



## INVITATION FOR BID

### AEPA IFB #016-G Athletic Surfaces – Synthetic Turf

#### PART C – BID FORMS

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#### BID SUBMITTAL INSTRUCTIONS

1. Bid submission instructions can be found in Part A: Terms and Conditions, Section II, F: Bid Submission of this solicitation. Bidders are reminded that failure to follow, comply with, and adhere to these instructions of this solicitation may result in their response being deemed non-responsive.
2. It is the bidder’s responsibility to ascertain that all documents submitted have been saved completely and appropriately to the CD or flash drive. Bidders should test both of the CDs or flash drives on computers independent from the system on which they were created to make sure the documents can be opened. Electronic media that cannot be opened by the bid committee may result in the rejection of the proposal.
3. AEPA, its member agencies, affiliate agencies and authorized representatives are not responsible for bid proposals that are incomplete, unreadable or received after the deadline.

**AEPA IFB #016-G**  
**Athletic Surfaces – Synthetic Turf**  
**Bid Proposal Table of Contents**

**Bidder** \_\_\_\_\_

**Name of Authorized Representative** \_\_\_\_\_

**Office Address** \_\_\_\_\_

**Time Zone:**     Eastern         Central         Mountain         Pacific

**Telephone** \_\_\_\_\_ **Fax** \_\_\_\_\_

**Email** \_\_\_\_\_ **Website** \_\_\_\_\_

**Instructions:** Please complete the table below with the information for the documents included in this bid proposal. The bidder is reminded that two identical copies of this material on electronic media, either two (2) CDs or two (2) flash drives, are required.

Form	Folder	Document Title on CD or Flash drive	Format (i.e., Word, PDF, Excel)	Notes
Table of Contents	A		PDF	
FORM A Bid Affidavit	A		PDF and hard copy	Signature and notarization required.
FORM B Acceptance of Bid & Contract Award	A		PDF and hard copy	Signature required.
FORM C Questionnaire	A		PDF	Signature required
FORM D Company Info	A		PDF	Signature required
Letter of Line of Credit or Annual Report	A		PDF	
FORM E Exceptions	A		PDF	Signature required
FORM F.1 Compliance	A		PDF	Signature required
FORM F.2 Deviation	A		PDF	Signature required
Part B – Specifications	A		PDF	Signature required
State Specific Required Forms (See Part A)	A		PDF	
FORM G Discount & Pricing Schedules	B		PDF	Signature required
Excel Workbook-FORM G Discount & Pricing Schedules	B		Excel	
G.5 Warranties, Additional Services	B		PDF	
G.6 Additional Discounts (Optional)	B		PDF	
Catalogs/price lists	B		PDF	

**AEPA BID FORM A: BID AFFIDAVIT**

**AEPA IFB #016-G**

**Athletic Surfaces – Synthetic Turf**

**NAME OF BIDDER** \_\_\_\_\_

**Instructions:** This form must be signed by the bidder’s authorized representative and notarized below. The completed document must be scanned to a PDF format and saved to Folder A, and a **completed and signed paper version must be included in the package**. If awarded, the bidder is required to produce a copy of this document for each of the member agencies with which it contracts.

1. The undersigned, duly authorized to represent the persons, firms and corporations joining and participating in the submission of the foregoing bid (such persons, firms and corporations hereinafter being referred to as the bidder), being duly sworn, on his/her oath, states that to the best of his/her belief and knowledge no person, firm or corporation, nor any person duly representing the same joining and participating in the submission of the foregoing bid, has directly or indirectly entered into any agreement or arrangement with any other bidders, or with any official of the *Member Agency*, or any employee thereof, or any person, firm or corporation under contract with the *Member Agency* whereby the bidder, in order to induce the acceptance of the foregoing bid by the *Member Agency*, has paid or is to pay to any other bidder or to any of the aforementioned persons anything of value whatever, and that the bidder has not, directly nor indirectly entered into any arrangement or agreement with any other bidder or bidders which tends to or does lessen or destroy free competition in the letting of the contract sought for by the foregoing bid.
2. This is to certify that the bidder, or any person on his/her behalf, has not agreed, connived, or colluded to produce a deceptive show of competition in the manner of the bidding or award of the referenced contract.
3. This is to certify that neither I, nor to the best of my knowledge, information and belief, the bidder, nor any officer, director, partner, member or associate of the bidder, nor any of its employees directly involved in obtaining contracts with the State of *Member Agency*, *Member Agency*, or any subdivision of the state has been convicted of false pretenses, attempted false pretenses, or conspiracy to commit false pretenses, bribery, attempted bribery or conspiracy to bribe under the laws of any state or federal government for acts or omissions after January 1, 1985.
4. This is to certify that the bidder or any person on his behalf has examined and understands the terms, conditions, scope of work and specifications, and other documents of this solicitation and that any and all exceptions have been noted in writing and have been included with the bid submittal.
5. This is to certify that if awarded a contract, the bidder will provide the equipment, commodities, and/or services to members and affiliate members of the Agency in accordance with the terms, conditions, scope of work and specifications and other documents of this solicitation in the following pages of this bid.
6. This is to certify that the bidder is authorized by the manufacturer(s) to sell all proposed products on a national basis.
7. This is to certify that we have completed, reviewed, approved and have included all information that is required in Sections C, D, E, F and G of these bid forms.

\_\_\_\_\_  
Authorized Representative (Please print or type)

\_\_\_\_\_  
Mailing Address

\_\_\_\_\_  
Title (Please print or type)

\_\_\_\_\_  
City, State, Zip

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date                      Phone

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_

Notary Public in and for County of \_\_\_\_\_ State of \_\_\_\_\_

My commission expires: Signature: \_\_\_\_\_

# AEPA FORM B: ACCEPTANCE OF BID AND CONTRACT AWARD

## AEPA IFB #016-G

### Athletic Surfaces – Synthetic Turf

NAME OF BIDDER \_\_\_\_\_

**INSTRUCTIONS:** PART I of this form is to be completed by the Bidder and signed by its Authorized Representative. PART II will be completed by the AEPA Member Agency only upon the occasion of the bid award. The completed document must be scanned to a PDF format and saved to Folder A, and a **completed and signed paper version must be included in the package**. If approved by AEPA, the bidder is required to produce a copy of the document for each of the AEPA Member Agency with which it contracts.

#### PART I: BIDDER

In compliance with the Invitation For Bid (IFB), the undersigned warrants that I/we have examined the Instructions to Bidders, associated documents, and being familiar with all of the conditions surrounding the proposed projects, hereby offer and agree to furnish all labor, materials, supplies and equipment incurred in compliance with all terms, conditions, specifications and amendments associated with this IFB and any written exceptions to the bid. Signature also certifies understanding and compliance with the certification requirements of the AEPA Member Agency's Terms and Conditions and/or Special Terms and Conditions. The undersigned understands that their competence, ability, capacity and obligations to offer and provide the proposed tangible personal property, professional services, construction services and other services on behalf of the Vendor Partner as well as other factors of interest to the AEPA Member Agency as stated in the evaluation section, will be a consideration in making the award.

Company Name \_\_\_\_\_ Date \_\_\_\_\_

Company Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Contact Person \_\_\_\_\_ Title \_\_\_\_\_

Authorized Signature (ink only) \_\_\_\_\_ Title \_\_\_\_\_

Email Address \_\_\_\_\_ Phone \_\_\_\_\_

#### PART II: AWARDING MEMBER AGENCY

Your bid response for the above identified bid is hereby accepted. As a Vendor Partner you are now bound to offer and provide the products and services identified within this IFB, your response and approved by AEPA, including all terms, conditions, specifications, exceptions and amendments. As Vendor Partner, you are hereby not to commence any billable work or provide any products or services under this contract until an executed purchase order is received from the AEPA Member Agency or Participating Entities. The intent of this contract is to constitute the final and complete agreement between the AEPA Member Agency and Vendor Partner, and no other agreements, oral or otherwise, regarding the subject matter of this contract, shall bind any of the parties hereto. No change or modification of this contract shall be valid unless in writing and signed by both parties to this contract. If any provision of this contract is deemed invalid or illegal by any appropriate court of law, the remainder of this contract shall not be affected thereby. The initial term of this contract shall be for up to fifteen (15) months and will commence on the date indicated below and continue until February 28, 2017 unless terminated, canceled or extended. By mutual written agreement as warranted, the contract may be extended month by month up to six (6) months or for three (3) additional 12-month periods.

Awarding Agency \_\_\_\_\_

Agency Executive \_\_\_\_\_

Awarded this \_\_\_\_\_ day of \_\_\_\_\_ Contract Number \_\_\_\_\_

Contract to commence (Member Agency to select):  \_\_\_\_\_ (Enter date) \_\_\_\_\_ or  March 1, 2016

# AEPA FORM C: SERVICE QUESTIONNAIRE FOR BIDDER

## AEPA IFB #016

### Athletic Surfaces – Synthetic Turf

NAME OF BIDDER \_\_\_\_\_

**Instructions:** Please respond to Yes/No and choice questions by using an (X). If a text reply is required, respond in the space below. Scan this form and any attachment pages into a single document and convert to a PDF file. Follow the instructions for titling the file and file organization under Part A, Section II Bid Procedures, F. Bid Submission, 2. Format of Bid Submittal.

Note: As part of evaluating the Bidder’s qualifications, the following is being requested and the Bidder is forewarned failure to respond and/or meet the minimum specifications in these areas, may deem their response as non-responsive.

1. The following chart indicates which AEPA Member States intend to participate in this bid category. Please place an “X” in response to questions in the last three (3) columns. *Note: A Bidder must be willing and able to deliver the proposed products and/or services to ninety (90%) of the participating AEPA Member States.*

AEPA Member States	Participate in this bid category?	Has your company sold these products/services in these states for the PAST THREE YEARS?	If awarded a contract, which states does your company PROPOSE TO SELL IN?	Indicate which states your company has sales reps, distributors or dealers in.
California	Yes			
Colorado	Yes			
Connecticut	Yes			
Florida	Yes			
Indiana	No			
Iowa	No			
Kansas	Yes			
Kentucky	Yes			
Massachusetts	No			
Michigan	Yes			
Minnesota	Yes			
Missouri				
Montana	Yes			
Nebraska	Yes			
New Jersey	Yes			
New Mexico				
North Dakota	Yes			
Ohio	Yes			
Oregon	Yes			
Pennsylvania	No			
Texas	Yes			
Virginia	Yes			
Washington	Yes			
West Virginia	Yes			
Wisconsin				
Wyoming	Yes			

2. **e-commerce:** Does this company have an e-commerce website? \_\_\_\_\_ YES \_\_\_\_\_ NO

If **YES**, what is the website? \_\_\_\_\_

3. **Customer and Support Service:** It is understood depending on the type, kind and level of products and/or services being proposed in response to this bid will impact and determine the type and level of services required and these are identified in Part B Bid Specifications of this IFB.

a. Does this company have online customer support option? \_\_\_\_\_ YES \_\_\_\_\_ NO

b. Does this company have a toll-free customer support phone option? \_\_\_\_\_ YES \_\_\_\_\_ NO

c. Does this company offer local customer and support service options? \_\_\_\_\_ YES \_\_\_\_\_ NO

d. Describe the type, level, available and location(s) of your customer and support service options, including number of dedicated customer/support staff and hours of operation.

\_\_\_\_\_

\_\_\_\_\_

4. **Training:** If applicable, does this company offer customer training for the products and services sold?

\_\_\_\_\_ YES \_\_\_\_\_ NO

If **YES**, describe what types/kinds of training you offer, the venues where training occurs and the location(s) of your trainers, include number of staff dedicated to training and their qualifications and hours of operation.

\_\_\_\_\_

\_\_\_\_\_

5. **Pricing:**

a. Is your pricing methodology guaranteed for the term of the contract? \_\_\_\_\_ YES \_\_\_\_\_ NO

**FOR LINE ITEM BIDS:**

b. Will you offer hot list pricing (optional) as described in the Pricing terms of Part A?

\_\_\_\_\_ YES \_\_\_\_\_ NO

c. Will you offer Volume Price Discounts as described in the Pricing terms of Part A?

\_\_\_\_\_ YES \_\_\_\_\_ NO

6. **Competitiveness:** In order for your bid to be considered, your company must offer AEPA prices that are equal to or lower than what your company offers to individual customers and/or cooperatives with equal to or lower volume. Is the pricing that is proposed to AEPA equal to or lower than pricing offered to individual customers and/or cooperatives with equal to or lower volume? \_\_\_\_\_ YES \_\_\_\_\_ NO

Indicate which of the following apply and the **level of competitive range** you are offering in response to this IFB.

\_\_\_\_\_ Pricing offered to AEPA is EQUAL TO pricing offered to individual customer and/or cooperatives.

\_\_\_\_\_ Pricing is LESS THAN individual customer and/or cooperatives. Lower by \_\_\_\_\_ %

7. **Cooperative Contracts:** Does your company currently have contracts with other cooperatives (local, regional, state, national)? \_\_\_\_\_ YES \_\_\_\_\_ NO

If YES, identify which cooperatives and the respective expiration date(s).

\_\_\_\_\_

\_\_\_\_\_

If YES and your company is awarded an AEPA Contract, which contract will you lead with in marketing and sales representative presentations (sales calls)?

\_\_\_\_\_

8. **Administrative Fee:** Which of the following best reflects how your pricing includes the individual AEPA Members' administrative fee.
- a. \_\_\_\_\_ The pricing for the products and/or services are the same for each AEPA Member Agency, shipping, handling administrative fee and other specific state costs are added to arrive at total price offered to the Individual AEPA Member Agency.
  - b. \_\_\_\_\_ The pricing for the products and/or services is inclusive of the administrative fee and therefore the pricing is the same for all AEPA Member Agencies. Shipping, handling and other state specific costs are added to adjusted the AEPA Member Agency's price.
  - c. \_\_\_\_\_ The pricing for the products and/or services includes all (shipping, handling, administrative fee, other) costs to arrive at a single price for all AEPA Member Agencies.

9. **Shipping & Handling:**

**FOR LINE ITEM BIDS:**

Is shipping and handling included in the products on the pricelists? \_\_\_\_\_ **YES** \_\_\_\_\_ **NO**

If **NO**, explain how shipping and handling or freight will be calculated and applied.

\_\_\_\_\_

10. **Product Returns:** Does your company have a return policy? \_\_\_\_\_ **YES** \_\_\_\_\_ **NO**

If **YES**, describe your return policy and if you charge a restocking fee, what is it? (AEPA allows up to 15% for supplies and up to 25% for equipment).

11. **Payment Terms:** Will you offer AEPA Buyer's a quick pay discount? \_\_\_\_\_ **YES** \_\_\_\_\_ **NO**

If **YES**, what is the discount? \_\_\_\_\_% Net \_\_\_\_\_

12. **Leasing:** Do you offer leasing arrangements under this bid? \_\_\_\_\_ **YES** \_\_\_\_\_ **NO**

If **YES**, remember to indicate the rate factor and other cost factors on the Pricing spreadsheet(s).

13. **If an AEPA contract is approved and awarded by the Member Agencies, as a Vendor Partner, I agree to:**

No.	Responsibilities of an AEPA Vendor Partner	Yes	No
1	Designate and assign a dedicated senior-level contract manager (one authorized to make decisions) to each of the Member Agency accounts. This employee will have a complete copy and must have working knowledge of the contract.		
2	Train and educate sales staff on what the AEPA cooperative contract is including pricing, who can order from the contract (by state), terms/conditions of the contract and the respective ordering procedures for each state. It is expected that Vendor Partners will lead with AEPA contracts.		
3	Develop a marketing plan to support the AEPA contract in collaboration with respective AEPA Member Agencies. Plan should include, but not be limited to, a website presence, electronic mailings, sales flyers, brochures, mailings, catalogs, etc.		
4	Create an AEPA-specific sell sheet with a space to add a Member Agency logo and contact information for use by the Member Agencies and the Vendor Partner's local sales representatives to market within each state.		

5	On a quarterly basis, complete the sales and administrative fee report (see attached PDF example) and submit to each Member Agency along with the respective administrative fees to be paid. If there are no sales, a \$0 report is required.		
6	Have ongoing communication with the Bid Oversight Chairperson, AEPA Member Agencies and the Member Agencies Participating Entities.		
7	Attend two (2) AEPA meetings each year (see page 9 in Part A)		
8	Participate in national and local conference trade shows to promote the AEPA contracts including, but not limited to the Association of School Business Officials (ASBO), the National Institute of Governmental Purchasing (NIGP), and the National Association of Educational Procurement (NAEP).		
9	Increase sales over the term of the contract with all participating AEPA Member Agencies.		

**Signature**

\_\_\_\_\_ *Must be same signature as on Bid Affidavit Signature and Acceptance Forms*



**AEPA FORM D: COMPANY INFORMATION**

**AEPA IFB #016-G**

**Athletic Surfaces – Synthetic Turf**

**NAME OF BIDDER** \_\_\_\_\_

**COMPANY CONTACT INFORMATION**

Company Name: \_\_\_\_\_ Website: \_\_\_\_\_

Company Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Contact Email: \_\_\_\_\_

**BACKGROUND**

*Note: Generally, AEPA will not accept an offer from a business that is less than five (5) years old or which fails to demonstrate and/or establish a proven record of business. If the bidder has recently purchased an established business or has proof of prior success in either this business or a closely related business, provide written documentation and verification in response to the questions below. AEPA reserves the right to accept or reject newly formed companies based on information provided in this response and from its own investigation of the company.*

This business is a  public company  privately owned company.

In what year was this business started under its present name? \_\_\_\_\_

Under what other or former name(s) has your business operated? \_\_\_\_\_

Is this business a corporation?  No  Yes. If yes, please complete the following:

Date of incorporation: \_\_\_\_\_ State of incorporation: \_\_\_\_\_

Name of President: \_\_\_\_\_

Name(s) of Vice President(s): \_\_\_\_\_

Name of Secretary: \_\_\_\_\_

Name of Treasurer: \_\_\_\_\_

Is this business a partnership?  No  Yes. If yes, please complete the following:

Date of organization: \_\_\_\_\_ State founded: \_\_\_\_\_

Type of partnership, if applicable: \_\_\_\_\_

Name(s) of general partner(s): \_\_\_\_\_

Is this organization individually owned?  No  Yes. If yes, please complete the following:

Date of organization: \_\_\_\_\_ State founded: \_\_\_\_\_

Name of owner: \_\_\_\_\_

This organization is a form other than those identified above.  No  Yes.

**IF THE ANSWER IS YES**, describe the company’s format, year and state of origin, and names and titles of the principals.

**COMPANY HEADQUARTER LOCATION**

Company Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Main Phone Number: \_\_\_\_\_ How long at this address? \_\_\_\_\_

**COMPANY BRANCH LOCATIONS**

Branch Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Branch Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Branch Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Branch Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

*If more branch locations, insert information here or add another sheet with above information.*

**SALES HISTORY**

Provide your company’s annual sales for 2013, 2014 and 2015 YTD in the United States by the various public segments:

	<b>2013</b>	<b>2014</b>	<b>2015 YTD</b>
<b>K-12 (public &amp; private), Educational Service Agencies</b>	\$	\$	\$
<b>Higher Education Institutions</b>	\$	\$	\$
<b>Counties, Cities, Townships, Villages</b>	\$	\$	\$
<b>States</b>	\$	\$	\$
<b>Other Public Sector &amp; Non-profits</b>	\$	\$	\$
<b>Private Sector</b>	\$	\$	\$
<b>TOTAL</b>	\$	\$	\$

**WORK FORCE**

**1. Key Contacts and Providers:** Provide a list of the individuals, titles, and contact information for the individuals who will provide the following services on a national and/or local basis:

<b>Function</b>	<b>Name</b>	<b>Title</b>	<b>Phone</b>	<b>Email</b>
<b>Contract Manager</b>				
<b>Sales Manager</b>				
<b>Customer &amp; Support Manager</b>				
<b>Function</b>	<b>Name</b>	<b>Title</b>	<b>Phone</b>	<b>Email</b>

Distributors, Dealers,  
Installers, Sales Reps

Consultants & Trainers

Technical, Maintenance  
& Support Services

Quotes, Invoicing &  
Payments

Warranty & After the  
Sale

Financial Manager

---

2. **Sales Force:** Provide total number and location of salespersons employed by your company in the United States by completing the following: *(To insert more rows, hit the tab key from the last field in the State column.)*

Number of Sales Reps	City	State

3. **Service/Support and Distribution Centers:** Provide the type (service/support or distribution) and location of centers that support the United States by completing the following: *(To insert more rows, hit the tab key from the last field in the State column.)*

Center Type	City	State

4. **In-house Resources:** Describe the business's current in-house workforce, equipment and facilities available to perform under this solicitation.

## MARKETING

1. **Key Marketing Contact(s):** List the name(s), title(s) and contact information of the business's key national and regional marketing office(s). *(To insert more rows, hit the tab key from the last field in the State column.)*

Name	Title	Phone	Email

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2. **Marketing Activities:** Describe how this company marketed its products and services to schools and other public sector audiences in Fiscal Year 2014 – 2015 (July 1 – June 30). List all conventions, conferences and other events at which this company exhibited.

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3. **Cooperative Marketing:** Describe ways in which this business can collaborate with Member Agencies in marketing the bid.

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4. **Sales Training:** Explain how your company will education your sales staff on the AEPA contract including timing, methods, etc.

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**ENVIRONMENTAL INITIATIVES**

1. Describe how your products and/or services support environmental goals.

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2. Describe the company's "green" objectives (i.e. LEED, reducing footprint, etc.).

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**INDEPENDENT SUBCONTRACTORS, DISTRIBUTORS, INSTALLERS, ETC.**

*If the Bidder is not the sole provider of all goods and services provided under this contract, the following must be answered:*

1. **Selection Criteria for Independent Providers:** Describe the criteria and process by which the business selects, certifies and approves subcontractors, distributors, installers and other independent services.
2. **Current Subcontractors, Distributors, Installers, Etc.:** Provide a list of current subcontractors, distributors, installers and other independent service providers who are contracted to perform the type of work outlined in this bid in the member agency states (listed in Part A of this IFB). Include, if applicable, contractor license information and the state(s) wherein they are eligible to provide services on behalf of this business.

**DISCLOSURES**

1. **Letter of Line of Credit or Annual Financial Report (REQUIRED):** Attach a letter from the business's chief financial institution indicating the current line of credit available in its name and evidence of financial stability for the past three calendar years (2012, 2013 and 2014). This letter should state the line of credit as a range (ie., "credit in the low six figures" or "a credit line exceeding five figures"). If company is a publicly traded company a complete Annual Financial Report is required in place of Line of Credit Letter.
2. **Legal:** Does this business have actions currently filed against it?  No  Yes.

***IF YES, AN ATTACHMENT IS REQUIRED:*** List and explain current actions such as Federal Debarment (on US General Services Administration's "Excluded Parties List"), appearance on any state or federal delinquent taxpayer list, or claims filed against the retainage and/or payment bond for projects.

**REFERENCES**

Provide contact information of your company's ten largest public agency customers:

Agency	Name	Title	Phone Number	Email
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

**Signature** \_\_\_\_\_  
*Must be same signature that appears on the Bid Affidavit Signature and Acceptance Form*

# AEPA FORM E: EXCEPTIONS TO TERMS AND CONDITIONS

## AEPA IFB #016-G Athletic Surfaces – Synthetic Turf

**NAME OF BIDDER** \_\_\_\_\_

**INSTRUCTIONS:**

1. If “no” is checked below, complete this form by signing it at the bottom.
2. If “yes” is checked below, either insert answers into this form or create a facsimile in a Microsoft Word table format to provide narrative explanations of exceptions. If creating a facsimile, the bidder is reminded to use the heading above, and include the bidder name and signature at the end.
3. If adding pages, the bidder’s name and identifying information as to which item the response refers must appear on each page.
4. Scan this form plus any attachments into a single PDF document.
5. Title the file as per the instructions under Part C (this section), page 2, and save to Folder A.
6. Exceptions to local, state or federal laws cannot be accepted under this bid.

- NO**, this bidder does not have exceptions to the Terms and Conditions incorporated in Parts A or B of this IFB.
- YES**, this bidder has the following exceptions to the Terms and Conditions incorporated in Parts A and/or B of this IFB.

IFB Section and Page	Outline Number	Term or Condition	Exception

**Signature** \_\_\_\_\_  
*Must be same signature that appears on Bid Affidavit and Acceptance Forms*

# AEPA FORM F.1: COMPLIANCE

## AEPA IFB #016-G Athletic Surfaces – Synthetic Turf

**NAME OF BIDDER** \_\_\_\_\_

**INSTRUCTIONS:**

1. This form is twenty (20) pages long. The bidder’s authorized representative must sign the form at the end.
2. The criteria listed below are derived from the Part B: Bid Specifications this IFB. Other than industry requirements established in federal, state or local statutes, exceptions/deviations may be proposed as long as they are expressly noted below and clarified on Form F.2., which follows. Please understand that the stated specifications represent the most desirable attributes of the products and services sought by AEPA and its AEPA Member Agencies.
3. AEPA understands that not all bidders provide all commodities indicated in the specifications. Bidders may propose specific, similar and/or alternative manufacturer’s product lines and/or services without prejudice as long as the proposed products and services meet or exceed the specifications in Part B: Bid Specifications of this IFB.
4. For each criterion below, check either “Comply” if it aligns with the company’s ability to provide products and services or “Deviate” if it does not.
5. If there are no deviations to the specifications, indicate that by checking the appropriate box on Form F.2 and sign it.
6. Scan the completed form to a PDF file and title as instructed in Part C (this section), page 2, #5.

Item	Description	Comply	Deviate
6.1	All charges and components necessary for performance of the contract shall be clearly identified even if such are not specifically addressed in any paragraph or sub-paragraph or form that is a part of this request.		
6.2	If the Vendor Partner intends to utilize independent agents/distributors, subcontractors and/or third-party agents to perform and/or provide any part of the products and services offered herein, the Vendor Partner must identify all providers and any and all associated costs with these providers.		
6.3	Optional services must be identified separately, and must include clear descriptions of proposed services.		
6.18	Vendor Partner shall provide a Material Safety Data Sheet (MSDS) for all items sold, if required. A separate sheet shall be provided for each individual item when purchase is made.		

Item	Category Specifications	Comply	Deviate
7.1.	The standards and specifications provided below are intended to establish minimum requirements and provide a general overview of the quality and type of products and services being requested.		
7.2.	Any products and services offered are to meet or exceed all local and state building codes.		
7.3.	The products and services may include, but are not limited to, the following.		
7.4.	Provide technical and consulting services relating to athletic and recreational field surface design, characteristics, construction, and integration into the development of a new athletic or recreational facility.		
7.5.	Provide existing site inspection and investigation to identify soil		

Item	Category Specifications	Comply	Deviate
	conditions existing at the site in order to take into account the conditions found in the designing of athletic and recreational fields. The investigation shall include, but not be limited to:		
7.5.1.	Stripping, placement of backfill and base construction in order to ensure the minimization of the risk of problems due to subsoil and subgrade conditions.		
7.5.2.	Soil inspection for the existence of peat or other organic soils at the site.		
7.5.3.	Inspection for uncontrolled fill materials or waste materials at the site.		
7.5.4.	Inspection for expansive soils at the site.		
7.5.5.	High ground water conditions or surface water retention areas (low area flooding).		
7.6.	Provide all labor, materials, equipment and drawings required to provide design services for a project cost proposal with a complete scope of work, including all products, services and athletic and recreational field specifications with their associated costs. A preliminary construction time schedule shall be a part of the project proposal.		
7.7.	Provide all labor, materials, equipment, project drawings and construction documents necessary to establish, construct, install lines and markings required to complete the athletic or recreational field as identified and specified within the project documents for the individual Member's project scope of work and documents.		
7.8.	Provide all labor, materials and equipment required to assess and evaluate existing facilities, and develop and establish a plan of action for maintenance, repair and/or renovation of the existing athletic and recreational field to condition as required by the Member.		
7.9.	Provide ongoing technical support and training services for AEPA Member's staff relating to the maintenance and operation of these types of facilities to ensure their good operational condition.		
7.10.	The synthetic turf surface should provide the performance characteristics, components, and construction that meet the needs of the declared use and/or functions.		
7.11.	The synthetic turf system and all of its components should be resistant to moisture, rot, mildew, bacteria, fungus growth, ultraviolet ray degradation, non-toxic, not cause commonly known allergic reactions at all field locations, and meet AEPA Member local state and environmental requirements.		
7.12.	Each synthetic turf system should be constructed to provide dimensional stability and resist damage from wear and tear during athletic and recreational usage.		
7.13.	Any Project to Include:		
7.13.1.	Assess and determine existing site conditions and Member's expectations for the project.		
7.13.2.	Develop a proposed solution to conform to and meet the Member's expectations while considering and ensuring the following:		
7.13.2.1.	The solution proposed is adequate and functional within the existing site conditions and will comply with all building codes.		
7.13.2.2.	Provide labor, materials, equipment and supervision necessary to complete installation of synthetic turf, including the following:		
7.13.2.2.1.	Site inspection and investigation.		
7.13.2.2.2.	Site preparation and sub-base.		
7.13.2.2.3.	Inspection and approval of sub-base.		
7.13.2.2.4.	Installation of proposed synthetic turf system with accessories, striping and equipment.		
7.13.2.3.	Provide cost estimates and information relating to after-the-sale ongoing inspection and maintenance services to ensure proper		



Item	Category Specifications	Comply	Deviate
	operation and upkeep of the synthetic field.		
7.13.3.	Construction and installation services to prepare and install proposed synthetic turf system on the designated site in accordance with the shop drawings, striping plan and manufacturer's instructions and specifications.		
7.13.4.	Guarantee the usability and playability of the synthetic turf system for its intended uses for an eight (8) year period commencing with the date of substantial completion and acceptance by the Member. The warranty coverage shall not be limited to the amount of usage.		
7.13.5.	Prior to order of materials, the contractor shall submit the following:		
7.13.5.1.	Sample warranty.		
7.13.5.2.	Seam layout of the field and striping plans.		
7.13.5.3.	Details on construction, especially any details that may deviate from plans and specifications.		
7.13.6.	Prior to the beginning of installation, the manufacturer/installer of the synthetic turf shall inspect the sub-base and supply a Certificate of Sub-Base Acceptance for the purpose of obtaining manufacturer's warranty for the finished synthetic playing surface.		
7.14.	Components for Synthetic Turf Systems to include but not limited to:		
7.14.1.	Synthetic Turf Types: There are several different types of synthetic turf available. They are distinguishable through the use of different fibers and different construction. Differentiated by construction are the tufted or the knitted synthetic turf systems. Both systems are comprised of synthetic fibers with primary and secondary backing systems and a resilient shock absorbing system. The shock absorbing system can consist of infill, a padding system, or a combination of both.		
7.14.2.	Fiber: Typically, the fiber used in synthetic turf is textured and/or non-textured polypropylene, polyester, polyethylene, nylon or other suitable performing hybrid or copolymer in tape form or monofilament. Minimum fiber sizes are 50 microns for polypropylene or polyester, 100 microns for tape form (slit-film) polyethylene, 140-300 for monofilament polyethylene (shape dependent) and 500 denier for nylon. Fiber sizes for hybrids or copolymer will comply with the most closely related fiber type. Ideally, all fibers should be of the same chemical composition, shape, and texture. Fibers should be compliant to ASTM guideline for total lead content.		
7.14.3.	Primary Backing Systems Material: The primary backing materials are of a woven or non-woven fabric in one or more layers which are utilized in the tufting process, or of high strength polyester multi-filament fiber utilized in the knitting process. This backing material provides the initial dimensional stability for the system.		
7.14.4.	Secondary Backing Systems Material: The secondary backing materials are applied through a coating process with a single or multiple applications of one or various materials.		
7.14.5.	Perforations: Depending on the final construction of the turf system, the system may or may not be permeable to water. Perforations are typically required of fully coated system backings to provide adequate vertical drainage throughout the system. Some turf systems may allow for drainage without perforations by employing a process of partial coating or other system designs. Developments in coating systems have provided for lighter weight and aqueous permeable chemicals; however, the drainage criteria must be met.		
7.14.6.	Infill Materials: The most recent generation of synthetic turf systems utilizes a long pile height and needs to be supported with		

Item	Category Specifications	Comply	Deviate
	infill materials for directional stability and structural integrity, as well as resiliency. The infill materials commonly used are EDPM, TPE, natural cork, ground fibers from coconut shells, coated and non-coated silica sand, crumb and coated rubber, other suitable materials, or combinations of sand, rubber, or other suitable materials		
7.15.	Performance of Synthetic Turf		
7.15.1.	Traction: The surface should provide good traction in all types of weather with the use of conventional athletic type shoes applicable to the sports and/or activity specified.		
7.15.2.	Rotational Resistance: The surface should allow for twisting movements as is common in athletic activities. Rotational resistance measures the ability of the user to perform twisting motions when in contact with the surface.		
7.15.3.	Slip Resistance Component: The system should enable a predictable range of movement between the user and the surface uniformly throughout. The surface should balance traction and slippage by way of the sliding coefficient.		
7.15.4.	Surface Abrasiveness: The field surface should have fibers and infill materials that minimize skin abrasions.		
7.15.5.	Impact Attenuation (g-max): The field surface should have the ability to adequately absorb player impact with the surface. The g-max and force reduction tests are two tests typically used. G-Max values may vary from location to location on a playing surface. Such variances shall be taken into account when setting maximum test values. A maximum, not-to-exceed limit should be specified for the life of the warranty. The STC's guideline is that g-max should be below 165 for the life of the field.		
7.15.6.	Surface Stability (vertical deformation): The surface should provide adequate stability so that the athlete can maintain body control to help prevent or properly control contact between athletes. This is an important consideration that should be balanced with the surfaces' ability to absorb impact. If the surface is too soft, the stability provided by the field may not be optimal for player movement and body control.		
7.15.7.	Ball-Surface Interaction: The synthetic turf playing field should provide consistent and predictable ball performance reaction characteristics.		
7.15.8.	Surface Uniformity: The synthetic turf playing field should be as level as practical. The synthetic surface shall provide a true and uniform playing surface throughout.		
7.15.9.	Ball Bounce: The synthetic turf field should provide a ball bounce as close to the optimal playing characteristics of the sport or sports. The published standards for the regulatory organizations as applicable for each sport should be referenced.		
7.15.10.	Ball Roll: The synthetic turf field should provide a ball roll as close to optimal playing characteristics of the intended sport or sports. The published standards for the regulatory organizations as may be applicable for each sport should be referenced.		
7.15.11.	Appearance: Unless otherwise dictated by design, the synthetic turf should have a consistent color, texture, and shade without significantly noticeable streaks or other irregularities when observed in any direction.		
7.16.	Warranties for the synthetic turf field systems should include the following:		
7.16.1.	Acceptable uses for the field		
7.16.2.	Expected number of yearly hours of use of the field		
7.16.3.	Type of shoes used		
7.16.4.	Fading		
7.16.5.	Color match within specifications		

Item	Category Specifications	Comply	Deviate
7.16.6.	Excessive fiber wear		
7.16.7.	Acceptable loss of pile height over time		
7.16.8.	Wrinkling and panel movement		
7.16.9.	Shock absorbency (g-max)		
7.16.10.	Seam integrity		
7.16.11.	Drainage		
7.16.12.	Response time for required repairs/replacement		
7.16.13.	Approved maintenance equipment		
7.16.14.	Other items deemed relevant		
7.17.	Maintenance:		
7.17.1.	A regular schedule of maintenance should include but not limited to surface cleaning, debris removal, grooming, and infill replenishment, redistribution, and de-compaction.		
7.17.2.	The maintenance procedures and equipment, as specified by the synthetic turf manufacturer or Synthetic Turf Council's Guidelines for the Maintenance of Infilled Synthetic Turf Surfaces, January 2013, for additional information.		
7.18.	Other Considerations:		
7.18.1.	The synthetic turf supplier, unless the base is part of their scope of work, should perform an inspection of the field planarity base on to which the synthetic turf system is to be installed and to examine the finished surface for required compaction, water permeability, and grade tolerances. After any discrepancies between the required materials, application, and tolerance requirements noted have been corrected, the owner's representative (architect/engineer) should review and approve for compliance with documents. The acceptance of the base construction should be included in the certification for warranty validation.		
7.18.2.	Extra Materials: the synthetic turf manufacturer and installation contractor can provide extra sections of synthetic turf material for future repairs. If necessary, this should include materials for all colors used with any lines, markings, and logos. Quantities to be predetermined. This allows for materials from the same manufacturing run to be utilized for minor repairs.		
7.19.	Drainage System Components		
7.19.1.	The system chosen will depend on the use of the field, climate, amount of rainfall, and other factors.		
7.19.2.	The drainage system may include but not limited to the synthetic turf, pad, base materials, and collector pipes that collect and remove storm water from the playing field.		
7.19.3.	The design of the drainage system is dependent upon local conditions, climates, and site constraints.		
7.19.4.	Collector pipes are typically perforated polyvinyl chloride (PVC) or polyethylene (PE) pipes. Size and type of perforations are dependent upon the size of the pipe. If perforations are larger than the smallest aggregate in the base material then a geo-textile sock filter may be used to encapsulate the pipe-care should be taken to ensure that the openings in the geo-textile fabric are compatible with the granular smaller components so that they do not block the pores and reduce water flow. A qualified civil or geotechnical engineer should be consulted to determine the suitability of using a product with a geo-textile sock in conjunction with the selected base materials. Additionally the compressive strength of various systems can differ greatly and care should be taken to keep construction traffic off of the systems until enough stone has been placed and compacted.		
7.19.5.	The expected performance evaluation and the systems used should undergo an independent engineering analysis.		
7.20.	Base Materials		

Item	Category Specifications	Comply	Deviate
7.20.1.	The aggregate base on which the synthetic turf is installed provides a structurally sound foundation for field construction, and a media for drainage of the field. The base materials should contain the necessary components and characteristics to satisfy local conditions. A good geotechnical report will provide essential information for a firm and stable base for the synthetic turf.		
7.20.2.	Depending on the local site conditions, a geo-textile fabric may be placed over the entire sub-grade and within the pipe trenches prior to the installation of the base materials to minimize contamination of the aggregate and possible clogging of the perforated drainage pipes. Where soil conditions warrant, a polyethylene, PVC, or other impermeable sheet liner may be used in lieu of the geo-textile to inhibit storm water infiltration into the subsoil.		
7.20.3.	The aggregate materials utilized to construct the field base must be a properly graded washed crushed stone to provide a balance between stability and permeability. A highly fractured material is desirable to provide the surface stability required for the synthetic turf surfacing, supplemental padding or porous paving as applicable. The graded aggregate particle sizes must be tightly controlled to fall within the bandwidth for all specified sieve sizes with just enough fines to provide stability while still allowing for sufficient drainage. Minimum stability and permeability requirements should be determined and confirmed by an independent certified laboratory prior to construction of the base course.		
7.20.4.	The base materials should be thoroughly compacted to prevent differential settlement across the field area. Minimum compaction levels typically should not be less than 95% density as measured by a standard proctor test. Special attention should be given to backfill compaction of any utility trenches that cross the field area. Care should also be taken not to over compact, which could affect drainage.		
7.20.5.	If pavement is required by design, the base materials may be porous, conventional asphalt or concrete.		
7.20.6.	Water permeability rates for both the field's surfacing and the field base materials should be designed to accommodate the local weather patterns and storm water management regulations. The permeability of both the field surface and the base materials will typically decrease over the life of the field. An adequate factor of safety should be utilized to provide initial infiltration rates for the completed field above those required by the local weather conditions.		
7.21.	Shock Absorbing Resilient Underlayment Systems		
7.21.1.	Performance Characteristics: The selection of the cushion layers should be closely coordinated with the performance characteristics of the synthetic turf utilized. The cushion layers should provide shock absorption without compromising footing and surface stability.		
7.21.2.	Prefabricated Cushion Layers (Pad): If included in the design, these cushion layers are rolls or tiles of resilient material installed under and occasionally adhered to the synthetic turf backing.		
7.21.2.1.	Physical Characteristics: Prefabricated cushion layers are typically comprised of rubber, polyurethane foam, or other suitable materials. The rubber pads are SBR rubber fibers or granules bound together with a polyurethane binder and usually come as roll or piece goods and should be permeable. The foam cushion layers are typically polyurethane or polyvinyl chloride and should be water permeable for drainage.		
7.21.2.2.	Performance Characteristics: The selection of the cushion layers should be closely coordinated with the performance characteristics		

Item	Category Specifications	Comply	Deviate
	and requirements of the synthetic turf system utilized. The cushion layers should provide shock absorption without compromising footing and/or surface stability.		
7.21.2.3.	Water Permeability Rate: The system is to be permeable by design with adequate drainage, perforations through all of the cushioning layers to provide for adequate drainage through the system as specified.		
7.22.	Irrigation System:		
7.22.1.	The installation of a manual or automatic irrigation system can be considered for synthetic turf installations. Guidelines on whether synthetic fields are watered are determined by factors such as region, climate, turf material, player traffic type, and level of games played.		
7.22.2.	It is recommended that the design be reviewed and approved by a recognized irrigation consultant or landscape designer.		
7.23.	Seams:		
7.23.1.	Each panel or roll should be attached to the next with a seam to form the playing substrate of the field. Seams should be glued with a supplemental backing material or sewn with high strength sewing thread. The bonding or fastening of all system material components should provide a permanent, tight, secure, and hazard-free athletic playing surface.		
7.23.2.	Adhesive: Synthetic turf adhesives should be applied by experienced, professional installers. The adhesives should provide a strong, hazard-free, and durable bond between the adjacent turf panels or sections and to be usable for installation under variable weather conditions. The adhesive should also be resistant to water, fungus, and mildew. Synthetic turf adhesives include: one-part adhesives (urethanes), two-part (epoxy or urethane), hot melt, and water-based (latex).		
7.23.3.	Seaming Tape: The tape is comprised of a fabric that should be installed below the backing material on both sides of a seam or inlay. The fabric used for seaming tape should provide dimensional strength and enough surface texture and width to bond well with the adhesive and the turf backing material on each side of the seam.		
7.24.	Lines and Markings:		
7.24.1.	Installation: Lines and markings should be installed on the synthetic turf surface in one of three methods: with paint, with colored fiber that is either tufted or knitted into the synthetic turf panels, or installed as inlays. Tufted in or inlaid lines and markings are a permanent part of the surface.		
7.24.2.	Painted lines and markings installed with either permanent or temporary paint require maintenance. Even permanently painted lines require additional paint on a periodic basis.		
7.24.3.	Synthetic turf and fibers utilized for the tufted or inlaid lines and markings should be similar to that used in all other areas of the field and installed to the same tolerances.		
7.25.	Inserts:		
7.25.1.	They can include covers for goal sleeves and anchors and conversion of baseball infield clay areas to synthetic turf.		
7.25.2.	The synthetic turf used for the inserts should be similar to that used in the area adjacent to the insert.		
7.25.3.	The inserts should be anchored securely to the surrounding areas so that they cannot be displaced by the activities occurring on the field and installed to the same tolerances.		
7.26.	Synthetic Turf Material Production Quality Assurance .		
7.26.1.	Testing of materials should be performed prior to shipment of product to the job site.		
7.26.2.	The synthetic turf rolls should be randomly sampled and tested by		

Item	Category Specifications	Comply	Deviate
	the manufacturer who will certify that they meet the specification.		
7.26.3.	Testing may include pile composition, pile weight, total weight, pile height, tuft bind (without infill), and grab/tear strength.		
7.26.4.	The manufacturer, to certify in writing at the owner request that the test results meet or exceed the synthetic turf specification.		
7.27.	Construction and Installation		
7.27.1.	Inspection:		
7.27.1.1.	Synthetic materials should be inspected prior to installation for:		
7.27.1.1.1.	Damaged or defective goods		
7.27.1.1.2.	Missing goods or quantities		
7.27.1.1.3.	Correct fiber type		
7.27.1.1.4.	Correct turf pile height and weight		
7.27.1.1.5.	Proper tuft bind		
7.27.1.1.6.	Correct backing perforation diameter and spacing, if applicable		
7.27.1.1.7.	Materials out of tolerance with the specification		
7.27.2.	Sub-Grade Preparation		
7.27.2.1.	The sub-grade should provide a stabilized foundation upon which base materials and subsequent components of playing field systems will be installed.		
7.27.2.2.	It should also provide the pitched surface on which storm water is directed toward the active drainage system for evacuation.		
7.27.3.	Shape and Compaction: Prior to placement of base materials, the sub-grade should be shaped to an appropriate profile and compacted by proof rolling to obtain a firm even surface. Depressed areas should be filled and unsuitable materials removed and replaced with clean fill or aggregate. Compaction should be performed to achieve a minimum of 95% in accordance with ASTM D698 Standard Proctor Method. The appropriate moisture content must be maintained in the field sub-grade to allow for optimal levels of compaction.		
7.27.4.	Sub-Grade (Rough) Planarity: The tolerances for the finished sub-grade should not exceed one-half (1/2") inch as measured by a 10-foot straight edge. Grading of the sub-grade shall minimize pending to the extent practical. The use of laser guided and controlled equipment is highly recommended for sub-grade preparation.		
7.27.5.	Aggregate:		
7.27.5.1.	Installation of the aggregate base should provide a close, evenly textured surface meeting the required tolerances.		
7.27.5.2.	Extreme care should be taken to ensure that there is no disturbance to the sub-grade and that there is no displacement of the soil separator. All disturbed, displaced, or damaged material is to be repaired or replaced.		
7.27.5.3.	The aggregate base should be placed in a manner that will produce a uniform and evenly graded mass to the specified depth. The material should be placed and spread by the appropriate equipment and methods in successive horizontal layers not exceeding the depth per synthetic turf manufacturer's specifications. Pockets that occur as a result of stone segregation during installation should be removed and replaced. After correct placement, each lift shall be uniformly compacted with a self-propelled roller to achieve the specified density.		
7.27.5.4.	The field base materials should be thoroughly compacted to prevent any significant differential settlement across the area of synthetic turf surfacing. The appropriate moisture content must be maintained in the base materials to allow for optimal levels of compaction.		
7.27.5.5.	Finish-Grade Planarity (surface tolerances): Irregularities in the surface of the base materials are typically reflected in the finished		



Item	Category Specifications	Comply	Deviate
	field surface. To controlled tolerances the contractor is to use a laser guided and controlled equipment for subgrade preparation. The local deviation of the finished surface of the base stone should not exceed ¼ in. in any direction when measured beneath a 10-foot long straight edge. Hollows and depressions, which may have developed during the process of compacting the base, should be filled with acceptable material and re-compacted.		
7.28.	Shock Absorbing Resilient Underlayment System:		
7.28.1.	Cushion-Layer (Elastic Layer Pad) Installation: If required by design, the in situ cushion layers should be installed with specialized paving equipment used only for in situ pad. All paving seams should be hand rolled and troweled. All cold joints in the pad should be pretreated with a polyurethane primer. The specified thickness of the in situ pad should be continuously monitored for consistency. The components of the in situ cushion layers should be thoroughly mixed. The mixing ratios should also be monitored for consistency. The cushion-layer system should be securely placed on the field base materials. The in situ cushion surface should not vary more than ¼ in. in 10 ft. as measured in any direction with a string line or straight edge.		
7.28.2.	Seam Installation: If required by design, prefabricated cushion-layer systems are typically installed as roll or piece goods. The head seams at the end of each roll should be staggered across the field. When required by the padding manufacturer, all glued cushion-layer seams should be butted together and a permeable or mesh type fabric should be adhered to the surface of the cushion layer at all seam locations to bridge the cushion-layer joints. (This does not apply to sewn seams).		
7.28.3.	Resilient Infill: If required by design, the infill material should be applied when in a dry condition and should not be applied unless the synthetic turf is also dry. The infill material should be applied in consistent layers with multiple applications. It is critical to insure that synthetic fibers are not trapped underneath the infill. After application of each layer, the synthetic turf should be dragged and/or brushed according to the manufacturer's recommendations in order to lift the fibers and distribute the infill material into the turf system in a consistent manner.		
7.29.	Irrigation System		
7.29.1.	Sprinklers located inside the field of play are not acceptable. The installation of multiple infield sprinklers is and can affect the turf's adhesion to the field base. This can have a negative effect on the completed turf planarity and consistency. Use of agricultural, long range sprinkler guns mounted on riser posts or long range perimeter pop-up sprinklers buried at grade level, the popup sprinklers provide discrete, low level, unobtrusive, long range performance with the ability to throw beyond the half way line.		
7.29.2.	Sprinkler installation design would allow for minimum spray disruption for slight wind conditions.		
7.29.3.	Manual or remote controllers can be offered		
7.29.4.	Warning notification sound and visual safety measures to ensure players, spectators and service personnel are not at risk from the water jet as the sprinklers are activated can be offered.		
7.30.	Synthetic Turf Installation:		
7.30.1.	All synthetic turf systems should be installed to provide stability that will prevent panels from shifting or bunching.		
7.30.2.	The synthetic turf panels should be securely fastened together for the warranted life of the system. These seams can be glued or sewn depending upon the synthetic turf system. Seam gaps should be minimal and uniform. For tufted infill systems the gap between the fibers should not exceed the gauge of the tufting. For		

Item	Category Specifications	Comply	Deviate
	other synthetic turf systems, the seam gaps should not exceed 1/16 in.		
7.30.3.	Edge anchoring may consist of a concrete curb, a treated wood header, a composite material, or a trench drain. These may vary by design and region, but should always provide a secure anchor.		
7.30.4.	Inlaid lines and markings should consist of synthetic turf with contrasting colored fiber installed in lieu of painted fiber. Inlay gaps should be uniform. For tufted systems, the gap between the fibers should not exceed the gauge of the tufting. Lines and markings must conform to the appropriate association or organization suggested guidelines for the intended level of use.		
7.30.5.	Care should be taken during installation to account for rapid fluctuations in temperature to avoid expansion and/or contraction which can affect the final installation. Temperature extremes should also be carefully monitored. The carpet should never be rolled or unrolled when frozen, which can cause cracking and irreparable damage to the secondary backing.		
7.30.6.	Infill material installation to follow the manufacturer's installation recommendations.		
7.30.7.	G-Max testing to be performed by an independent testing company or lab.		
7.31.	Clean-Up		
7.31.1.	Turf contractor shall provide the labor, supplies and equipment as necessary for final cleaning of surfaces and installed items.		
7.31.2.	All usable remnants of new material shall become the property of the Member.		
7.31.3.	The turf contractor shall keep the area clean throughout the project and clear of debris.		
7.31.4.	Surfaces, recesses, enclosures, etc., shall be cleaned, as necessary, to leave the work area in a clean, immaculate condition ready for immediate occupancy and use by the Member.		
7.32.	Field Quality Control		
7.32.1.	At the time of substantial completion and bi-annually during the life of the warranty, the Contractor shall perform a series of tests using an independent testing agency to evaluate the shock absorption characteristics of the field. The tests shall be performed on a 50 foot grid in both directions using an accelerometer in accordance with ASTM F1936 and ASTM F355. Test the field at a minimum of 12 points and submit the results to the Owner within 30 days of testing. At no point shall any reading exceed 160 Gmax during the life of the warranty. If any point exceeds the maximum deceleration, the Contractor shall make corrections to provide the allowable Gmax deceleration at the Contractor's expense. Owner has the option to engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.		
7.32.2.	Testing and inspecting of completed applications of synthetic turf system shall take place in suggestive states, in areas of extent and using methods that are industry standard.		
7.32.3.	The Contractor is to remove and replace items where test results indicate that it does not comply with specified Gmax requirements.		
7.33.	Field Markings and Decorations		
7.33.1.	A complete field "Lining, Marking, and Field Boundary" system will be provided with the installation of the surfacing system.		
7.33.2.	Field markings are to be installed in accordance with approved project shop drawings and marking plan.		
7.33.3.	Tufted lines, hash marks, ticks, and number markings, shall conform to the manufacturers' specifications and recommendations.		



Item	Category Specifications	Comply	Deviate
7.33.4.	Striping layouts shall be accurately surveyed by the Contractor before installation of tufted field markings.		
7.33.5.	Install tufted lines and markings only when the surface is completely dry.		
7.33.6.	AEPA Member will provide logos as required in a format that the contractor requires. The Contractor shall submit shop drawing of logo to include colors, dimensions and locations for approval prior to ordering and installation.		
7.34.	Synthetic Turf Maintenance		
7.34.1.	The turf manufacturer to provide detailed written maintenance instructions and training of maintenance personnel. Maintenance to include but not limited to cleaning, stain removal, minor seam repair, dragging, or redistribution of any infill material, and management of infill compaction. The Vendor Partner can offer equipment and supplies that are required for the maintenance of the synthetic turf surface. Utilizing this equipment as recommended by the turf manufacturer will generate the proper maintenance in relation to any future warranty claims.		
7.34.2.	Seam Repair: Seams that open or become loose may require some immediate and temporary gluing until they can be inspected and corrected by the installation builder. The gluing should conform to the written maintenance suggested guide- lines provided by the synthetic turf vendor.		
7.35.	Quality Assurance		
7.35.1.	Manufacturer - Proposed solutions must be equal to or better than those available from nationally-recognized manufacturers specializing in outdoor synthetic turf products for athletic and recreational facilities.		
7.35.2.	Manufacturer Qualifications - Manufacturer must have ten (10) years of experience in the manufacture of synthetic turf systems which meet and/or exceed the standards and guidelines presented herein.		
7.35.3.	Engineering Qualifications - The Vendor Partner must have a professional engineer, licensed in the state where the field is to be installed to review and certify that the proposed site, site conditions and synthetic turf system being supplied and installed meets or exceeds the design criteria of the specifications, and the site conditions exceed the minimum requirements of the system's design performance standards set by the manufacturer.		
7.35.4.	Installer Qualifications - Factory-trained and certified with a minimum of three (3) years' experience of successfully installing synthetic turf systems. Must have the appropriate contractor's license as required by the state or local jurisdiction where the field will be installed.		
7.36.	Project Documents and Submittals		
7.36.1.	Design Documents		
7.36.1.1.	Planning		
7.36.1.2.	Grading Plan		
7.36.1.3.	Drainage Plan		
7.36.1.4.	Edge Details		
7.36.1.5.	Installation Instructions and standards		
7.36.2.	Project Schedule		
7.36.3.	Shop Drawings - Show all site preparation, materials, supplies and fixtures to be furnished even if provided by others.		
7.36.4.	Synthetic Turf Product Data Sheet and Specifications.		
7.36.5.	Material Safety Data Sheets (MSDS)		
7.36.6.	Testing Requirements		
7.36.6.1.	G-Max Testing		
7.36.6.2.	Lead and Heavy Metal Testing		

Item	Category Specifications	Comply	Deviate
7.36.6.3.	All turf fiber, infill, base and subbase, etc		
7.36.7.	Maintenance Manual and Instructions		
7.36.8.	Samples - Samples of materials and colors as requested by the owner or owner's representative.		
7.36.9.	Detail information on all items and work to be provided and/or performed by the Member and stipulate minimum requirements.		
7.36.10.	Warranty		
7.36.10.1.	Written warranty documents		
7.36.10.2.	Warranty insurance policy.		
7.36.11.	Cost Proposal - Detail breakdown of all costs associated with the design, manufacture, delivery, installation, and warranty of the proposed solution per contract documents.		
7.37.	Project Close-out		
7.37.1.	The Contractor and the Member's representative shall conduct a complete and extensive site inspection of all work performed and products provided and installed.		
7.37.2.	The Contractor shall provide the necessary testing data to the owner that the finished field installed meets the required shock attenuation, as per ASTM F1936.		
7.37.3.	The turf material shall be non-combustible and pass the DIN standard Pill Burn test or ASTM D 2859.		
7.37.4.	The Contractor to provide a written acceptance by the turf manufacturer that the turf and base system is installed in accordance with their recommendations prior to final completion.		
7.37.5.	Upon completion of the work, the Vendor Partner will present the Member with all documents necessary. to close out the project. Including, but not limited to:		
7.37.6.	Certificate of occupancy.		
7.37.7.	Maintenance manuals.		
7.37.8.	Up to four (4) complete sets of "as built" project drawings, showing the actual locations of seams, drains, in-ground equipment and other accessories installed/provided as required by AEPA Member.		
7.37.9.	Minimum of two (2) copies each of any installed equipment as required by AEPA Member.		
7.37.10.	Manufacturer's Instructions and Maintenance Manuals, which will include all necessary instructions for the proper care and preventative maintenance of the synthetic turf system, including painting and markings, procedures of use and executed warranties on installed products and equipment.		
7.37.11.	Any state, local and/or manufacturer's inspection report or certificate certifying that all state, local and manufacturer's standards, codes and requirements have been met.		
7.37.12.	All warranty information.		
7.38.	Material Specification, Performance Guidelines, Properties and Lab and Field Tests Requirements		
7.38.1.	All minimum and maximum values take into account acceptable industry manufacturing tolerances plus or minus 2% of the variance.		
7.38.2.	Testing to meet the minimum standards of the Synthetic Turf Council recommendations are for specific purposes such as the following.		
7.38.3.	All minimum values should be evaluated as they relate to the system performance.		
7.38.4.	Site testing shall be at ambient shaded air temperature of 40 - 100°F. Laboratory testing shall be at ambient indoor temperature unless otherwise specified by the test method.		
7.38.5.	Base Materials Test Requirements		

Item	Category Specifications			Comply	Deviate
Test Property	Method of Determination	STC Guidelines	Lab/Field Test		
Size of particle mix	ASTM D422 Particle size analysis	As per specification	Lab (on site material)		
Drainage	ASTM F1551/DIN 18035:6 Permeability to water* ASTM D2434 Permeability of Granular Soils (Constant Head)	Min. of 0.01 cm/s (14 in. per hour)	Lab or Field**		
Compaction (Density)	ASTM D698 Compaction Using Standard Effort ASTM D2922 Compaction of Soil In Place by Nuclear Methods	To set criteria for ASTM D2922 Min. 90% Standard Proctor	Lab/Field		
Final Grade	ASTM F2157 Test method for Base Material Evenness	Less than 1/4 in. over 10 ft 6mm over 1m	Field		
7.38.6.	Determination in the lab: It is necessary to seal the test ring to the base of the sample. The edges of the sample must also be sealed to prevent any water from flowing around rather than through the sample.				
7.38.7.	** Determination in the field: An exact seal is typically not attainable and the test is not as accurate/reproducible due to the lateral flow of water and the problems of determining the areas through which the water is flowing.				
7.39.	Turf Characteristics For Tufted Infill Systems (Typical for High School, Collegiate, and Professional Playing Fields)				
Test Property	Method of Determination	STC Guidelines	Lab/Field Test		
Manufacturer of System (name)	Manufacturer Declaration	Not Specified	N/A		
Pile Fiber ID	Manufacturer Declaration	Not Specified	N/A		
Primary Backing System ID	Manufacturer Declaration	Not Specified	N/A		
Secondary Backing System ID	Manufacturer Declaration	Polyurethane/Latex/Fabrics	N/A		
Pile (face weight)	ASTM D5848	Min. 30 oz./sq. yd.	Lab		
Primary Backing System Weight	ASTM D5848	Min. 5.5 oz./sq. yd.	Lab		
Secondary Backing System Weight	ASTM D5848	Min. 16 oz./sq. yd.	Lab		
Pile Height	ASTM D5823	Sport specific or as specified	Lab/Field		

Item	Category Specifications			Comply	Deviate
Pile Height above infill	Measurement	Must meet system specs	Lab/Field		
Yarn Thickness	ASTM D3218	Min. 75 microns	Lab tested		
Yarn Denier	ASTM D1577	Min. 500 (nylon)	Lab tested		
Grab Tear Strength	ASTM D5034	Min. 150 lbs.	Lab		
Tuft Bind	ASTM D1335	Min. Avg. 6 pounds	Lab only		
Flammability	ASTM D2859 "Burning Pill"	Passing result tested as installed	Lab		
Color Uniformity	Visual	No significant change	Lab & Field		
7.40.	Turf Characteristics For Knitted Turf Systems				
<b>Test Property</b>	<b>Method of Determination</b>	<b>STC Guidelines</b>	<b>Lab/Field Test</b>		
Manufacturer of System (name)	Manufacturer Declaration	Not Specified	N/A		
Pile Fiber ID	Manufacturer Declaration	Not Specified	N/A		
Primary Backing System ID	Manufacturer Declaration	Not Specified	N/A		
Secondary Backing System ID	Manufacturer Declaration	Glued: Acrylic Loose laid: Polyurethane, or Acrylic	N/A		
Pile (face weight)	ASTM D5848	Min. 55 oz./sq. yd.	Lab		
Primary Backing System Weight	ASTM D5848	Min. 8 oz./sq. yd.	Lab		
Secondary Backing System Weight	ASTM D5848	Glued: Min. 3 oz./sq. yd. Loose laid: 1/4 in. (6 mm) pre-coat & attached cushion weight combined is min. 50 oz./sq. yd.	Lab		
Pile Height	ASTM D5823	Min. 0.5 in.	Lab/Field		
Pile Height above infill	Measurement	N/A	Lab/Field		
Yarn Denier	ASTM D1907	Min. 500 (nylon)	Lab		
Yarn Thickness	ASTM D3218	Min. 75 microns PE Min. 50 microns PP	Lab		
Grab Tear Strength	ASTM D5034	Min. 350 pounds	Lab		
Tuft Bind	ASTM D1335	Min. Avg. 6 lbs.	Lab		
Flammability	ASTM D2859 "Burning Pill"	Passing result tested as installed	Lab		

Item	Category Specifications			Comply	Deviate
Relative Abrasiveness	ASTM F1015	Measurement	Lab		
Color Uniformity	Visual	No significant changes	Lab & Field		
7.41.	Turf Characteristics For Tufted Polypropylene (Pp), Polyethylene (Pe), Or Nylon Systems (Non-Infill Systems)				
<b>Test Property</b>	<b>Method of Determination</b>	<b>STC Guidelines</b>	<b>Lab/Field Test</b>		
Manufacturer of System (name)	Manufacturer Declaration	Not Specified	N/A		
Pile Fiber ID	Manufacturer Declaration	Nylon 6 or 6,6; PP, PE	N/A		
Primary Backing System ID	Manufacturer Declaration	Not Specified	N/A		
Secondary Backing: System ID	Manufacturer Declaration	Polyurethane	N/A		
Pile (face weight)	ASTM D5848	Min. 48 oz./sq. yd.	Lab		
Primary Backing Weight	ASTM D5848	Min. 6 oz./sq. yd.	Lab		
Secondary Backing System Weight	ASTM D5848	Min. 16 oz./sq. yd.	Lab		
Pile Height	ASTM D5823 or D6859	Min. 0.45 in.	Lab/Field		
Pile Height above infill	Measurement	N/A	Lab/Field		
Fiber Conditioning	Manufacturer Declaration	Texturized	N/A		
Yarn Denier	ASTM D1907	Min. 500 Nylon	Lab		
Yarn Thickness	ASTM D3218	Min. 75 microns PE Min. 50 microns PP	Lab		
Yarn Elongation	ASTM D2256	N/A	Lab		
Grab Tear Strength	ASTM D5034	Min. 150 pounds	Lab		
Yarn Breaking Load (Tensile strength)	ASTM D2256	Mfr. recommended spec	Lab		
Tuft Bind	ASTM D1335	Min. Avg. 6 lbs.	Lab		
Flammability	ASTM D2859 "Burning Pill"	Passing result tested as installed	Lab		
Color Uniformity	Visual	No significant changes	Lab & Field		
7.42.	INFILL Materials				
7.42.1.	Infill Materials: The most recent generation of synthetic turf systems utilizes a long pile height and needs to be supported with infill materials for directional stability and structural integrity, as well as resiliency. The infill materials commonly used are sand, rubber, other suitable materials, or combinations of the				

Item	Category Specifications			Comply	Deviate
	following:				
7.42.1.1.	EPDM (Ethylene Propylene Diene Monomer) is a polymer elastomer with high resistance to abrasion and wear and will not change its solid form under high temperatures. Typical EPDM colors are green and tan. EPDM has proven its durability as an infill product in all types of climates. Its excellent elasticity properties and resistance to atmospheric and chemical agents provide a stable, high performance infill product.				
7.42.1.2.	TPE (Thermo plastic elastomer) infill is non-toxic, heavy metal free, available in a variety of colors that resist fading, very long lasting, and 100% recyclable and reusable as infill when the field is replaced. TPE infill, when utilizing virgin-based resins, will offer consistent performance and excellent g- max over a wide temperature range.				
7.42.1.3.	Organics: There are several organic infill utilizing different organic components, such as natural cork and or ground fibers from the outside shell of the coconut. These products can be utilized in sports applications as well as for landscaping.				
7.42.1.4.	Silica Sand: This product is a natural infill that is non-toxic, chemically stable, and fracture resistant. Silica sand infills are typically tan, off-tan or white in color and depending upon plant location, may be round or sub-round in particle shape. As a natural product there is no possibility of heavy metals, and the dust/turbidity rating is less than 100. It can be used in conjunction with many other to provide a safe and more realistic playing surface. The round shape plays an integral part in the synthetic turf system. Silica sand have a high purity (greater than 90%) to resist crushing and absorption of bacteria and other field contaminants. Silica sand can either be coated with different materials as a standalone product or can be used to firm up in combination with traditional crumb rubber infill systems.				
7.42.1.5.	Coated Silica Sand: This class of infill consists of coated, high purity silica sand with either a soft or rigid coating specifically engineered for synthetic turf. These coatings are either elastomeric or acrylic in nature (non-toxic) and form a bond with the sand grain sealing it from bacteria to provide superior performance and durability over the life of a field. Coated sand is available in various sizes to meet the application's needs.				
7.42.1.6.	Crumb Rubber: Two types of crumb rubber infill exist: Ambient and Cryogenic. Crumb rubber infill is substantially metal free, and, according to the STC's Guidelines for Crumb Rubber Infill Used in Synthetic Turf Fields, should not contain liberated fiber in an amount that exceeds .01% of the total weight of crumb rubber, or .6 lbs. per ton.				
7.42.1.7.	Coated Rubber: Both ambient and cryogenic rubber can be coated with colorants, sealers, or anti-microbial substances if desired. Coated rubber provides additional aesthetic appeal, reduction of dust by products during the manufacturing process and complete encapsulation of the rubber particle.				
7.42.1.8.	Hybrid: Constitutes the use of sand, rubber, or other suitable materials in various combinations. (This should not be confused with hybrid carpet systems that consist of a combination of fiber types.)				
<b>Test Property</b>	<b>Method of Determination</b>	<b>STC Guidelines</b>	<b>Lab/Field Test</b>		

Item	Category Specifications			Comply	Deviate
Material Identification	Manufacturer Declaration	Must meet system specifications	N/A		
Grain Size (Particle Size)	ASTM D442 (soil) ASTM D5644 (rubber)	Must meet system specifications	Lab		
Depth	Measurement from top of infill to surface of fabric	Must meet system specification at all locations 3/8 in. ( $\pm 9$ mm)	Lab/Field		
Flammability	ASTM D2859 "Burning Pill"	Passing result tested as installed	Lab		
Color Uniformity	Visual	No significant changes	Lab/Field		
7.43.	Shock Pad Layer Properties				
<b>Test Property</b>	<b>Method of Determination</b>	<b>STC Guidelines</b>	<b>Lab/Field Test</b>		
Material Identification	Manufacturer Declaration	Must meet system specifications	N/A		
Mix Design	Manufacturer Declaration	Must meet system specifications	N/A		
Drainage	ASTM F1551/DIN 18035-6 Water Permeability	Min. of 14 in. per hour	Lab/Field		
Components Size Rubber / Stone (gravel)	ASTM F1508 Sieve Analysis	Must meet system specifications	Lab		
Evenness	ASTM 2157: Test method for Base Material Evenness	Less than 1/4 in. over 10 ft. (6 mm over 3 m)	Field		
Thickness	Measurement	Meet system spec at every point measured (+1/4 in./-0) (+6 mm/-0 mm) cushion layer	Lab/Field		
7.44.	Performance Guidelines				
7.44.1.	The values indicated on these Tables are based on the performance of infill systems currently available and found to be satisfactory nationally and internationally.				
7.44.2.	Performance Guidelines for (North American) Football Fields				
<b>Test Property</b>	<b>Description</b>	<b>Test Method</b>	<b>STC Guidelines</b>		
Shock Absorption	A measure of the surface's ability to absorb impact energy	ASTM F1936 (g-max)	Shall not exceed 200 at each test point*		
Deformation	A measure of the degree a surface deforms when a player runs across	ASTM F2157-02**	$\leq 10$ mm		

Item	Category Specifications			Comply	Deviate
	it				
Drainage	Measure of water passage	ASTM F1551	14 in./hr. Base 10 in./hr. Turf System		
7.44.3.	Performance Guidelines for Soccer Fields				
<b>Property</b>	<b>Description</b>	<b>Test Method</b>	<b>STC Guidelines</b>		
Ball Rebound	A measure of how high a ball bounces vertically	ASTM F2117	30% - ≤ 50%		
Ball Roll	A measure of how far a ball rolls	EN 12234	4m - 10m		
Force Reduction	A measure of the impact energy absorption of a surface when a player runs across it	ASTM F2157-02	55% - 70%		
Deformation	A measure of the degree a surface deforms when a player runs across it	ASTM F2157-02*	≤ 10mm		
Rotational Resistance	A measure of the foot grip provided by the surface	EN 15301 Method 1	25Nm - 50Nm		
Drainage	Measure of water passage	ASTM F1551	14 in./hr. Base 10 in/hr. Turf System		
7.44.3.1.	*To prevent compaction the mass must be caught after each impact				
7.44.3.2.	Legend				
7.44.3.3.	ASTM - Test method published by the American Society for Testing and Materials				
7.44.3.4.	EN -Test method published by the European Standards Organization				
7.44.3.5.	FIFA -Test method described in FIFA Handbook of Test Methods and Requirements for Artificial Turf Football Surfaces				
7.45.	Materials Specifications				
7.45.1.	The reference specifications, as established by the Synthetic Turf Council, are "typical" examples of minimums that are most commonly encountered and have fulfilled reasonable expectations for successful performance. Deviations from these minimums can be expected due to product innovations or quality upgrades and can be considered when properly justified in terms of their expected performance.				
7.45.2.	All tests prior to, during, or after installation are to be specifically				



Item	Category Specifications	Comply	Deviate
	listed and understood by all parties as to their execution and financial responsibility.		
7.45.3.	Environmental Conditions: Suitable weather conditions are important for the successful installation of the systems.		
7.45.4.	In the event of questionable conditions, the manufacturer's recommendation should be obtained to prevent the possible voiding of any warranties (particularly as it applies to adhesives).		
7.45.5.	Synthetic Turf Specification		
<b>FIBER:</b>			
Material	PE, PP, Nylon 6, or Nylon 6.6		
Denier	Must meet system specs		
<b>BACKING (primary/secondary):</b>			
Weight primary	Not less than 5.5 oz. Per sq. Yd.		
Weight secondary	Not less than 16 oz. Per sq. Yd.		
Additional backings	Optional		
<b>FABRIC:</b>			
Width	12 ft. to 15 ft.		
Tuft bind	> 6.8 lbs. or 30 N		
Pile height	Sport specific or as specified		
Pile weight	Not less than 30 oz./per sq. yd. Must meet system specifications.		
Grab tear strength	Not less than 150 lbs.		
Pill burn test	Passing results tested as installed.		
<b>INFILL SYSTEM:</b>	Depending on Manufacturer's recommendation.		
Depth of infill	Nominal, per Manufacturer's recommendation.		
Impact attenuation	The standard for G-max is a maximum value of 165 at each test point. G-max values may vary from location to location on a playing surface. Such variances should be taken into account when setting maximum values.		
Water Permeability	Turf cushion layer - min. 10 in./hour		
7.45.6.	Knitted Synthetic Turf Specification - Short pile		
<b>FIBER:</b>			
Material	PE, PP, Nylon 6, or Nylon 6.6		
Denier	Min. 500 Nylon		
Thickness	Min. 75 microns PE or PP		
<b>BACKING (primary/secondary):</b>			
Ground Yarn	Polyester multi-filaments		
Weight primary	Min. 8 oz./sq. yd.		
Acrylic	Min. 3 oz./sq. yd.		
Polyurethane attached cushion	optional		
<b>FABRIC:</b>			
Width	Typically 15 ft.		
Tuft bind	N/A		
Pile height	Sport specific or as specified		
Pile weight	Min. 55 oz./sq. yd.		
Grab tear	Min. 350 lbs.		

Item	Category Specifications	Comply	Deviate
strength			
Pill burn test	Passing results tested as installed		
Total Weight	Min. 66 oz./sq. yd. (without attached cushion)		
<b>INFILL SYSTEM:</b>	Depending on Manufacturer's recommendation		
Impact attenuation	The standard for G-max is a maximum value of 165 at each test point. G-max values may vary from location to location on a playing surface. Such variances should be taken into account when setting maximum values.		
Water Permeability	Turf cushion layer - min. 10 in. per hour base materials - min. 14 in. per hour		
7.45.7.	Tufted Synthetic Turf Specification - Short pile		
<b>FIBER:</b>			
Material	Nylon 6, Nylon 6.6, PE or PP		
Denier	Min. 500 nylon		
Thickness	Min. 75 microns PE Min. 50 microns PP		
<b>BACKING (primary/secondary):</b>			
Woven PP/non-woven	Single or multiple		
Weight	Min. 6 oz./sq. yd.		
Scrap Coat	Min. 16 oz./sq. yd.		
Attached cushion Secondary and/or cushion	Min. 32 oz./sq. yd. (as required)		
<b>FABRIC:</b>			
Width	12-15 ft.		
Tuft Bind	>6.8 lbs. or 30 N		
Pile Height	Sport specific or as specified		
Pile Weight	Min. 48 oz./sq. yd.		
Grab Tear Strength	Min. 150 lbs.		
Pill Burn Test	Passing results tested as installed		
Total Weight	Depending on individual construction		
<b>SYSTEM:</b>			
Impact attenuation	The standard for <i>G-max</i> is a maximum value of 165 at each test point. <i>G-max</i> values may vary from location to location on a playing surface. Such variances should be taken into account when setting maximum values.		
Water Permeability	Turf/cushion layer: min. 10 in./hour Base materials: min. 14 in./hour		
7.45.8.	Shock Pad-Pre-Fabricated Pad Systems Specification		
<b>Typical Requirement</b>			
Thickness	0.375 in. ± 10%		
Density	4.0 lbs./cu. ft. ±10%		
Weight	38 oz./sq. yd.		
Width	4 ft.		
25% Compression Resistance (ASTM D1667)	10-12 psi		
Tensile Strength	Typically 75 psi		

Item	Category Specifications			Comply	Deviate
(ASTM D412)					
7.45.9.	Shock Pad-In Situ Systems Specification (typical ranges)				
Thickness:	35 mm	25 mm	20 mm		
Density:	2 lbs./cu. ft.	1.5 lbs./cu. ft.	1.2 lbs./cu. ft.		
Weight:	56 lbs./sq. yd.	40 lbs./sq. yd.	32 lbs./sq. yd.		
Component:	SBR	Aggregate	PU Binder		
	1-5 mm	1-3 mm			
Percentages (by weight):	60-63%	30-32%	5-10%		
7.45.9.1.	Mix Design (all percentages by weight)				
7.45.9.1.1.	Note: Typically the mix design is determined first, to satisfy the needs of the field in relation to its declared use. The mix design then will determine the weight, density, and thickness which should fall within the parameters indicated.				
7.45.9.1.2.	SBR granules to be dust free, no elongated particles are allowed.				
7.45.9.1.3.	Aggregate to be washed/clean, preferably round (pea gravel).				
7.45.9.1.4.	Application to be performed by the use of continuous mixing device and suitable paving equipment.				
7.46.	Warranty				
7.46.1.	The Prime Contractor shall provide a warranty to the owner that covers defects in the prep-work, installation and workmanship, and further warrant that the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's onsite representative.				
7.46.2.	Manufacturer's warranty shall include for a period of eight (8) years:				
7.46.3.	General wear and damage caused from UV degradation.				
7.46.4.	The artificial grass field turf must maintain an ASTM 355 G-max in accordance with product specifications for the life of the warranty.				
7.46.5.	The warranty shall specifically exclude vandalism and acts of God beyond the control of the owner or the manufacturer.				
7.46.6.	Surface and the adhesives used in the installation are and will be free from defects in material and workmanship.				
7.46.7.	All defects for failures relating to field construction, drainage, synthetic grass seam rupture, and synthetic yarn UV stability, excessive wear and tensile strength.				
7.46.8.	The warranty must be supported by a paid-up insurance policy from an A.M. Best A-Rated insurance company to ensure that, if warranty work is required during the full eight (8) year required warranty period, the work can be obtained even if the manufacturer/Vendor Partner shall go out of business or no longer exist.				
7.46.9.	100% of field is covered for the entire warranty period in case of catastrophic failure.				
7.46.10.	There are no periods of non-coverage during the warranty period.				
7.46.11.	No annual deductible per field for warranty repairs.				
7.46.12.	The Prime Contractor shall provide a warranty to the owner that covers defects in the prep-work, installation, and workmanship,				

Item	Category Specifications	Comply	Deviate
	and further warrant that the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's on-site representative.		
7.46.13.	The Vendor Partner may offer extended warranties or maintenance agreements if available at an additional cost to Members. The maintenance contract must be offered as a separate line item.		
7.47.	The Contractor shall provide the necessary training for the proper care and maintenance for all material and equipment in order for them to develop a complete knowledge and understanding of the supplies, materials and equipment required to maintain and keep the synthetic turf system in good working condition through its product lifecycle.		
7.48.	Optional Equipment and Accessories		
7.48.1.	The Vendor Partner can offer and install in-ground equipment and accessories to include but is not limited to:		
7.48.1.1.	Pole Vault Pit -The Vendor Partner shall provide synthetic surfacing material plugs, which are to be installed level to the surfacing of the respective runway and be of similar texture as the surrounding synthetic surfacing.		
7.48.1.2.	Take-Off Boards		
7.48.1.3.	Shot Put Toe Boards		
7.48.1.4.	Shot Put Rings		
7.48.1.5.	Discus Rings		
7.48.1.6.	Combination Hammer/Discus Cage and cage must meet IAAF rules		
7.48.1.7.	Hammer/Discus Conversion Ring		
7.48.1.8.	Water Jump Hurdle with sleeves		
7.48.1.9.	Water Jump Cover - The Vendor Partner is to install track surfacing onto the cover. The cover, when installed with synthetic surfacing on it, shall be flush with the surrounding area.		
7.48.1.10.	Removable Track Curbing. The curb shall meet the requirements of the IAAF.		
7.48.1.11.	Long Jump Sandpits and Traps.		
7.48.1.12.	Sand - All sand for the long/triple jump sand pits shall be clean, washed, white sand, containing not more than five percent (5%) clay and shall be free of trash, organic matter, and rock. Installed sand shall meet all specifications of the IAAF - washed river sand, 0 to 2mm graining, no organic components, max 5% of weight up to 0.2mm. Prior to installation, the Vendor Partner shall provide the Member with a one (1) gallon sample for approval.		
7.48.1.13.	Football goal posts and soccer goals		
7.48.1.14.	Batting Cages		
7.48.2.	Field groomer and sweeper		
7.48.3.	Replacement of grass or re-seeding of natural grass as part of the synthetic turf project.		

# AEPA FORM F.2: DEVIATIONS

## AEPA IFB #016-G Athletic Surfaces – Synthetic Turf

NAME OF BIDDER \_\_\_\_\_

### INSTRUCTIONS:

1. If “no” is checked below, complete this form by signing it at the bottom.
2. If “yes” is checked below, either insert answers into this form or create a facsimile in a Microsoft Word table format to provide narrative explanations of exceptions. If creating a facsimile, the bidder is reminded to use the heading above, and include the bidder name and signature at the end.
3. If adding pages, the bidder’s name and identifying information as to which item the response refers must appear on each page.
4. Scan this form plus any attachments into a single PDF document.
5. Title the file as per the instructions under Part C (this section), page 2, #5. Save to Folder A.
6. Exceptions to local, state or federal laws cannot be accepted under this bid.

- NO**, this bidder does not have deviations (exceptions or alternates) to the specifications listed in Part A, Form F.
- YES**, this bidder has the following deviations to the specifications listed in Part A, Form F.

Outline Number from Form F	Specification (describe)	Details of Deviation

Signature \_\_\_\_\_  
*Must be same signature that appears on Bid Affidavit and Acceptance Forms*

# AEPA BID FORM G: PRICING SCHEDULE SUBMITTAL INSTRUCTIONS

## AEPA IFB #016-G Athletic Surfaces – Synthetic Turf

### NAME OF BIDDER \_\_\_\_\_

**INSTRUCTIONS:** *Bidders are reminded as they prepare the discount pricing schedule that they are responsible for administrative fees on purchases to be remitted to Member Agencies. (See Part A of this IFB, Pricing.)*

1. There is one (1) Excel Workbook provided for Bidders to complete with your discounts, pricing, etc. Please note that there are several tabs in the Workbook that should be completed. You must use the provided Excel Workbooks. Pricing must be submitted in the Excel Workbook format with the file name “*Bidder Name Form G—Pricing - Description.*”
2. In addition to the provided Excel Workbooks, copies of the bidder’s most recent catalog or pricelist showing the products available under this bid should be included as PDF documents.
3. Save all documents to Folder B.

These forms are provided on *individual tabs* on the Excel Workbook provided on the AEPA website:

#### **G.1. Base Bid Pricing (REQUIRED)**

**Price Schedule:** Provide a product price schedule. The preferred schedule must include for each item of equipment offered under the bid:

- Supplier Part Number
- Product description, including standard equipment and accessories
- Bid Unit of Measure
- Regular, non-discounted (list) price offered by bidder
- AEPA member discount from list price
- Bid Price
- Optional equipment and accessories available with the given model
- Shipping (clearly identified or identified as included in the bid price)

AEPA is looking for a complete offering of synthetic turf products and services that meet the minimum specification.

#### **G.2 State Multiplier (REQUIRED)**

Use this tab of the workbook to provide a factor that will be added to or taken off labor and materials to take into account differences between AEPA states. Example, if adding a factor of 10 then enter 1.10 if subtracting a factor of 5 then enter 0.95.

#### **G.3 Volume Discounts Schedule (OPTIONAL)**

Use this form if your company is offering additional discounts off of the base discounts bid for one time purchases AND for public agencies that group their requirements together (based on their estimated total annual spend for commodity). Each Bidder must specify the dollar ranges required in order for the agency(ies) to receive the additional discount.

Use this tab of the workbook to provide the item information and the Net Effective Bid Price for ALL ITEMS

Signature \_\_\_\_\_

*Must be same signature as on Bid Affidavit Signature and Acceptance Form*