

COLLEGE OF  

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**MARIN**

**Kentfield Campus  
Synthetic Turf Installation Project  
#16/17 – MB12**

**Request for Proposals  
For  
Synthetic Turf  
thru California Multiple Award Schedule Method (or acceptable alternative  
public procurement method)**

**Proposals Due May 11, 2017**

**Marin Community College District  
Synthetic Turf Installation Project  
at  
College of Marin – Kentfield Campus**

**Request for Proposals  
For  
Synthetic Turf  
thru California Multiple Award Schedule Method (or acceptable alternative public procurement  
method)**

The purpose of this request is to receive comprehensive proposals from synthetic turf companies to supply and install new synthetic turf at the five identified areas at the College of Marin – Fairfield Campus. Included in this proposal shall be minor fine tuning / leveling of the rock as needed to correct any imperfections created in the base during the turf products installation. The proposal shall include the turf and all work associated with the turf installation and as outlined in this RFP document.

Included in the project contract shall be an annual maintenance contract as outlined in this RFP document that shall be in effort for the full duration of the comprehensive eight year warranty for each turf area.

The five turf areas are the following quantities:

- Baseball Field (including bullpen areas): 139,035 square feet
- Baseball Batting Cage: 3,146 square feet
- Soccer / Lacrosse Field (including D-zone area at south end of track): 94,105 square feet
- Futsol / Warm-up area: 8,325 square feet
- Areas to west and east of Physical Education Center building: 3,515 square feet

Turf Company respondents are responsible for verifying final quantities.

The selected Turf Company will be required to adequately protect the areas outside the replacement turf areas (i.e. existing all-weather track surfacing, miscellaneous paving, fencing, gates, etc.) such that no damage occurs to areas not included in the project improvements.

The project will generally include the following work:

1. Supply and installation of selected turf product, including NCAA compliant permanent markings as noted for baseball and for soccer, as well as identified other field markings as noted on the drawings.
2. Minor fine tuning and leveling of the field base as needed to correct any minor imperfections created during the turf installation operations. Turf Company shall exercise not extensive compacting or overworking of the base material. Intent is just to smooth out any identified inconsistencies in the grade due to operations related to the installation of the new turf product.
3. All field areas are to receive a 0.5 inch thick shock pad. Refer to specifications.
4. The project may include some incidental services and work that may be considered "routine maintenance repairs," including some of the work required to install the new field surface.
5. All annual field maintenance, inspection and testing as noted in this proposal document.
6. Refer to the synthetic turf specifications for additional information.

The Turf Company shall be responsible for walking the project site if deemed necessary prior to submitting a proposal to ensure they have an accurate understanding of the existing conditions and the scope of the project.

Each respondent shall have a current California Multiple Award Schedule (CMAS) contract (or equivalent acceptable public procurement vehicle) for the product(s) it offers in its proposal. The District intends to contract directly with the turf company based on that turf company's CMAS contract and to negotiate an acceptable price with the selected turf company, based on the proposal packages submitted by the prequalified turf companies.

Submit proposal pricing electronically to Greg Nelson at the following email address:

[GNelson@marin.edu](mailto:GNelson@marin.edu)

Proposals must be received no later than **3:00 p.m. PST on Thursday May 11, 2017**. This RFP is not a request for bids or an offer by the District to contract with any party responding to this RFP. In addition, no reimbursement for expenses incurred or time spent will be made. All submittals and information contained therein provided at an interview or in the proposal package shall become the property of the District.

Any questions shall be sent to Greg Nelson via email. In addition, the required physical samples outlined in this RFP shall be mailed to Greg Nelson at the following address:

Greg Nelson  
Vice President of Finance & College Operations  
Marin Community College District  
1800 Ignacio Blvd.  
Novato, CA 94949

Please provide detailed information for each item in the Synthetic Turf Selection Criteria table which is included in this document. The District may base its selection on those criteria, as well as the following relevant criteria:

1. Price
2. Corporate Financials
3. Materials Proposed
4. Experience
  - a. With proposed product
  - b. Crew installation
  - c. Local installations
5. Warranty
6. Customer Service
7. Other criteria deemed pertinent by the District

#### **PROJECT SCHEDULE**

Below is the anticipated project schedule. **The District may assess liquidated damages of \$500.00 (hundred dollars) per calendar day for late completion of any of the project work, including corrective work. See list below for sequence of work.**

- Notice to Proceed – anticipated to be **May 18, 2017**
- Turf Material Delivery (staging area to be provided by District) – Completed by **July 7, 2017**
- Turf product Installation – Soccer / Lacrosse Field Area – Completed by **August 30, 2017**
- Turf product Installation – Baseball Field Areas (including batting cage area) – Completed by **September 15, 2017**
- Turf product Installation – Auxilliary Turf Areas – Completed by **August 15, 2017**

Turf Company shall utilize the necessary staffing to concurrently install the fields at each site in order to meet the above deadline.

**PROPOSAL SUBMITTAL**

Included in the proposal package shall be the following information:

1. Proposed product and pricing on completed Proposal Form, including a copy of the company's complete CMAS contract, including, without limitation:
  - a. Cover page with Department of General Services (DGS) logo and CMAS analyst's signature.
  - b. California Ordering Instructions and Special Provisions.
  - c. California CMAS Terms and Conditions.
  - d. Payee Data Record (Std. 204)
2. Two complete physical sample, each a minimum of 8" x 11" in size, consisting of the exact proposed and submitted turf system. Submit one sample for each color specified. In addition, submit two loose samples (one foot squares) of the proposed and submitted turf backing and tufted fibers, and two sets of one ziplock sandwich bag samples of the following:
  - a. Specified Infills (each specific material to be separately bagged)

**Marin Community College District  
Synthetic Turf Installation Project  
Proposal Form**

At time of the proposal, the following form needs to be filled in and returned with other requested materials. A unit price for the fields shall be used to determine final price. Proposal shall be all-inclusive of all taxes, fees, etc. All work shall include existing turf removal and new turf installation on the permeable base, and all work shall carry worker's compensation and prevailing wage rates. **The Turf Company may submit multiple products provided each meet the minimum product requirements. Each product shall have its own proposal form and associated documents.**

The contract with the Turf Company shall be with Marin Community College District.

**Turf Field Area #1 (Baseball Field)**

**Submitted Turf Product Names:** \_\_\_\_\_

**Proposed Total Amount:** \$ \_\_\_\_\_  
(Total price including product, taxes, delivery and installation of ALL product identified, including field prep and fine tuning, turf, including all field striping and markings):

**Proposed Turf Unit Price Per Square Foot Amount:** \$ \_\_\_\_\_  
(Total price including product, taxes, delivery and installation of ALL product identified, including field base fine tuning, turf, including all field striping and markings):

**Turf Field Area #2 (Baseball Batting Cage)**

**Submitted Turf Product Name:** \_\_\_\_\_

**Proposed Total Amount:** \$ \_\_\_\_\_  
(Total price including product, taxes, delivery and installation of ALL product identified, including field prep and fine tuning, turf, including all field striping and markings):

**Proposed Turf Unit Price Per Square Foot Amount:** \$ \_\_\_\_\_  
(Total price including product, taxes, delivery and installation of ALL product identified, including field base fine tuning, turf, including all field striping and markings):

**Turf Field Area #3 (Futsal / Warm up Field)**

**Submitted Turf Product Name:** \_\_\_\_\_

**Proposed Total Amount:** \$ \_\_\_\_\_

(Total price including product, taxes, delivery and installation of ALL product identified, including field prep and fine tuning, turf, including all field striping and markings):

**Proposed Turf Unit Price Per Square Foot Amount:** \$ \_\_\_\_\_

(Total price including product, taxes, delivery and installation of ALL product identified, including field base fine tuning, turf, including all field striping and markings):

**Turf Field Area #4 (Soccer/Lacrosse Field inside track)**

**Submitted Turf Product Name:** \_\_\_\_\_

**Proposed Total Amount:** \$ \_\_\_\_\_

(Total price including product, taxes, delivery and installation of ALL product identified, including field prep and fine tuning, turf, including all field striping and markings):

**Proposed Turf Unit Price Per Square Foot Amount:** \$ \_\_\_\_\_

(Total price including product, taxes, delivery and installation of ALL product identified, including field base fine tuning, turf, including all field striping and markings):

**Turf Field Area #5 (PE Turf on east and west of PE center)**

**Submitted Turf Product Name:** \_\_\_\_\_

**Proposed Total Amount:** \$ \_\_\_\_\_

(Total price including product, taxes, delivery and installation of ALL product identified, including field prep and fine tuning, turf, including all field striping and markings):

**Proposed Turf Unit Price Per Square Foot Amount:** \$ \_\_\_\_\_

(Total price including product, taxes, delivery and installation of ALL product identified, including field base fine tuning, turf, including all field striping and markings):

**Maintenance Service Contract (Lump Sum, all five field areas, duration of warranty contract)**

**Proposed Total Amount:** \$ \_\_\_\_\_

## WARRANTY REQUIREMENTS

At time of proposal submission, the Turf Company shall submit its Manufacturer's Warranty which guarantees the usability and playability of the synthetic turf system for its intended uses for a minimum eight (8) year period commencing with the date of Notice of Completion. Intended uses include, but are not limited to the sports receiving permanent striping, including physical education, games and practice, summer camps, etc.).

The warranty submitted must have the following characteristics:

1. Be a non-prorated, non-cancellable up-front pre-paid, third-party insured warranty. Warranty shall be covered by a third party insurance policy, non-cancelable and pre-paid, and is in effect covering this installation, and underwritten by a Best "A" Rated (or better) Insurance Carrier listed in the A.M. Best Key Rating Guide. Draft project specific warranty document to be provided for review by the District within ten (10) days after award of contract.
2. Insurance carrier must confirm that the policy is in force and premiums prepaid for entire warranty duration in full.
3. The policy must include a minimum annual aggregate of \$10,000,000 per year and be based on claims arising from fields installed and completed only during the policy year.
4. The policy must provide full coverage for eight (8) years (minimum) from the date of Notice of Completion.
5. The policy shall cover all costs associated with full field replacement with new equal or better turf material, including labor, materials and any other costs to repair or replace the field.
6. District shall not be responsible for any deductible.
7. Warranty shall have no restrictions on hourly use limitations as long as the primary athletic use on the field is as anticipated in the original design.
8. Must warrant materials and workmanship, and that the materials installed meet or exceed the product specifications, including general wear and damage caused from UV degradation.
9. Must have a provision to either make a cash refund or repair or replace such portions of the installed materials that are no longer serviceable to maintain a serviceable and playable surface.
10. Must be a warranty from a single source covering workmanship and all self-manufactured or procured materials.
11. Guarantee the availability of replacement material for the synthetic turf system installed for the full warranty period.
12. Turf must maintain an ASTM F355 G-Max of less than 160 for the life of the warranty.
13. The Turf Company must verify that its onsite representative has inspected the installation and that the work conforms to the Manufacturer's requirements. The Manufacturer will submit written certification that the policy is in effect, fully funded and that the installation is added to the policy upon completion and acceptance.
14. The warranty shall be made out to Marin Community College District.

SECTION 32 18 13

**SYNTHETIC TURF PLAYING FIELD**

**PART 1 GENERAL**

1.01 SCOPE OF WORK

- A. It shall be the responsibility of the successful turf contractor to provide all labor, materials, equipment and tools necessary for the complete installation of a synthetic grass material, The system shall consist of, but not necessarily be limited to, the following:
  - 1. A complete synthetic grass system consisting of varying height and product for turf area 1 (baseball field).
  - 2. A complete synthetic grass system consisting of 2.0 inch (50 mm) tall polyethylene fiber for turf areas 2, 3, 4, and 5.
  - 3. A resilient infill system, consisting of sand and non-SBR rubber as specified in this section. The infill shall be filled so that there is a void of no greater than  $\frac{3}{4}$ " to the top of the fiber.

1.02 JOB CONDITIONS

- A. Contractor shall be responsible for reviewing the base and ensuring it conforms to the project requirements prior to placement of the synthetic turf.
- B. Playing field subgrade preparation shall be completed and accepted by the Owner's Representative prior to commencement of Work under this Section.

1.03 REFERENCES

- A. ASTM Standard Test Methods:
  - 1. D1335 - Standard Test Method for Tuft Bind of Pile Yarn Floor Coverings
  - 2. D1577 - Standard Test Method for Linear Density of Textile Fiber
  - 3. D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering
  - 4. D4491 - Standard Test Methods for Water Permeability of Geotextiles by Permittivity
  - 5. D5034 - Standard Test Method of Breaking Strength and Elongation of Textile Fabrics (Grab Test)
  - 6. D5848 - Standard Test Method for Mass Per Unit Area of Pile Yarn Floor Covering
  - 7. F355 - Standard Test Method for Shock-Absorbing Properties of Playing Surfaces.
  - 8. F1015 - Standard Test Method for Relative Abrasiveness of Synthetic Turf Playing Surfaces
  - 9. F1936 - Standard Test Method for Shock-Absorbing Properties of North American Football Field Playing Systems as Measured in the Field
- B. Current NCAA baseball and soccer rules, as applicable.



#### 1.04 TURF QUALIFICATIONS

- A. The contractor shall be required to submit information from the synthetic turf installer and/or manufacturer as required in Section 01 33 00 that complies with the following:
  - 1. The turf company and the synthetic turf contractor must provide competent workmen skilled in this specific type of synthetic turf installation. The designated Supervisory personnel on the project must be certified as competent in the installation of this material, including sewing seams and proper installation of the infill mixture. The manufacturer shall have a representative on site to certify the installation and warranty compliance.
  - 2. All designs, markings, layouts, and materials shall conform to all current standards as specified that may apply to this type of synthetic turf installation.
  - 3. The foreman installing the synthetic turf must have installed at least twenty (20) fields in the last three (3) years of the specified material.
  - 4. The Turf Company must provide competent workmen, skilled in this specific type of in-filled synthetic grass installation. The designated supervisory personnel on the project must be certified in writing by the turf manufacturer as competent in the installation of this material, including sewing seams and proper installation of the infill mixture. The manufacturer shall have a representative on site to certify the installation and warranty compliance.
  - 5. The Turf Company must have certified and exclusive company crews and may not use outside, independent contractors for the installation.
  - 6. The Turf Company must possess an active California D-12 Synthetic Products license in good standing, and have never had a license revoked.
  - 7. The Turf Company must not have had a Surety or Bonding Company finish work on any contract within the last five (5) years.
  - 8. The Turf Company must not have been disqualified or barred from performing work for any public owner or other contracting entity in the U.S.
  - 9. Turf Company must be an actual manufacturer of synthetic turf, not a reseller. Turf manufacturer must own its manufacturing plant in the U.S. and be able to control its production 100%, including fiber extrusion, coating, lead time and quality control.
  - 10. Must have of ISO 9001, ISO 14001 and OHSAS 18001 certifications.
  - 11. Must have a minimum \$50,000,000 bonding capacity.
  - 12. Must provide a published independent safety study that was done on companies turf system.
  - 13. Turf Company must provide a third party tuft bind certification confirming minimum requirement of 9 lbs tuft bind.

#### 1.05 SUBMITTALS

- A. Submit manufacturer's installation instructions.
- B. The turf manufacturer shall submit a project specific letter on the company letterhead certifying that the products of this section meet or exceed all specified requirements, and state that the installer has complied with the qualifications above and is certified by the manufacturer to install this type of synthetic turf.
- C. Submit Drawings for:
  - 1. Seaming plan.
  - 2. Installation details; edge detail, utility box detail, etc.

3. Field Layout and Striping Plan (including field colors), including field line layouts (including colors), etc.
  4. The Turf Manufacturer shall submit color samples for approval for all color and/or logo work, including final electronic versions of artwork.
- D. Certified copies of independent (third-party) laboratory reports on ASTM tests as follows:
1. Pile Height, Face Width & Total Fabric Weight, ASTM D5848
  2. Primary & Secondary Backing Weights, ASTM D5848
  3. Tuft Bind, ASTM D1335
  4. Grab Tear Strength, ASTM D5034
  5. Water Permeability, ASTM D1551
  6. Flame Resistance, ASTM F1551
  7. Tuft Yarn Tensile Strength and Elongation, ASTM D2256
- E. Submit a copy of the 8-year (minimum), prepaid, non-prorated, third-party insured warranty and insurance policy information.

#### 1.06 WARRANTY

- A. The Turf Company shall submit its Manufacturer's Warranty which guarantees the usability and playability of the synthetic turf system for its intended uses for a minimum eight (8) year period commencing with the date of Substantial Completion. The warranty coverage shall not be prorated nor limited to the amount of the usage.
- B. The warranty submitted must have the following characteristics:
1. Pre-Paid 8-year insured warranty and is in effect covering this installation, and underwritten by a Best "A" Rated (or better) Insurance Carrier listed in the A.M. Best Key Rating Guide. The policy must provide full coverage for eight (8) years (minimum) from the date of Notice of Completion.
  2. Insured Warranty coverage must be provided in the form of one (1) single policy.
  3. No maximum per claim coverage amount.
  4. Minimum of thirty-million dollar (\$30,000,000) annual aggregate and be based on claims arising from fields installed and completed only during the policy year
  5. Policies that include self insurance or self retention clauses shall not be considered.
  6. Policy cannot include any form of deductible amount.
  7. Sample policy must be provided at time of bid to prove that policy is in force. A letter from an agent or a sample Certificate of Insurance will not be acceptable.
  8. The policy shall cover all costs associated with full field replacement with new equal or better turf material, including labor, materials and any other costs to repair or replace the field and will include removal and disposal of the existing surface.
  9. Owner shall not be responsible for any deductible.
  10. Must warrant materials and workmanship, and that the materials installed meet or exceed the product specifications, including general wear and damage caused from UV degradation.
  11. Must have a provision to either make a cash refund or repair or replace such portions of the installed materials that are no longer serviceable to maintain a serviceable and playable surface.
  12. If a synthetic base drainage system is utilized, the manufacturer of that product must warranty their system for eight years for the repair and or replacement of the turf in the event that the synthetic base fails.

13. Turf must maintain an ASTM F355 G-Max of less than 160 for the life of the warranty.

1.07 MAINTENANCE SERVICE CONTRACT

- A. Turf contractor shall provide one maintenance service visit per year for the first three years of the 8 year warranty, then semi-annual visits for the remaining five years of the warranty period as part of this proposal. Each of the five turf areas shall be covered by this service contract. Each maintenance service visit shall include the following:
  1. One (1) SMG Sportchamp grooming session (area #5 on either side of gym can be groomed and cleaned manually) including:
    - (a) A general sweeping to remove foreign objects such as dirt, leaves, bird droppings, gum and other debris that may collect on the field surface.
    - (b) A deep groom, sweep and rejuvenation to de-compact infill and in an effort to maintain appropriate G-Max levels.
    - (c) The above two steps are intended to clean the infill from deleterious matter contaminating the infill material. All accumulated debris and contaminating material shall be off-hauled and disposed of in a legal manner by the Turf Company.
  2. Overall analysis and inspection of the field and its applicable systems, including fiber wear analysis, ultraviolet degradation, infill depth and consistency, infill migration, field edging attachments, sewn and glued seams, line verification and field inserts (inlays).  
 Minor repairs (sewing/adhesive failures, inlay separation, and general workmanship) as needed, of items found relating to the synthetic surface.
- B. Included in the project contract shall be the annual removal and replacement of the turf in the baseball field's home plate / batter's box areas and the pitcher's mound areas (including the bullpen mound areas). This work, including the disposal of the old turf and the fine tuning as needed of the field base beneath the turf product in these areas, shall be included as part of this contract. This shall effectively require eight replacements for each area.

**PART 2 MATERIALS**

2.01 INFILL SYNTHETIC TURF – FIELD AREA #1 (BASEBALL FIELD)

- A. The synthetic turf system shall meet the following parameters. The Owner and its design professional shall be the final authority if any submitted product meets these product requirements, and it is the Contractor and Turf Company's sole responsibility to show and prove that the proposed turf product meets the product requirements. Additionally, the Owner has the option to relax specific requirements they deem necessary.

**Outfield and Foul Areas Green Turf:** shall be the following: 1-5/8 inch (40mm) tall PE fibers (extruded both as a monofilament and slit film). AstroTurf Diamond Blend (or equivalent product).

<u>Standard</u>	<u>Property</u>	<u>Specification</u>
N/A	Pile Yard type	UV-Resistant Polyethylene
N/A	Yarn Structure	Ridged Monofilament
ASTM D1577	Fiber Denier	min.10,000

ASTM D3218	Tape Thickness	not less than 200 microns
ASTM D2256	Yarn Breaking Strength	min. 20 lbs
ASTM D5823	Pile Height	1.625"
ASTM D5793	Stitch Gauge	3/8"
ASTM D5848	Pile Weight	min. 40 oz/square yard
ASTM D5848	Total Backing Weight	min. 23 oz/square yard
ASTM D5848	Total Weight (without infill)	min. 63 oz/square yard
ASTM D1335	Tuft Bind (Without Infill)	min. 9 lbs
ASTM D5034	Grab Tear (Width)	min. 200 lbs/force
ASTM D5034	Grab Tear (Length)	min. 200 lbs/force
ASTM D4491	Carpet Permeability	>40 inches/hour
ASTM F355A	Impact Attenuation (Gmax)	<160
	Infill Material Depth	1.0 inches (min.)

**Grass Infield Areas Green Turf:** shall be the following: 1-5/8 inch (40mm) tall PE fibers (extruded both as a monofilament and slit film). AstroTurf Diamond Blend (or equivalent product).

<u>Standard</u>	<u>Property</u>	<u>Specification</u>
N/A	Pile Yard type	UV-Resistant Polyethylene
N/A	Yarn Structure	Ridged Monofilament
ASTM D1577	Fiber Denier	min.10,000
ASTM D3218	Tape Thickness	not less than 200 microns
ASTM D2256	Yarn Breaking Strength	min. 20 lbs
ASTM D5823	Pile Height	1.625"
ASTM D5793	Stitch Gauge	3/8"
ASTM D5848	Pile Weight	min. 40 oz/square yard
ASTM D5848	Total Backing Weight	min. 23 oz/square yard
ASTM D5848	Total Weight (without infill)	min. 63 oz/square yard
ASTM D1335	Tuft Bind (Without Infill)	min. 9 lbs
ASTM D5034	Grab Tear (Width)	min. 200 lbs/force
ASTM D5034	Grab Tear (Length)	min. 200 lbs/force
ASTM D4491	Carpet Permeability	>40 inches/hour
ASTM F355A	Impact Attenuation (Gmax)	<160
	Infill Material Depth	1.0 inches (min.)

**Dirt Infield / Warning Track Areas Dark Brown Turf:** shall be the following: 1-1/8 inch (30mm) tall twisted Nylon / PE fibers with a texturized yarn rootzone. AstroTurf Rootzone Diamond-i Blend (or equivalent product).

<u>Standard</u>	<u>Property</u>	<u>Specification</u>
N/A	Pile Yard type	UV-Resistant Polyethylene
N/A	Yarn Structure	Ridged Monofilament
ASTM D1577	Fiber Denier	min.10,000 / 5,000 rootzone
ASTM D3218	Tape Thickness	not less than 200 microns
ASTM D2256	Yarn Breaking Strength	min. 20 lbs
ASTM D5823	Pile Height	1.125"
ASTM D5793	Stitch Gauge	3/8"
ASTM D5848	Pile Weight	min. 40 oz/square yard
ASTM D5848	Total Backing Weight	min. 23 oz/square yard
ASTM D5848	Total Weight (without infill)	min. 63 oz/square yard

ASTM D1335	Tuft Bind (Without Infill)	min. 9 lbs
ASTM D5034	Grab Tear (Width)	min. 200 lbs/force
ASTM D5034	Grab Tear (Length)	min. 200 lbs/force
ASTM D4491	Carpet Permeability	>40 inches/hour
ASTM F355A	Impact Attenuation (Gmax)	<160
	Infill Material Depth	0.75 inches (min.)

**Pitcher's Mound Areas Dark Brown Turf:** shall be the following: 1-1/8 inch (30mm) tall PE fibers with a texturized yarn rootzone. AstroTurf Rootzone Diamond Dti 1Blend (or equivalent product).

<b>Standard</b>	<b>Property</b>	<b>Specification</b>
N/A	Pile Yard type	UV-Resistant Polyethylene
N/A	Yarn Structure	Ridged Monofilament
ASTM D1577	Fiber Denier	min.10,000 / 5,000 rootzone
ASTM D3218	Tape Thickness	not less than 200 microns
ASTM D2256	Yarn Breaking Strength	min. 20 lbs
ASTM D5823	Pile Height	1.125"
ASTM D5793	Stitch Gauge	3/8"
ASTM D5848	Pile Weight	min. 90 oz/square yard
ASTM D5848	Total Backing Weight	min. 26 oz/square yard
ASTM D5848	Total Weight (without infill)	min. 110 oz/square yard
ASTM D1335	Tuft Bind (Without Infill)	min. 10 lbs
ASTM D5034	Grab Tear (Width)	min. 200 lbs/force
ASTM D5034	Grab Tear (Length)	min. 200 lbs/force
ASTM D4491	Carpet Permeability	>40 inches/hour
ASTM F355A	Impact Attenuation (Gmax)	<160
	Infill Material Depth	0.75 inches (min.)

## 2.02 INFILL SYNTHETIC TURF – FIELD AREAS #2-5

- A. Shall be the following: 2.0 inch (50mm) tall PE fibers (extruded both as a monofilament and slit film) with a texturized yarn rootzone.

<b>Standard</b>	<b>Property</b>	<b>Specification</b>
N/A	Pile Yard type	UV-Resistant Polyethylene
N/A	Yarn Structure	Ridged Monofilament
ASTM D1577	Fiber Denier	min.10,000
ASTM D3218	Tape Thickness	not less than 200 microns
ASTM D2256	Yarn Breaking Strength	min. 20 lbs
ASTM D5823	Pile Height	2. 0"
ASTM D5793	Stitch Gauge	3/8"
ASTM D5848	Pile Weight	min. 40 oz/square yard
ASTM D5848	Total Backing Weight	min. 23 oz/square yard
ASTM D5848	Total Weight (without infill)	min. 63 oz/square yard
ASTM D1335	Tuft Bind (Without Infill)	min. 9 lbs
ASTM D5034	Grab Tear (Width)	min. 200 lbs/force
ASTM D5034	Grab Tear (Length)	min. 200 lbs/force
ASTM D4491	Carpet Permeability	>40 inches/hour

ASTM F355A	Impact Attenuation (Gmax)	<160
	Infill Material Depth	1.25 inches (min.)

2.03 TURF PRODUCT REQUIREMENTS

- A. Infill material to be a mix of silica sand and virgin cork product
  - 1) Infill shall consist of a resilient layered granular system, comprising selected and graded sand and granulated cork. Organic infill must be comprised of virgin materials that do not require a specific moisture content and irrigation to be installed around the field.
  - 2) Granulated cork shall have a bulk density of 300 kg/m<sup>3</sup> (+/- 15%).
  - 3) Granulated cork must be a uniform 1-3mm particles.
- B. Sand shall be rounded silica sand and dust free. Coarse jagged sand will not be accepted. Sand shall consist of 50-60% of the total infill material as defined by weight. The sand shall have the following gradation:

<b>Sieves (US Mesh Size)</b>	<b>% Retained</b>
16	0
25	10-30
30	30-50
35	15-35
40	5-15
50	<5
70	<1

- C. The carpet shall be delivered in 15-foot wide rolls. The perimeter white and yellow lines can be tufted into the individual sideline rolls. The rolls shall be of sufficient length to extend from sideline to sideline. Head seams, between the sidelines, will not be acceptable.
- D. All field of play lines shall be inlaid or tufted. The sport's field lines shall be conforming to NCAA requirements, or as noted in the RFP document.
- E. Thread for sewing seams of turf shall be as recommended by the Synthetic Turf Manufacturer.
- F. Glue for inlaying lines and markings shall be as recommended by the synthetic turf manufacturer. Seams between turf panels must be sewn. Inlaid markings may not be installed by means of cutting through the fabric and adhering the colored turf to a separate reinforcing tape or cloth. Rather, inlaid markings (that cannot be tufted into the fabric), shall be installed by means of shearing out the existing fiber and laying in a new piece of colored fabric into a bed of suitable "hot melt" adhesive placed directly on the original turf backing material. Systems that cut through the turf fabric for inlaid lines are not acceptable due to the fact that such a procedure shall weaken the structural integrity of the turf fabric backing.
- G. Glue for inlaying lines and markings shall be as recommended by the Synthetic Turf Manufacturer.

## 2.04 MANUFACTURED POROUS CLOSED CELL COMPOSITE BASE MATERIAL

- A. Shall be Brock SP14 – 0.5 inch thickness. Contact is David Brown, Brock USA Northern CA Sales Manager, phone no. 530.575.8976.

## 2.05 SYNTHETIC TURF MAINTENANCE EQUIPMENT (GROOMER AND SWEEPER)

- A. Contractor shall supply one field groomer and one sweeper. Sweeper to have a debris collection attachment that shall pick up ¼" diameter (and larger) material, but leave infill material (i.e. sand and rubber). The groomer shall have plastic brushes and metal tines that are adjustable.
- B. Acceptable grooming product is Synthetic Turf Groomer w/ height adjustable front and rear multi-V brushes, central rotating tines, drag tines, and wheels.
- C. The field sweeper shall be LitterKat Synthetic Turf Sweeper by Greens Groomer with sports field magnet, or acceptable equivalent product.

## PART 3 EXECUTION

### 3.01 INSTALLING THE SYNTHETIC TURF SYSTEM PRODUCTS

- A. Upon review and acceptance of the installed rock base by others, the turf contractor shall initiate the installation of all products shall be performed in full compliance with the reviewed and accepted product submittal.
- B. Only trained technicians, skilled in the installation of athletic caliber synthetic turf systems working under the direct supervision of the approved installer/manufacturer supervisors, shall undertake any cutting, sewing, gluing, shearing, topdressing or brushing operations.
- C. The turf contractor shall strictly adhere to the installation procedures outlined in this section. Any variance from these requirements must be submitted to and accepted in writing, by the manufacturer's onsite representative, and submitted to the Owner, verifying that the changes do not, in any way, affect the warranty.
- D. The surface must be perfectly clean as turf installation commences and shall be maintained in that condition throughout the process.
- E. Any cutouts in the synthetic turf shall be per plans. Coordinate all cutouts in turf with Owner's Representative before cutting turf for utility boxes or other structures.
- F. The carpet rolls are to be installed directly over the properly prepared base. Extreme care should be taken to avoid disturbing the base, both in regard to compaction and planarity.
- G. The full width rolls shall be laid out across the width of the field. Utilizing standard state of the art sewing procedures each roll shall be attached to the next. 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 turf. GLUING OF ROLLS SHALL NOT BE ACCEPTABLE.

- H. The synthetic turf field shall utilize sewn seams. Minimum gluing will only be permitted to repair problem areas, corner completions, and to cut in any logos or inlaid lines as required by the specifications. Seams between turf panels must be sewn. Inlaid markings may not be installed by means of cutting through the fabric and adhering the colored turf to a separate reinforcing tape or cloth. Rather, inlaid markings (that cannot be tufted into the fabric), shall be installed by means of shearing out the existing fiber and laying in a new piece of colored fabric into a bed of suitable "hot melt" adhesive placed directly on the original turf backing material. Systems that cut through the turf fabric for inlaid lines are not acceptable due to the fact that such a procedure shall weaken the structural integrity of the turf fabric backing. All seams shall be sewn using double bagger stitches and polyester thread or adhered using seaming tape and high grade adhesive (per the manufacturer's standard procedures). Seams shall be flat, tight, and permanent with no separation or fraying.
- I. Connections of the perimeter synthetic turf edges shall be completed by one of the following two methods (refer to drawings for applicable details):
  - 1) Connection to perimeter concrete edges (with recessed edge) with the manufacturer-approved adhesive.
  - 2) Connection to the recycled plastic header boards shall be done with industrial staples (min. depth embedment is one inch (1") at maximum 2 inch (2") on center staple spacing.
- J. Infill materials shall be applied in thin lifts. The turf shall be brushed as the mixture is applied. The infill material shall be installed to a depth as specified in this section. The mix shall be uniform and even in thickness to assure proper playing characteristics.
- K. The infill materials shall be installed to fill the voids between the fibers and allow the fibers to remain vertical and non-directional. The infill shall be placed so that there is a void of 3/4" to the top of the fibers.
- L. At near Substantial Completion of the synthetic turf fields, the turf contractor shall test for shock absorbency. The turf contractor and/or manufacturer shall pay for an independent testing laboratory accredited for such tests (who shall be pre-approved by the Owner). All testing and analysis of findings shall be completed by qualified persons utilizing correct techniques. The laboratory shall provide the necessary testing data to the Owner that verifies the finished field meets or exceeds the required shock attenuation. The G-max range shall be between 95 and 160 for the life of the warranty, as determined by the ASTM F355A and F1936 test procedures. Any test results that do not meet the requirements of this specification or if any one test value is greater than ten percent (10%) greater in variance as specified in 3.03-G, then the Contractor's field installer shall address the failed test area, be required to retest the entire field as stated above, and conform to these requirements prior to the issuance of the Certificate of Substantial Completion.

### 3.02 PROJECT CLOSE-OUT, WARRANTY, & ANNUAL MAINTENANCE REQUIREMENTS

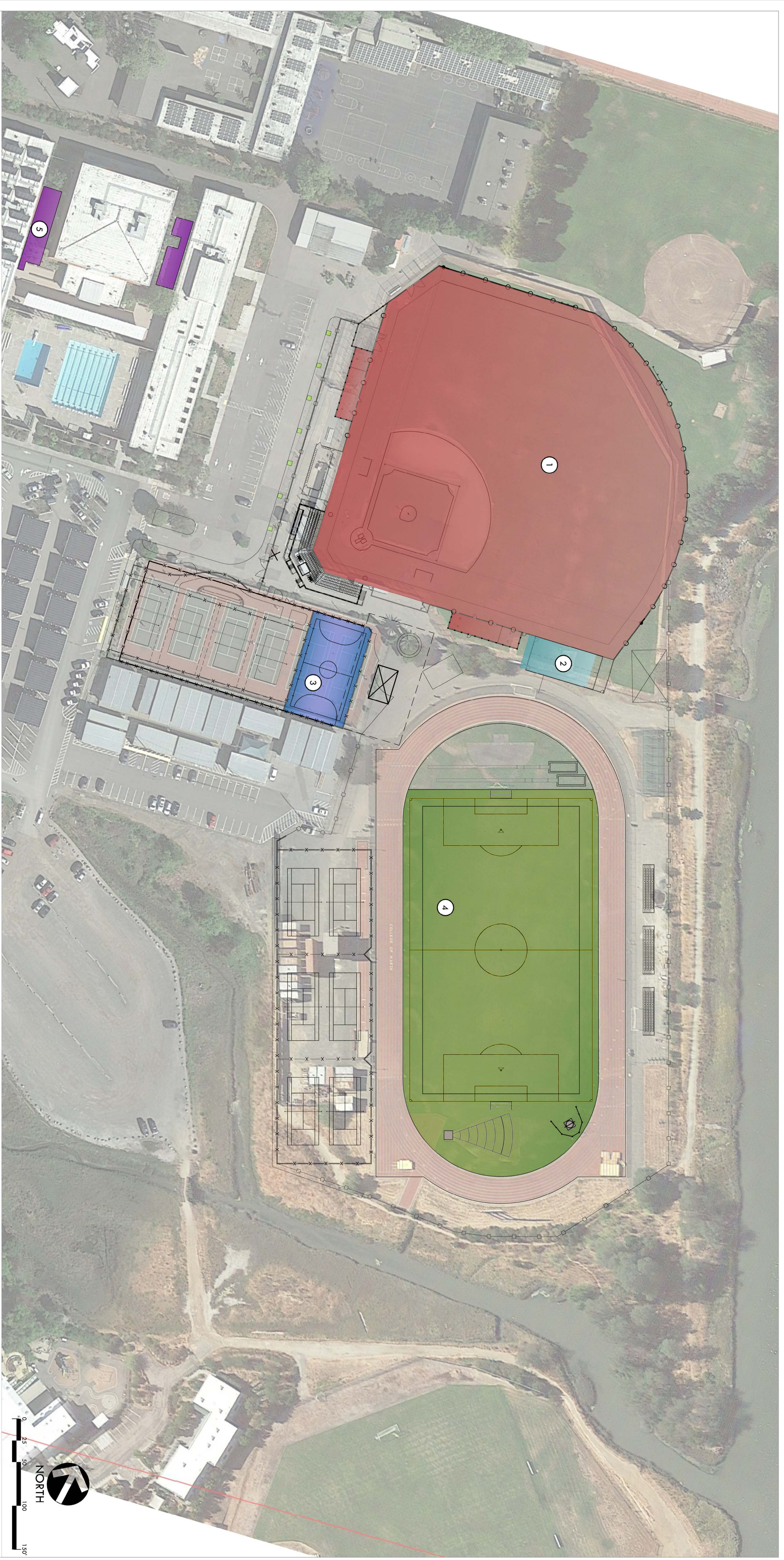
- A. The Turf Company shall provide the following prior to Final Acceptance and the Owner filing the Project Notice of Completion:
  - 1. The Turf Company shall provide the written warranty for the project per the minimum requirements identified in this specification section. Submit Manufacturer Warranty and ensure that forms have been completed in Owner's name and



registered with Manufacturer and Insurance Carrier. Submit information confirming that the third party insurance policy, non-cancelable and pre-paid, is in effect covering this installation, and underwritten by a Best "A" Rated Insurance Carrier. Insurance carrier must confirm that the policy is in force and premiums paid.

2. Three (3) copies of Maintenance Manuals, which will include all necessary instructions for the proper care and preventive maintenance of the turf system, including painting and markings.
  3. Project Record Documents: Record actual locations of seams and other pertinent information.
  4. Upon completion of the field installation, the Turf Company shall have a supervisory personnel provide a minimum three (3) hour field training seminar with the Owner on how to care for the field. At a minimum, seminar shall include a demonstration of how to care for the field with the provided groomer / sweeper address use of the sweeper and groomer, review the entire provided maintenance manual (including the proper procedure for removal of gum and other debris) and answer any questions.
  5. Supply a field groomer and/or sweeper as specified.
- C. Turf Company shall be responsible for the testing of the G-max levels of the installed synthetic turf at the completion of years two, four, six, and one month prior to the completion of year eight. If any of these tests do not fall within the G-max range as specified in this specification section, the Manufacturer will be required to modify the field composition to the sole satisfaction of the Owner so that it falls within the target G-max range. All costs associated with such work shall be borne solely by the Manufacturer and/or installer. Any failed test shall be retested to verify that the field meets the specifications. All testing shall be paid by the Manufacturer and/or installer. All testing shall be completed by an independent testing laboratory accredited for such tests, and shall be pre-approved by the Owner. All testing and analysis of findings shall be completed by qualified persons utilizing the required techniques outlined in the ASTM F355 test standard.
- D. Turf contractor shall provide one maintenance service visit per year for the first three years of the 8 year warranty, then semi-annual visits for the remaining five years of the warranty period as part of this proposal, as noted in item 1.07 of this specification.

END OF RFP DOCUMENT



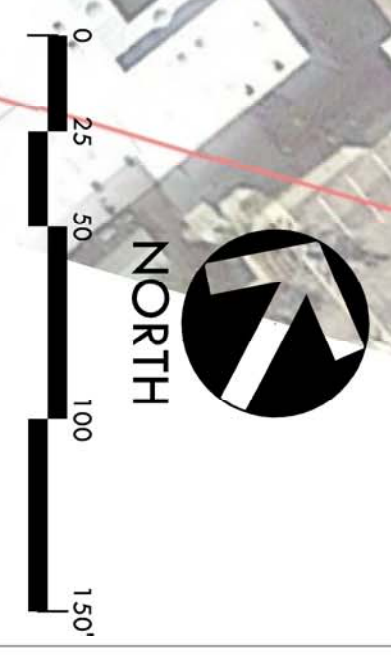
① SYNTHETIC TURF BASEBALL FIELD  
INCLUDING BULLPENS  
139,000 SF

② BASEBALL BATTING CAGE  
3,146 SF

③ FUTSOL / WARM UP FIELD  
8,325 SF

④ SOCCER / LACROSSE FIELD  
94,105 SF

⑤ GYM TURF  
3,515 SF



**Athletic Facility Improvements - Turf Quantities**

College of Marin  
835 College Avenue  
Kentfield, CA 94904



① SYNTHETIC TURF BASEBALL FIELD  
INFIELD (INCLUDING PITCHERS MOUND)  
11,300 SF

② SYNTHETIC TURF BASEBALL FIELD  
WARNING TRACK  
19,380 SF

③ SYNTHETIC TURF BASEBALL FIELD  
INFIELD GRASS  
DARK - 3,295 SF ; LIGHT - 3,235 SF

④ SYNTHETIC TURF BASEBALL FIELD  
OUTFIELD GRASS  
DARK - 49,460 SF ; LIGHT - 49,250 SF

⑤ SYNTHETIC TURF BASEBALL FIELD  
BULLPENS  
BROWN - 870 SF ; GREEN - 2245 SF