Request for Proposals
For
Synthetic Turf Field
Removal / Replacement Project
at Burton High School
thru California Multiple Award Schedule (CMAS) Delivery 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 Burton High School, located at 400 Mansell Street, San Francisco, California. The site currently has a FieldTurf synthetic turf field, 82,000 square feet in size, installed in 2006. The 2.5 inch tall pile height product is at the end of its expected life, as infill levels in many of the field areas are well less than one inch (1”).

Respondents are responsible for verifying final quantities. 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. Please contact Mary Fung, fungm@sfusd.edu for access to the project site.

The turf field area is surrounded by an existing all-weather running track, and as such the selected Turf Company will be required to adequately protect the areas outside the replacement turf area (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. Covering of the track is not specifically required, but strongly recommended, so no damage to the track occurs.

Included in this project shall be the removal and disposal of the existing turf, the temporary removal, security and protection from the sun and weather of the existing Brock Powerbase product, the fine grading / leveling as needed to achieve post turf removal planarity on the existing permeable base, the replacement of the existing drain / shock pad (as well as any necessary replacement of damaged or unusable pad panels, especially at the field edges, and the complete installation of the new synthetic turf products, as well as all project closeout, cleanup, and corrective work.

The proposal shall provide pricing, including all labor, material, freight, tax, bonding and incidentals for the new shock pad, turf and all work associated with the turf installation and as outlined in this RFP document. Included in the project proposal shall be an additive alternate (optional) turf maintenance contract as outlined in this RFP document that shall be in effort for the full duration of the comprehensive eight-year warranty (minimum) for the new turf field.

Construction can commence on June 1, 2020 (assuming to begin with mobilization and turf removal efforts), and project improvements shall be substantially complete by July 22, 2020. The District may assess liquidated damages of $500.00 (five hundred dollars) per calendar day for late completion of any of the project work, including corrective work.

There is work under other contracts in the vicinity of the project area (i.e. turf field). Specifically, the District will award a separate contract for the stadium bleachers re-plank project at Burton High school. Those operations will be conducted simultaneously with work under this contract.
The project will generally include the following work:

1. Supply and installation of selected turf product, including tufted and inlaid permanent lines for football (white), soccer (yellow), and flag football (blue), as well as midfield logo and end zone lettering. Playing field lines shall conform to all NFHS and CIF rules for football and soccer.

2. Removal and disposal of existing synthetic turf.

3. Salvage, stockpile, and protect existing drainage / shock pad product (Brock SP23) beneath turf. This existing pad shall be replaced (estimated to be not more than 6,500 s.f.) where compromised or damaged, below the turf and on top of the rock (with a new geotextile fabric separating the rock from the pad).

4. Fine grading and leveling of the existing permeable stone base. Turf Company shall not exercise extensive compacting or overworking of the base material. Intent is just to smooth out any identified existing inconsistencies in the grade as well as undulations due to operations related to the removal of the old synthetic turf and installation of the new turf product.

5. Verify new field’s rock base meets project grading tolerance requirements prior to pad and turf installation. The geotextile fabric, shock pad and turf shall then be installed on top of the field’s rock base. Any damage caused during the placement of the panels shall be the sole responsibility of the Turf Company.

6. 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.

7. Replacement of synthetic turf on any in-field boxes and structures currently covered in synthetic turf.

8. Turf Installation shall include new midfield logo, as well as digital field artwork and end zone lettering provided on the field drawing that is included in this RFP. All field lines are to match existing (with addition of blue flag football boundary lines), with the exception that field lines thru the logo shall be “shadowed” so lines appear continuous.

9. 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 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 proposals electronically to Mary Fung, fungm@sfusd.edu and John Zlatunich, zlatunichj@sfusd.edu and cc copy to Devin Conway at devin@verdedesigninc.com.

Proposals must be received no later than 3:00 p.m. PST on Thursday March 26, 2020. 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.

The District reserves the right to cancel or revise in part or in its entirety this RFP. If the District cancels or revise this RFP, all respondents will be notified by addenda. The District also reserves the right to extend the date responses are due and/or to alter any of the key dates set forth above.
Government Code Section 6250 et seq., the California Public Records Act (PRA), defines a public record as any writing containing information relating to the conduct of the public business.

The PRA provides that public records shall be disclosed upon written request and that any citizen has a right to inspect any public record unless the document is exempted from disclosure.

Be advised that any contract that eventually arises from this RFP is a public record in its entirety.

In addition, all information submitted in response to this RFP is itself a public record, excepting to the extent permissible by law a Proposer’s financial information.

Submission of any materials in response to this RFP, other than Financial Documentation clearly marked as “CONFIDENTIAL”, constitutes a waiver by the submitting party of any claim that the information is protected from disclosure.

By submitting materials, (1) you are consenting to release of such materials by the San Francisco Unified School District if requested under the Public Records Act without further notice to you and (2) you agree to indemnify and hold SFUSD harmless for release of such information.

The required physical samples outlined in this RFP shall be mailed to Mary Fung at the following address:

San Francisco Unified School District  
Attn: Mary Fung, Project Manager, SFUSD Facilities Design & Construction  
135 Van Ness Ave., Room 213A, San Francisco CA 94102

Any questions shall be sent to Devin Conway via email at devin@verdedesigninc.com and cc copy to Mary Fung via email at fungm@sfusd.edu. All bidder questions are due by 5:00 p.m. PST on Friday March 20, 2020.

PROPOSAL SUBMITTAL
Included in the proposal package shall be the following information:
1. Synthetic Turf Criteria document, including required supporting third party test data and information requested in the document, including the following:
   a. List of all completed installed fields with exact specified product, ideally in Greater Bay Area (This list may be limited to the twenty (20) most recent completed installations). List of installations shall include project name, current owner contact name and phone number.
   b. Proposed Foreman resume. This foreman shall be at the job site at any time work on the field is in progress. Foreman will shall at a minimum have supervised no less than twenty synthetic turf fields in the past three (3) years.
   c. Company turf warranty for this specific project, including insurer information, in compliance with this Turf RFP document.
   d. Corporate financial information
   e. End of Life Recycling Plans
   f. Post-Consumer Recycled Content
   g. Heavy metals & material content
2. Proposed product and pricing on completed Proposal Form
3. 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.
c. California CMAS Terms and Conditions.
d. Payee Data Record (Std. 204)

4. Insurance Certificate(s)

5. Performance Bond

6. Two complete physical samples, each a minimum of 8” x 11” in size, consisting of each exact proposed and submitted turf system. Submit one sample for each color specified. In addition, submit two loose samples (12” squares) of the proposed and submitted turf backing and tufted fibers, and two sets of one ziplock sandwich bag samples of the Specified Infills (each specific material to be separately bagged).

7. Minimum of five (5) references (contact name, position, phone, and email) for projects proposed materials have been installed within 50 mile radius from project site.

See accompanying Site Drawing for Field Marking / Striping requirements.

POTENTIAL INTERVIEW
The District may request one or more respondents to interview with the District and present their company and their product line to the District. In this presentation and interview, each company should be prepared to present and/or address their proposal, including the following items:

1. Company Strength and Financial Viability
2. Product Warranty
3. Products
4. Installation Team and Foreman Project Experience
5. Hierarchy of Company (from Corporate down to installation crews)
6. Benefits of Brand and Product
7. Field Experience of presented product
8. Warranty process and repair procedure
9. Installation Methodology and QA/QC Process
10. Base Installation Inspection Procedures

The selection will be overall value driven, and will not be solely based on price, though the price discrepancy may be considered.

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. References
8. Other criteria deemed pertinent by the Owner

PERFORMANCE BOND
All respondents shall submit a performance bond. See attached template for use.

INSURANCE REQUIREMENTS
All respondents must have the following insurance policies in place during the time of construction:

(1) General Liability Insurance: Contractor shall procure and maintain at its cost at all times during the performance of its Work a Commercial General Liability Insurance policy with coverage on an occurrence basis with limits of at least One Million Dollars ($1,000,000) each occurrence and a Two Million Dollars ($2,000,000.00) aggregate. Such insurance shall be endorsed to include: The School and its officers, employees, board members and employees (hereinafter “Additional Insureds”), as additional insureds as respects both the ongoing operations of Contractor and the Work performed by or for the Contractor. Such insurance shall also include a statement that the insurance is primary and waives any right to contributions from insurance or other coverage purchased by, or on behalf of, any of the Additional Insureds and a requirement that the insurer will provide 30 days written notice of cancellation, non-renewal or any material reduction in coverage prior to such action taking effect to the Additional Insureds.

(2) Automobile Insurance: Contractor shall procure and maintain at its cost at all times during the performance of its Work an Automobile Liability Insurance policy with coverage limits of at least One Million Dollars ($1,000,000.00) combined single limit. Such insurance shall be endorsed to include: The School and its officers, employees, board members and employees (hereinafter “Additional Insureds”), as additional insureds as respects both the ongoing operations of Contractor and the Work performed by Contractor, a statement that the insurance is primary and waives any right to contributions from insurance or other coverage purchased by, or on behalf of, the Additional Insureds and a requirement that the insurer will provide 30 days written notice of cancellation, non-renewal or any material reduction in coverage prior to such action taking effect to the Additional Insureds.

(3) Workers’ Compensation Insurance: Contractor shall procure and maintain at its cost at all times during the performance of its Work a Workers’ Compensation Insurance policy with statutory limits, including Employers’ Liability Insurance with limits of not less than One Million Dollars ($1,000,000.00) for any accident or occupational disease. Such insurance shall be endorsed to provide the following: A waiver of the right to subrogate against the Additional Insureds and a requirement that the insurer will provide 30 days written notice of cancellation, non-renewal or any material reduction in coverage prior to such action taking effect to the School.

The certificate holder shall be San Francisco Unified School 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 San Francisco Unified School District.

Synthetic Turf

Submitted Turf Product Name: ________________________________

Proposed Total Amount: $_________________________
(Total price including removal and disposal of existing turf materials, the new turf product, taxes, delivery and installation of ALL product identified, including field prep and fine tuning of field rock, replacement of shock pad panels as necessary, turf, including all field striping and markings)

Additive Alternate #1:

Maintenance Service Contract (Lump Sum, duration of warranty contract) $_________________________
SYNTHETIC TURF CRITERIA

At time of the proposal, the following form needs to be completely filled in and returned with other requested materials. Turf Company shall provide values based on the units shown below and based on ASTM/Standard testing procedures, if applicable.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value (Fill in the blank)</th>
<th>Units</th>
<th>ASTM/Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pile Yarn Type</td>
<td></td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Yarn Structure</td>
<td></td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Yarn Linear Density</td>
<td></td>
<td>Denier +/− 5%</td>
<td>D1907</td>
</tr>
<tr>
<td>Yarn Breaking Strength*</td>
<td></td>
<td>lbs</td>
<td>D2256</td>
</tr>
<tr>
<td>Yarn Maximum Elongation*</td>
<td></td>
<td>%</td>
<td>D2256</td>
</tr>
<tr>
<td>Yarn Melting Point</td>
<td></td>
<td>°F</td>
<td>D789</td>
</tr>
<tr>
<td>Tape Thickness</td>
<td></td>
<td>Microns</td>
<td>n/a</td>
</tr>
<tr>
<td>Tape Width*</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Number of tape per stitch</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Pile Height*</td>
<td></td>
<td>Inches</td>
<td>D5848</td>
</tr>
<tr>
<td>Pile Weight*</td>
<td></td>
<td>oz/yd2</td>
<td>D5848</td>
</tr>
<tr>
<td>Backing Composition</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Type of Coating</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Primary Backing Weight*</td>
<td></td>
<td>oz/yd2</td>
<td>D5848</td>
</tr>
<tr>
<td>Secondary Backing Weight*</td>
<td></td>
<td>oz/yd2</td>
<td>D5848</td>
</tr>
<tr>
<td>Coating Weight</td>
<td></td>
<td>oz/yd2</td>
<td>D5848</td>
</tr>
<tr>
<td>Total Carpet Weight</td>
<td></td>
<td>oz/yd2</td>
<td>D5848</td>
</tr>
<tr>
<td>Stitch Gauge</td>
<td></td>
<td></td>
<td>D5848</td>
</tr>
<tr>
<td>Stitches per inch</td>
<td></td>
<td>stitches/inch</td>
<td>D5848</td>
</tr>
<tr>
<td>Tuft Bind*</td>
<td></td>
<td>lbs/force</td>
<td>D1335</td>
</tr>
<tr>
<td>Grab Tear Strength*</td>
<td></td>
<td>lbs/force</td>
<td>D5034</td>
</tr>
<tr>
<td>Grab Tear Width</td>
<td></td>
<td>lbs/force</td>
<td>D5034</td>
</tr>
<tr>
<td>Pill Burn test (Pass/Fail)</td>
<td></td>
<td></td>
<td>D2859</td>
</tr>
<tr>
<td>Impact Attenuation</td>
<td></td>
<td>G-max</td>
<td>F1936</td>
</tr>
<tr>
<td>Permeability*</td>
<td></td>
<td>Inch/hour</td>
<td>DIN 18-035</td>
</tr>
<tr>
<td>Permeability with in-fill*</td>
<td></td>
<td>Inches/hr</td>
<td>F1551</td>
</tr>
<tr>
<td>Total Depth of In-fill</td>
<td></td>
<td>Inches</td>
<td>n/a</td>
</tr>
<tr>
<td>Infill type</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Infill weight</td>
<td></td>
<td>lbs/yd2</td>
<td>n/a</td>
</tr>
<tr>
<td>Seams (Glued or Sewn)</td>
<td></td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Flame Resistance*</td>
<td></td>
<td></td>
<td>ASTM F1551</td>
</tr>
</tbody>
</table>

*Provide certified independent (3rd Party) laboratory reports on ASTM Test for these items.
HEAVY METALS AND MATERIAL CONTENT

The Turf Company will conduct and submit product analysis with the project proposal. Analysis will be presented in the form of current, certified laboratory results using specified standards and processes. **Turf Company shall also fill in attached Tables C & D with applicable lab results.** For threshold limits, reference Tables A & B below.

**Analytical Methodologies:** Representative samples of the turf fibers, turf backing, and infill material shall be analyzed for total metals content and semi-volatile organic compounds (SVOCs), as well as select analyses for leachable metals concentrations.

1. **Total Metals Analysis:** *All samples* (fibers, infill, backing) shall be analyzed for the California Assessment Manual 17/Title 26 list of metals (CAM 17 metals). The submitted samples shall be prepared by the laboratory for analysis of total recoverable metals by USEPA method 3050B. The samples shall then be analyzed for total metals concentrations by USEPA method 6010B/7400.

2. **Leachable Metals Analysis:** *Infill samples only* shall be analyzed for leachability of selected metals using the California Waste Extraction Test (WET). All samples shall be analyzed by the WET for lead, zinc, and total chromium. For other constituents, if the detected concentrations from the total metals analysis above are greater than or equal to ten times the Soluble Threshold Limit Concentration (STLC) value, as shown on attached Table A in Specification Section 02450, the WET shall be conducted for those individual metals as well.

3. **Analysis for SVOCs:** *All samples* (fibers, infill, backing) shall be analyzed for the SW-846 list of SVOCs. The submitted samples shall be prepared by the laboratory for analysis by USEPA method 3540 or 3550. The samples shall then be analyzed for SVOC concentrations by USEPA method 8270B or 8270C. Results shall at a minimum include data for aniline (CAS #62-53-3), phenol (108-95-2) and benzothiazole (95-16-9). Concentrations of SVOCs are to be provided for reference purposes only and are not being evaluated against any particular criteria.

**Evaluation Criteria:** The detected concentrations of lead, chromium, and zinc in the samples of the turf infill material shall not exceed the threshold values listed in Tables A & B, outlined below for total metals and leachable metals analyses. In no case shall the total metal concentration of any metal equal or exceed the TTLC values. In addition, concentrations of metals detected in any leachate tests shall not exceed the STLC value (for threshold values, see California Code of Regulations, Title 22, Chapter 11, Article 3.)

**TABLE A. Maximum levels of metals permitted for synthetic turf products – recycled styrene butadiene rubber (SBR) infill materials**

<table>
<thead>
<tr>
<th>Metal</th>
<th>Total metals analysis (mg/kg)</th>
<th>Leachable metals analysis (ug/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td>750i</td>
<td>50</td>
</tr>
<tr>
<td>Lead</td>
<td>50</td>
<td>2.5</td>
</tr>
<tr>
<td>Zinc</td>
<td>23,000ii</td>
<td>250,000iii</td>
</tr>
</tbody>
</table>

i. No total chromium value promulgated in ESLs; chromium III value indicated instead.
ii. California Human Health Screening Levels (CHHSLs) for soil for residential land use.
iii. Selected soluble threshold limit concentration (STLC).
Table C (to be completed by Turf Company)

<table>
<thead>
<tr>
<th>Metal</th>
<th>Total metals analysis (mg/kg)</th>
<th>Leachable metals analysis (ug/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE B. Maximum levels of total metals permitted for synthetic turf products – fibers, underlayment, and backing

<table>
<thead>
<tr>
<th>Metal</th>
<th>Total metals analysis (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td>25</td>
</tr>
<tr>
<td>Lead</td>
<td>50</td>
</tr>
</tbody>
</table>

Table D (to be completed by Turf Company)

<table>
<thead>
<tr>
<th>Metal</th>
<th>Total metals analysis (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td></td>
</tr>
</tbody>
</table>

BROMINATED FLAME RETARDANTS

The Turf Company shall provide verification that brominated flame retardants have not been intentionally added in the manufacture of the turf fiber, backing, underlayment or infill materials. Verification can take the form of a signed letter from the manufacturer, or appropriate laboratory analyses of the product proving that levels of elemental bromine are lower than 1% by weight.
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 as part of proposal package to Owner.

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. Owner 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 San Francisco Unified School District.
MAINTENANCE SERVICE CONTRACT REQUIREMENTS

A. Turf contractor shall provide one maintenance service visit per year for the first three years of the 8 year minimum warranty, then semi-annual visits for the remaining years of the warranty period as part of this proposal (for a total of 13 visits). Each maintenance service visit shall include the following:

1. One (1) SMG Sportchamp grooming session 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).

3. As part of item #2 above, Turf Company shall address deficiencies identified, including adding of specified infill material to bring field to specified levels and minor repairs (sewing/adhesive failures, inlay separation, and general workmanship) as needed for issues found relating to the synthetic surface.

4. Turf Company shall be responsible for the testing of the G-max levels of the installed synthetic turf at the completion of years one, two, four, six, and three months 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.
SECTION 12 93 00
SITE FURNISHINGS

PART 1 GENERAL

1.01 SUMMARY

Furnish all labor, materials, miscellaneous hardware, foundations, miscellaneous appurtenances, facilities, transportation and services required for installation of all site furnishings and related work as shown on the Drawings and/or specified herein.

A. Scope of work: The general extent of work contained in this section is shown on the drawings and can include, but may not be limited to, installation of the following:
   1. Access Kit Replacement Lids

B. Related sections can include, but may not be limited to:
   1. Applicable Division One and Division Two specifications

1.02 REFERENCES AND REGULATORY REQUIREMENTS


1.03 SUBMITTALS

A. Conform to Section applicable Division One and Division Two specifications, General Conditions and/or Special Provisions.

B. Product Data: Submit catalog cut sheets of all materials and equipment proposed to be furnished and/or installed under this portion of the work. Include the manufacturer and distributor name, sub-contractor as applicable. Insure that the cut sheets clearly describe the specific product by catalog number and that additional non-specified products that may appear on the same cut sheet are crossed out where applicable.

C. Samples: Submit samples of colors and finishes for all applicable products and furnishings for selection by Owner’s Representative.

D. Shop Drawings: Submit complete shop drawings for all materials or furnishings requiring field or shop fabrication.

1.04 QUALITY ASSURANCE

A. Review: All equipment shall be reviewed for conformance with the intent of the Contract Documents and accepted by the contractor prior to installation. All site furnishings shall be in a new, “first-class” condition, per the discretion of the Owner’s Representative, prior to Final Acceptance.

1.05 DELIVERY, STORAGE AND HANDLING

A. The contractor is responsible for coordination of the delivery, acceptance, handling and
storage of all site furnishings.

B. Store and handle site furnishings as acceptable to the Owner’s Representative and so that work or access of others is not impeded.

C. The contractor shall protect all site furnishings from theft or damage at all times until such items have been accepted by the Owner.

PART 2 PRODUCTS

2.01 SITE FURNISHINGS

<table>
<thead>
<tr>
<th>Description</th>
<th>Manufacturer</th>
<th>Model #</th>
<th>Finish/Color</th>
<th>Distributor/Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Kit Replacement Lids</td>
<td>Gill Athletics</td>
<td>F304 for synthetic turf</td>
<td>Synthetic turf glued to top</td>
<td><a href="http://www.gillathletics.com">www.gillathletics.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>800.637.3090</td>
</tr>
</tbody>
</table>

PART 3 EXECUTION

3.01 SEQUENCING AND SCHEDULING

A. Coordinate construction timing of installation of site furnishings in conformance with all other pertinent work.

3.02 INSTALLATION

A. Equipment: Conform to layout shown on Drawings. Erect in strict conformance with Details, accepted Shop Drawings, and manufacturer’s instructions.

B. All bolts shall be cut back to within three threads of the nut. Relevant to benches, bleachers, and other materials with exposed bolts.

3.03 FIELD QUALITY CONTROL

A. All site furnishings shall be inspected and accepted upon delivery by the Contractor. Final acceptance of site furnishings and locations of site furnishings shall be per the discretion of the Owner’s Representative.

End of Specification Section
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 2.35 inch tall polyethylene fibers.
2. A resilient infill system, consisting of sand and virgin cork as specified in this section (including attic stock). The infill shall be filled so that there is a void of no greater than ¾” to the top of the fiber.
3. Replacement shock pad material as necessary.

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
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

B. Current NFHS rules of sport as applicable.

1.04  TURF QUALIFICATIONS

A. The contractor shall be required to submit information from the synthetic turf installer and/or manufacturer 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 $10,000,000 bonding capacity.

12. Must provide a published independent safety study that was done on company’s turf system.

13. Turf Company must provide a third party tuft bind certification confirming minimum requirement of 8 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, DIN 18-035

E. Submit product literature for all products.

F. Submit product literature for maintenance program including groomer and sweeper.

G. Submit a copy of the 8-year (minimum), prepaid, non-prorated, third-party insured warranty and insurance policy information.

PART 2 MATERIALS

2.01 INFILL SYNTHETIC TURF

A. The synthetic turf system shall meet the following minimum testing requirements and parameters. The District 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 following product requirements:

<table>
<thead>
<tr>
<th>Standard</th>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Pile Yard type</td>
<td>UV-Resistant Polyethylene</td>
</tr>
<tr>
<td>N/A</td>
<td>Yarn Structure</td>
<td>Dual Fiber (Ridged Monofilament and Fibrillated Slit-Film)</td>
</tr>
<tr>
<td>ASTM D1577</td>
<td>Fiber Denier</td>
<td>min.10,000 (mono) / 5,000 (slit)</td>
</tr>
<tr>
<td>ASTM D3218</td>
<td>Tape Thickness (in microns)</td>
<td>&gt; 225 (mono) / &gt; 100 (slit)</td>
</tr>
<tr>
<td>ASTM D2256</td>
<td>Yarn Breaking Strength</td>
<td>min. 20 lbs</td>
</tr>
<tr>
<td>ASTM D5823</td>
<td>Pile Height</td>
<td>2.35&quot; (60mm)</td>
</tr>
<tr>
<td>ASTM D5793</td>
<td>Stitch Gauge</td>
<td>3/8&quot; – ¾&quot;</td>
</tr>
<tr>
<td>ASTM D5848</td>
<td>Pile Weight</td>
<td>min. 40 oz/square yard</td>
</tr>
<tr>
<td>ASTM D5848</td>
<td>Total Backing Weight</td>
<td>min. 23 oz/square yard</td>
</tr>
<tr>
<td>ASTM D5848</td>
<td>Total Weight (without infill)</td>
<td>min. 63 oz/square yard</td>
</tr>
<tr>
<td>ASTM D1335</td>
<td>Tuft Bind (Without Infill)</td>
<td>min. 9 lbs</td>
</tr>
<tr>
<td>ASTM D5034</td>
<td>Grab Tear (Width)</td>
<td>min. 200 lbs/force</td>
</tr>
<tr>
<td>ASTM D5034</td>
<td>Grab Tear (Length)</td>
<td>min. 200 lbs/force</td>
</tr>
<tr>
<td>ASTM D4491</td>
<td>Carpet Permeability</td>
<td>&gt;40 inches/hour</td>
</tr>
<tr>
<td>ASTM F355A</td>
<td>Impact Attenuation (Gmax)</td>
<td>&lt;160</td>
</tr>
<tr>
<td></td>
<td>Infill Material Depth</td>
<td>1.75 inches (min.)</td>
</tr>
</tbody>
</table>

B. The preapproved products are the following:
   1. AstroTurf HM Rhino Blend. Contact is Cam Worrell, Ph: 559-790-3528.
4. SprinTurf DFE. Contact is John Burke, Ph: 916-275-1098.

5. Alternate products may be submitted as a substitute in accordance with the District Contract Documents.

6. **All bidders must meet all of the qualifications, product specifications and warranty requirements, regardless if they are pre-approved.**

C. The turf product shall consist of two fibers, a monofilament fiber and a slit-film fiber. All fibers shall be low friction, UV stabilized fibers (in accordance with established product standards as identified by the Synthetic Turf Council), and shall be specifically designed to virtually eliminate abrasion.

D. The fiber tufts shall be fanned or unfolded prior to installation, rolling or spiraling is not acceptable.

E. Carpet backing shall have the following characteristics:
   1) Consist of at least two components (i.e. a primary and secondary backing system).
   2) It can be woven polypropylene, latex, or urethanes, and it must be treated with UV inhibitors.
   3) The backing shall receive polyurethane and acrylic applications during the manufacturing process.

F. 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.

G. All field of play lines shall be inlaid or tufted. The sport’s field lines shall be conforming to NFHS and CIF requirements. Football shall be white, and soccer is yellow, and a midfield logo are also to be provided as called out in the field drawing.

H. Thread for sewing seams of turf shall be as recommended by the Synthetic Turf Manufacturer.

I. 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.

J. 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:
### Sieves (US Mesh Size) vs. % Retained

<table>
<thead>
<tr>
<th>Sieves (US Mesh Size)</th>
<th>% Retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>25</td>
<td>10-30</td>
</tr>
<tr>
<td>30</td>
<td>30-50</td>
</tr>
<tr>
<td>35</td>
<td>15-35</td>
</tr>
<tr>
<td>40</td>
<td>5-15</td>
</tr>
<tr>
<td>50</td>
<td>&lt;5</td>
</tr>
<tr>
<td>70</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

#### K. The sand – cork infill material shall be as follows:

- **a.** Infill shall consist of a resilient layered granular system, comprising selected and graded sand and granulated cork. Infill materials must be comprised of virgin materials that do not require a specific moisture content and irrigation to be installed around the field.

- **b.** The specified infill depth shall be a consistent and uniform thickness. Final uniform depth of infill material shall be not less than 1.5 inches.

- **c.** Infill shall be at least 4.5 lbs sand and 1.5 lb cork per square foot.

- **d.** Granulated cork must have a minimum bulk density of 250 kg/m³ (+/- 15%), be a uniform 0.5-3.0 mm particle size, and have a moisture content / humidity within 2-12%.

- **e.** Sand shall be rounded silica sand and dust free. Coarse jagged sand will not be accepted. The sand shall meet the gradation noted above.

### 2.02 REPLACEMENT DRAIN / SHOCK PAD MATERIAL

- **A.** Shall be Brock SP23 (0.9” thick pad). Contact is David Brown, Brock USA Northern California Sales Manager, Ph. No. (530) 575-8976.

### 2.03 SYNTHETIC TURF CONNECTIONS

- **A.** Synthetic turf edge connections shall utilize the existing header boards at the field edge.

### 2.04 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 cork). 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.
2.05 GEOTEXTILE FILTER FABRIC

A. Provide geotextile filter fabric between existing rock base and drainage/shock pad product. Geotextile filter fabric shall conform to the following minimum specifications:

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grab Strength</td>
<td>ASTM D 4632</td>
<td>80 lb.</td>
</tr>
<tr>
<td>Puncture Strength</td>
<td>ASTM D 4833</td>
<td>25 lb.</td>
</tr>
<tr>
<td>Burst Strength</td>
<td>ASTM D 3786</td>
<td>130 lb.</td>
</tr>
<tr>
<td>Trapezoid Tear</td>
<td>ASTM D 4533</td>
<td>25 lb.</td>
</tr>
<tr>
<td>Permeability</td>
<td>ASTM D 4491</td>
<td>0.1 cm/sec</td>
</tr>
<tr>
<td>Apparent Opening Size</td>
<td>ASTM D 4751</td>
<td>#50 Sieve size</td>
</tr>
<tr>
<td>Permittivity</td>
<td>ASTM D 4491</td>
<td></td>
</tr>
</tbody>
</table>

B. Geotextile Filter Fabric Mirafi 140 N or approved equal.

PART 3 EXECUTION

3.01 SYNTHETIC TURF REMOVAL AND SALVAGING OF SHOCK PAD PRODUCT

A. Contractor to remove existing synthetic turf product and off-haul and dispose of in a legal manner.

B. Contractor shall not damage existing turf connections as they shall be re-utilized for the new turf product.

C. Contractor shall utilize a track bridge at point(s) of entry and crossing the track. Further, the track and all surrounding areas not associated with the turf construction will be protected by the Contractor.

D. Contractor to salvage, stockpile, and protect from the sun and weather the existing pad on top of the existing rock base. Contractor is responsible for replacing any damaged panels or any fractional pieces that make up the field's outer perimeter.

E. Contractor to coordinate at least one week in advance to schedule for Verde Design to test the existing field base for drainage rates in various locations on the field once the existing turf has been removed to a point that testing can be accurately and efficiently be completed. Verde Design will have two calendar days once the week notice is provided to complete said testing.

F. Contractor to fine grading and provide planarity of the existing permeable rock base. Contractor is to exercise care not to over compact or overwork the permeable rock base material. Intent is just to smooth out any identified inconsistencies in the grade due to operations related to the removal of the old synthetic turf and prior to the installation of the new shock pad and turf products. Once fine graded, the permeable rock base shall be checked by the Contractor (under the observation of the Owner representative) by use of a string line method. A mason’s line held taught between two workmen separated by a distance of approximately 100 feet, shall be placed directly on the finished surface, parallel to the direction of greatest slope. A third workman shall check for separations.
between the mason’s line and the finished surface of the crushed rock. Areas of separation shall be outlined with marking paint and the depth of separation indicated. Entire finished surface shall be “walked” with mason’s line in increments of approximately 3-6 feet. No deviation over the string line greater than ½” will be allowed, or 1/8” deviation over a ten foot long straightedge.

G. Contractor shall replace all of the in-field box lids with new lids of the same style.

H. Once the planarity of the permeable rock base has been reviewed and accepted by the Owner, the Contractor shall re-install the shock pad product in strict compliance with the manufacturer installation instructions. Contractor to exercise extreme care in order to avoid disturbing the permeable crushed rock base.

I. Contractor to take measures to ensure that the pad product is not exposed to the outdoor elements longer than the manufacturer’s recommendations. Any product that exceeds this time duration shall be removed from the project site immediately and not used on the project.

J. All sections of the pad material shall be interlocked and/or connected to adjacent pieces of the pad material in strict conformance with the manufacturer’s written recommendations.

3.02 INSTALLING THE SYNTHETIC TURF SYSTEM PRODUCTS

A. 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. The turf manufacturer and installation subcontractor shall inspect and accept the field base, and provide documentation to that effect, prior to the installation of the synthetic grass system. The surface must be perfectly clean as installation commences and shall be maintained in that condition throughout the process.

F. The carpet rolls are to be installed directly over the properly installed manufactured shock pad material. No equipment with loads greater than 35 pounds per square inch (35 psi) shall be allowed on the field. As required, Contractor is responsible for altering operations in order to adhere to this requirement. Contractor and synthetic turf installer shall strictly adhere to the written instructions provided by the shock pad manufacturer for installing turf on top of their product. Contractor shall always make sure that those vehicles driving on the shock pad product are equipped with pneumatic (air-filled) tires, preferably turf tires. These tires are designed to spread loads and minimize damage to surface. Foam Filled or solid tires as well as tires with aggressive lug patterns should not
be used on the shock pad, without synthetic turf installed. *If possible, use of an A-frame for unrolling of the synthetic turf is strongly recommended.* Extreme care should be taken to avoid disturbing the base, both in regard to compaction and planarity.

G. Coordinate all cutouts in turf with the Owner’s Representative before cutting turf for utility boxes or other structures.

H. 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.**

I. 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.

J. Connections of the existing perimeter synthetic turf edges shall be completed by a manufacturer-approved adhesive or by industrial staples (min. depth embedment is one inch (1”) at maximum 2 inch (2”) on center staple spacing, whichever is appropriate.

K. 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.

L. 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 ¾” to the top of the fibers.

M. 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 80 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.
3.03 PROJECT CLOSE-OUT, MAINTENANCE & WARRANTY

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 one hour field training seminar per field 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.

B. Turf Company shall be responsible for the testing of the G-max levels of the installed synthetic turf at the completion of the installation, as well at the completion of years two, four, six, and six months 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 Turf Company 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 Turf Company and/or installer. Any failed test shall be retested to verify that the field meets the specifications. All testing shall be conducted 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.

End of Specification Section

END OF RFP DOCUMENT