# REQUEST FOR PROPOSALS FOR

# Synthetic Sports Turf Product and Installation Bid Platte County High School

**ISSUE DATE: 6/21/2021** 

**SUBMISSION DATE & TIME: 6/29/2021 2:00 PM** 

Contact Information: Vance Rzepka <u>vance@vsrdesign.net</u> (913) 484-5211

# 1. TENTATIVE TIMELINE

Issue RFP	6/21/2021
Clarification Deadline	6/27/2021
Open RFP	6/29/2021
Board Approval	7/15/2021

### 2. INTRODUCTION

Request for Proposal for Synthetic Sports Turf Product and Installation Bid Prequalification: Platte County HS Baseball Field and PLATTE COUNTY NEW MIDDLE SCHOOL:

The Platte County School District has contracted for construction management and design services for the construction of a new varsity baseball field associated with the construction/renovation of the High School, and the construction of a new Middle School.

## 3. QUESTIONS

To ensure open and fair competition for all potential respondents, ALL questions and contact concerning this RFP shall be directed to: Vance Rzepka at vance@vsrdesign.net.

Respondent should make NO CONTACT, either written or verbal, with the PCSD Board, legal counsel, administrative and/or athletics staff, consultants, or other district personnel beginning with the issuance of this document through approval of award.

### 4. SCOPE OF SERVICES

#### **Project Purpose and Goals**

The intent of the RFP is to select a turf vendor for utilization by CM's for the two projects. Depending on the outcome of the RFP scoring, the intent is to choose a single vendor as the proprietary provider for use on the two projects. The goal is to establish the quality and performance criteria and associated cost of this portion of the project as the lowest bidder may not necessarily provide the best product and installation for this key specialty scope of the project. This selection and scoring process will allow for competition between vendors for the work without the use of a proprietary specification in the bid documents. The contract terms and payment process will become a part of the CM's contract as the pre-qualified turf vendor will ultimately enter into an agreement with the CM. The pricing that the vendor submits to PCSD with this RFP is intended to be utilized by the Construction Manager for the completion of the respective projects.

The attached Synthetic Turf Specification is to be used as a suggested guide to provide turf and installation. Suggestions for fiber, infill, etc., should be proposed per your company's recommendations for Baseball/Softball use at the High School and multi-use, including but not limited to Football and Soccer at the Middle School. The fields are expected to host a large number of games and practices. All turf systems proposed must address high use.

#### **Project Scope**

Synthetic Turf firms should formulate their proposals to illustrate excellence in the following criteria: <u>TURF PRODUCT MANUFACTURING AND SYSTEM DESIGN</u>

- Baseball/Softball specific turf systems. Each vendor may submit a system / product design categorized as "budget" or "premium" (3 total turf designs maximum)
- Multi-Use turf systems. Each vendor may submit a system / product design categorized as "budget" or "premium" (3 total turf designs maximum)
- Product manufacturer's standard warranty
- Extended warranty (third party, maintenance bond, or other)

- Manufacturer's financial stability /longevity in market
- Maintenance, and warranty requests responses and facilitation
- Ability to meet production timeframe for project completion
- Product insurance requirements
- Product / turf system performance requirements
- References

#### INSTALLATION QUALIFICATIONS AND PERFORMANCE

- Experience as a sub-contractor to a GC/CM.
- List of existing installation locations of identical turf systems with contact information to arrange site visits or discuss past projects with the evaluation committee members.
- Past experience working with a separate contractor that provides the base installation layers of drainage, gravel, laser grading, and conduits.
- Installation experience with turf layout, turf anchoring, turf installation and seaming, infill installation, striping, and initial grooming for play.
- Turf installer should be affiliated with or previously worked with the proposed product(s)
  manufacturer.

#### CLIENT SUPPORT, TRAINING, WARRANTY

- Manufacturer's experience for showing post installation support for training, testing, maintenance, warranty
- Installer's experience for showing post installation support for training, testing, maintenance and warranty issues
- List of existing installation locations of similar type of turf systems with contact information to arrange site visits and contact information for reverence verification.

### **Project Draft Milestones:**

- Board Approval of RFP Recommendation 7/15/2021
- Conditional Notice to Proceed on CM 7/16/2021 (Permitting, Submittal startup)
- Full Notice to Proceed, Submittal review begins 7/16/21
- Draft Proposed Construction Duration by construction milestone:
  - Base Construction completion, Turf install begins = November 1, 2021 (PCHS Baseball)
  - Punch List Complete and full completion = December 1, 2021 (PCHS Baseball)
  - Middle School Construction Begins = October 1, 2021
  - Punch List Complete and full completion = August 15, 2023 (Middle School)

Submit proposal and documents to Platte County School District
A305 or similar – Contractor Qualifications Statement
12" x 12" sample for each proposed turf product, delivered in advance of the RFP opening date
Independent testing lab data sheet for each proposed product

Turf manufacturer's non-pro-rated 8 year warranty
Maintenance Instructions for proposed turf system, including methods and frequency recommended for maintaining optimum condition under anticipated use conditions. Include precautions against all materials and methods that may be detrimental to finishes and performance
Product Data: For each product specified. Include details of construction relative to materials, dimension of individual components. Playing field surface shall be manufactured, located and installed in strict compliance with NFHS, MSHSAA Rules and Regulations.
CLIENT REFERENCES. Provide a list of facility operators that have a working knowledge of the proposed product in terms of installation and maintenance
Identify plant location where turf fibers are extruded/manufactured, turf is tufted and coated
Identify specific fiber manufacturer for each slit film and/or monofilament
Turf Installer Certificates: Signed by manufacturer certifying that installers comply with specified requirements. Installer shall be a member of the American Sports Builders Association and have a Certified Field Builder working on this project.
Provide a list of a minimum of ten existing installations, completed over the past five years, including contact information, including telephone number, for the owner's representative for each project
Product Test Reports: Based on evaluation of tests performed by manufacturer and witnessed by a qualified independent testing agency, indicate compliance of surfacing material with requirements based on comprehensive testing of current systems
Environmental: Provide third party material testing confirming that turf and infill rubber meets or exceeds Federal requirements for consumer products safety

# 5. QUALIFICATIONS

Manufacturer / Installer teams must have experience installing a minimum of ten (10) outdoor sports fields of similar scale and scope in last five (5) years. The proposed team's key personnel will have had direct involvement in those prior installations. Identify the role of key personnel in the installation of those sports complex turf projects.

### 6. EVALUATION PROCESS

The proposals will be evaluated by an Evaluation Committee composed of PCSD personnel and design consultants. Members of the Evaluation Committee will independently review and rate each proposal based on the listed criteria.

PCSD's RFP process consists of an Evaluation Committee scoring all responsive proposals. This scoring will be determined by allocating points totaling 100, which are assigned to evaluation criteria similar to the sample scoring and categories below.

Numerical scores will be tabulated and ranked by the Evaluation Committee. If additional information is required by the Evaluation Committee, a zoom or other multimedia presentation may be requested of the vendors. This option will be determined by the Evaluation Committee and the time proposals are scored and tabulated.

The Fee/cost proposal will be required as part of the RFP. Cost information will be submitted and instructions will be provided to short-listed vendors at the time of the short-list notifications.

Following the cost information tabulation, the Evaluation Committee will select and/or recommend one (1) or more firm(s) to provide PCSD the services required in this RFP. The committee will then provide this recommendation and cost information to the CM for inclusion in the project.

#### **PROPOSAL**

Product / Design System for baseball/softball and Football/Soccer specific plan	y: 20 Points
Evaluate the proposed system design as it relates to performance for base infrastructure that is or will be provided by the improvements project.	eball / softball and the field
Product Manufacturing:	20 Points
Consider the product manufacturing process, volume, uniformity, testing performance on this "high-use" installation. This section includes performantial manufacturer.	
Quality of Similar Work:	20 Points
Consider previous experience and reference projects listed in the proposin providing services similar to that requested in the RFP and are those proposition that installation, product performance, and support for the turf / system.	· ·
Applicable Resources:	10 Points
Evaluate the capabilities of the manufacturer and installer and the extension (office staff, labor, equipment) available for the project. Has the manufacturer before and can they meet the project program and schedule req	cturer and installer worked
Overall Responsiveness to the RFP.	10 Points
Consider whether all requested information was furnished by the firm in tRFP.	the format required by
Cost Proposal	
Short Listed firms are asked to provide specific product information assoc systems cost proposal. We anticipate a minimum of two price options and	
Cost:	20 Points

### 7. STANDARD TERMS AND CONDITIONS

#### 7.1. TERMINOLOGY/DEFINITIONS

Whenever the following words and expressions appear in this solicitation document or any amendment hereto, the definition or meaning described below shall apply.

Amendment/Addendum means a written, official modification to a solicitation document or to a contract.

<u>Attachment</u> applies to all forms which are included with a solicitation document to incorporate any informational data or requirements related to the performance requirement.

**RFP Opening Date and Time** and similar expressions mean the exact deadline required by the solicitation document for the submission of the RFP.

**Respondent** mean(s) the person, firm, or organization that responds to a solicitation document by submitting a proposal with price to provide the equipment, supplies, and/or services as required in the solicitation document.

<u>Contract</u> means a legal and binding agreement between two or more competent parties for the purchase of equipment, supplies, and/or services.

<u>Contractor</u> means a person, firm, or organization who is a successful respondent as a result of a proposal and who enters into a contract.

**Exhibit** applies to forms which are included with a proposal for the respondent to complete and return with the electronic submission prior to the specified opening date and time.

Request for Proposal (RFP) means the solicitation document issued by PCSD, to potential respondents for the prequalification selection, purchase of equipment, supplies, and/or services as described in the document. This definition includes these Terms and Conditions as well as all Pricing Pages, Exhibits, Attachments, and Amendments thereto.

May means that a certain feature, component, or action is permissible, but not required.

<u>Must</u> means that a certain feature, component, or action is a mandatory condition. Failure to provide or comply will result in a proposal being considered non-responsive and not evaluated any further.

**Shall** has the same meaning as the word <u>must</u> and is an obligation to the condition.

**Should** means that a certain feature, component and/or action is desirable and not mandatory.

#### 7.2. OPEN COMPETITION

It shall be the respondent's responsibility to ask questions, request changes or clarification, or otherwise advise PCSD in writing, if any language, specifications, or requirements of a proposal appear to be ambiguous, contradictory, and/or arbitrary, or appear to inadvertently restrict or limit the requirements stated in the proposal to a single source. Any and all communication from respondents regarding specifications, requirement, competitive RFP process, etc., must be directed to the architect, as indicated on the first page of the proposal. Such communication should be received at least seven (7) calendar days prior to the official RFP opening date.

Every attempt shall be made to ensure that the respondent receives an adequate and prompt response. However, in order to maintain a fair and equitable RFP process, all respondents will be advised, via the issuance of an amendment to the proposal, of any relevant or pertinent information related to the procurement. Therefore, respondents are advised that unless specified elsewhere in the proposal, any questions received by PCSD, less than seven (7) calendar days prior to the proposal opening date may not be answered.

Respondents are cautioned that the only official position of PCSD is that position which is stated in writing and issued by PCSD, in the proposal or an amendment thereto. No other means of communication, whether oral or written, shall be construed as a formal or official response or statement from PCSD.

PCSD reserves the right to officially modify or cancel a solicitation after issuance. Such a modification shall be identified by an <a href="mailto:amendment/addendum">amendment/addendum</a>.

#### 7.3. PREPARATION OF PROPOSAL

Respondents must examine the entire proposal carefully. Failure to do so shall be at respondent's risk.

Unless otherwise specifically stated in the RFP, all specifications and requirements constitute minimum requirements. All proposals must meet or exceed the stated specifications/requirements.

Proposals which do not comply with the requirements and specifications are subject to rejection.

Proposals lacking any written indication of intent to take an exception shall be received and considered to be in complete compliance with the specifications and requirements as listed in the RFP.

If the proposal is accepted, prices shall be firm for the specified contract period.

#### 7.4. SUBMISSION OF PROPOSAL

A sealed proposal must be submitted by a respondent and must: (1) be signed by a duly authorized representative of the respondent's organization; and (2) contain all information required by the RFP. No other method of submitting proposals will be accepted.

A response may be modified or withdrawn prior to the official opening date and time specified. No respondent may submit more than one response.

#### 7.5. PROPOSAL OPENING

Proposal openings are public on the opening date and at the opening time specified on the RFP document.

It is the respondent's responsibility to ensure that the proposal is submitted by the official opening date and time. Late submissions will not be considered regardless of the degree of lateness or the reason related thereto, including causes beyond the control of the respondent.

#### 7.6. EVALUATION/AWARD

Any pricing information submitted by a respondent pursuant to the requirements of the RFP but not reflected on the pricing page shall be subject to evaluation if deemed by PCSD, to be in the best interests of PCSD.

Pre-qualification shall be made to the respondent whose RFP (1) complies with all mandatory specifications and requirements of the proposal and (2) is the best RFP, considering price, responsiveness and responsibility of the respondent, and all other evaluation criteria specified in the RFP.

When evaluating a proposal, PCSD reserves the right to consider relevant information and fact, whether gained from a proposal, from a respondent, from respondent's references, or from any other source.

All submitted proposals and associated documentation shall be subject to the provisions of the Missouri Open Records Act, The Open Records Act does permit limited materials to be protected from disclosure. Generally, protected exceptions are financial information submitted as qualification statements and materials privileged under the rules of evidence. These documents should be properly labeled proprietary or confidential. The technical and cost/pricing response documents should not be labeled proprietary, confidential, or in any other manner to restrict dissemination.

PCSD reserves the right to request written clarification of any portion of the respondent's response in order to verify the intent of the respondent. The respondent is cautioned, however, that respondent's response shall be subject to acceptance without further clarification.

In the event of a discrepancy between the unit price and the extension, the unit price shall prevail.

#### 7.7. CONTRACT/PURCHASE ORDER

By submitting a proposal, the respondent agrees to furnish any and all product, equipment, supplies and/or services specified in the RFP through a negotiated agreement with the CM pursuant to all applicable requirements and specifications contained herein.

#### 7.8. INVOICING AND PAYMENT

Payment for all equipment, supplies, and services shall be made per the terms of the CM between the vendor and the successful bidder.

PCSD and its agencies are exempt from state and local sales and use taxes. Situs of all transactions under the order(s) that shall be derived from the RFP shall be deemed to have been accomplished within the State of Missouri.

#### 7.9. WARRANTY

The contractor expressly warrants that all equipment, supplies, and/or services in accordance with generally accepted industry standards, practices and principles applicable to the work and shall: (1) conform to each and

every specification, drawing, sample or other description which was furnished or adopted by PCSD; (2) be fit and sufficient for the purpose expressed in the RFP; (3) be of good materials and workmanship; and (4) be free from defect. The contractor shall replace a defective product at its own cost.

#### 7.10. NON-DISCRIMINATION IN EMPLOYMENT

In accordance with the State Laws of Missouri, the contractor agrees that:

The contractor shall not discriminate against any person in the performance of work under the present contract because of race, color, sex, religion or creed, age, disability, pregnancy, ancestry or national origin, military status or membership or service in the military;

In all solicitations or advertisements for employees, the contractor shall include the phrase "equal opportunity employer," or a similar phrase to be approved by the Missouri Human Rights Commission ("Commission");

If the contractor fails to comply with the manner in which it reports to the Commission in accordance with the provisions and amendments thereto, the contractor shall be deemed to have breached the present contract and it may be cancelled, terminated or suspended, in whole or in part, by PCSD;

The contractor shall include the provisions of subsections a. through d. (immediately above) in every subcontract or purchase order so that such provisions will be binding upon such subcontractor or vendor.

### 7.11. AMERICANS WITH DISABILITIES ACT

In connection with the furnishing of equipment, supplies, and/or services under the contract, the contractor and all subcontractors shall comply with all applicable requirements and provisions of the Americans with Disabilities Act (ADA).

#### 7.12. HOLD HARMLESS

The contractor agrees to protect, defend, indemnify and hold the PCSD, its officers, employees and agents free and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees or other expenses or liabilities of every kind and character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings or causes of action of every kind and character in connection with or arising directly or indirectly out of the error, omission, recklessness, negligent act or willful misconduct of the contractor (collectively hereinafter "claims"). Without limiting the generality of the foregoing, any and all such claims, relating to personal injury or of any other tangible or intangible personal or administrative order, rule or regulation, or decree of any court, shall be included in the indemnity hereunder. The contractor further agrees to investigate, handle, respond to, provide defense for and defend any such claims at contractor's sole expense and agrees to bear all other costs and expenses related thereto, even if such claim is groundless, false or fraudulent.

#### 7.13. TITLES

Titles of paragraphs used herein are for the purpose of facilitating reference only and shall not be construed to infer a contractual construction of language.

#### 7.14. SURCHARGES

Surcharges (fuel or otherwise) are not allowed under any agreement as a result of this RFP. Any such surcharges are to be included in the contract pricing.

#### 7.15. OBJECTIONS

Any objections or concerns to the RFP language, terms and conditions, scope or other elements of the RFP must be included with the respondent's response. Failure to note such concerns will indicate respondent's acceptance of the same.

#### 7.16. LICENSES AND PERMITS

The contractor shall be, without expense to PCSD, responsible for obtaining any necessary licenses and permits.

### 7.17. CODES AND REGULATIONS

All work within the scope of this RFP shall be completed by the successful respondent to all applicable current prevailing codes and regulations.

### 8. INSTRUCTIONS FOR RESPONDING TO RFP

A proposal must be submitted by a respondent to PCSD and must: (1) be signed by a duly authorized representative of the respondent's organization; and (2) contain all information required by the RFP. No other method of submitting proposals will be accepted.

Product samples (as identified in the "Proposal Checklist") must be delivered or mailed in advance to the Owner listed above and must be received prior to the submission deadline for the RFP. Samples should be clearly marked with the Respondent (Vendor) name and include a product name label as well as the "budget" or "premium" product designation, if the vendor is submitting multiple designs.

It is the Proposer's responsibility to follow the instructions and guidelines and provide appropriate response attachments where requested.

#### Qualifications

Please submit a single PDF including the following items:

- 1. **Cover Letter (2 page maximum):** signed by an authorized representative of the firm committing to provide the synthetic turf services described above.
- 2. **Installer Info (4 page maximum):** provide complete resumes of the Installation person(s) designated by the firm to work on this project, as well as others who may serve as project managers, coordinators, key installers or sports turf specialists.
- 3. **Products / Turf Systems Info (4 page maximum):** provide experience and qualifications of the firm and the designated individuals to provide the products identified for use on the project.
- 4. **Project Product, Turf System Design and installation info (4 page maximum):** Concise description of your understanding of the services and the proposed product(s) and systems you intend to install on the project. Provide a summary of your turf system and installation and explain why PCSD would benefit from selecting your firm and proposed products / systems for this project.
- 5. **Insurance:** Provide proof of product liability insurance.
- 6. Added Value (2 page maximum): describe how your team's level of service and ability distinguishes from others, and articulate how this translates to added value to PCSD.
- 7. Response Time and Draft Schedule: Please provide information about your firm's responsiveness to clients with product installation timeframes, product support and warranty response times that PCSD staff can expect. In addition, please provide a draft schedule of the turf installation assuming an overall project start date of June 24, 2021. The actual schedule will be determined by the CM's project schedule.
- 8. **References** from organizations or municipalities to which you have provided turf product and installation services. Please include phone and email contact information for relevant staff reference. To clarify: this would me the Owner / operator on-site contact who would be familiar with turf installation issues, performance issues, and maintenance / warranty support issues.

#### 9. ATTACHMENTS

Specification Section: 32 2200 INFILL ARTIFICIAL TURF

DRAWINGS: PF1.1 TURF LAYOUT PLAN (Baseball)

TURF LAYOUT PLAN (Middle School)

#### SECTION 32 2200 INFILL ARTIFICIAL TURF - BASEBALL & MULTI-PURPOSE FIELDS

#### **PART 1 - GENERAL**

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Excavation and base drainage Specification 32 2202 Artificial Turf Base.

#### 1.2 SUMMARY

- A. Work included in this Section includes design, procurement, and installation of a new synthetic playing field system as shown on the drawings.
- B. Synthetic Turf work includes, but is not limited to, the following:
  - 1. Complete installation of turf including sewing seams, attachment to perimeter nailer, installation of infill materials, etc. on the high school baseball infield and foul territory and the New Middle School.
  - 2. Complete installation of the non-infill artificial turf in the batting cages at the High School Project.

#### 1.3 SYSTEM DESCRIPTION

- A. General: The gravel base with drainage, perimeter nailer and permanent bases or base anchors will be installed by other contractors.
- B. Components include, but are not limited to:
  - 1. A complete installation of turf including sewing seams, attachment to perimeter nailer, markings, installation of infill materials, etc.
  - 2. Coordination/protection of existing curbs, sidewalks, fences, nets, pads, bases, etc.
  - 3. A resilient infill system, consisting of a mixture of sand and rubber granules.
  - 4. The primary method of attaching turf together will be by sewing. Gluing shall be limited to areas in which sewing is impossible.
  - 5. Maintenance manual.
  - 6. Manufacturers written 8-year turf warranty. Warranty shall be full replacement for lifetime of warranty. (No pro-rated warranties)
  - 7. Striping and seaming shop drawings: Striping plan; layouts as shown on the diagrams included in this section.
  - 8. Supply maintenance equipment.
  - 9. Provide training of field maintenance personnel in proper care maintenance procedures.

#### C. Grading Requirements:

- String Lining and approval of finish grading of surface gravel prior to turf prior to turf installer completion is required. Directions will be given to base contractor relating to areas that need correction.
- 2. Leveling, dragging, and rolling as necessary to smooth the gravel as a result of unrolling, sewing, gluing, inlaying, etc., turf together.

#### 1.4 PROJECT CONDITIONS

A. Site Information: Existing design drawings are based on previous design drawings and limited field measurements. Architect/Owner cannot guarantee subsurface conditions.

Use of Explosives: Use of explosives is not permitted.

- - C. Protection of Persons and Property: Barricade open excavations occurring as part of this Work and post with warning lights.
    - Operate warning lights as recommended by authorities having jurisdiction.
    - Protect structures, utilities and other facilities from damage caused by settlement, lateral 2. movement, undermining, washout, and other hazards created by earthwork operations.
  - D. Existing Benchmarks: Carefully preserve and maintain existing benchmarks, vertical/horizontal control, monuments, property line pipes and pins, and other reference points. If disturbed or destroyed, restore or replace at no additional cost to the Owner.
  - E. Field Measurements: Each bidder is encouraged to visit the site of the Work to verify the existing conditions. No adjustments will be made to the Contract Sum for variations in the existing conditions.
  - F. Environmental Limitations: Do not deliver surfacing material if either ambient air temperature or material temperature is below 32 degrees F.
    - Do not proceed with installation until weather conditions are satisfactory according to the manufacturer's recommendations.

#### 1.5 **SUBMITTALS**

- AIA 305 Contractor qualification statement Contractor shall submit a completed AIA305 Α. form with their bid.
- Submittals required with Bid (One (1) sample from each manufacturer is required. Multiple B. submittals from each bidder is not necessary. FAILURE TO SUBMIT ITEMS BELOW MAY BE CONSIDERED AN INCOMPLETE RESPONSE AND GROUNDS FOR DISQUALIFICATION.
  - The following information from independent testing laboratory:

Property	Test	Value/Description
Fiber Denier (Mono)	ASTM 1907	
Fiber Denier (Slit Film)	ASTM 1907	
Fiber Structure		
Yarn Thickness		
Face Weight	ASTM D5848 or FIFA/ISO 8543	
Tuft Gauge		
Pile Height	ASTM D5848 or FIFA/ISO 8543	
Primary Backing Material		
Secondary Backing		
Total Weight	ASTM D5848 or FIFA/ISO 8543	
Drainage Through Turf	ASTM F1551	
Primary Backing Dimensional Stability		
Backing tear Strength		

Lead Content		
Infill Rubber type		
Infill Rubber size		
Infill Sand Type		
Infill Sand Shape		
Infill Sand Size		
Infill Mix sand/rubber %		
Amount of fiber above infill		
Artificial Weathering (3,000 hrs UVA) Turf Color Change	FIFA/EN ISO 20105-A02	
Artificial Weathering (3,000 hrs UVA) Pile Yarn tensile Strength	FIFA/EN 13864	
Artificial Weathering (3,000 hrs UVA) Infill Color Change	FIFA/EN ISO 20105-A02	
Wear Tolerance (100,000 wear cycles) provide photo.		

Property	Test	Value New	Value after Lisport (20,200) & UV (3000 hrs)
Tuft bind Pull-out, without infill material.	ASTM 1335 or ISO 4919		
Impact attenuation	ASTM 1936		
Shock Absorption	FIFA 04 & 09		
Water Permeability	ASTM F1551		

- 2. Synthetic Turf Rag Sample: 12 inches by 12 inches, Grass color, infield skin color and striping colors.
- 3. Turf manufacturer's non-pro-rated 8 year warranty.
- 4. Contractor Qualifications.
- 5. Installer Qualifications.
- 6. Turf Manufacturer's Qualifications, including but not limited to fiber source, tufting, coating, etc.
- 7. Schedule/Project Approach (narrative).
- 8. Product Data: For each product specified. Include details of construction relative to materials, dimension of individual components.
- 9. Maintenance Manual.
- 10. CLIENT REFERENCES. Provide a list of facility operators that have a working knowledge of the proposed product in terms of installation and maintenance.
- 11. Identify plant location where turf fibers are extruded/manufactured, turf is tufted, coated.
- 12. Identify specific fiber manufacturer for each slit film and/or monofilament.

#### C. Quality Assurance Information:

1. Turf Installer Certificates: Signed by manufacturer certifying that installers comply with specified requirements.

- - Provide a list of a minimum of ten existing installations, completed over the past five years, including contact information, including telephone number, for the owner's representative for each project.
  - D. Product Test Reports: Based on evaluation of tests performed by manufacturer and witnessed by a qualified independent testing agency, indicate compliance of surfacing material with requirements based on comprehensive testing of current systems.
  - E. Environmental: Provide third party material testing confirming that turf and infill rubber meets or exceeds Federal requirements for consumer products safety.
  - F. Samples: Provide samples of the following components (after award of bid):
    - Striping: 6 inch minimum.
    - Sewn Seams: 6 inches minimum. 2.
    - 3. Drainage Aggregate Mixture: 1 quart of each size.
    - Infill Material: 1 quart each.
  - G. Shop Drawings: Show detail of installation, including plans, sections, and interfaces with existing construction.
    - 1. Provide details of all edge conditions for playing surface.
    - 2. Provide dimensioned seaming plan.
    - 3. Provide striping plan. Plan to comply with drawings.
  - Η. Maintenance Instructions: Submit to the Owner three copies of manufacturer's printed instructions for maintenance of installed work, including methods and frequency recommended for maintaining optimum condition under anticipated use conditions. Include precautions against all materials and methods that may be detrimental to finishes and performance.
    - The turf installer/supplier shall provide on-site maintenance training for the Owner's 1. maintenance personnel on how to maintain the field properly for the amount of time as required to fully demonstrate proper field maintenance.
  - Grade Verification: Turf installer will string line finished gravel with Owner and Landscape I. Architect prior to turf installation. Visual inspection and infill depth verification will be conducted by Owner and Landscape Architect after turf installation.
  - Prior to the beginning of installation, the manufacturer/installer of the synthetic turf shall inspect J. the aggregate surface course and supply a Certificate of Acceptance for the purpose of obtaining manufacturer's warranty for the finished synthetic playing surface.

#### 1.6 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner or other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Turf Warranty: Submit written warranty/warranties, executed by the manufacturer and installer agreeing to repair or replace components of synthetic surfacing that fail in materials or workmanship within the specified warranty period. Failures include, but are not limited to, the following:
  - 1. Premature wear and tear.
  - 2. Seam failure, including delamination, raveling, and separation.
  - 3. Degradation of fiber or backing resulting in excessive "shedding" and/or discoloration to the extent that the playing surface is no longer serviceable to maintain, playable, and safe for all levels of participants.
- C. Warranty Period: 8 years from date of Substantial Completion.
  - 1. Warranty will be non pro-rated. Failure in any location on the field at any time during the warranty period shall be cause for the entire field to be replaced or an amount to be determined by the Owner and Supplier.

#### 1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm that complies with the following requirements and is experienced in manufacturing synthetic playing surface materials similar to those indicated for this Project and with a record of successful in-service performance.
  - 1. Assumes responsibility for engineering synthetic playing surface components to comply with performance requirements. This responsibility includes preparation of Shop Drawings and comprehensive analysis by a qualified professional engineer.
  - 2. Has provided synthetic playing surface components for at least 10 athletic fields at the high school level or higher.
  - Has sufficient production capacity to produce required materials without delaying the Work.
  - 4. Turf has been produced by same manufacturer since inception of turf line.
- B. Installer Qualifications: Engage an experienced installer to perform work of this Section who, in the past 5 years, has installed at least 10 synthetic playing field systems similar to that required for this Project and who is acceptable to manufacturer. Installer shall be a member of the American Sports Builders Association and have a Certified Field Builder working on this project.
  - 1. Installer shall provide a 24-hour call back for warranty work and 48-hours for site visit and/or commencement of warranty repairs.
- C. Playing field surface shall be manufactured, located and installed in strict compliance with NFHS, MSHSAA Rules and Regulations for Baseball and Softball.
- D. Pre-Installation Conference: Conduct conference at the job site for coordination of schedule, access, procedures and security with the Owner, Architect, Contractor and other related subcontractors

#### **PART 2 - PRODUCTS**

#### 2.1 Baseball Turf:

- A. Infield: Skinned Area (Brown Color) Product Requirements:
  - 1. Structure: 50 oz. Slit Film/Secondary Fiber (texturized "thatch zone)
  - 2. Slit Film Fiber Denier: 8,000-10,000 minimum, min/max.
  - 3. Secondary Fiber Denier: 4,200 minimum, +/- 5%.
  - 4. Two ends per needle tufting.
  - 5. Yarn Thickness: Minimum 200 microns.
  - 6. Yarn Tensile Strength: 135 N minimum.
  - 7. Tuft Gauge: 3/8-inch minimum, ½" maximum.
  - 8. Pile Height: 1.75 inches.
  - 9. Primary Backing: Two part composite, comprised of both woven and non-woven components, or continuous drainage throughout backing.
  - 10. Primary Backing Weight: 8 oz/square yard minimum.
  - 11. Primary Backing Dimensional Stability: 47.10 N/square meter.
  - 12. Secondary Backing Coating: polyurethane, or proprietary drain through.
  - 13. Secondary Backing Coating Weight: 22 oz/square yard minimum.
  - 14. Total Weight: 80 oz
  - 15. Backing Tear Strength: Grab Tear Strength (X-Y) >250-400 lb.
  - 16. Drainage through Turf: Holes (4" O.C.) or continuous
  - 17. Minimum of 20" per hour with infill in place.
  - 18. Tuft Bind Pull-out without infill: 10 lbs. or 30N
  - 19. Lead Content: below 100 ppm.
- B. Infield: Diamond and Foul Territory (Green Color) and Warning Track (Brown Color) Product Requirements:
  - Structure: 50 oz. Slit Film

- 2. Slit Film Fiber Denier: 8,000-10,000 minimum, min/max.
- 3. Two ends per needle tufting.
- 4. Yarn Thickness: Minimum 200 microns.
- 5. Yarn Tensile Strength: 135 N minimum.
- 6. Tuft Gauge: 3/8-inch minimum, ½" maximum.
- 7. Pile Height: 1.75 inches.
- 8. Primary Backing: Two part composite, comprised of both woven and non-woven components, or continuous drainage throughout backing.
- 9. Primary Backing Weight: 8 oz/square yard minimum.
- 10. Primary Backing Dimensional Stability: 47.10 N/square meter.
- 11. Secondary Backing Coating: polyurethane, or proprietary drain through.
- 12. Secondary Backing Coating Weight: 22 oz/square yard minimum.
- 13. Total Weight: 80 oz
- 14. Backing Tear Strength: Grab Tear Strength (X-Y) >250-400 lb.
- 15. Drainage through Turf: Holes (4" O.C. min.) or continuous
- 16. Minimum of 20" per hour with infill in place.
- 17. Tuft Bind Pull-out without infill: 10 lbs. or 30N
- 18. Lead Content: below 100 ppm.

#### 2.2 Batting Cage Turf:

- A. Batting Cage (Green Color) Product Requirements:
  - Structure: 40 oz. Polyethylene Slit Film and Texturized Nylon.
  - 2. Fiber Denier: 9,400 Combined.
  - 3. Primary Fiber Denier: 5,040 minimum, +/- 5%. 1 End/needle.
  - 4. Secondary Fiber Denier: 4,400 minimum, +/- 5%. 8 Ends/needle.
  - 5. Yarn Thickness: Minimum 200 microns.
  - 6. Yarn Tensile Strength: 135 N minimum.
  - 7. Tuft Gauge: 1/4-inch.
  - 8. Stitch Rate: 13.5 per 3"
  - 9. Pile Height: 0.75 inches.
  - Primary Backing: Dual layered woven polypropylene material, Armorloc<sup>TM</sup>3L.
  - 11. Coating: Silverback 20 oz./square yard minimum
  - 12. Primary Backing Weight: 7.0 oz/square yard minimum.
  - 13. Primary Backing Dimensional Stability: 47.10 N/square meter.
  - 14. Secondary Backing Coating: polyurethane
  - 15. Secondary Backing Coating Weight: 67 oz/square yard minimum.
  - 16. Backing Tear Strength: Grab Tear Strength (X-Y) >200 lb.
  - 17. Tuft Bind Pull-out without infill: 8 lbs. or 30N
  - 18. Lead Content: below 50 ppm.
  - 19. Roll Width: 12'-0"-15'-0".

#### 2.3 Football/Soccer Turf:

- A. Turf Product Requirements (Multi-Use Alternative 1):
  - 1. Structure: 46 oz. Dual Slit Film, blend turf fiber.
  - 2. Slit Film Fiber Denier: 5,000-8,000 min/max.
  - 3. Two ends per needle tufting preferred.
  - 4. Yarn Thickness: Minimum 100 microns. (slit film)
  - 5. Yarn Tensile Strength: 135 N minimum.
  - 6. Tuft Gauge: 1/4-inch minimum, ½" maximum.
  - 7. Pile Height: 2-1/4 inches.
  - 8. Primary Backing: Two part composite, comprised of both woven and non-woven components.
  - 9. Primary Backing Weight: 7.5 oz/square yard minimum.
  - 10. Primary Backing Dimensional Stability: 47.10 N/square meter.
  - 11. Secondary Backing Coating: polyurethane, or proprietary drain through.
  - 12. Secondary Backing Coating Weight: 20 oz/square yard minimum.
  - 13. Backing Tear Strength: Grab Tear Strength (X-Y) >200 lb.

- - Drainage through Turf: Holes (4" O.C. min.). Minimum of 20" per hour with infill in place.
  - Tuft Bind Pull-out without infill: 10 lbs. or 30N 15.
  - 16. Lead Content: below 100 ppm.
  - B. Turf Product Requirements (Multi-Use Alternative 2):
    - Structure: Minimum 46 oz. Slit Film & Three dimensional monofilament, blend turf fiber.
    - Monofilament Fiber Denier: 7,200-10,800 dtex min/max. 2.
    - 3. Slit Film Fiber Denier: 5,000-8,000 min/max.
    - 4. Two ends per needle tufting preferred.
    - 5. Yarn Thickness: Minimum 210 microns. (monofilament)
    - 6. Yarn Thickness: Minimum 100 microns. (slit film)
    - 7. Yarn Tensile Strength: 135 N minimum.
    - 8. Tuft Gauge: 1/4-inch minimum, ½" maximum.
    - 9. Pile Height: 2 inches.
    - Two part composite, comprised of both woven and non-woven 10. Primary Backing: components.
    - 11. Primary Backing Weight: 8 oz/square yard minimum.
    - Primary Backing Dimensional Stability: 47.10 N/square meter. 12.
    - Secondary Backing Coating: polyurethane, or proprietary drain through. 13.
    - Secondary Backing Coating Weight: 22 oz/square yard minimum. 14.
    - 15. Backing Tear Strength: Grab Tear Strength (X-Y) >250-400 lb.
    - Drainage through Turf: Holes (4" O.C. min.). Minimum of 20" per hour with infill in place. 16.
    - Tuft Bind Pull-out without infill: 10 lbs. or 30N 17.
    - 18. Lead Content: below 100 ppm.

#### 2.4 **SYSTEM COMPONENTS**

- A. Fiber: Slit Film fibers with proprietary (per manufacturer) blade shape for improved dimensional memory that resists matting, tufted into a permeable multiple-layered primary backing with a secondary backing.
  - 1. Surfacing material shall have qualities including, but not limited to, the following:
    - Resistance to insect, vermin, rot, mildew, fungus growth.
    - Non-toxic components. b.
    - Traction with conventional athletic shoes, without cleats. C.
    - Stabilized to resist the effects of ultraviolet degradation. d.
- B. Carpet rolls shall be 15' wide rolls.
  - 1. Rolls shall be long enough to go from sideline to sideline without splicing.
  - 2. Lines shall be 4" wide and tufted into each roll.
- C. Infill materials shall be approved by the manufacturer.
  - 1. Sand (70% on infield and outfield, 90% on warning track):
    - Siliceous (95%) washed and dried. а
    - Round grain shape. b.
    - Size: 0.5-1.8 mm. C.
  - 2. Rubber (30% on infield and outfield, 10% on warning track):
    - Provide 100 percent ambient SBR ground rubber pellets. a.
    - No evidence of metal fragments. b.
    - Size: 0.5-2.0 mm. (1% less than 0.5 mm).
  - 3. Fine Tuning material:
    - Provide additional sand and/or rubber to achieve playing characteristics suitable to Owner and Field Architect. It is the intention that ground balls and fly balls will be hit to study the "bounce" and "roll" characteristics of both infield and outfield turf to determine suitability for play.

#### D. Seams

- 1. All seams between rolls of turf are to be sewn. Thread for sewing seams of turf shall be as recommended by the synthetic turf manufacturer.
- Adhesive shall be Nordot Outdoor Adhesive as appropriate for backing and temperature or approved equal.

#### 2.5 SPECIAL MAINTENANCE EQUIPMENT

- A. General: Provide special materials, tools, and equipment, as recommended by the synthetic material manufacturer, required for maintenance of the playing surface based on the conditions of the manufacturer's warranty. Include training for Owners maintenance personnel. Provide the following field grooming equipment or approved equal:
  - Redexim Base Rake (Groomer),
  - 2. Redexim Speed Clean Sweeper (Sweeper), and
  - 3. Tow behind magnet attachment (or approved equal).

Provide tow hitch package for pull behind utility vehicle. Equipment must include electric motor for raising and lowering device. Equipment to have static brushes and rotating brushes to lift debris into catchment/sieve compartment and re-distribute infill into turf. Equipment must be manufactured specifically for artificial turf installations.

#### 2.6 FIELD MARKINGS

- A. General: Field markings shall be as indicated on the Drawings or to NFHS & MSHSAA standards.
- B. Markings, including perimeter lines shall be tufted into the playing surface using polypropylene fibers.
  - 1. Colors:
    - Foul Lines and Batters Boxes: White
  - 2. Width:

Foul Lines and batters boxes: 4 inches

- 3. Logos:
  - a. Owner may request pricing for field logos at a later date.
  - b. Logo pricing shall be negotiated, if applicable
  - c. Owner will provide Original Graphics and Colors.

#### **QUALITY CONTROL IN MANUFACTURING**

- C. Prior to delivery of turf rolls to site, remove 1 square foot sample from every one of ten rolls, document roll that sample came from and where roll is placed in the field and send to an independent testing laboratory to test for physical properties of turf fiber and fabric (weights, lengths, thickness, material type, turf pull out). Similar testing shall be conducted for inlaid colors of turf, including white hash marks, etc. Submit schedule of testing to architect after award of bid.
- D. Submit results to Architect prior to shipping materials to site. Shipping prior to test result verification is at the turf manufacturer's risk. In no event shall turf be installed on field prior to verification of test results.
- E. A certified coating inspector employed by the turf manufacturer shall be on site at all times to ensure that the coating is applied properly.
- F. The manufacturer shall own and operate its own manufacturing plant in North America.
- G. The manufacturer shall have full-time certified in-house inspectors at their manufacturing plant that are experts with industry standards.

- - H. The manufacturer's full-time in-house certified inspectors shall perform pre-tufting fiber testing on tensile strength, elongation, tenacity, denier, shrinkage, and twist i.e., turns per inch, upon receipt of fiber spools from fiber manufacturer.
  - I. Primary backing shall be inspected by the manufacturer's full-time certified in-house inspectors before tufting begins.
  - J. The manufacturer's full-time in-house certified inspectors shall verify "pick count" yarn density in relation to the backing, to ensure the accurate amount of face yarn per square inch.
  - K. The manufacturer's full-time, in-house, certified inspectors shall perform turf inspections at all levels of production including during the tufting process and at the final stages before the turf is loaded onto the truck for delivery.
  - L. The manufacturer shall have its own, in-house laboratory where samples of turf are retained and analyzed, based on standard industry tests, performed by full-time, in-house, certified inspectors.

#### 2.7 SUSTAINABILITY STRATEGY

- A. Provide a description of construction methods designed to minimize waste during the construction process.
- B. Provide a description of the recycle/re-use strategy for the end of the life cycle of the turf being installed.

#### **PART 3 - EXECUTION**

#### 3.1 **CONSTRUCTION LAYOUT**

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, relative to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
  - 1. Establish benchmarks and control points to set lines and levels as necessary to locate each element of Project.
  - 2. Establish dimensions within tolerance indicated. Do not scale Drawings to obtain required dimensions.
  - 3. Inform installers of lines and levels to which they must comply.
  - 4. Check the location and level of every major element as the Work progresses.
  - 5. Notify Architect when deviations from required lines and level exceed allowable tolerance.
  - Close site surveys with an error closure equal to or less than the standard established by 6. authorities having jurisdiction.
- C. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

#### SYNTHETIC TURF INSTALLATION 3.2

- A. Examine substrates, areas, and conditions where playing surface will be installed, with Installer present, for compliance with requirements for conditions affecting performance of installed playing surface.
  - 1. Verify that substrates for placing playing surface are dry, clean and well-compacted.
  - Verify that installation of grounds, anchors, recessed frames and covers, electrical and 2. mechanical units of work, and similar items located under playing surface has been completed before installing drainage tile.
  - 3. Verify that irregularities in substrates will not adversely affect installed playing surface.

- Verify ambient temperatures are in compliance with manufacturer's recommendations for installation.
- Do not proceed with installation until unsatisfactory conditions have been corrected. B.
- C. Over subgrade and filter fabric, install synthetic turf in accordance with manufacturer's written instructions. Seams shall be sewn with thread specifically made for the turf materials according to manufacturer's recommendations for installation. Glued seams are unacceptable.
- D. Fasten synthetic turf to 1-1/2-inch nailer around perimeter of field with corrosion-resistant mechanical anchors (staples), per manufacturer's recommendations.
- E. Designs, markings, layouts, and materials shall conform to all currently applicable National Collegiate Athletic Association, NFHSA, MSHSAA, rules, and/or other rules or standards that may apply to this type of synthetic grass installation. Designs, markings and layouts shall first be approved by the Architect or Owner in the form of final shop drawings. All markings will be installation full compliance with final shop drawings.
- F. Carpet rolls shall be installed directly over the properly prepared aggregate base. Extreme care shall be taken to avoid disturbing the aggregate base, both in regard to compaction and planarity.
  - 1. Repair and properly compact any disturbed areas of the aggregate base as recommended by manufacturer
  - 2. Full width rolls shall be laid out across the field.
  - Turf shall be of sufficient length to permit full cross-field installation from sideline to 3.
  - No head or cross seams will be allowed in the main playing area. 4.
  - Each roll shall be attached to the next roll utilizing standard state-of-the-art sewing 5.
  - 6. When all of the rolls of the playing surface have been installed, the sideline areas shall be installed at right angles to the playing Field.
  - 7. Artificial turf panel seams shall be sewn. Seams secured by other means including gluing are unacceptable.
  - Minimum gluing will only be permitted to repair problem areas, corner completions, or as 8. required by the specifications.
  - All seams shall be sewn using top or butt stitches and polyester thread or, in the case of 9. seams that are impossible to sew, adhered using seaming tape and high grade adhesive (per the manufacturer's standard procedures).
  - 10. Seams shall be flat, tight, and permanent with no separation or fraying.

#### 3.3 FIELD QUALITY CONTROL

- Α. Testing Agency: Contractor shall engage a qualified independent testing agency to perform field quality-control testing.
- B. Testing agency shall inspect and test the following:
  - Surface performance requirements. 1.
  - 2. Surface impact and shock absorbency according to ASTM F 1936 and ASTM F 355.
- C. Proceed with subsequent work only after test results for previously completed work comply with requirements.

#### TURF QUALITY CONTROL TESTING 3.4

- Prior to delivery of turf rolls to site, remove 1 square foot sample from every one of five rolls, Α. document roll that sample came from and where roll is placed in the field and test for physical properties of turf fiber and fabric (weights, lengths, thickness, material type, turf pull out).
- Submit results to Architect prior to shipping materials to site. Shipping prior to test result B. verification is at the turf manufacturer's risk. Turf shall not be installed on field prior to verification of test results.

#### 3.5 WARRANTY MAINTENANCE

- A. As a condition of the warranty, Contractor shall review the condition of the playing surface on a yearly basis, including but not limited to high wear areas, seams, inlays, and infill depth through the warranty period. Contractor shall also evaluate Owner's maintenance protocols and make any recommendations in writing.
- B. Testing Agency: Contractor shall engage a qualified independent testing and inspecting agency to perform tests and inspections throughout the duration of the warranty, and to prepare test reports, to ensure satisfactory performance.

#### 3.6 G-MAX TESTING:

- A. At Substantial Completion, hire an independent testing agency to perform G-Max test (ASTM 355, 1936 method) to verify that the shock attenuation properties of the field meet the requirements set forth in this specification. Submit test results in PDF format, to the Owner.
- B. The Owner reserves the right to have the field tested at its own cost at anytime. If at anytime during the warranty period, the G-Max reaches unacceptable levels, it is the responsibility of the turf contractor to bring the field back into the required ranges at no cost to the Owner.

#### 3.7 MAINTENANCE INSTRUCTIONS AND TRAINING

- A. Submit three copies of manufacturer's printed instructions for maintenance of installed work, including methods and frequency recommended for maintaining optimum condition under anticipated use conditions. Include precautions against all materials and methods that may be detrimental to finishes and performance.
- B. Turf installer/supplier shall provide on-site maintenance training for the Owner's maintenance personnel on how to maintain the field properly.
- **3.8 RECORD DRAWINGS:** Provide as-constructed drawings illustrating locations and depths of all drainage pipe, conduit, etc.

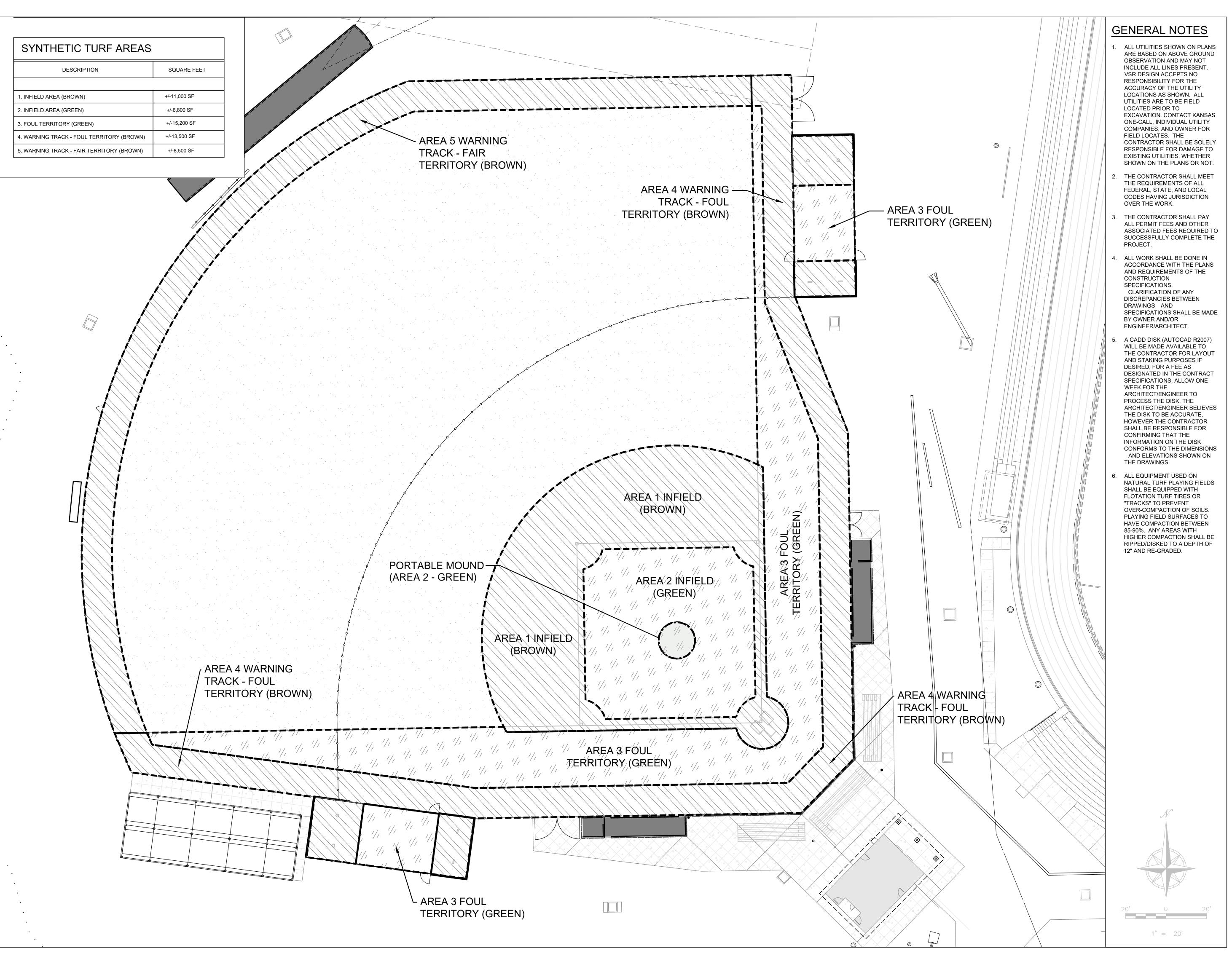
#### 3.9 MATERIAL LEAVE BEHIND:

- A. Turf Groomer/Sweeper/Magnet
- B. One super sack of crumb rubber.
- C. 2 tons of infill sand.
- D. 50 LF each striping color.
- E. 15' x 30' piece of green turf.
- F. 15' x 30' piece of infield skin color of turf.
- G. 100 LF seam tape.
- H. 1 pail of adhesive.
- I. 2 tubes of adhesive.
- J. Replacement Turf: 8 sets of turf for both batters boxes (16 per field), and catchers box (8 per field).

#### 3.10 CLEANING AND PROTECTING

- A. Cleaning: Upon completion of installation, clean all playing surfaces so they are free of foreign matter.
- B. Provide final protection and maintain conditions in a manner acceptable to manufacturer and installer that ensure playing surface is without damage or deterioration at the time of Substantial Completion.

#### **END OF SECTION 32 2200**





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### Licensed Landscape Architect VANCE RZEPKA

License

# Cert. of Authority

PLATTE COUNTY **HIGH SCHOOL ADDITIONS:** PACKAGE 1 - SITE & STRUCTURE

# 1501 BRANCH STREET PLATTE CITY, MO 64079

# Project Phase 100% CDs: PACKAGE 2

**Project Number** 

Issue Date

20-108

05/28/2021

Revision No.

Area Plan

TURF DIAGRAM

**PF 0.1** 

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