
Natural Grass	50% less availability than synthetic	300 hours availability
Natural Grass	67% less availability than synthetic	200 hours availability
Natural Grass	75% less availability than synthetic	150 hours availability

Where did the input data come from?
A variety of sources, including BASF, AstroTurf®, the University of Tennessee Institute of Agriculture, the Sports Turf Managers Association, and other material manufacturers.

The study was over 20 years. Synthetic fields don't typically last that long. Did that make a difference in the results?
The costs and environmental impact replacement of synthetic turf were taken into account and included in the study, making it a true comparative look at synthetic and natural grass fields.

What were the results of primary energy consumption?
Energy consumption of a synthetic field generally lies in the range of a natural grass alternative with 300-432 hours of availability. For grass fields with the lowest availability, energy consumption can be 2.5 times more for natural grass than synthetic turf.

What were the results for raw material consumption?
Even the best natural grass alternative uses over 2 times the raw materials as a synthetic field.

What were the results for greenhouse gas emissions?
Synthetic turf fields generate comparably greenhouse gasses to those of a natural grass field with 300 hours (100 events) of availability. For the lowest availability, natural grass fields can generate nearly 2.5 times the greenhouse gasses of a synthetic field.

What were the results for photochemical ozone potential?
POCP is due mostly to hydrocarbon and VOC emissions related to the use of diesel fuel. In some cases, natural grass fields can have over 4 times the POCP as a synthetic alternative.

What were the results for ozone depletion potential?
Synthetic fields have a higher ODP number. However, this results mostly from transportation in the use and production phases of a synthetic field's life cycle and contributes less that 1% to the total environmental impact.

What were the results for acidification potential?
Overall, systemic fields compare to natural grass surfaces with 240-360 hours (80-90 events) of availability. In some cases, it can be twice as high for natural grass fields.

What were overall air emission results?
Synthetic fields are comparable to natural grass fields with 300-432 hours (143+ events) per year. In cases with lower availability, natural grass field overall air emissions can be over twice as much as synthetic alternatives.

What were the water emissions results?
Water emissions on natural grass fields with the lowest availability can be about 1.5 times that of synthetic fields. Synthetic fields are comparable to grass fields supporting 200-300 hours (67-100 events). In either case, water emission contributes less than 2% to the overall environmental impact.

Solid Waste Generation
It can be up to 4 times higher for a natural grass field. Synthetic fields get a large credit for utilizing infill, which comes from rubber tires which are kept out of landfills.

What were the results for overall emissions?
The top three alternatives with the lowest overall emissions were GameDay Grass® MT41, the natural grass alternative with an unheard of 600 hours of availability per year, and the GameDay Grass™ 3D52 field. In the scenario of the natural grass field with the

lowest availability, overall emissions were 2.5 times more than GameDay Grass™ alternatives.

What were the results of land use?
Overall, synthetic alternatives have less impact on land use. A natural grass field would have to offer maximum playability to equal synthetic alternatives, and in some cases, can have over 4 times the impact of synthetic fields.

What were the results of toxicity potential?
A natural grass field would have to offer more than 432 hours of availability to equal a synthetic surface. In some scenarios, natural grass fields have 4.5 times more toxicity potential.

What were the results of risk potential (occupational illness and accident)?
Synthetic turf fields score higher in the risk category, but the numbers are not higher because of playing injuries. They are higher because of risk associated with working on with the materials required to build a base structure for a synthetic field, going as far as risks associated with mining the aggregate stone used in the process.

What was the overall environmental fingerprint?
From an overall standpoint, including all measured categories, a natural grass field would have to show availability of about 420 hours (140 events) to be equal to a synthetic surface.

What results had the highest environmental relevance?
Resource consumption and toxicity potential.

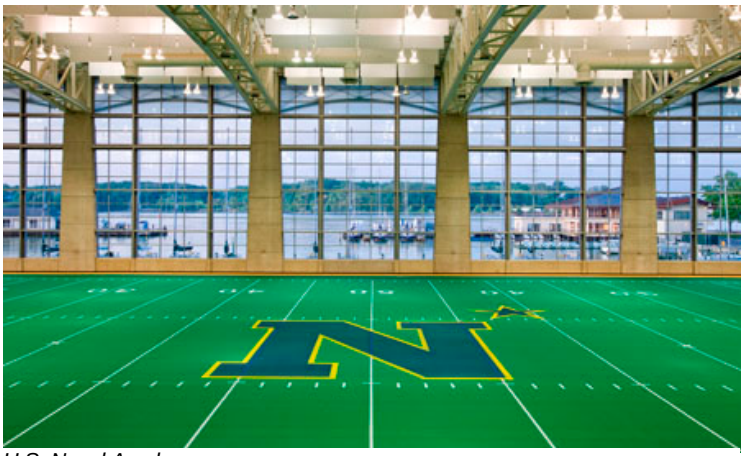
What were the overall life cycle costs?
Using a midpoint value, over 20 years, average life cycle costs for natural grass fields were 15% higher than synthetic fields, and that includes replacement costs for synthetic fields.

What were the overall eco-efficiency results?
A natural grass field would have to have in excess of over 432 hours, or 72% of the availability or a synthetic field, to be more eco-efficient than a synthetic surface. It important to achieve a balance. With a natural grass field, reducing maintenance costs for an environmental benefit would decrease playing time. Any environmental benefit would be outweighed by increasing life cycle costs.

What does this mean for the industry and consumers?
This groundbreaking work will show synthetic turf, particularly AstroTurf®, in a new light. It will strengthen confidence that AstroTurf® is safer, more durable, and meets and/or exceeds efficiency expectations.

CONVERSION SYSTEMS

The first conversion systems were developed in the 1980's so that domed stadiums and indoor multipurpose facilities could convert any flat, resilient surface to synthetic turf in a very short amount of time and with a limited amount of manual labor.



U.S. Naval Academy

AstroTurf introduced the Magic Carpet System in 1983, which featured a 100% knitted nylon synthetic turf system, approximately ½" pile height with an attached 5/8" PVC pad. The single piece of synthetic turf was mechanically rolled up on a steel cob at one end of the facility. Using a pneumatic air system built into the floor, the AstroTurf -8 Stadium Surface was "floated" across the floor. This converted a bare floor to a full size AstroTurf football field in a matter of hours without any extra moving equipment, storage space, or manual labor.

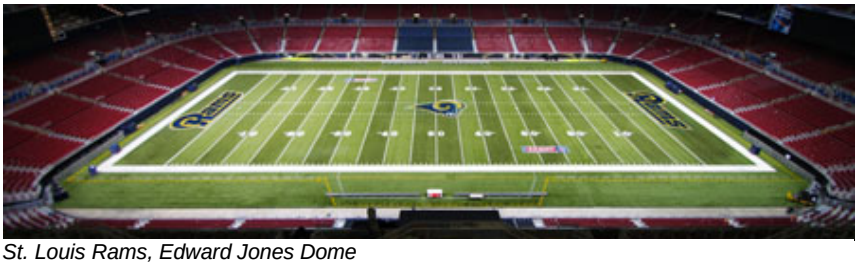
Over the years, taller pile synthetic turf systems, which are more grass-like than AstroTurf -8, have become the preferred products for many of the athletic fields that are primarily used for football, baseball, and soccer.

The original Magic Carpet I System was designed to only roll-up the ½" tall, knitted nylon system, which was the state-of-the-art product at the time. This limited the consumer to a single type of synthetic turf for their conversion system.

AstroTurf has now developed a roll-up system that surpasses any other convertible system on the market. Through extensive research and engineering, combined with knowledge from over 40 years of experience in the synthetic turf industry, AstroTurf introduced the Magic Carpet II Conversion System.

The patented Magic Carpet II system can accommodate any type of synthetic turf system, including infilled systems. It uses the same mechanical concept as the original Magic Carpet I system, but AstroTurf has taken a different approach to the development and design of the Magic Carpet II system. Rather than building a conversion system around one particular turf product, we have built a system that has the ability to convert various types of synthetic turf.

This allows venues the opportunity to convert for other events in a manner which allows them to increase the number of events held, providing more streams of revenue. In many instances, such as when the St. Louis Rams play at the Edward Jones Dome, the Magic Carpet II system can have the field rolled up and stored for the next event before the fans have completely left the stadium.



St. Louis Rams, Edward Jones Dome

For venues that do not require the conversion speed of a Magic Carpet II conversion system or do not have the space required, the AstroHopper conversion system offers a quick and efficient field conversion system. Using the same drive technology as the Magic Carpet II, the AstroHopper rolls tight package, but it does it in 15 foot wide sections.

While other systems attempt to imitate AstroTurf's conversion system, the technology used in the AstroHopper creates a better packaged roll and allows for more consistent and more efficient conversions. The AstroHopper maximizes storing capacity by eliminating wrinkles, bagging, or telescoping that can lead to increased product wear and tear or damage.

INDEPENDENT STUDIES SPEAK TO ACL INJURIES ON SYNTHETIC TURF

Startling evidence has emerged from independently funded academic studies in recent years and months. This evidence has drastic implications on the safety of all players, from youth soccer leagues to the NFL. AstroTurf *urges* you to become educated on the factors that influence lower ligament injuries—Density, Infill, and Gauge.

Michigan State University Study:

Background:

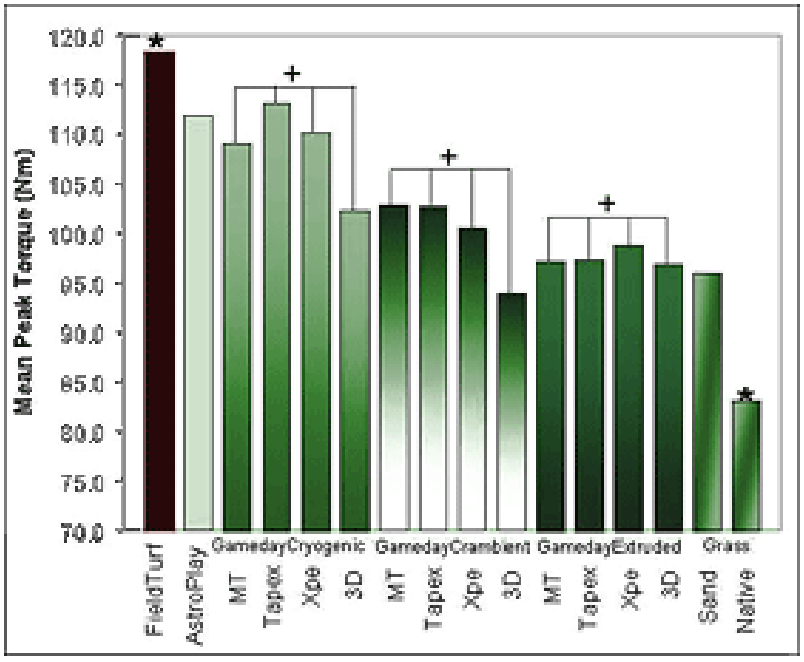
- Funded by NFL Charities
- AstroTurf's only involvement was to provide turf for testing, ensuring accuracy in product testing

Methodology:

- Used surrogate limbs to test rotational resistance of various synthetic turf systems in combination with multiple cleats
- Measured torque (twisting force) transmitted to surrogate limbs

Key Findings:

- Across all shoe types, the most influential factor in creating the lowest torque was the AstroTurf 3D product with a nylon RootZone
- Infill type was also found to affect torque—ambient and TPE rubber generated lower torque
- *AstroTurf 3D actually generated **a lower peak torque than some samples of natural grass**, and was only marginally higher than another grass sample*



Explanation of Findings:

- The AstroTurf 3D product needed less infill because the nylon RootZone served to keep the polyethylene fibers standing upright.
- This phenomenon, in turn, "limited cleat contact with the infill" on AstroTurf products
    - Translation: Less of the cleats' surface area touched the infill because the cleats did not sink into and get stuck in heavyweight infill
- Ambient and TPE rubber did not compact as easily as cryogenic rubber

NFL Injury and Safety Panel Study:

Background:

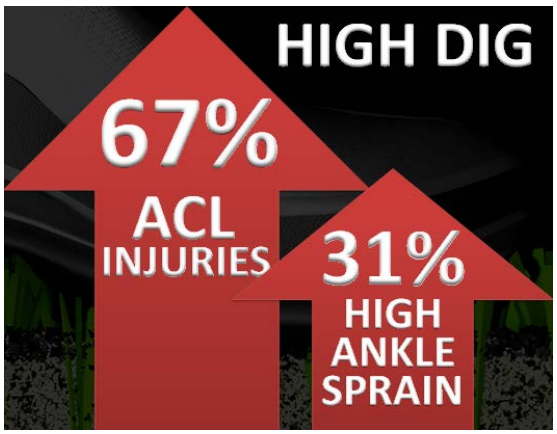
- Commissioned and funded by the NFL Injury and Safety Panel

Testing Methodology:

- Investigated actual injury rates on grass and FieldTurf-brand fields during NFL games
- Data was gathered from the NFL's Injury Surveillance System
- Data spanned 10 years (2000-2009 seasons)

Key Findings:

- FieldTurf Fields had <u>significantly</u> higher injury rates
    - 67% higher incidence of ACL injuries
    - 31% more eversion (high ankle) sprains



Why did the AstroTurf 3D product compare so favorably to grass, while the FieldTurf products did not?

THE DIG DIFFERENCE:

Infilled systems are designed along a spectrum. There are three factors that, when combined in particular ways, form either end of the Spectrum of Design and influence the likelihood of "foot fix":

Elements	Definition
Density of the turf	The amount of fiber in a square foot of turf
Infill of the turf	Weight of infill in the turf (pounds per square foot)
Gauge of the turf rows	Distance between rows of fiber

LOW DIG	SPECTRUM OF DESIGN	HIGH DIG
Density—HIGH		**Density—LOW**
Infill—LIGHTWEIGHT		**Infill—HEAVY**
Gauge—NARROW		**Gauge—WIDE**
(ASTROTURF)		**(OTHER)**

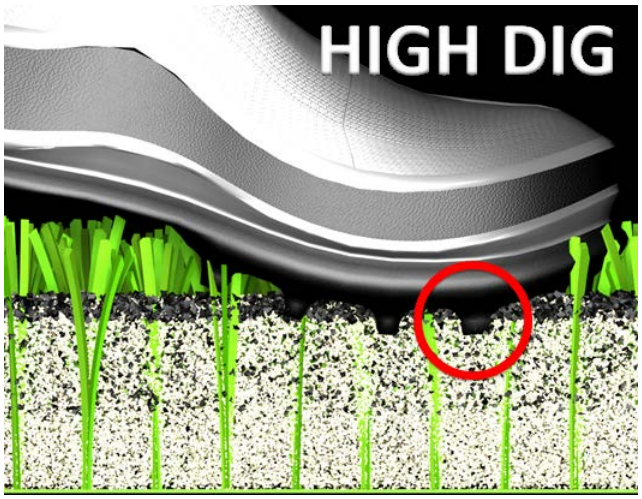
Combining Density, Infill, and Gauge yields the DIG factor. Systems on the right side of the above spectrum (High DIG) favor a "play on the infill" philosophy. Systems on the left side of the spectrum (Low DIG) employ a "play on the fiber" philosophy.

Just as the perfect grass field requires a delicate balance of fertilizer, water, and sunlight, nearly a half century of experience manufacturing and installing synthetic turf fields has revealed that the proper DIG profile is vital to the safety of a turf system. For this reason, AstroTurf fields are designed to be LOW DIG:

AstroTurf fields are *dense*—The AstroTurf RootZone® adds more than FIVE TONS of fiber to a field.
AstroTurf fields are *light on infill*—AstroTurf 3D systems use only 3.5 pounds per square foot.
AstroTurf fields are manufactured with a *narrow gauge*—rows of fiber are only 3/8" apart, compared to the ¾" gauge of High DIG systems.

Why the DIG Profile Matters for Player Safety:
Ankle and knee injuries are often caused by excessive rotational torque exerted on these joints. **Traction quickly becomes dangerous when the athlete's foot is planted into the playing surface while the upper body continues its twisting momentum**. This phenomenon is commonly called "foot fix."

High DIG systems exert more torque on lower limbs than Low DIG systems do. Heavyweight infill is more likely to compact due to the sheer weight of the infill. When a shoe makes contact with and penetrates compacted infill, it is more likely to lock in and stop the player dead in his tracks. Unfortunately the upper body cannot always stop its momentum—and torque is exerted on the lower limbs. This phenomenon is exacerbated by a wide stitch gauge, as the large distance between fibers further exposes the cleat to the compacted infill.



Conversely, ***Low DIG*** **systems** have much more fiber, which keeps cleats in the fiber rather than the infill. When a player plants his or her foot on a Low DIG turf system, the cleat avoids sinking into the infill, *which allows cleats to release properly.*

FIELD HOCKEY

AstroTurf has a long history of success in the sport of field hockey. AstroTurf was first used in an international field hockey event in 1975 in Montreal. The same field hosted the Olympics in 1976. AstroTurf surfaces also played host to the 1996 Olympics in Atlanta and 2008 Olympics in Beijing.


University of Maryland

Closer to home, AstroTurf surfaces are utilized by all the elite collegiate field hockey teams. In fact, no NCAA Division I National Championship Tournament has ever been held on another surface since AstroTurf was first used for the sport. In the 2011-2013 NCAA Championship Tournament, 15 of the 16 teams play their home games on AstroTurf.

AstroTurf System 12 pitches are made of a short-pile, knitted nylon product which conform to the sport's need for high degrees of planarity, extremely tight tolerances, and sophisticated drainage systems. AstroTurf System 12 pitches provide uniform traction and consistent footing. The fibers are UV-resistant, have a low-glare surface, and reduce the need for watering and maintenance costs. AstroTurf has the most extensive research and development department in the world dedicated to bringing the next generation of field hockey systems.

AstroTurf is committed to field performance and safety from the sales process through manufacturing, installation, and service. In 2011, the Dalton, Georgia based company took five major steps in solidifying its commitment to the sport of field hockey that will help maintain its firm leadership position.

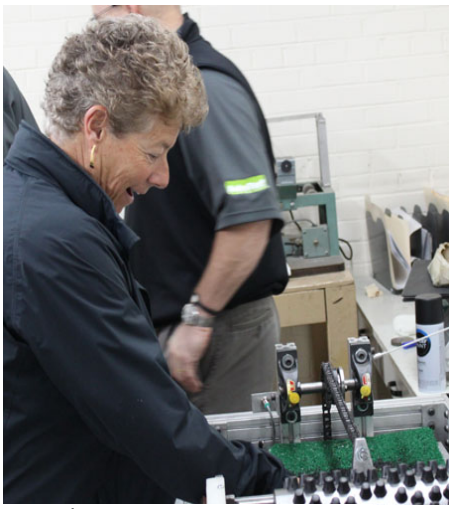
"Our mission, from the outset, has been to work with customers to provide solutions," said AstroTurf President Bryan Peeples. "These major steps will help to ensure that we are providing the best synthetic turf systems for the growing sport of field hockey."

First, AstroTurf has made the decision to bring all services related to field hockey back in-house. In

the past, the company worked with third-party companies which provided sales and marketing efforts for fields and field installations. By bringing the efforts back under the purview of AstroTurf professionals, customers will be assured that their fields are created with the same commitment and dedication at all levels.

In selling directly to the end user, manufacturing the product, and overseeing the installation, AstroTurf will be able to better control the quality and performance of the end product.

Second, AstroTurf will longer authorize any field installations that are not done by certified AstroTurf installation crews. The installation process is highly technical in nature and AstroTurf® believes that the attention to detail required to produce a championship field is something that should be done by AstroTurf®-certified experts.


Pam Hixon

Third, AstroTurf developed a Field Hockey Ambassador position to act as a liaison to the game and provide expert advice on field hockey playing surfaces. The company chose field hockey legend Pam Hixon to fill that role.

Hixon played for the U.S. National Team for 10 years. She coached field hockey, lacrosse, and basketball at Springfield College, as well as field hockey and lacrosse at the University of Massachusetts. As a coach, she never had a losing season, and led UMass to four Atlantic 10 titles, 14 NCAA tournaments, four Final Four appearances, and a second place finish. She is the fifth winningest coach in NCAA field hockey history.

She was a six-time Atlantic 10 Coach of the Year and won one Collegiate Coach of the Year award. Hixon coached the U.S. National team for four years, winning the bronze medal at the 1994 World Cup and finishing fifth at the 1996 Olympics.

As if field hockey wasn't enough, she never had a losing season as a lacrosse coach and made it to eight post-season tournaments. In 1982, her UMass team won the NCAA Championship.

Today, she runs White Mountain Sports-College Connection, a company which hosts summer camps. The company also works with prospective student-athletes during the recruiting process. She also serves on the board of directors of the Pan American Hockey Federation.

Hixon is a member of the halls of fame at Springfield College, the University of Massachusetts, and the National Field Hockey Coaches Association.

“I am proud of what AstroTurf has done in the industry,” said Hixon. “ I am also proud and excited about what the company is going to do. My role is to provide a voice for the sport so that AstroTurf can develop the best solutions for the best playing surfaces.”

Pam is not only concerned about elite fields, but has committed to developing surfaces for clubs and high schools.

Fourth, longtime industry veteran Andy Belles has taken on an additional role as Product Manager for Hockey Systems. By bringing all phases of field hockey products in-house, AstroTurf will need specialized support and direction for the effort. Belles’ experience in the industry and knowledge of field hockey products will be integral in providing the best field in the world.

Andy Belles

Belles also serves as the liaison to the FIH (International Hockey Federation) and the EHF (European Hockey Federation). AstroTurf is FIH-certified and has several products which are FIH-certified at the global level. Additionally, AstroTurf is the exclusive partner and playing surface of the EHF.

Finally, AstroTurf has made a commitment to building relationships with key figures in the sport through a long-term relationship with the National Field Hockey Coaches Association. AstroTurf has also been named the Official Artificial Surface Provider of the NFHCA and USA Field Hockey.

“We’re excited about our partnership with AstroTurf,” said NFHCA Executive Director Jenn Goodrich. “There is no other surface to compare with AstroTurf System 12. AstroTurf fields are durable and consistent, just like the company that makes them. Their fields outperform other fields and those are the kinds of partnerships which help the development of our great sport.”

“We are delighted to formalize a partnership with AstroTurf®, which is an outstanding company producing a field hockey surface that is undoubtedly the best in the world,” said Steve Locke, Executive Director for USA Field Hockey. “We recognize the direct link between a high quality playing surface and high quality hockey and will work with AstroTurf® to encourage more pitches to be laid.”

FIFA

- AstroTurf is an approved FIFA provider
- AstroTurf laboratories have all required FIFA testing equipment, including the Berlin Athlete
- AstroTurf offers a special fiber designed for long-term FIFA use called the Horseshoe Fiber. This fiber is durable and offers a consistent playing surface, including slower ball roll
- AstroTurf has several FIFA one and two-star fields, including:
    - Marshall University Memorial Soccer Stadium (★)
    - Vicente Obregon (★)
    - Bahrain RC (★)
    - Hong Kong International School (★)
    - Kings Park Field 1 Hong Kong (★)
    - Kings Park Field 2 Hong Kong (★)
    - Kings Park Field 3 Hong Kong (★)
    - Ecole Polyvalente St. Jerome (★★)
    - Empire Stadium (Vancouver) (★★)
    - Aspire at Khalifa Stadium Doha Sports City - Field 6 indoor (★★)
    - Aspire at Khalifa Stadium Doha Sports City - Field 7 (★★)
    - Beijing International School (★★)
    - Evergreen Sports Complex – Field 1 (★)
    - Evergreen Sports Complex – Field 2 (★)
    - Evergreen Sports Complex – Field 3 (★)
    - Evergreen Sports Complex – Field 4 (★)

Empire Stadium

GENAN

One of the most important components of any synthetic turf system is the infill. Typically made from SBR rubber (recycled tires), infill systems need the proper mix of elasticity, weather resistance, and aging properties.

Traditionally, turf suppliers have used a hodge-podge of rubber suppliers around the country for supply of standard SBR rubber infill. This has created quality issues for some companies: Often, only the proximity to the project site and a low price are all that mattered. However, if rubber is not in specification, significant quality problems can occur. If the rubber is too small and/or too dusty, drainage can be choked off. If the rubber is too large, it tends to segregate, with the larger rubber resting on the top of the surface. Some fields can have BOTH problems. To completely avoid such unfortunate scenarios—and to assure adequate and dependable lines of supply for this critical component--AstroTurf has negotiated a nation-wide supply with the Danish firm Genan, the world's most admired and leading supplier of recycled SBR rubber. Genan's commitment to quality control is unmatched in the industry and provides a dependable supply of rubber to AstroTurf customers, a supply that is guaranteed to meet critical size, shape and dust specifications.

Genan's state-of-the-art grinding operations in Europe are impressive. More impressive is their commitment to stockpiling supersacks of rubber in key areas around the country, in order to provide "just in time" shipments. Genan is in the process of building a large factory in the Houston, Texas area, which is planned to be opened in 2013.

AstroTurf uses Genan High Performance Infill in its artificial turf systems because the quality of the infill is a tremendously important aspect in meeting the performance criteria of a superior synthetic turf system. All the guaranteed properties of Genan High Performance Infill are measured according to well known standards such as EN, DIN, and ASTM, as well as leading quality standards for the turf industry from organizations such as Labosport or ISA. The measurements include categories such as contaminants, dust, abrasion resistance, bulk density, and environmental performance.

Too much dust or fine particles in infill can cause smell and smear. Genan infill has an

extremely low level of dust content and fine particles are far below the industry's standard requirements. Regarding impurities, Genan has a maximum of 0.01% impurities in 120 tons of infill. This is 10 times less than the closest competition.

Compared to infill from virgin materials like EPDM and TPE rubber, Genan infill offers huge environmental benefits in the areas of greenhouse gas emissions, acidification, and use of fossil fuels. Studies show that avoided production of virgin materials leads to savings of a minimum of 1.7 tons of CO2 per ton of SBR infill used in synthetic turf fields.
Genan High Performance Infill utilizes the best production technology and most sophisticated testing equipment. Genan is the world's largest recycler of recycled tires and has been developing their advanced technology since 1990.

Genan High Performance Infill is another reason AstroTurf is able to offer the most advanced and best performing sports fields on the market.

Removable Synthetic Turf System Narrative:

AstroTurf® has installed the AstroHopper convertible system at Reliant Stadium. The AstroHopper system efficiently rolls out and roll up individual turf panels so they can be installed and removed from the surface--and stored so that the existing floor can be used for multiple events. The turf panels was pre-manufactured at our Dalton, Georgia pre-fabrication facility and installed in fifteen (15) foot wide panels with hook and loop, quick-release seam fasteners. The length of the panels will be determined by the final layout of the field and storage requirements/availability.

Conversion of the turf "in" (installing the turf for athletic use) requires some additional preparation to complete properly. The individual turf panels will be rolled out onto the floor using the AstroHopper system just as they are rolled up. It is essential to the quality of the conversion that the rolls are placed in *specific order*--matched to the finalized Roll Layout Plan. The conversion "in" requires a minimum of six (6) trained technicians to properly install the convertible panels:

- One (1) fork-lift operator with attached carpet pole to bring the turf panels from storage and stage for installation.
- An additional fork-lift operator installing the individual turf panels with the AstroHopper
- Three (3) laborers assisting the AstroHopper operator rolling the turf panels out as well as connecting the hook and loop seams.
- One (1) additional laborer inspecting and picking seams (fluffing up seams) and installing additional infill along the seams.

The installation procedures include the following steps:

1. Cleaning of the existing floor of all debris or objects that could adversely affect the synthetic turf.
2. Confirming all floor match-marks to begin rolling out synthetic turf panels.
3. Begin staging panels from storage in appropriate areas as per the Roll Layout Plan.
4. Roll out turf panels in order as per the Roll Layout Plan using the AstroHopper System.
5. Secure hook and loop seam fasteners as each panel is rolled out.
6. Additional adjusting might be needed to ensure turf seams are straight and in proper location prior to actually attaching hook and loop fasteners. Seam Jacks provided by AstroTurf may be required to adjust turf panels to appropriate position prior to attaching the seam fasteners.
7. Repeat steps above for all panels until complete.
8. All seams must be infilled by means of the AstroTurf Infill Hoppers.
9. Grooming of the entire surface once all infill is installed on the seams must be done with Groomer supplied by AstroTurf.

The removal procedure includes the following steps:

1. Removal of all field equipment.
2. Sweeping of the field to remove any excess debris so that it is not rolled up and stored.
3. Using existing facility fork-lift and the AstroHopper System attachment (see photo), roll up each turf panel according to Conversion Manual.
4. Using existing facility fork-lift and the AstroTurf- provided carpet pole attachment, carry each turf panel to be properly stored.
5. Once all turf panels are properly removed from the floor and stored, there will be minimal infill cleaning required at each turf panel seam. This infill can be swept up and stored for use on the next conversion "in".

AstroTurf has installed our GameDay™ Grass 3D Extreme product for the convertible field system. The GameDay Grass 3D Extreme system utilizes our patented nylon RootZone™ technology. This RootZone® technology adds to the fiber weight of the system providing a much denser product to begin with, and the texturized RootZone locks in the rubber infill to reduce fly-out and infill migration that leads to higher Gmax values. Further, the Extreme system combines the aesthetics of the Horseshoe monofilament fiber with the durability of the XP slit film fiber. Our extensive experience with convertible, infilled systems has shown that the Extreme product is ideal for conversions, as the slit film fibers serve to bolster the RootZone's infill encapsulation. The 3D System will be installed directly over the existing concrete surface. The 3D System will be infilled with 100% rubber infill as per AstroTurf® recommended ratios to produce desired Gmax and performance values. The rubber design in combination with the RootZone system will allow the infill to "lock in" well and provide a predictable, uniform playing surface.

HORSESHOE

The Horseshoe fiber is a highly-engineered sports fiber system and was not rushed to market. It was not developed for landscape or commercial applications and then adapted for sports turf use. The Horseshoe fiber was designed by AstroTurf and the experts at TenCate, a world leader in sports fiber innovation, technical expertise, and USA-based manufacturing. It was released after extensive testing, including in-house ultraviolet exposure, lab linear abrasion, and trials in high traffic areas. The joint effort resulted in a fiber of superior design and functionality, and is available only to AstroTurf customers.

AstroTurf GameDay Grass 3D is an even more attractive option for clients seeking the best value in high performance sports turf with the addition of this ultraviolet-resistant, high-memory sports turf fiber, made in the USA using proven, tested, and fully warranted Olefin polymers.

The Horseshoe geometry — a “C” shape with a dual-column design — imparts unrivaled mechanical memory to the fiber. The fiber remains upright longer. Unlike other shaped monofilaments on the market, which quickly flatten, split or shred at the spine or etch points, the Horseshoe fiber continues to spring back to its original configuration even after years of heavy foot traffic or exposure to ultraviolet radiation.

An upright fiber has the best aesthetics and playability because:

- Fibers that tend to lay over wear out sooner. The Horseshoe is thicker and stronger, not just at the spine. This creates a more durable field.
- Light is properly reflected, resulting in a better looking field.
- Ball roll is similar in performance to natural grass.
- Low slide resistance is assured, eliminating turf burns.
- Footing is uniform and predictable.
- Cleats penetrate and “release” properly for good biomechanical function.

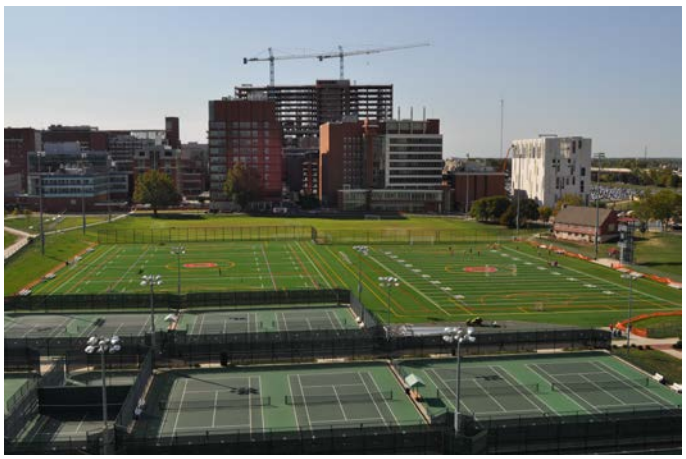
The Horsehoe fiber is another way AstroTurf combats the issue of hot fields. AstroFlect technology is a treatment of the fiber that causes a larger amount of heat causing light to be reflected away from, rather than absorbed into, the fiber. The Horseshoe fiber’s shape complements AstroFlect because less surface area is available to absorb heat. This combination reduces surface temperatures by as much as 15%.

INTRAMURAL FIELDS

Synthetic turf fields are fast becoming the choice for intramural and club sports teams at colleges and universities throughout the country. Intramural sports, first brought to college campuses in 1913, continue to grow in both popularity and importance. According to the National Intramural-Recreational Sports Association (NIRSA), 75% of students who attend school offering recreational sports programs and facilities, participate in or use them. That numbers equals approximately 5.3 million students.

West Texas A&M University

A 2006 study published in Recreational Sports Journal said 31% of students reported that an intramural sports program was an important factor in attending the college, and over 37% said those same programs were important in deciding to stay at the school. 83% of students said they participate in recreation sports on a weekly basis, and 93% said they would like to.



Ohio State University

"We have a lot of prospective students and parents who look at our indoor and outdoor rec sports facilities," said Rick Hall, Senior Associate Director of Rec Sports at Texas A&M University. "I have no doubt it influences their decisions. It is a key factor in the development of life skills and wellness. It also has some effect on the recruiting of faculty and staff members."

Sport clubs are also an important part of the collegiate recreational landscape. Over 80 sports are offered for sport clubs at colleges across the

Texas A&M University

country and nearly 11,000 sport clubs are registered and active at NIRSA member institutions.

Utah State University

AstroTurf has a significant number of intramural and club sports multipurpose fields across the United States and include Texas A&M, West Texas A&M, Oregon, Oregon State, the University of Tennessee, The Ohio State University, University of Texas - San Antonio, and Utah State University, to name a few.

In 2008, NIRSA estimated nearly $4 billion in recreational sports facility construction between 2008-2013. Those project estimates were for 96 new construction projects, 62 expansion projects, and 62 renovation projects, with an average project price of about $21 million and covering about 90,000 square feet.

University of Tennessee

SAFETY

Michigan State University Study on Synthetic Turf Surfaces

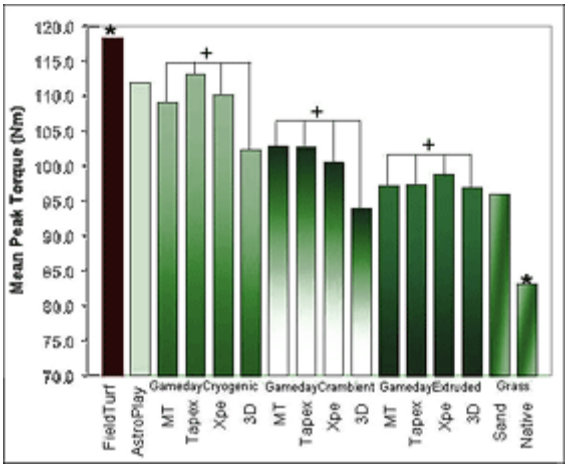
According to the results of a year-long Michigan State University study, which was selected for presentation at the North American Congress on Biomechanics Conference in Ann Arbor, Michigan, AstroTurf GameDay Grass 3D most closely replicated natural grass in a comparison of 16 types of synthetic and natural sports turf, based on the torque, force and friction generated by cleated athletic shoes.

The study results were insightful and impactful According to Dr. Elliot Hirschman, a member of the NFL Safety Committee, this study "…should be provided to every potential buyer of an artificial turf field."

The study, funded by the NFL Charities Foundation, evaluated the potential impact of football playing surfaces on lower extremity injuries caused by excessive torque, or the rotational friction produced when cleated shoes dig into the field.

In the Michigan State study, the AstroTurf GameDay Grass 3D system with all-rubber infill had the lowest average torque of all synthetic turf systems tested, second only to natural grass. Researchers credited the fiber structure of the AstroTurf system, the only fiber structure containing a RootZone – a simulated thatch layer at the base of the system – with the low level of frictional resistance. Researchers also noted that the RootZone reduces the amount of infill required for a stable system and may reduce compaction of the infill layer.

The high amount of torsional friction generated in high-performance sports creates concentrated force that is transmitted to vulnerable ankle and knee joints, precipitating injuries.



The Michigan State research team used 10 pairs of cleated football shoes in conducting five trials on 16 separate playing surfaces, for a total of 800 samples. The study measured the mean peak torque produced by various shoe/surface interfaces.

The research summary indicated that the highest mean torque was produced by the FieldTurf system, a result attributed to the amount of space, or gauge length, between the rows of fibers. According to the study, the greater gauge length in the FieldTurf system (3/4" versus 3/8" in all other systems tested) may result in deeper cleat penetration into the infill

and, in the case of densely compacted infill, higher torque.

The NFL's Committee on Safety has revealed publicly that—based on the data it has carefully collected over decades--lower extremity injury rates in the NFL are higher on the new generation, wide-gauge, tall pile, infilled systems (i.e., FieldTurf, the system they have actively tracked) than either natural grass OR predecessor synthetic systems without infill, such as the original AstroTurf.

And according to Powell, et. al., 2008: While translational friction is necessary for high-level performance during any athletic contest, it is generally accepted that excessive rotational friction results in high forces being transmitted to vulnerable anatomic structures which may then precipitate ankle and knee injuries.

A 2008 study led by Dr. John Powell of Michigan State University, funded by NFL Charities, compared taller, wide-gauged turf systems with denser, shorter, more narrow-gauged systems in terms of "peak torques" per ASTM F-2333. The study's conclusion:
"Generation of excessive torque at the shoe-surface interface was a factor of both the infill particle size and fiber spacing. The peak torques measured in the current study exceed injury levels based on cadaveric studies (Hirsch and Lewis, 1965)…"

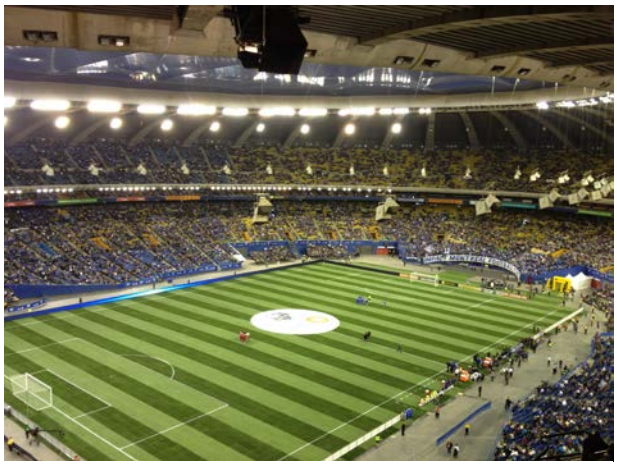
"The GameDay [AstroTurf] analyses also indicated significant differences in peak torque for fiber structure in the [AstroTurf] GameDay 3D surface. This was the only fiber structure which consisted of a nylon root zone. The nylon root zone leads to a reduction in the amount of infill required for a stable system, which may lower the compactness of the infill layer. This may limit cleat contact with the infill, thereby lowering the peak torque… the highest mean torque, seen in the FieldTurf system, may be due to the cryogenically processed rubber embeddedin a fiber layout constructed with a gauge length of 3/4"."

The North American Congress on Biomechanics (NACOB) is the combined annual meetings of the American Society of Biomechanics and the Canadian Society for Biomechanics. It is held jointly every six years to promote the exchange of ideas and foster new collaborations in the field of biomechanics.

Please see the attached abstract of the year-long study.

ASTROMOD,
POWERED BY NEXXFIELD

AstroTurf is pleased to offer a cutting-edge modular turf system—***AstroMod*, powered by Nexxfield**. The system is revolutionary in its unique flexibility and ease of installation in both removable and permanent applications, either indoor or outdoor.



Montreal Olympic Stadium

With decades of leadership in the convertible field market, AstroTurf instantly recognized the genius of Nexxfield's technology and partnered with the company to bring a novel option to venues from gyms to stadiums.

It's an easy solution, yet does not compromise player safety, comfort, or performance!

Why Owners Love AstroMod:

AstroMod installation, mid installation

- No infill required—easy and quick installation, lightweight, and clean
- Efficient drainage through the modules—permits indoor and outdoor use, even on difficult rooftop applications
- Exceptionally lightweight—each 4' by 8' panel weighs only 30 lbs.
- Panels can be rotated or moved for uniform wear across the field—greater turf longevity and a longer investment
- Ease of installation yields maximum versatility—temporary fields are possible during facility improvements
- Modules stack atop one another when not in use—creates more storage space
- Proven and trusted technology—references include the University of Vermont, the US Navy, the US Marine Corp, and Montreal's Olympic Stadium

Why Players Love AstroMod:

- Superior shock absorption made possible by the Nexxfield panels — enhanced player protection
- Firm underfoot—fast speed of play
- Delivers ball roll properties resembling best-maintained natural grass fields—allows for elite competition

Mets versus Blue Jays on Nexxfield Technology

About AstroTurf:

For athletes and sport enthusiasts, AstroTurf has redefined the way the game is played. The company offers advanced, state-of-the-art, multi-sport and specialized synthetic turf systems with proprietary engineered technologies, leveraging the industry's first vertically integrated manufacturing system. A growing number of high schools, colleges, professional sports teams and municipalities continue to select AstroTurf-branded products for their premium quality, technical superiority, and safety.

About Nexxfield:

The principals of Nexxfield Inc are respected leaders in the development, manufacturing and installation of synthetic turf playing surfaces. Accomplishments include:

- Development and international marketing of infill surfaces since 1976
- Over 16 years in development and installation of modular non-infill fields with over 1,000,000 square feet installed worldwide
- First to develop and install FIFA-recommended and UEFA-certified non-infilled fields

PREFAB

THE FIRST AND ONLY TURF PRE-FABRICATION PROCESS—
ONLY FROM ASTROTURF -- Learn more *here*

When a synthetic field is installed, one of the most time-consuming, weather-sensitive tasks (abject to strict quality control processes) is the work involved in permanent, inlaid lines, logos and other field markings. A typical football field has 398 individual inlays inside the field. This does not include any logos, end zone lettering, or goal line "G"s. Standard inlaid markings include:

- 36 Numbers
- 160 Inner Hash Marks
- 160 Sideline Hash Marks
- 38 Inbound Lines
- 2 PAT Lines
- 2 Kick-Off Xs

Typically, such inlay work is done on-site, generally either by shearing and hot melting or cutting and glueing; and because inlaying takes so long--as long as four to five weeks to install a typical high school football/soccer field is common—the inlay work itself and the overall installation can be rushed, especially during the busy summer installation season.

AstroTurf's Research and Development Department has come up with a proven method to not only speed up the installation process, but also make sure that the permanent inlaid markings are flawless.

PreFab is a process developed by AstroTurf in which the majority of the field markings are installed at the factory, eliminating 243 individual inlays from being completed on site. This provides many benefits for the final installation and to the end user:

PreFab is performed in a climate-controlled warehouse by trained installers who work regular hours under company supervision, eliminating inconsistencies due to weather/temperature changes, long hours at the site, and mistakes due to "human error".

PreFab turf inlays are cut in from the back of the turf, allowing a better inspection of the turf itself and a tighter inlay using the most expensive, strongest polyurethane in the industry.

PreFab allows installation crews to install a typical high school football/soccer field in only two weeks (vs. four weeks for field installations inlaying on-site).

PreFab, due to its shorter installation time span on-site, reduces the down time for the field and makes the site available to users more quickly.

PreFab lessens the impact of weather conditions on installation timing and quality.

PreFab, again due to the shorter installation time required, reduces the amount of time a staging area is needed, freeing up that often vital space for other use.

PreFab is performed by factory-employed and trained crews well in advance of when the field is installed, allowing site crews to take more time doing critical tasks like proper layout, infilling, and brushing that make the final installation superior. Rushed installations are unnecessary.

How does PreFab work?

The Peeples family of Dalton, Georgia owns AstroTurf's parent company, Textile Management Associates ("TMA"). TMA owns many turf manufacturing operations (polyurethane coating and primary backing plants, in addition to AstroTurf and ACCUCUT, which manufactures turf logos by means of a special robotic water-jet process). In addition, TMA owns many commercial/manufacturing facilities in the greater Dalton, Georgia area ("Carpet Capital of the World").

Through TMA, AstroTurf has access to a large warehouse in Chatsworth, Georgia, near the headquarters in Dalton. Enough space has been set aside to roll out, onto the floor, one-half of an entire, typical football/soccer field. The floor has been surveyed and a patent-pending system of special inserts has been placed into the floor itself to hold special guide jigs enabling precise marking and cutting of field hash marks, lines, letters, numerals, logos and arrows.

After aligning the panels perfectly, our crews then precisely cut (from the back) and glue (to high denier fabric re-inforcing tape and sheeting) such markings as needed per the project Plans. Each panel is painstakingly detailed, cut, glue in place, and allowed to

cure properly for 24 hours. After the work is thoroughly tested for adhesion, the turf panels are rolled up and shipped to the field site.

Once the materials arrive on-site, the field is then laid out and seamed in place. Some special markings—such as circles and large logos—must be cut in on site. After seaming, all that remains is to infill the field properly and it is ready for competitive sports. Often the field installation process can be completed as quickly as one week! (The record is still for one of the first fields installed—the practice field for the St. Louis Rams, which took only *4 days* for total installation, including infilling).

Why use PreFab?

The less time it takes to install your field, the more time you will have to use it, enjoy it and possibly even gain revenue from it! Rarely are we given a field site with spare days to install, so this allows us to install your field precisely AND quickly. This avoids problems associated with on-site inlaying efforts, such as:

Inclement weather can play havoc with the installation process, as gluing or using electrical equipment during rain or cold creates problems;

Weather changes can also affect how a field is installed; cold weather shrinks urethane-backed materials, hot weather makes them grow. Not so with our climate-controlled assembly location;

Tying up the field for long periods of time is a hardship for the school or park, as that field is often a classroom, (for P. E. classes), or an important asset to the community;

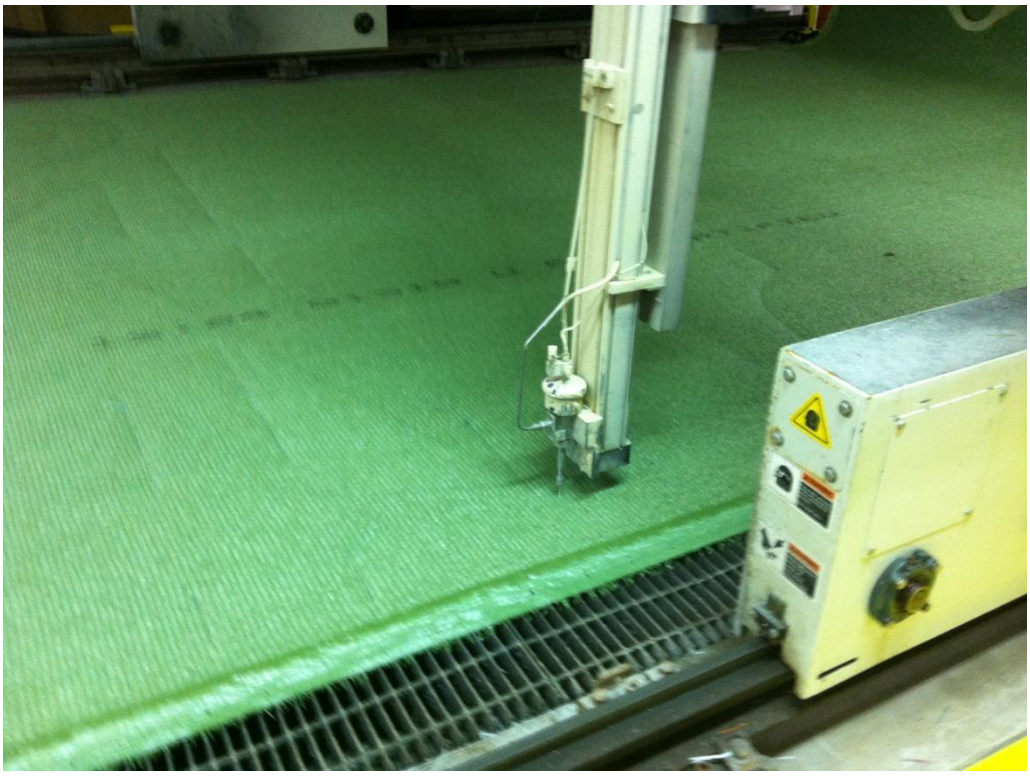
Similarly, occupying a nearby parking lot as our staging area for long periods of time can be difficult as well;

Quality of inlaid markings can vary due to installation crew differences, experience levels and training; with PreFab, all of our inlays are precise, consistent and installed under the best supervision possible!

What does the PreFab process look like?

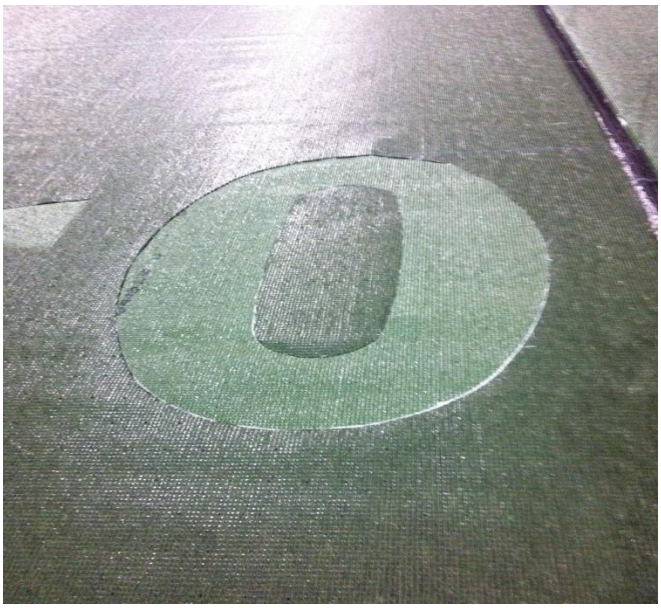
Below are photos of our technicians preparing an PreFab field. If you would like more information, please contact us and we will be happy to provide even more photos and background on this exciting, unique innovation! We invite customers to visit our turf manufacturing, R&D, logo cutting and PreFab operations in Dalton, Georgia.

Water jet cutting equipment owned by TMA/AstroTurf. Turf is being cut robotically with high-pressure water spray. The pattern is entered into a computer, which precisely controls the final layout!



Close up of the water-jet head cutting the back of the turf. Minimum waste results with this technique--and patterns are highly precise and crisp.

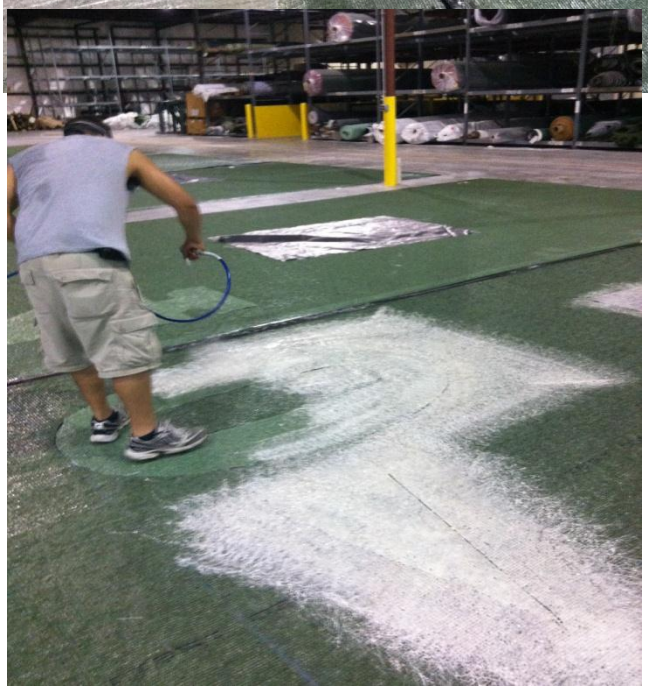
View of Chatsworth, Georgia PreFab facility. ½ a field can be pre-fabricated.



Numeral cut at ACCUCUT by means of water-jet is used as the template and inserted.

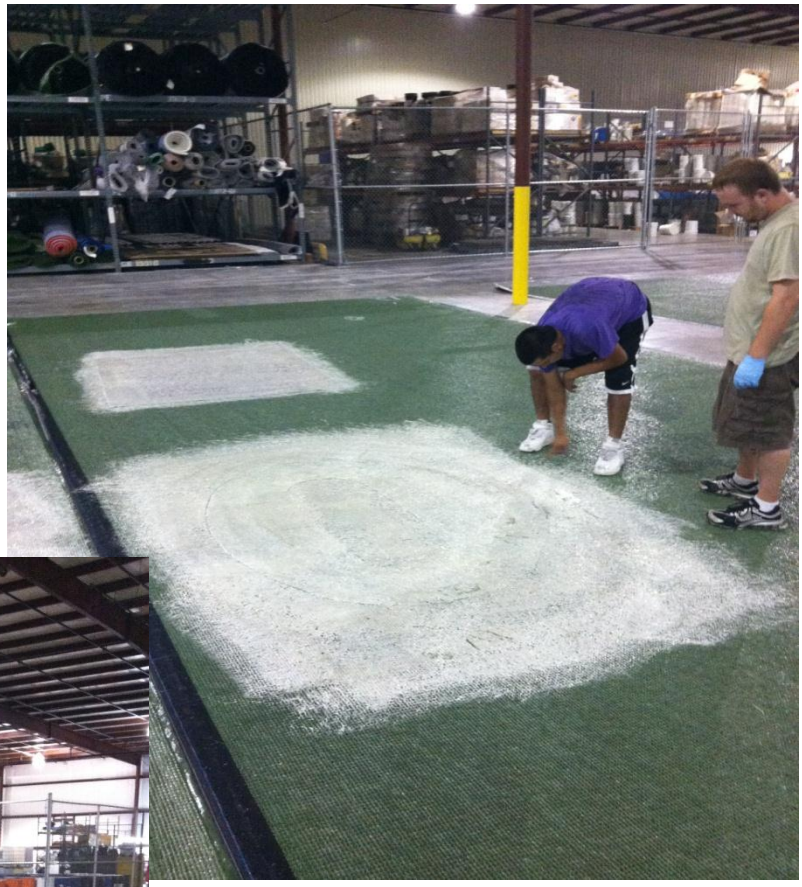
View of precision of the cut numeral and tight seam.

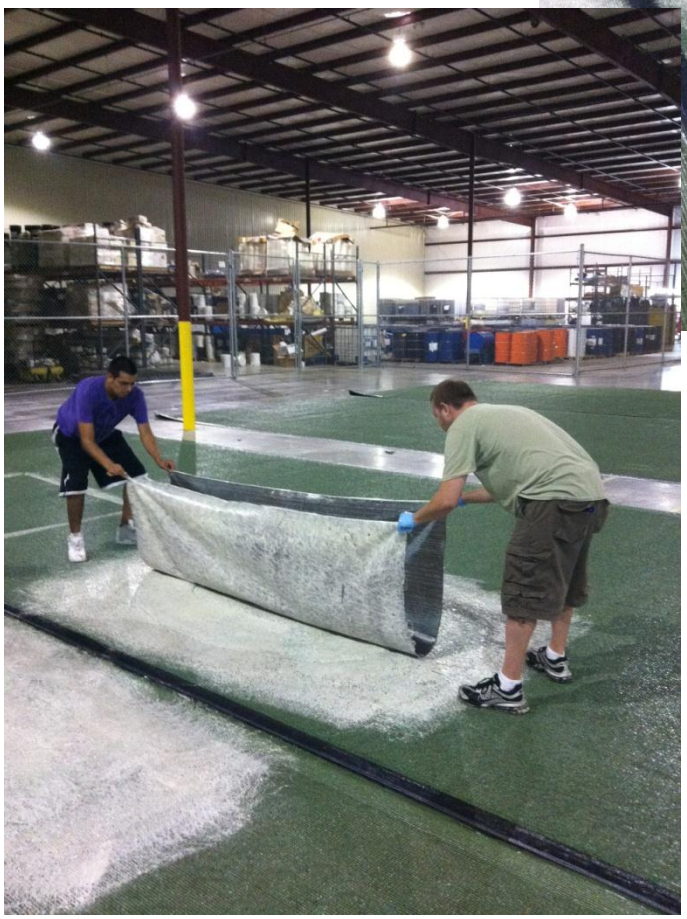
Hash marks are cut in as well. The material to the side is reinforcing fabric that will be adhered to the inlay.



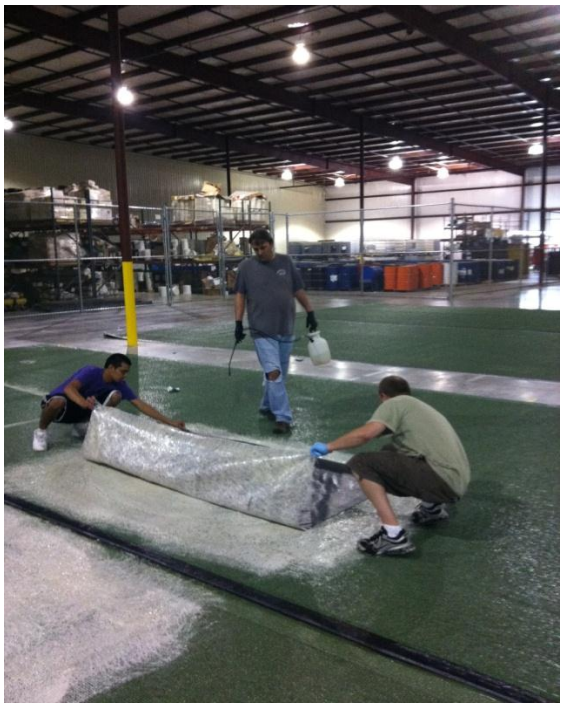
Applying the adhesive to the inlay and surrounding turf. This is a very difficult process outdoors. An indoor, controlled environment is ideal for this kind of mono-component adhesive as its curing properties are dependent affected by moisture, sunlight, and ambient temperatures. The PreFab process provides maximum quality control.

The moisture-curing adhesive must be monitored to determine when the proper cure has occurred. Outdoors, this is a very challenging process. Under controlled conditions at the PreFab facility, the process is easy to control. The NORDOT adhesive has excellent grab and tenacity. Complete cure takes 24 hours. On site, foot and vehicle traffic often takes place on uncured inlays, resulting in future problems. This is avoided.

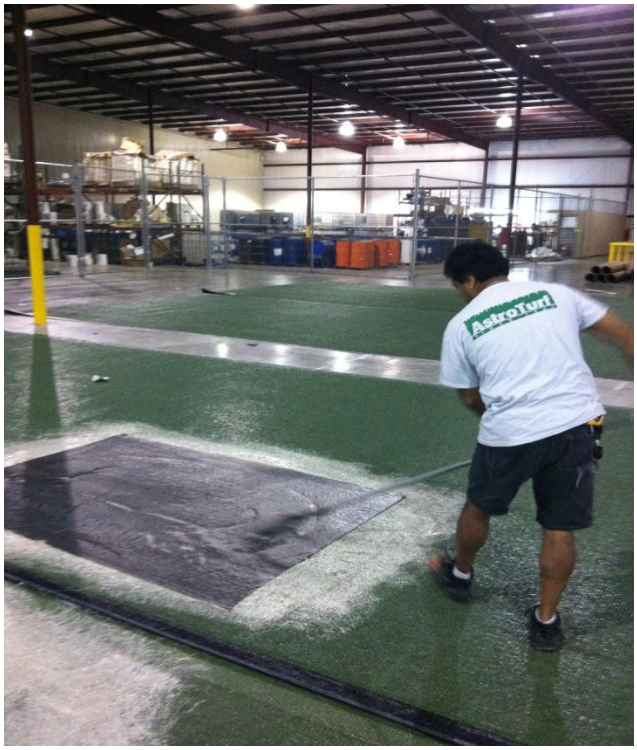




When the glue layer is ready to grab the reinforcing fabric, technicians apply the pre-cut fabric to the back of the turf, laying it into the still tacky adhesive. No glue touches the face of the turf fibers, another advantage of the process. Note that a layer of adhesive has been sprayed on the reinforcing fabric as well.



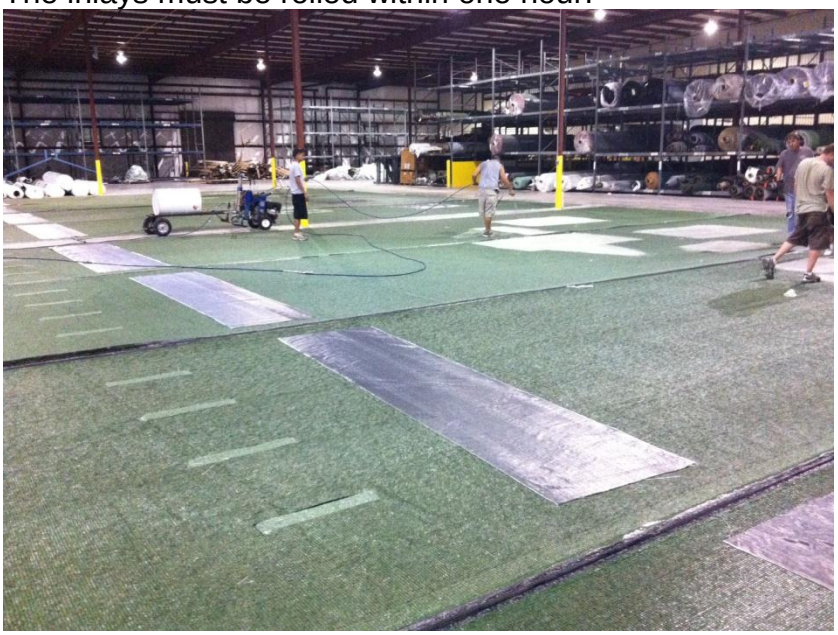
The reinforcing fabric covers the entire inlay.



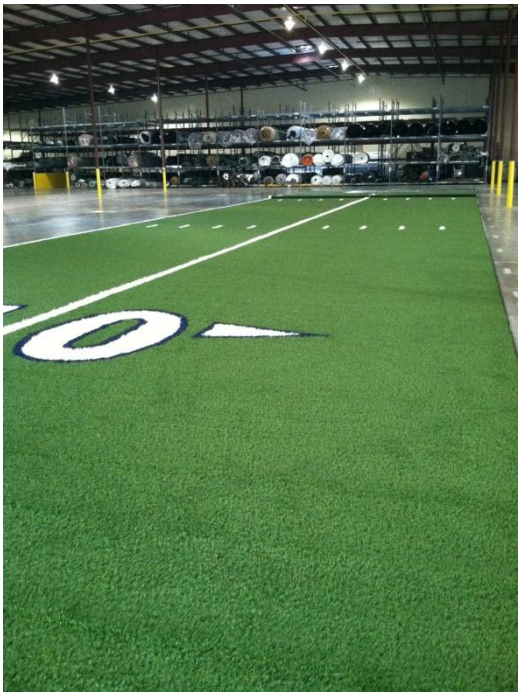
Once in place, the fabric must be rolled vigorously for a total bond.

The inlay is properly reinforced. This kind of bond is impossible to get on site, where the turf fabric has to be cut from the top.

The inlays must be rolled within one hour.



The hash marks are reinforced in a similar fashion.



This is a photo of one of our fields being prepared in our warehouse; note the perfect numbers and hash marks for a high school football field. The panels have been flipped over and are being rolled up for shipping to site.

This is a photo of the completed AstroTurf field at Lincoln High School in Portland, Oregon, a PreFab field—the field is perfect and was installed in 7 days!

Recycle

End-of-Life Recycling Plan

1. **Manner of reuse/recycling for each product component**

   NOTE: The process described below is subject to refinement and improvement as additional on-site processes are developed, along with localized partnerships for handling and converting materials.
   These steps are aimed at end-of-life conversions of fields installed from 2012 on, with some fields installed post-2004, when the use of lead chromate in the turf fiber Master Batches was discontinued by all major turf fiber suppliers. Fields installed prior to 2004 should be tested for lead content. Lead levels in these fields typically prevent recycling because converters of the recycled pellets will not accept lead contaminated material for conversion into new products.

   a. **Turf Infill:** The existing turf's infill (typically sand and SBR rubber or 100% SBR rubber) must be removed properly. AstroTurf will use specialized equipment designed specifically for this purpose. The equipment may be:
      i. The "RENOMATIC" machine, manufactured by SMG of Switzerland.
      ii. The TURFBADGER, a British- manufactured machine (Charles Lawrence Manufacturing) originally designed to remove sand infills from OmniTurf fields.
      iii. A third machine (no photo attached) is the new "Turf Muncher" developed by Mitchell Machine Works of Dalton, Georgia and available on the West Coast from Colony Construction. (AstroTurf used this machine to remove the infill from its field recently removed from The Home Depot Center Stadium after the AstroTurf NFLPA Collegiate Bowl).

BADGER Machine Removing Turf Infill into Super Sacks on Site (Georgetown Day School,Washington, D.C. 2009). The BADGER uses high pressure air jets and a suction system to remove intill.

RENOMATIC Machine Removing Turf Infill, El Paso, Texas, 2009. The RENOMATIC machine uses a combination of aggressive agitation and suction to remove infill particles.

RENOMATIC Machine Removing Turf Infill—Note rubber pile in tractor bed

TURF MUNCHER machine taking infill out of turf at Riverside CC, 2011

The sand and/or rubber infill will be extracted from the turf and placed in “super sacks” (see photos, above) *on site* to

be re-used in turf applications (landscape, golf, playground, etc.) in a mixed form, or taken off-site and systematically separated into sand and rubber components, to be cleaned and re-used in synthetic turf sports applications and/or other applications such as landscape, golf tee lines and driving ranges, and amelioration of natural grass fields (this is done by inserting this material into natural grass fields to enhance drainage and playability).

b. **Turf Fabric:** The turf fabric is the key to the recycling program, as it is the most valuable part of the system, yet also the most problematic. On-site, AstroTurf will use special vehicle-mounted blades to rapidly cut the turf, regardless of seam location. This will speed up the process significantly. Once cut into manageable pieces, the turf will be rolled up on cores, and shipped to our recycling facility in Dalton, Georgia. (We are working to determine how to further process the turf rolls on a local basis; however, at present we expect to ship the rolls directly to our recycling operation in Georgia).

   In Dalton, the turf fabric will be cut into smaller sections (generally pallet size) and fed into a special machine designed to chop up carpet and rugs for recycling purposes.
   These roughly-chopped carpet pieces are milled in order to be used in the extrusion process. The final process provides a supply of small fiber and backing materials that can be re-melted as part of the extrusion process.
   At this point, the plastic materials from the field, in combination with our in-house waste, can be re-melted and extruded into various shapes for a variety of purposes. The process is shown on the series of photos that follow. In summary, the process takes the recycled materials ("chop"—shown above) into one extruder, which mixes the chop with virgin PE pellets. Another extruder takes virgin PE and mixes it with a special MasterBatch of chemical pellets containing colors and other additives. The two extruders then come together and the two materials are fed into a single extrusion head with a powerful screw. The newly extruded product is formed into a continuous film or tape, approximately 6 inches

in width, that is then suitable to be “re-pellitized” and extruded into a variety of products.

AstroTurf Turf Chopping Machine, Dalton, Georgia. This is an example of the machinery used to “chop” the field into smaller pieces so the material can be reprocessed. Currently, AstroTurf uses a local, outside firm to do this initial processing of its internal turf waste and fields brought in for recycling

View of Turf after Chopping Process in Dalton, GA

This type of machine chops the material into small pieces. These roughly chopped carpet pieces are then further milled in order to

be used in the extrusion process. The final process provides a supply of small fiber and backing materials that can be re-melted as part of the extrusion process (to be described below).

Final form the field takes prior to recycling extrusion process. The process allows only for approximately 5% of the infill to remain in the turf.

Process of extrusion begins. Plant at AstroTurf/UTT Coating, Dalton, GA.

At this point, the plastic materials from the field, in combination with our in-house waste, can be re-melted and extruded into various shapes for a variety of purposes. The process is shown on the series of photos that follow. In summary, the process takes the recycled materials ("chop"—shown above) into one extruder, which mixes the chop with virgin PE pellets. Another extruder takes virgin PE and mixes it with a special MasterBatch of chemical pellets containing colors and other additives. The two extruders then come together and the two materials are fed into a single extrusion head with a powerful screw. The newly extruded product is formed into a continuous film or tape, approximately 6 inches in width, that is then suitable to be "re-pellitized" and extruded into a variety of products, which will be discussed later.

View of the extruder melting the turf "chop" at UTT Dalton, GA 2012 Note: The second extruder can be seen in the top left-hand side of the photo. Both extruders feed into the center screw that can be seen behind the control panel at the bottom of the photo.

View of the second extruder, which combines virgin PE and MasterBatch.

View of virgin PE pellets being sent into the second extruder. These will be mixed with Master Batch.

View of extrusion head and mix of recycled fields material and virgin factory waste + virgin PE +Master Batch extruded into a continuous plastic sheet, suitable for use, after pelletization, in other products.

View of extruded sheet entering "quench bath" to cool and solidify the plastic

View of sheet entering final "chopping" process, which allows for re-pelletizing. The new pellets can be extruded into products or ground and used as granules.

We have used this material to coat turf for walk off mats (a separate company, ACCUCUT, owned by our parent manufactures these mats). We can use the material in pellet form as a top dressing for turf applications—especially baseball, where we may want a top layer of non-marking granules.

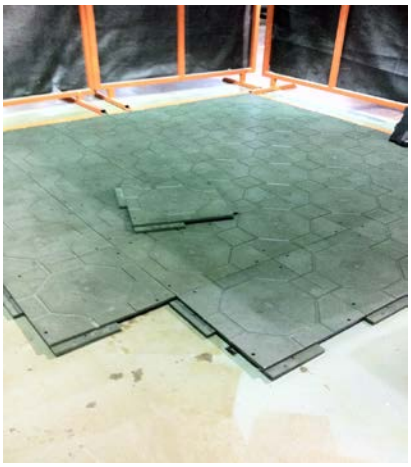
We are also beginning to experiment with this material in pellet form as a substitute for EPDM granules in running tracks. EPDM is quite expensive, thereby giving the new material the opportunity to provide a cost-effective alternative.

Other uses include the following:

We are marketing these processes and technology as

Caps for carpet tubes.

Trays for egg laying operations.



An interesting product—plastic tiles for sports and landscape use.

2) Identification of parties responsible for the removal and disposal of the field products

a. AstroTurf will be responsible. The RENOMATIC, TURF MUNCHER, and/or BADGER machine operation and application is typically sub-contracted to experts at SportInstall or COLONY CONSTRUCTION, who would act as our partner or sub-contractor on these projects.
b. The extrusion process of taking chopped material and mixing it with virgin PE and Master Batch is done by our sister company, Universal Textile Technologies in Dalton, Georgia.

3) A description of the reuse or recycling process.
   a. General: AstroTurf will remove and reuse the infill and turf products on future installations of turf or other applications, as detailed in 1, above.
   b. The turf will be removed and processed locally into a quantity of chopped material or sent back to Dalton to be chopped; the chopped material will be extruded with other materials into a sheet; re-pelletized; and re-used for carpet or turf backings, running tracks, molded tiles, trash cans, and other applications detailed in Section 1, above.
   c. AstroTurf will not incinerate the fields installed as part of the contract awarded for this Project.
   d. All of this technology will improve in the future, as numerous old fields are currently in need of replacement, and this feed stock is growing exponentially.

ROOTZONE

Making a superior turf system is not only complicated and difficult; it demands sophisticated technology for the safety and performance of athletes.

AstroTurf has brought its long history of innovation, its industry-leading manufacturing base, and zeal for perfection to a significant problem afflicting the turf industry—infill instability. The result, a game-changer, is the RootZone -- perhaps the most significant improvement in turf technology in the last decade.

RootZone is a proprietary system which provides a thatch layer to the turf system and helps stabilize the infill. The need for stabilizing the infill is not a new discovery or new problem. Third Generation (tall pile, rubber-filled systems) have struggled with this problem since the first introduction of these systems in the late 1990's. In fact, the original version of the Root Zone was introduced by AstroTurf technical experts in 1998.

The problem is three-fold

1. Loose rubber or other infill materials tend to splash or fly out when players cut, fall or slide on the turf.

2. Loose infill materials creep or migrate – generally moving from the center of the field to the edges.

3. In high-use, high-wear areas, the infill tends to be displaced, especially when constantly kicked (corner kick areas, penalty areas, soccer goal areas, lacrosse creases, football extra point spots etc.).

RootZone provides the answers.

1. The Root Zone significantly reduces rubber splash or fly out because the granules are stabilized within the texturized fibers.

2. The Root Zone significantly reduces rubber or infill migration or creep because the granules are stabilized within the texturized fibers. Without this kind of movement, the infill remains uniform, predictable, and safe.

   Safer, because the surface is consistent and uniform (players do not adjust their gait due to a subconscious concern about unpredictable footing and energy restitution). Safer, in terms of shock absorbency, especially in high-use areas where shock absorbency is critical. In spots where infill migration has occurred, the infill will be thinner and Gmax will be higher, a very negative consequence for players. (Gmax tests per ASTM F-1936 on non-stabilized infill systems often indicate additional maintenance to be necessary to provide adequate Gmax in high- use areas).

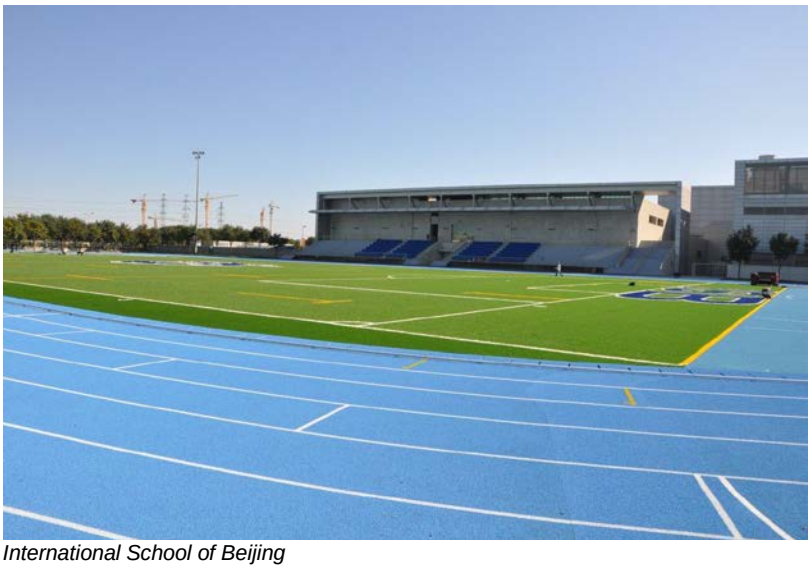
The Home Depot Center

3. The Root Zone reduces rubber infill displacement in high use areas because the granules are stabilized within the texturized fibers. This is the most difficult challenge for a Root Zone simply because these areas are hit with such force and frequency. Even with the Root Zone, special maintenance should be performed to keep these areas infilled properly.

The Root Zone infill stabilization system is available only from AstroTurf. We invented it, patented it, improved it, and have applied for additional patent protection.

RUGBY

The sport of rugby is a fast-growing component of the synthetic turf industry. A hard-core sport, natural grass rugby pitches around the world take a beating just like the athletes who play the game.



International School of Beijing

With 15 players per side, rugby games can test a field as it relates to wear and tear, consistency, and playability.

Rugby also has its own special techniques such as scrums and line-outs. These playing situations require specific formations which can wear out areas of a field.

AstroTurf systems are engineered to be tough and durable for sports like rugby. However, rugby play requires special consideration due to the high incidence of neck and head traumas associated with rugby. The International Rugby Board (IRB), in association with FIFA, has recently introduced testing and certification processes for synthetic fields.

AstroTurf's field at the International School in Beijing is one of the first, if not the only, field to have both FIFA 2 Star AND IRB Certification.

SOCCER

Soccer is a demanding sport played by demanding athletes.

AstroTurf has the most experience in the industry in meeting the needs of soccer teams throughout the world when it comes to the best synthetic turf systems.

Soccer is the fastest growing sport in the world and the fields which service soccer plays are under more and more pressure to eliminate downtime for fields and provide increased availability for practices and games. AstroTurf systems can help eliminate downtime and the high costs associated with constant maintenance.

Also, soccer requires consistency in performance when it comes to ball roll and bounce. The engineers in AstroTurf's Research and Development Department are constantly working to improve synthetic turf systems to meet the demand of soccer players everywhere.

AstroTurf fields have garnered respect at the highest levels of the game. In fact, AstroTurf recently installed a field at the Home Depot Center in Los Angeles, which not only served as a practice facility for the US Women's National Team, but hosted the Doble Clasico CentroAmericano Tournament.

AstroTurf has also been named the Official Synthetic Turf of the CalSouth Soccer Foundation, one of the world's largest soccer association, with over 125,000 players.

Additionally, AstroTurf fields are also recognized under exacting FIFA standards.

SYNTHETIC TURF COUNCIL

AstroTurf is a founding member of the Synthetic Turf Council

Founded in 2003, the Synthetic Turf Council is a non-profit association dedicated to serving as a resource for trustworthy information about synthetic turf. The objective is to encourage, promote and facilitate better understanding among all parties involved in the manufacture, selection, delivery and use of today's synthetic turf systems. To that end, the STC makes every attempt to dispense information that is neutral, objective and validated by independent, current and credible research.

As an action-oriented organization, the STC promotes high standards and high quality in the industry through a respected member certification program and strict code of ethics. Annual member meetings provide a forum for cooperative learning and issue resolution, while outreach initiatives encourage cooperative relationships between industry and end-user organizations.

Ridgeland High School

The STC invites input from synthetic turf buyers and users such as school officials, selection committees, sports authorities, risk managers and research organizations. The STC encourages all companies in the synthetic turf industry to join the Synthetic Turf Council as either a Full Member or Associate Member to participate in shaping the industry.

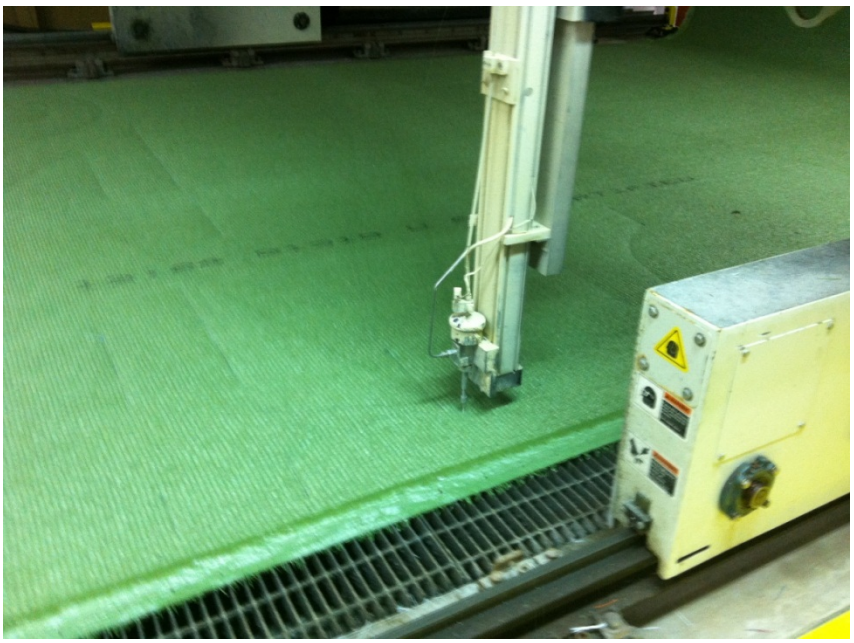
STC MISSION STATEMENT

"Committed to community wellness and environmental responsibility through the use of synthetic turf, the Synthetic Turf Council is the industry's voice for promoting the highest ethical and professional standards, education, legislative and community advocacy."

STR FAB

Textile Management Associates, Inc. ("TMA"—AstroTurf's PARENT COMPANY), a company founded by the Peeples family (Shelby, Tom and Bryan Peeples) of Dalton, Georgia, owns not only the AstroTurf® brand, but the varied manufacturing, IP and installation assets necessary for AstroTurf's success. This includes (1) Synthetic Turf Resources, LLC ("STR") the original AstroTurf *tufting/knitting/fiber extrusion plant* and sports surfacing *laboratory*; (2) the industry's preeminent *polyurethane coating* plant , Universal Textile Technologies, LLC("UTT") in Dalton, GA; (3) the turf primary backing cloth *weaving plant*, Carpet and Rug Backings, LLC ("CRB") in Birmingham, AL; (4) STR FAB a robotic, water-jet logo and markings cutting facility in Chatsworth, GA; and, (5) the turf PRE-FAB and inspection facility in Chatsworth, Georgia. No other company is vertically integrated in *this* manner and to this depth. We can take product from raw polymer stage and convert it to an engineered turf system with all components that we install and service ourselves. TMA and AstroTurf have been fixtures in the turf and carpet industry for over 30 years and employ over 1400 workers. The Peeples family is one of the larger private employers in the state of Georgia, with interests in banking, real estate and textile industries.

Water jet cutting equipment owned by TMA/AstroTurf. Turf is being cut robotically with a high-pressure water spray (60,000 PSI). The pattern is entered into a computer, which precisely controls the final layout!



Close up of the water-jet head cutting the back of the turf. Minimum waste results with this technique--and patterns are highly precise and crisp.

Numeral cut at STR FAB by means of water-jet is used as the template and inserted.

View of precision of the cut numeral and tight seam.

LOGO GALLERY

Texas A&M Commerce
Commerce, TX

Kansas State University
Manhattan, KS

Refugio High School
Refugio, TX

Ringgold High School
Ringgold, GA

Colorado College
Colorado Springs, CO

University of Kansas
Lawrence, KS

STRATEGIC PARTNERSHIPS, ALLIANCES, & MEMBERSHIPS

AMERICAN FOOTBALL COACHES ASSOCIATION

The American Football Coaches Association (AFCA) is the only national organization solely dedicated to improving football coaches through ongoing education, interaction, and networking. Its primary goal is to provide resources for personal and professional development amongst the football coaching profession. The AFCA membership includes over 11,000 members and represents coaches and several stakeholders within the game of football. Any high school, junior college, international, semi-professional or professional football coach is eligible to become a member of the AFCA.

Founded in December of 1921 by 43 coaches in a meeting at the Hotel Astor in New York City, the AFCA has continued to the push the envelope in regard to the growth of the profession. The AFCA strives to "maintain the highest possible standards in football and the profession of coaching football," as well as to “provide a forum for the discussion and study of all matters pertaining to football and coaching."

The flagship event of the AFCA is its national coaches’ convention; which takes place annually during the second week in January. More than 6000 coaches attend the four day event. Each year, more than 100 speakers lecture on topics such as concussion management, X’s & O’s, practice and program organization, media relations, career development and many more. Attendees can receive professional development hours which can help with school district recertification, salary points, etc. AstroTurf is a member of the AFCA and a major convention sponsor.

AMERICAN SPORTS BUILDERS ASSOCIATION

The American Sports Builders Association, a non-profit trade association comprised of builders, designers and suppliers for sports facilities, exists to promote the highest standards of design, construction and maintenance by:

- Leading in the development and dissemination of current and accurate technical information; and

- Promoting the interests of builders of sports facilities of the type constructed by its members; and
- Providing a forum to gather and exchange ideas and information to improve sports facility construction and maintenance.

The membership of the American Sports Builders Association is guided by honesty and integrity in words and actions. AstroTurf is a member of the American Sports Builders Association.

BIOBASED PRODUCTS COALITION

Biobased product manufacturers and allied organizations launched the Biobased Products Coalition, of which AstroTurf is a member, in 2007 to focus and coordinate industry efforts to improve the federal biobased program and promote other favorable federal policies. The BPC provides a forum for biobased manufacturers of all sizes as well as farmer and other trade associations to present a unified industry voice on federal policy.

CALIFORNIA COMMUNITY COLLEGE BASEBALL COACHES ASSOCIATION

AstroTurf is a partner/sponsor of the CCCBCA. The California Community College Baseball Coaches Association, CCCBCA, has twelve conferences/divisions throughout the state with six each in north and south. There are 85 colleges that play baseball. Memberships includes both assistant and head coaches. Associate membership includes four year college coaches and major league baseball scouts. In all, there are approximately 350 members.

The association's executive committee is made up of seven officers and twelve elected conference/division representatives. This committee makes all decisions regarding the association.

As an affiliate organization of the California Community College Athletic Association or CCCAA, the CCCBCA works within their framework to present or influence legislation

that impacts our game. We work in concert with the CCCAA to make our play-offs a quality experience for everyone involved.

CALSOUTH SOCCER FEDERATION

AstroTurf is a partner/sponsor of the CalSouth Soccer Federation. The California State Soccer Association - South (Cal South) is a 501c(3) California public benefit corporation and is the official youth and adult state soccer association of the United States Soccer Federation and United States Youth Soccer. Cal South represents over 240 Affiliate Member Leagues and Clubs comprising our membership of more than 180,000 registered players, coaches, referees and league administrators. The organization, with a service area that extends from San Luis Obispo to San Diego, provides rewarding recreational and competitive opportunities for players of all ages, genders and skill levels.

EUROPEAN HOCKEY FEDERATION

The European Hockey Federation (EHF) is the governing body of hockey in Europe. It was founded in 1969 in Cardiff, Wales and it's first President was Mr.Pablo Negre. It is composed of the Member Associations of European nations (43) that govern hockey in their countries. The EHF is one of 5 Continental Federations that are affiliated to the International Hockey Federation (FIH), the world governing body for hockey.(www.fih.ch)

The EHF's mission statement is: "To encourage, promote, develop and administer hockey in Europe at all levels in order to maintain hockey as an Olympic Sport on the Olympic Program and maximize participation, standards, enjoyment and community involvement. The work of the EHF and its efforts shall be based on democracy, loyalty, equality and especially recognizing the importance of our volunteers."

The EHF, on behalf of and in co-operation with its members organizers indoor and outdoor, men and women, senior, junior (U21) and youth tournaments, both Nations and Clubs throughout the continent of Europe.

The EHF is governed by an Executive Board of elected members, holds a General Assembly every years and is professionally administered from an office in Brussels, Belgium.

AstroTurf is the Official Synthetic Turf of the European Hockey Federation.

MAJOR LEAGUE BASEBALL

AstroTurf is the Official Synthetic Turf of Major League Baseball, one of the world's most powerful sports agencies, and the governing body for professional baseball in the United States. Two teams currently play their games on synthetic turf. The Tampa Bay Rays and the Toronto Blue Jays play their games on AstroTurf.

NATIONAL FIELD HOCKEY COACHES ASSOCIATION

The National Field Hockey Coaches Association (NFHCA) is a non-profit organization serving field hockey coaches and supporters of the game from across the United States. The mission of the organization is to stimulate the professional development of coaching leadership within the sport of field hockey. The NFHCA strives to cultivate and recognize the professional

contributions of its membership and to foster and promote the growth of the sport. The NFHCA is responsible for providing a recognizable presence and voice in regard to legislation affecting the sport as well as interscholastic and intercollegiate programs.

AstroTurf is a member and sponsor of the National Field Hockey Coaches Association. AstroTurf is also the Official Synthetic Turf Provider of the NFHCA.

RIPKEN BASEBALL AND THE CAL RIPKEN, SR. FOUNDATION

AstroTurf is the Official Synthetic Turf of Ripken Baseball and the Cal Ripken, Sr. Foundation. Established in 2001, the mission of Ripken Baseball is to grow the game of baseball worldwide "The Ripken Way." Ripken Baseball and the Cal Ripken, Sr. Foundation are run by brothers Bill and Cal Ripken, Jr., a member of the Baseball Hall of Fame. AstroTurf is featured in many Ripken Baseball installations throughout the country.

SPORTS TURF MANAGERS ASSOCIATION

The mission of the STMA is *to be the recognized leader in strengthening the sports turf industry and enhancing members' competence and acknowledgement of their professionalism.*

Because a few men believed that sports turf could be improved through the sharing of knowledge and the exchange of ideas, the Sports Turf Managers Association was officially formed in 1981.

The key leaders in the STMA's infancy were Harry "Pops" Gill (deceased), Milwaukee County Stadium; Dr. William Daniel (deceased), Professor Emeritus, Purdue University; Dick Ericson, Minneapolis Metrodome, and George Toma (NFL).

After sharing the office, executive secretary and conference facilities of the National Institute of Parks & Grounds Management in Appleton, Wisconsin, for three years, the sixty STMA members decided to venture into independence in November 1984.

The Board of Directors, led by their newly elected President, David Frey, appointed the Association's first Executive Director, Dr. Kent W. Kurtz, Professor of Turfgrass & Ornamental Horticulture at California State Polytechnic University in Pomona. In 1985, the Association incorporated as a not-for-profit corporation and began a quarterly newsletter. STMA established a national office in Upland, California, during the spring of 1987. The first national conference in 1986 was held in conjunction with that of the Golf Course Superintendents Association of America, as were the annual meetings in 1987 and 1988.

AstroTurf is a member of the Sports Turf Managers Association.

STADIUM MANAGERS ASSOCIATION

SMA is dedicated exclusively to stadium operations and promotes professional, efficient and state-of-the-art management of stadiums around the world. Members are administrators and operations personnel from teams, colleges and universities, facility managers and public sports authorities, and suppliers to the industry. It is a member driven organization where stadium managers and vendors collaborate on issues and solutions that enhance the safety, profitability, and service of their facilities.

AstroTurf is a member and sponsor of the Stadium Managers Association.

SYNTHETIC TURF COUNCIL

AstroTurf is a founding member of the Synthetic Turf Council

Founded in 2003, the Synthetic Turf Council is a non-profit association dedicated to serving as a resource for trustworthy information about synthetic turf. The objective is to encourage, promote and facilitate better understanding among all parties involved in the manufacture, selection, delivery and use of today's synthetic turf systems. To that end, the STC makes every attempt to dispense information that is neutral, objective

and validated by independent, current and credible research.

As an action-oriented organization, the STC promotes high standards and high quality in the industry through a respected member certification program and strict code of ethics. Annual member meetings provide a forum for cooperative learning and issue resolution, while outreach initiatives encourage cooperative relationships between industry and end-user organizations.

The STC invites input from synthetic turf buyers and users such as school officials, selection committees, sports authorities, risk managers and research organizations. The STC encourages all companies in the synthetic turf industry to join the Synthetic Turf Council as either a Full Member or Associate Member to participate in shaping the industry.

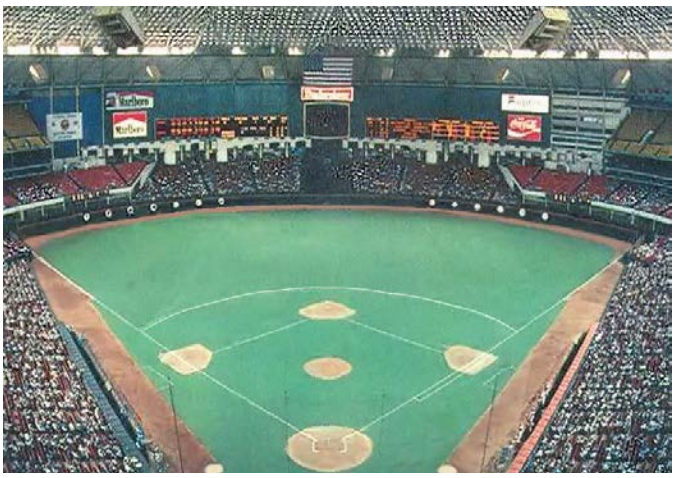
ASTROTURF HISTORY

For many athletes and sport enthusiasts, the AstroTurf brand has redefined the way the game is played. AstroTurf invented the synthetic turf industry in 1965 and has, for decades, been known as a company focused on innovation, specialty manufacturing, and customer service.

In 1958, the Ford Foundation allocated $4.5 million to establish a research group called Educational Facilities Laboratories. One of the group's findings was that inner-city schools had too little green space. The report included the following call to action: "Whoever invents for rooftop and playground a material that looks like grass and acts like grass, a turf-like substance on which a ball will bounce and a child will not, a covering that brings a slice of spring in Scarsdale to 14th Street in April, will have struck a blow for stability in the big city."

A copy of the report ended up at Monsanto, and their Chemstrand division developed a new product which was tested at the Moses Brown School in Providence, Rhode Island in 1964. The product was called ChemGrass.

In 1965, the Houston Astros had opened the magnificent Astrodome, but grass would not grow and they needed a solution. Monsanto stepped up and by January of 1966, they were testing the product in the Astrodome. By the beginning of baseball season, ChemGrass was reborn as AstroTurf and a sports revolution began.



Astrodome, 1966

AstroTurf opened its manufacturing facility in Dalton, Georgia in 1968, and is still located there. Today, it operates under the umbrella of Textile Management Associates (TMA), a family-owned group of businesses which has been in Dalton in the textile industry for over four decades. TMA is also a leader in real estate and banking in Georgia and throughout the Southeastern U.S.

The AstroTurf brand and assets were acquired by TMA in 2004. General Sports Venue (GSV) of Raleigh, North Carolina, held the license to market and sell AstroTurf products until it was acquired by TMA in 2009.

Since that acquisition, AstroTurf has made amazing strides in brand recognition and growth of market share. The infrastructure of TMA allowed AstroTurf to become the first vertically

integrated manufacturer of synthetic turf. TMA has also helped AstroTurf put together a team which is the most experienced in the industry. By assembling and training a top-notch sales and marketing team, headed by seasoned synthetic turf professionals, AstroTurf has become a major force in the industry, increasing production more than three-fold in one season.

The growth is also a result of the experience and vast resources of the TMA network. Because of TMA, AstroTurf has realized dramatic growth without suffering the typical setbacks normally associated with such rapid expansion such as late delivery, poor quality installation, poor customer service, and other associated problems.

From its first use in the Houston AstroDome in 1966 AstroTurf has celebrated many milestones, including the first Super Bowl and first World Series on synthetic turf, as well as the development of many groundbreaking products.

The company continues to offer advanced, state-of-the-art, multi-sport and specialized synthetic turf systems with proprietary engineered technologies, leveraging the synthetic turf industry's largest vertically integrated manufacturing system.

CENTER FOR ATHLETIC FIELD SAFETY

Signifying a new era in athletic field research focused on injury prevention, the University of Tennessee and AstroTurf have opened the Center for Athletic Field Safety. The center is a comprehensive research initiative to improve athletic performance and reduce injuries that can occur on both natural and synthetic turf playing surfaces.

"Possessing all facets of synthetic turf manufacturing from polymer development to field installation, AstroTurf is an integral research partner," Dr. Jim Brosnan, assistant professor of Plant Sciences at the UT Institute of Agriculture and research co-investigator said. "We had to be able to work with a company that has the ability to use our research findings to advance the products installed in stadiums across the globe. It is our hope that comparing natural and synthetic turf surfaces to this scale will allow for fields to be safer at all levels of play."

Dr. Jim Brosnan

"Ensuring the highest standards for athletic field safety and outstanding performance is our top priority," explained Bryan Peeples, President of AstroTurf. "Advancing the science behind injury prevention helps athletes of all ages and the sports turf industry overall."

Eric Berry, former Tennessee Volunteer and first-round NFL pick for the Kansas City Chiefs, has been a part of the effort all along. "Reducing playing field injuries keeps professional and student athletes in the game longer," said Berry. "When I heard AstroTurf was launching this program with my alma mater, I wanted to be a part of it in light of my commitment to player safety."

The Center for Athletic Field Safety aims to make a long-term difference. While determining the safety and performance of AstroTurf products compared to various natural turfgrass systems, UT turfgrass scientists will also monitor these relationships over time. Additionally, they are evaluating the environmental impacts of each system. The research should lead to the development of new, more accurate methods for testing the safety and performance of all synthetic turf systems.

Natural surfaces are planted with Bermuda grass, Kentucky bluegrass and others. Both mechanical and human studies create “real play” conditions. The research is scientifically based for statistical analysis. In addition, the geographic location of the site enables scientists to conduct research on a variety of surfaces from both cool- and warm-season climates. The unique outdoor research facility is comprised of 60 small-scale athletic research fields constructed from a variety of playing surfaces. UT turfgrass scientists are comparing the safety and performance of synthetic playing surfaces to natural grass surfaces. Field qualities range from those employed for professional–level sports to surfaces used by schools, public parks and recreation fields.

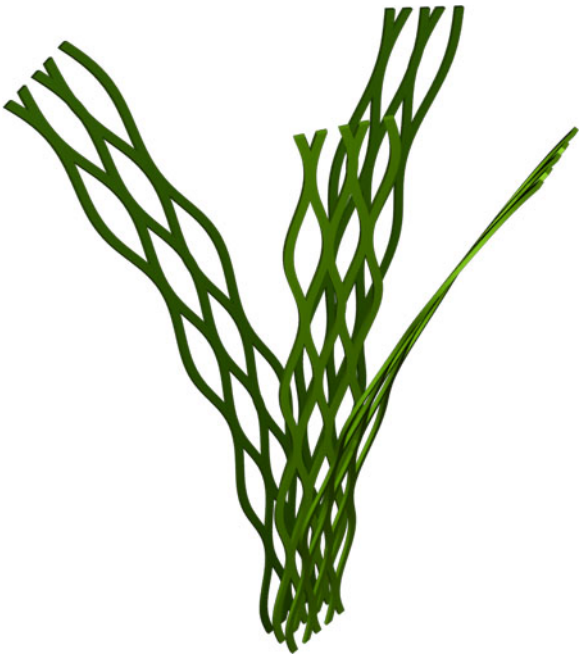

Dr. John Sorochan

“This has been a lifelong dream for both me and my colleague Dr. Jim Brosnan,” Dr. John Sorochan, associate professor in Plant Sciences at the UT Institute of Agriculture and research co-investigator said. “Both of us as graduate students focused our research on improving athletic fields for all levels of play. It is especially rewarding to have the support of high profile athletes like Eric Berry who share our vision for safer playing surfaces.”

The UT Center for Athletic Field Safety also furthers education for University of Tennessee students, enabling UT Plant Sciences faculty to add another level to the curriculum to train and educate future sports turf practitioners.

XP+ Slit Film Fiber

Slit film has long been the workhorse of the synthetic turf industry, and AstroTurf's use of the XP+ slit film fiber takes it a step further. Designed for implementation on heavily used or multi-sport fields, the unique XP+ fiber provides additional durability for the customer. AstroTurf uses the XP+ fiber in its XPe product (without a RootZone®), the 3DX system (all slit film tall fibers, with a RootZone), and its 3DXtreme system (a blend of XP+ slit film fibers and Horseshoe monofilament fibers, with a RootZone).



The XP+ fiber is produced from a fibrillated tape which is stretched, or "oriented" in two directions, imparting the highest weight-to-strength ration for fibers in the industry. The result is a fiber that has unmatched resistance to wear and sunlight, the two biggest enemies of synthetic turf systems.

Extensive testing has found that no other fiber, comes close to the durability shown by the XP+. In fact, no other polyethylene fiber in the history of the turf industry can compare to the XP+ slit film. It has been used on more than 3500 installations worldwide over the last decade. Moreover, laboratory testing demonstrates its intense durability. No other slit film can reach 150,000 Lisport (accelerated wear test) cycles and retain its integrity like the XP+.

With AstroTurf's XPe product, those worries are eliminated, giving customers the durability and playability desired within a long lifespan, without worry of premature failure.

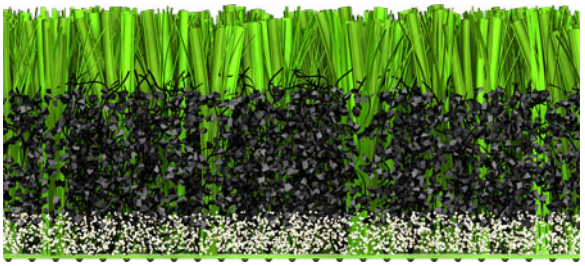
Competitor's Slit Film *3DXtreme* *3DX*

Un-retouched photographs of products after 150,000 Lisport Cycles

XTREME

AstroTurf GameDay Grass 3D Xtreme takes synthetic turf to the next level in one magical symphony dedicated to sports performance.

The combination of technology in the Xtreme fiber sets it apart from the industry. The system includes the revolutionary Horseshoe fiber. Due to its shape, it provides superior fiber memory, staying upright longer. It also provides grass-like performance and has the best aesthetic impact of any fiber on the market.



The engineers at AstroTurf have combined the Horseshoe fiber with a workhorse slit film. The slit film provides the best encapsulation of infill, resistance to wear, and greater pile density.

The Home Depot Center

In addition, the system also features RootZone, which helps to prevent rubber splash and provides better energy return and shock absorbency for athletes.

In combination, these are known as AstroTurf GameDay Grass Xtreme, providing the best looking fields, as well as the best performing and most consistent fields in the industry.

Warranty on AstroTurf® GameDay Grass

AstroTurf ® LLC, warrants the synthetic grass surface at _____(the "Project") for a period of eight (8) years from the date of substantial completion of **product installation** against defects in materials and/or workmanship, including ultraviolet degradation, excessive fading, seam rupture or dislodgment. AstroTurf will repair or replace, as it deems necessary, those materials that exhibit such defects resulting from materials or workmanship, at no cost to the Owner.

AstroTurf also guarantees that the average GMax level of its field will not exceed 175 for the duration of the warranty. If the average of the GMax readings exceed 175 during the warranty period, AstroTurf will take whatever measures necessary, at no cost to the Owner, to return the GMax scores to, or below, 175.

The recommendations for proper maintenance of your AstroTurf surface, as outlined in our 'Owners Manual and Guidelines'' (attached hereto), shall be considered in determining neglect or proper maintenance of the synthetic grass surface and shall be considered an integral part of this warranty.

This warranty, specifically, does not pertain to or obligate AstroTurf in any way regarding material applied or labor performed which was not under AstroTurf's control or which was supplied or performed by others who are not parties to the performance contract or this warranty. Assistance or recommendations provided to the Owner or his representatives or AstroTurf's approval of Owner's or his representatives' designs, plans or drawings in no way extend this warranty to materials or workmanship beyond those specifically supplied or controlled by Astroturf. This warranty will be voided if any other contractor or turf manufacturer other than AstroTurf does any service or maintenance on the subject field, with the exception of employees of Owner who have been certified by AstroTurf to provide the service or maintenance or employees of Owner who follow the Maintenance Guidelines provided for Owner by AstroTurf.

AstroTurf does not warrant against normal wear and tear, as determined by an independent lab specializing in synthetic grass. AstroTurf also does not warrant against damage caused, directly or indirectly, by accident, improper use, negligence, abuse, neglect, vandalism, machinery, metal cleats or metal spiked shoes, animals, fire, flood, chemical reactions, static or dynamic loads exceeding AstroTurf specifications at the time of substantial completion of installation, the driving of motorized vehicles on the surface that exceed 2500 lbs., the driving of motorized vehicles under 2500 lbs at a speed of more than 5 miles per hour, improper or faulty subsurface preparation, failure of the subsurface after installation including settling of the surface, the use of dry cleaning fluids or improper cleaning methods, change in water table, exposure to light other than natural light or approved artificial light, or other acts of God.

AstroTurf's obligations under this warranty are restricted to the repair or, at its sole option, replacement of all or a portion of the affected parts covered by this warranty. AstroTurf's liability under this warranty is limited to the material value of the item to be repaired or replaced. The remedy of repair or replacement set forth in this warranty shall be the sole remedy and AstroTurf shall have no other obligations or liability in connection with any matter or thing, including without limitation, damages for personal injury or damages related to lost revenue, increased costs, downtime costs and all other indirect or consequential damages.

This warranty is expressly in lieu of all conditions and warranties expressed or implied in fact or in law or otherwise, including without limitation, any implied conditions or warranties as to merchantability or fitness for a particular purpose. No person or party is authorized to create any obligation or liability for AstroTurf other than the person authorized to execute this warranty for AstroTurf, and only the guarantee expressed herein shall apply.

The obligations of AstroTurf® under the warranty are subject to full payment of all monies due to AstroTurf for materials and/or labor related to the above referenced Project. AstroTurf will handle all warranty claims promptly so long as the Owner's account is in good standing at the time of the claim. Furthermore, all claims by the Owner made under the foregoing warranty shall be invalid and null and void unless made in writing to AstroTurf within eight (8) years from the date of substantial completion of the Project and within thirty (30) days of the Owner learning of the cause giving rise to its claim. This warranty is not transferable and is made between the parties listed below.

Date of Substantial Completion: _____

Issued To Owner: _____

Project Location:_____

_____

Expiration Date: _____

Approved by **AstroTurf® LLC**:

By: _____ Date: _____

Its: _____

Witness: _____ Date: _____

Client#: 31341 ASTRO1

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/19/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Scott Danahy Naylon LLC 300 Spindrift Drive Williamsville, NY 14221 716 633-3400	PHONE (A/C, No, Ext): 716 633-3400	FAX (A/C, No): 716-633-4306
	E-MAIL ADDRESS:	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Colony National Insurance Co.	
INSURER B : Great American E&S Ins Co.	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
General Sports Venue, LLC dba Astro,Turf LLC
2680 Lakeland Road, SE
Dalton, GA 30721

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	CLAIMS-MADE OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	POLICY PRO-JECT LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
B	UMBRELLA LIAB OCCUR			XS642060604	11/14/2014	11/14/2015	EACH OCCURRENCE	$5,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$5,000,000
	DED RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						WC STATU-TORY LIMITS OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?	N / A					E.L. EACH ACCIDENT	$
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Warranty Cov			103GL000140701	11/14/2014	11/14/2015	$5,000,000 Ea Occ. $10,000,000 Aggregate	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

***Policy provides coverage for warranties issued during the policy period for eight years from completion date of the project.**

CERTIFICATE HOLDER

Sample

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

SCOTT DANAHY NAYLON, LLC

11/14/14

AstroTurf, LLC. “Insured” have secured a warranty insurance policy through our firm, Scott Danahy Naylon, LLC. Outlined below are the key terms and conditions of the warranty policy(s).

1. *Insuring Agreement:*
   In consideration of the payment of the “Policy Premium” and subject to all of the terms and conditions of the policy, the “Company” will reimburse the insured for those costs paid or incurred by the insured that it was obligated to pay or incur to fulfill its “contractual Obligations” under an “Insured Warranty”.

2. *Insured Warranty:*
   “Insured Warranty” means any standard warranty issued by the Insured and listed in Schedule A – Insured Warranty does not include that part of any warranty that extends beyond eight years after warranted installation is completed.

   The Term of the warranty is to commence upon acceptance of the project by the Insured’s client or at the time the turf field is used for its intended purpose whichever first occurs.

3. *Claim Reporting Period:*
   “Claim Reporting Period” means the period of time in which a claim for the costs that were paid or incurred must be made. The “Claims Reporting Period” is a period of eight (8) years from the date of each “Insured Warranty” listed in Schedule A.

4. *Limit of Liability:*
   $10,000,000 each Insured warranty. $15,000,000 aggregate for all fields installed during the 12 month period of 11/14/14 – 11/14/15.

5. *Deductible:*
   No deductible shall ever apply to the Warranty Holder.

6. *Policy Territory:*
   The policy contains no policy territory restrictions.

7. *Reporting:*
   The Insured shall report the enrollment of all designated contracts. Enrollment shall be sent to Colony within 60 days from the last day of each calendar quarter.

8. *Premium:*
   Premiums for all warranties accepted via the Schedule A are considered prepaid throughout the eight year claim reporting period.

9. *Bankruptcy or Insolvency:*
   Bankruptcy or Insolvency of the Insured or of the Insured's estate shall not relieve "The Company" of any of its obligations under this policy. Subject to all other terms and conditions of this policy, in the event bankruptcy or insolvency has caused the "Insured" to fail to fulfill its "Contractual Obligations" under its "Insured Warranties", the "Company" will reimburse the "Warranty Holder" for the expenses paid directly by the "Warranty Holder" to repair or replace a field, as required by "Insured Warranty" and as first approved by the "Company".

10. *Security:*
    Underwriter – Colony National Insurance Company is rated by AM Best "A" or Excellent – www.Colonyins.com a member of the Argonaut Insurance Group. Underwriter-Great American E&S Insurance Company is rated AM Best "A" or Excellent.

Not withstanding any of the statements provided in this outline, all terms and conditions of Colony National Insurance Company policy #103GL000140701and Great American E&S Insurance Company policy #XS642060604 the final measure of coverage to the Insured and the Insured's clients.

Contractor License

State	License Number	Company	Licensee
Alabama	AL 38343	Mid America Sports Construction	Distributor
Alabama	AL 22316	Sports Turf	Distributor
Alaska	AK CONE 5921	Ohno Construction	Distributor
Arizona	AZ ROC34868	General Acrylics	Distributor
Arizona	AZ ROC77085	General Acrylics	Distributor
Arizona	AZ ROC 291835	Ohno Construction	Distributor
Arizona	AZ ROC 294951	Ohno Construction	Distributor
Arkansas	AR 0125490716	Mid America Sports Construction	Distributor
California	CA 747934	AFE	Distributor
California	CA 566808	Colony Landscapes	Distributor
California	914561	General Sports Turf, Inc. dba AstroTurf	Direct
California	CA 833470	Ohno Construction	Distributor
California	CA 994901	Sports Construction Management	Distributor
California	CA 976678	Sports Contracting Group	Distributor
California	CA 783244	Valley Precision Grading	Distributor
California DIR	1000000568	General Sports Turf, Inc. dba AstroTurf	Direct
Delaware	DE 2013605267	Sports Construction Management	Distributor
Florida	FL F14000004590	Sports Construction Management	Distributor
Florida	FL CGC058454	Sports Contracting Group	Distributor
Florida	FL FRO5984	Sports Contracting Group	Distributor

Georgia	GA GCCO000866	Sports Turf	Distributor
Idaho	ID PWC-C-12674	General Acrylics	Distributor
Idaho	RCE-34880	General Sports Venue, LLC	Direct
Idaho	ID PWC-C-15020	Ohno Construction	Distributor
Iowa	C111855	AstroTurf LLC	Direct
Iowa	IA C004569	Mid America Sports Construction	Distributor
Louisiana	47399	AstroTurf, LLC	Direct
Louisiana	LA 41193	Mid America Sports Construction	Distributor
Louisiana	LA 46775	Sports Turf	Distributor
Maryland	16413294	General Sports Venue, LLC	Direct
Maryland	MD 01921931	Sports Construction Management	Distributor
Mississippi	MS 17610-SC	Sports Turf	Distributor
Montana	160835/Bid Only Certificate	AstroTurf, LLC	Direct
Nebraska	25441	General Sports Venue, LLC	Direct
Nevada	NV 0059476	General Acrylics	Distributor
Nevada	NV 0075293	General Acrylics	Distributor
New Jersey	NJ 619391	Applied Landscape Technologies	Distributor
New Jersey	NJ 54324	Applied Landscape Technologies	Distributor
New Jersey Public Works	644716	AstroTurf, LLC	Direct
New Mexico	NM 30964	General Acrylics	Distributor
New Mexico	NM 380654	Sports Contracting Group	Distributor
New Mexico	NM 380655	Sports Contracting Group	Distributor

New York	NY 22-3144785	Applied Landscape Technologies	Distributor
North Carolina	NC 68470	Sports Construction Management	Distributor
North Dakota	39697/Class A	AstroTurf, LLC	Direct
North Dakota	ND 54107	Mid America Sports Construction	Distributor
Ohio (Columbus)	Columbus OH SW00312	Sports Contracting Group	Distributor
Oregon	180341	AstroTurf, LLC	Direct
Oregon	OR 203728	Coast To Coast	Distributor
Oregon	OR 113217	Ohno Construction	Distributor
Pennsylvania	PA 4253713	Applied Landscape Technologies	Distributor
Rhode Island	RI 31864	RAD Sports	Distributor
South Carolina	SC G115705	Sports Construction Management	Distributor
Tennessee	TN 00050331	Mid America Sports Construction	Distributor
Tennessee	TN 00064083	Sports Construction Management	Distributor
Tennessee	TN 00054715	Sports Turf	Distributor
Texas	Not Required	AstroTurf, LLC	Direct
Utah	UT 7406753-5501	General Acrylics	Distributor
Utah	UT 9008320-5501	Mid America Sports Construction	Distributor
Virginia	2705-115427A	General Sports Venue, LLC	Direct
Virginia	VA 2705081393	Mid America Sports Construction	Distributor
Virginia	VA 2705130103	Sports Construction Management	Distributor
Virginia	VA 2705152606	Sports Contracting Group	Distributor

Washington	CC01/ASTROL#905PN	AstroTurf, LLC	Direct
Washington	WA COASTCT863LT	Coast To Coast	Distributor
Washington	WA OHNOCC 254BS	Ohno Construction	Distributor
West Virginia	WV048694	AstroTurf, LLC	Direct
West Virginia	WV WV050763	Sports Construction Management	Distributor
West Virginia	WV WV051675	Sports Contracting Group	Distributor

Other AstroTurf Distributors that operate in states without Contractors' Licenses Requirements:

All American Sports Surfaces	Distributor
Grace Industries	Distributor
TPK Inc	Distributor
Swank Sports dba AstroBuilders	Distributor
Ideal Landscapes	Distributor
Graff's Turf	Distributor

** Contractor must list each state that they are licensed to work. Contractor must also add these states

to the Pricing Exhibit, that includes a coefficient for each state.

** Contractor will only be awarded states listed on this sheet.

Federal Requirements for Procurement and Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

If the TIPS member anticipate possibly using federal funds for procurement under this potential award and is required to obtain the following compliance assurance.

1. **Will you be subcontracting any of your work under this award if you are successful?** (Check one)

   ☑ YES or ☐ NO

2. **If yes, do you agree to comply with the following federal requirements?** (Check one)

   ☑ YES or ☐ NO

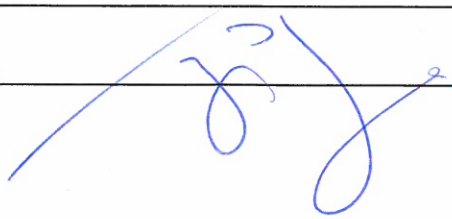
2 CFR §200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:
(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
(4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
(5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce ; and
(6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) of this section.

Company Name AstroTurf, LLC

Name of authorized representative Troy P. Squires

Signature of authorized representative 

Date 11/30/2015

SUSPENSION OR DEBARMENT CERTIFICATE

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of $25,000.00. Contractors receiving individual awards for $25,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, this bidder:

Certifies that no suspension or disbarment is in place, which would preclude receiving a federally funded contract under the EDGAR, §200.212 Suspension and debarment.

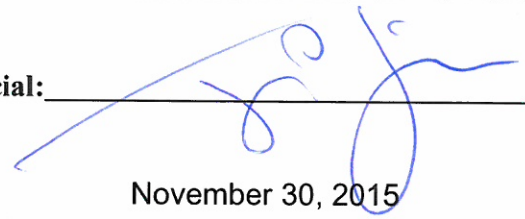
Vendor Name: AstroTurf, LLC

Vendor Address: 2680 Abutment Road, Dalton, GA 30721

Vendor E-mail Address: help@astroturf.com

Vendor Telephone: 800-723-8873

Authorized Company Official's Name: Troy Squires

Signature of Company Official: 

Date: November 30, 2015

2 CFR PART 200 Contract Provisions

Pursuant to Federal Rule (3) above, when federal funds are expended by TIPS OR ITS MEMBERS, for all construction contracts awarded by grantees and their contractors or subgrantees, the proposer certifies that during the term of an award, when federal funds are expended, by the TIPS OR ITS MEMBERS resulting for this procurement process the vendor will be in compliance with Equal Opportunity Employment laws specifically Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60.

Does vendor agree? YES TPS Initial of Authorized Company Official

Federal Rule (4) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of $2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Pursuant to Federal Rule (4) above, when federal funds are expended by TIPS OR ITS MEMBERS, during the term of an award for all contracts and subgrants for construction or repair, when Federal Funds are expended, by the TIPS OR ITS MEMBERS resulting for this procurement process the vendor will be in compliance with all provisions listed or referenced therein.

Does vendor agree? YES TPS Initial of Authorized Company Official

Federal Rule (5) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Pursuant to Federal Rule (5) above, when federal funds are expended by TIPS OR ITS MEMBERS, the proposer certifies that during the term of an award by the TIPS OR ITS MEMBERS resulting from this procurement process for construction contracts awarded by grantees and subgrantees the proposer agrees to be in compliance with all requirements listed or referenced therein.

Does vendor agree? YES TIPS Initial of Authorized Company Official

Federal Rule (6) Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of "funding agreement" under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a

2 CFR PART 200 Contract Provisions

small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

Pursuant to Federal Rule (6) above, when federal funds are expended by TIPS OR ITS MEMBERS, TIPS OR ITS MEMBERS requires that the proposer certify that during the term of an award by the TIPS OR ITS MEMBERS resulting from this procurement process the vendor agrees to the terms listed and referenced therein.

Does vendor agree? YES TPS Initial of Authorized Company Official

Federal Rule (7) Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of $150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

Pursuant to Federal Rule (7) above, when federal funds are expended by TIPS OR ITS MEMBERS, TIPS OR ITS MEMBERS requires that the proposer certify that during the term of an award by the TIPS OR ITS MEMBERS resulting from this procurement process the vendor agrees to the terms listed and referenced therein.

Does vendor agree? YES TPS Initial of Authorized Company Official

Federal Rule (8) Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award $25,000 or greater (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

Pursuant to Federal Rule (8) above, when federal funds are expended by TIPS OR ITS MEMBERS, TIPS OR ITS MEMBERS requires the proposer certify that during the term of an award by the TIPS OR ITS MEMBERS resulting for this procurement process the vendor certifies that they are not debarred from receiving a contract from the federal government as provided therein.

Does vendor agree they are not debarred as specified above ? YES TPS Initial of Authorized Company Official

Federal Rule (9) Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding $100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

Pursuant to Federal Rule (9) above, when federal funds are expended by TIPS OR ITS MEMBERS, TIPS OR ITS MEMBERS requires the proposer certify that during the term and after the awarded term of an award by the TIPS OR ITS MEMBERS resulting for this procurement process the vendor certifies to the terms included or referenced in Federal Rule 9 above.

2 CFR PART 200 Contract Provisions

Does vendor certify to the provisions in Federal Rule (9) above? YES TPS Initial of Authorized Company Official

Federal Rule (10) 2 CFR 200.233 Retention of all required records for three years after grantees or subgrantees make final payments and all other pending matters are closed.

Pursuant to Federal Rule (10) above, when federal funds are expended by TIPS OR ITS MEMBERS, TIPS OR ITS MEMBERS requires the proposer certify that the awarded vendor retain all required records for three years after grantees or subgrantees make final payments and all other pending matters are closed.

Does vendor agree? YES TPS Initial of Authorized Company Official

Federal Rule (11) 2 CFR §200.322 Procurement of recovered materials. A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines. [78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75885, Dec. 19, 2014]

Pursuant to Federal Rule (11) above, when federal funds are expended by TIPS OR ITS MEMBERS, TIPS OR ITS MEMBERS requires proposer certify that during the term of an award by the TIPS OR ITS MEMBERS resulting for this procurement process the vendor will be in compliance with mandatory standards and policies relating to Procurement of recovered materials which are listed above.

Does vendor agree they will comply? YES TPS Initial of Authorized Company Official

Company Name AstroTurf, LLC

Print name of authorized representative Troy P. Squires

Signature of authorized representative

Date November 30, 2015

Signature above acknowledges all provisions in this four page document and the vendor/proposer/bidder responses herein to the 11 rules.