



COLLEGE of the REDWOODS – STADIUM UPGRADE
Eureka, California

ADDENDUM # 2 Date: January 18th, 2024

NOTICE TO ALL CONTRACTORS:

You are hereby notified of the following changes, clarifications and/or modifications to the original Contract Documents, Project Manual, Drawings, Specifications and/or previous Addenda. This Addendum shall supersede the original Contract Documents and previous Addenda wherein it contradicts the same and shall take precedence over anything to the contrary therein. All other conditions remain unchanged.

This Addendum forms a part of the Contract Documents and modifies the original Contract Documents dated **December 06 2023**. Acknowledge receipt of this Addendum in space provided on the Bid Proposal Form. Failure to acknowledge may subject Bidder to disqualification.

A. CIVIL DRAWING:

1. Sheet CD 101 – Keynote #16 **modified** to say: “DEMOLISH HIGH MAST LIGHT FOUNDATION; FOUNDATION APPROXIMATELY 3’ DIAMETER AND 20’ DEEP REINFORCED CONCRETE”

B. SITE VISIT ATTENDEES: (SEE ATTACHMENT)

Justin Rose	Hellas
Jill William	R&R Horn Construction
Kyle Brown	Wahlund Construction
Casey Coelho	Wahlund Construction
John Thomas	Mercer-Fraser
Tony Kitchen	Kyrt Services
Casey Poff	GR Sundberg, INC
Jason Pearce	NorCal Carpentry
Cody Freitas	Operating Engineers
John Carrion	Field Turf/Beyna
Adam Pritchard	Sequoia Construction

C. **SPECIFICATIONS:**

- 1. Modified Section 00 30 00 – Available Information (See Bid Doc Attachment)
- 2. Modified Section 00 52 00 – Construction Agreement Forms (See Bid Doc Attachment)
- 3. Modified Section 01 11 00 – Summary of Work

1.4 WORK COVERED BY CONTRACT DOCUMENTS

Required Alternates include Landscape, Lighting, Electrical, and Low Voltage utilities, and other Work indicated in the Contract Documents. ~~Adding artificial turf with approximately 15’ wider footprint to accommodate soccer field. Will require replacement of track to expand out approximately 5’ while keeping the 8 lanes. The accessible path of travel will be modified with the new areas of work, new site lighting will be entirely planned with raceways set in place.~~

1.9 WORK SEQUENCE

~~408 Work Day activity for anticipated rain delays as a “bank”. Insert this rain bank as the last activity prior to Substantial Completion of the Gym and Field House. Include an additional 20 Work Day rain delay activity for completion of the demolition of the existing PE structures.~~

- 4. Modified Section 01 14 00 – Work Restrictions (See Attachment)
- 5. Modified Section 01 32 13 – Scheduling of Work (Modified all “Primavera” text to change to “Microsoft Projects”).

1.3 SUMMARY

~~B-Primavera Microsoft Projects~~

- 6. Modified Section 01 32 50 – Delays and Extensions

1.5 ABNORMAL OR ADVERSE WEATHER CONDITIONS

For the purposes of this Project, the Contractor shall include within the Contract Time of its Baseline CPM Schedule an allowance of ~~40 8 work days as a bank~~, just prior to its Substantial Completion date milestone activity, ~~and 20 work days prior to Final Completion of the Demolition work,~~

- 7. Section 32 18 23: Synthetic Turf Surfacing. MODIFY 1.3 SYNTHETIC TURF SURFACING as follows:

The following Synthetic Turf Contractor/Vendors and corresponding products are pre-approved for the Synthetic Turf Field surface:

- | | | |
|----|--|---------------------------|
| 1. | AstroTurf – Rhino M | AstroTurf |
| 2. | FieldTurf / Tarkett – Core/ <u>XM 360</u> | FieldTurf |
| 3. | Hellas – Matrix Power Blade | Hellas |
| 4. | Shaw Sports Field – <u>Power Blade</u> | Shaw Sports Turf |
| 5. | <u>Greenfields Allsport Diamond</u> | <u>Greenfields</u> |

- 1. 8. Section 32 18 23: Synthetic Turf Surfacing. MODIFY 2.3.B.5 as follows:
Manufacturer Reference: Brock International Power Base YSR-25mm or pre-approved equal

Brock International
2840 Wilderness Place
Boulder, CO 80301
Telephone: (303) 544-5800 Fax: (303) 544-1273

Approved Alternatives:
FieldTurf Shockbase PRO
Hellas Soteria Max

8. Added line item Add alternat #5 – off-hauling 6” of Stadium Topsoil

“Contractor to strip the top 6” of sod and soil from the existing athletic field, transport to the former Creative Arts site shown on Drawing...and grade uniformly so the area drains. Contractor to coordinate the grading with Owner. Remaining soils to be removed from the existing athletic field to be transported and stockpiled at the stockpile areas at the former creative arts site “(See image below).



- D. PRE-BID QUESTIONS: (SEE ATTACHMENT)**
- E. SUBSTITUTION REQUESTS: (SEE ATTACHMENT)**
- F. ASBESTOS AND LEAD SURVEY REPORT: (SEE ATTACHMENT)**

ADDENDUM # 2

DSA App. # 01-121308
File #12-C1

If you have any questions regarding this Addendum No. 2, please notify **Leslie Marshall** of **College of the Redwoods** in writing, via mail to **7351 Tompkins Hill Rd., Eureka, CA 95501**, or by email at

Leslie-Marshall@Redwoods.edu

All other terms and conditions of BID are to remain the same.

tBP/Architecture

1777 Oakland Boulevard, Suite 320

Walnut Creek, CA 94596

925.246.6419

Architect of Record: Philip J Newsom

END OF ADDENDUM #2

DIVISION OF THE STATE ARCHITECT


PRE-BID MEETING SIGN IN

Project Name: Community Stadium Upgrade Project
Campus: College of the Redwoods – Eureka Campus
District Project Number: _____

Date: January 11, 2023
Time: 11:00 AM
Location: College of the Redwoods – Eureka Campus Theatre Building

Name/Company	Email	Telephone
Justin Rose HELLAS	JROSE@HELLASCONSTRUCTION.COM	425-248-8779
Joe Williams R+B Horn Contractors	estimating@rborh.com	530-624-4069
Kyle Brown	Kyle@wahlcon.com	707-499-8283
Casey Coelho Wahlund Construction	bids@wahlcon.com	707-845-4465
John Thomas Mercer-Fraser	jthomas@mercerfraser.com	530-276-5539
Tony Kitchen KYA Services	christopher.kience@thekyagroup.com	916-661-1329
Casey Poff GR Sundborg, Inc	Casey@grisinc.biz	707-825-6565
Jason Pearce Norcal Carpenters	jpearce@NCCRL.org	510-975-0056
Cody Freitas Operating engineers	cfritas@OC3.org	(707) 801-4711
John Currier Fieldurf / Byrne	john.currier@barkettports.com	707 803-0861
ADAM PRITCHARD SEQUOIA CONST.	ADAM@SEQUOIACONST.COM	707-442-3596

Community Stadium Upgrade

Date	RFI	Request	Discipline	Ref	Question	Responded By:	Response
					Sheet E-101 asks for a 100A – 30 circuit sub panel, Specification section 26 24 16 covers panel boards. a.Sub section 2.2 & 2.4 asks for branch circuit metering is this required for the new sub panel. i. If it is required how will this be wired to the campus EMS system? ii. Will a data conduit be required? iii. Where will the data conduit terminate? iv. Is it required to be integrated into the EMS system? b.Sub Section 2.5 requires surge protection. i. Is this required for the sub panel?		
1/12	1	Wahlund	Elect	Spec 26 24 16		Chris Richards	a.Remove requirement for branch circuit metering for this panel. b.Yes, surge protection is required as noted in the referenced section.
1/12	2	FieldTurf	Track & Field	Dwgs	There is landscape turf referenced in the plans yet the landscape specs are missing. Please provide landscape turf specs. We would greatly appreciate having the RFI below clarified. Section 00 45 13 Bidders Qualifications is listed on the Division table of contents but it is not listed within the specs. The sections listed below contain the quoted passage about qualifications, can you confirm that these are the exact qualifications that bidders' must meet? <ul style="list-style-type: none"> Section 31 22 16 – Field and Track Subgrade Establishment Section 32 84 00 – Field Washwater Section 33 46 00 – Subdrainage Section 33 46 23.16 – Field Permeable Aggregate 	Bob Harding	The "Landscape" Turf area, is on the slope, to the south of the visitor bleacher terrace. All turf on the project, whether turf for the field, or "Landscape" turf shall be the same product.
1/12	3	R & R Horn	Track & Field	00 45 13	" 1. Contractor or sub-contractor shall be and has been actively and directly engaged in, constructing similar natural or synthetic field projects for a period of five (5) or more years, and shall provide proof of four (4) or more sports field base installations completed in the past two (2) years, as used in this section means a project similar in character to the work in which each respective firm or their employee will perform on this project. The "similar project" shall also be equal or greater in scale and complexity than the work for which each firm will be engaged to perform on this project. The "similar" project must be a natural or synthetic turf athletic field and/or a rubberized running track project, consisting of at least 75,000 sf of field surface area and a 400m, 8 lane running track. The Contractor's experience shall include completion of high school, college, or professional level competition fields. The playing field system shall include earthwork, washwater or irrigation systems, drainage and subsurface drainage systems, and base aggregate placement and compaction. Provide a listing of all construction contracts (whether completed or in progress) entered into or performed by the Contractor or subcontractor within the past five years for projects similar in scope, time and complexity to the work called for under this Contract; include the names of the contracts, and the names and contact information of the owners." Alternate #1, please confirm if the supplemental pad is included in the D-Zone warm-up area and the small infilled turf area south-east of the field.	Bob Harding	The experience requirement is for the subcontractor, or operators that are completing the work in the specified sections. It is not a requirement of the general contractor – other than to make sure the subcontractors doing the work meet the qualification requirements. The legend on F-1.1 indicates the area of turf which receives supplemental pad – essentially all areas that are not "landscape turf". So, the areas at each of the field within the track oval; and the turf area adjacent to the high jump shall have supplemental pad.
1/12	4	FieldTurf	Track & Field			Bob Harding	LAYOUT LEGEND <hr/> INFILLED SYNTHETIC TURF OVER BASE BID: PERMEABLE AGGREGATE ADDITIVE ALTERNATE #1: SUPPLEMENTAL PAD OVER PERMEABLE AGGREGATE
1/12	5	FieldTurf	Track & Field	2.3 Additive Alternate #1 & 1.3 Synthetic Turf	Please find attached FieldTurf's substitution requests. 1.Turf system: FieldTurf XM360 2.Pad system (Alternate #1): Shockbase PRO	Bob Harding	Those are no exceptions taken and acceptable.(See addendum #2)
1/12	6	Shaw Sports Turf and Shawgrass	Track & Field		Will you consider Shaw Sports Turf's Add Alt #1 for the Shock Pad. I wanted to submit Shaw's performance shock pad as an option, it works much better than the others listed, keeps costs down, easier and quicker to install and is cradle certified and made up of 80% of recycled material to keep turf fields out of landfills, not sure if sustainability is important to the college. See attached documentation. We have our NXTPlay shock pad down at Georgia Tech University.	Bob Harding	With respect to previously submitted Shaw Sports Turf Supplemental Pad, that product is not an equal to the specified product as it is not interlocking, and is not 25mm thickness. There is not a complete substitution request form.
1/12	17	Will Hobbs	District		Why were the DVBE requirements and participation goals stricken from this contract as part of addendum 1?	District	Some community college districts can opt into requiring a DVBE percent, or leave it in the bid docs as an incentive. But generally, CCDs are exempt from requiring it. See CalVet's website : https://www.calvet.ca.gov/VetServices/Documents/Chapter%20III%20Program%20Policy%20and%20Policy%20Statements.docx At page 14 of its Statewide SB/DVBE Advocate Tool Kit, SB/DVBE Program Policy publication, it confirms that community colleges are exempt from including DVBE program participation requirements in its contracts and procurements. Please see the response from legal to the earlier RFI. CCDs are exempt from requiring DVBE. Some community college districts can opt into requiring a DVBE percent, or leave it in the bid docs as an incentive, which I believe was the intention for the original bid language. Please leave in the first sentence that encourages DVBE bidders to apply, and strike the second sentence about DVBE requirements.

Community Stadium Upgrade

1/12	18	Wahlund Construction, Inc.	District		I noticed that this addendum states "NOTICE TO ALL PRE-QUALIFIED CONTRACTORS ONLY:", but I do not recall a project specific prequalification for this project. Is this referring to the annual prequalification for CR contractors? Just making sure there wasn't a project specific prequal for the stadium project.	District	There is no specific prequalification to this Stadium Project. Reference to prequalification in Section 00 21 13 INSTRUCTIONS TO BIDDERS has been omitted. Language in Addendum 1 referencing prequalified bidder was in error.
<p>We have the following additional questions regarding the CR Community Stadium project:</p>							
1/15	19	Wahlund Construction, Inc.	District	Spec 00 54 36	1. There is a spec section for Building Information Modeling (BIM) 00 54 36, requiring the Contractor to create a model, post weekly updates, provide (3) licenses of BIM 360 Collaborate, run clash detections, etc. Please confirm if the contents of this spec section is correct and will be followed during Construction. In reading this spec and our understanding of BIM modeling in general, it seems that BIM is more relevant to building construction with multiple trades rather than the scope of work given for this project.	District	Spec 00 54 36 removed the requirement for BIM
1/15	20	Wahlund Construction, Inc.	Track and Field	32 18 23 1.3A	2. We would like to request Valley Precision Grading(VPG)/Tencate - Allsport Diamond Turf be included with the pre-approved Synthetic Turf Contractor/Vendors and corresponding products listed in spec 32 18 23 1.3 A. The manufacturer of this system, Tencate, is already a listed manufacturer under this spec section. VPG takes no exception to the specified pad and infill systems and will warrant their use with the proposed turf product. Please reference the attached substitution request package, in accordance with specification.	Bob Harding	This is no exceptions taken and is acceptable.(See addendum #2)
1/15	21	Mountain F. Enterprises	District		Just to verify have all the trees been removed at the stadium? Plans call out stumps to be removed, And if so is there a list of contractors that we could be added to for future tree work that maybe needed.	District	There is a tree removal plan that will be included in Addendum 2, as an informational item only, which specifies all trees to be removed to ground. The Addendum 2 is set to be posted to the CR website today. Due to time constraints, the removal is a separate project, not included in the scope of the Stadium Project, and the College has engaged Dan Collings Tree Service to do the work. The College does not keep a formal list of contractors, but I will take your contact information for future consideration. You can also apply to be on the CUPCCAA list as a Contractor as well. Drawing CD 101 a. Response: Contractor shall coordinate with campus operations staff during construction. The exact layout of the irrigation system is unknown.
1/15	22	r & r Horn	Civil	CD - 101	a.Note 2: What modifications are required? b.Note 4: Are the existing pipe type and size know? c.Note 5: Is the pipe type know? d.Note 6: Please confirm the existing valves will be re used.	Michelle Davidson	b. Response: Pipes are anticipated to be 12–24-inch CMP. Some pipes may be asbestos-cement material. c. Response: The pipe type is fusible PVC or HDPE. Contactor to verify. d.Response: The contractor may reuse the valves, if they can be carefully removed and relocated. Contractor to verify valve type and fittings required. If the valves are damaged during removal, contractor to furnish new valves
1/15	23	r & r Horn	Track & Field	F2.1	a.Detail 5 calls out quarry spalls. What are the requirements for quarry spalls?	Bob Harding	material shall be 2"-4" angular stone with minimum 75% fractured face
1/15	24	r & r Horn	District	Specs	1.Section 00 54 36: Please confirm BIM is not required on this project. 2.General Conditions: Section 40 Item e – Please confirm 50% of the project demolition is to be diverted from the landfill. 3.Specification section 00 30 00: Are there as built and hazardous material reports related to this project? Information not found on district web page. 4.Specification section 01 11 00 – 1.9A: Please confirm 40 work days are to be added as “bank” days to the CPM schedule. 5.Specification section 01 11 00 – 1.6A1-4: Do all these administrative requirements apply to this job? 6.Specification section 00 21 13 -4: States RFI's can be submitted 5 days prior to bid date. The pre bid packet section 4 states the last day is 1/15/24. Please confirm the date. Please see attached substitution request together with some supporting information on our company and products. We would love to be able to quote our product for your project, this would also ensure that you were getting the most value for money by getting competitive pricing from one more of the major players within the turf industry. We are commonly very competitive with our pricing which could help you to save some money on the project, whilst also ensuring you are getting an industry leading manufacturer committed to quality and testing of our products. Do not hesitate to let me know if you have any questions or need any more information.	District	District's Response: Deleted in updated Div 0 Specs. BIM is not required. 1. Section 2. This is a requirement for this project for concrete, steel or wood specifically. 3. Hazardous Materials Report is included in Addendum 2. 4. 8 days, please see Addendum 2 for updated specifications. 5. All with the exception of the BIM Coordinator apply. The thresholds are also being reduced for this project from \$20 million to \$10 million, based on project scope 6.Final RFI Date was 1/15/24.
1/16	25	Act Global	Track & Field	Sub. Request Form	Sub. Request Form	Bob Harding	Substitution not accepted as the contract document/specification requirements were not met with respect to product warranty, local representation, and installer qualifications.
1/16	26	Hellas	Track & Field	Specs 32 18 23	Substitution Requests - Hellas Supplemental Pad (SoteriaMax)	Bob Harding	This is no exceptions taken and is acceptable.(See addendum #2)
1/16	27	Wahlund Construction, Inc.	Track & Field	Sub. Request Form	Substitution Requests - Alternate Turf	Bob Harding	This is no exceptions taken and is acceptable.(See addendum #2)
1/16	28	Valley Precision Grading	Track & Field	Specs 32 18 23 1.3A	Substitution Requests - TenCate - AllSport Diamond 2.25" 48oz, VPG Inc.	Bob Harding	This is no exceptions taken and is acceptable.(See addendum #2)

Community Stadium Upgrade

1/17 29 Field Turf District

Do you have the list of the prequalified general contractors able to bid this project?

District Prequalified general contractors removed from bid docs



December 15, 2023

Asbestos and Lead Survey Report

Stadium Retrofit Project

Redwoods Community College
7351 Tompkins Hill Road
Eureka, CA 95501

Prepared for:

Ms. Leslie Marshall

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Prepared By:

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FACS Project #PJ79640

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Attachment II	Sample Location Drawings
Attachment III	Asbestos Results Table
Attachment IV	Laboratory Report with Chain of Custody
Appendix B	Lead Inspection Documents
Attachment I	Lead Results Table
Attachment II	Laboratory Report with Chain of Custody
Appendix C	Representative Photographs
Appendix D	Certifications of Personnel



List of Acronyms

ACCM	Asbestos Containing Construction Material
ACM	Asbestos Containing Material
AHERA	Asbestos Hazard Emergency Response Act
AIHA	American Industrial Hygiene Administration
APCD	Air Pollution Control District
AQMD	Air Quality Management District
CAC	Certified Asbestos Consultant
Cal/OSHA	California Occupational Safety and Health Administration
CARB	California Air Resources Board
CCR	California Code of Regulations
CDPH	California Department of Public Health
CFR	Code of Federal Regulations
CSST	Certified Site Surveillance Technician
DOSH	Division of Occupational Safety and Health
DTSC	Department of Toxic Substances Control
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency
FACS	Forensic Analytical Consulting Services, Inc.
Flame AAS	Flame Atomic Absorption Spectroscopy
HUD	Housing and Urban Development
LBP	Lead-Based Paint
LCM	Lead-Containing Material
NCUAQMD	North Coast Unified Air Quality Management District
NESHAP	National Emissions Standard for Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
NIST	National Institute of Science and Technology
NVLAP	National Voluntary Laboratory Accreditation Program
PLM	Polarized Light Microscopy
SGS-FL	SGS Forensic Laboratories
TEM	Transmission Electron Microscopy
TTLC	Total Threshold Limit Concentration



Executive Summary

Forensic Analytical Consulting Services, Inc. (FACS) was retained by Redwoods Community College District to perform an asbestos and lead survey in support of the Stadium Retrofit Project located at 7351 Tompkins Hill Road in Eureka, California. The survey was limited to suspect asbestos-containing material (ACM) and lead-containing material (LCM) that will be disturbed during the renovation project. The survey was performed on December 7, 2023.

Asbestos

The following materials were identified as asbestos-containing materials:

No materials were identified as, or assumed to be, asbestos-containing during this survey.

The asbestos survey information provided in Appendix A has been formatted to meet the reporting requirements of the Federal National Emissions Standard for Hazardous Air Pollutants (NESHAP) and the California Air Resources Board (CARB).

Lead

The following materials were identified as lead-containing materials:

Yellow Paint on Goal Posts

Black Paint on Flag Poles

The following materials were identified as LBPs:

Yellow Paint on Wood at the Equipment Shed Eave

Any suspect materials not included in this inspection must be assumed to be ACM or LCM until such time as they are tested and proven not to contain asbestos or lead.

FACS recommends that the results of this report be incorporated into any renovation/demolition plans for this building.



Introduction

Forensic Analytical Consulting Services, Inc. (FACS) was retained by Redwoods Community College District to perform an asbestos and lead survey in support of the Project located at 7351 Tompkins Hill Road in Eureka, California. The survey was limited to suspect asbestos-containing material (ACM) and lead-containing material (LCM) that will be disturbed during the proposed renovation project. The survey was performed on December 7, 2023.

All FACS personnel conducting asbestos inspections are accredited Environmental Protection Agency (EPA), Asbestos Hazard Emergency Response Act (AHERA) – 40 CFR Part 763 Building Inspectors and a State of California, Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA), Certified Asbestos Consultant (CAC) or a Certified Site Surveillance Technician (CSST) working under the direction of a CAC. All FACS personnel conducting lead inspections are State of California, California Department of Public Health (CDPH) certified Inspector/Assessor (I/A) or Sampling Technician (ST) working under the direction of an I/A.

Additional information is provided in the following appendices:

- Appendix A – Asbestos Inspection Documents.
 - The asbestos survey information provided in Appendix A has been formatted to meet the reporting requirements of the Federal National Emissions Standard for Hazardous Air Pollutants (NESHAP) as enforced by the North Coast Unified Air Quality Management District (NCUAQMD).
- Appendix B – Lead Inspection Documents.
- Appendix C – Representative Photographs.
- Appendix D – Certifications of Personnel.

Scope of Work

The purpose of this survey was to identify all ACMs and LCMs that will be disturbed as part of the HBM Inspection for Asbestos and Lead Stadium Retrofit project. The visual inspection, bulk sampling, and survey documentation were performed by Khaianne Peters and certifications CSST# 23-7401 and CDPH# 10496 (ST) working under the supervision of James Rich, CAC #96-2035 and CDPH #00000928 (I/A), as required by regulations. The scope of the survey and the services provided by FACS included:

- Performing a visual inspection of the building to identify accessible suspect ACM and LCM that may be disturbed during the planned renovation project;
- Collection of bulk samples of suspect ACM for asbestos content analysis by Polarized Light Microscopy (PLM) using the EPA Method 600/R-93/116;
- Collection of bulk samples of suspect LCM for lead content analysis by Flame Atomic Absorption Spectrometry (FAAS) using EPA Method 3050B/7000B;
- Ensuring the technical quality of all work by using EPA - AHERA accredited Building Inspectors, Management Planners and CDPH accredited personnel.
- Consolidating data and findings into a report format.

Site Characterization

The subject site is located at a community college, used as the campus football field and track. This area is comprised of a grass field, surrounded by a rubber track and asphalt walkways. There is an equipment shed situated near the south east corner of the track and field. This shed houses maintenance materials used for the area, such as paints, chalk, rubber mats and some sports-related equipment.

The suspect building materials identified that will or may be disturbed during the planned renovation included:

- Concrete
- Roofing materials
- Various paints

Survey Methods

Asbestos Inspection

Visual Inspection

Accessible building materials were visually inspected using the methods presented in the federal AHERA regulations [40 Code of Federal Regulations (CFR), Part 763] and federal HUD guidelines. While AHERA is only directly applicable to public schools and the HUD guidelines are only directly applicable to public housing, the principles presented under the above referenced rules are generally accepted as the industry standard for ACM inspections.

No rooms were inaccessible during this inspection.

Accessible building materials were inspected using the methods presented in the federal AHERA regulations [40 Code of Federal Regulations (CFR), Part 763] as a guideline. Suspect ACMs were physically assessed for friability, condition and possible disturbance factors.

Bulk Sample Collection

Bulk samples of identified homogeneous areas were collected in building areas that may be impacted by the planned renovation/demolition activities. Samples were collected of each separate homogeneous area. A homogeneous area is defined as a surfacing material, thermal system insulation, or miscellaneous material that is uniform in use, color and texture. Examples of homogeneous areas could include:

- Floor tile
- Ceiling tile
- Gypsum wallboard and joint tape compound
- Linoleum



The specific number of samples collected was primarily determined by using the methods presented in the federal AHERA regulations (40 CFR, Part 763.86):

- For Surfacing Material:
 - 1,000 square feet (ft²) or less - collect 3 samples
 - 1,001 to 5,000 ft² - collect 5 samples
 - 5,001 ft² or greater - collect 7 samples
- For Thermal System Insulation:
 - "In a randomly distributed manner" - collect 3 samples
 - 6 linear feet of patching or less - collect 1 sample
 - cementitious pipe fittings - "In a manner sufficient to determine"
- For all Miscellaneous Material:

Collect samples "In a manner sufficient to determine whether material is ACM or not ACM..."

The suspect ACMs were sampled using a knife or other similar coring device suitable to the type of material sampled to cut through its entire thickness and to ensure that a cross-section of the material was obtained. The material was then placed in an appropriately labeled container that was sealed and submitted to SGS Forensic Laboratories, Inc. for analysis. A unique sample number (e.g. 79640-101-01) was assigned to each sample.

Bulk samples will be retained by the laboratory for one month unless otherwise instructed. After this period, the samples will be disposed of appropriately.

Bulk Sample Analysis

A total sixteen (16) bulk samples were collected. Bulk samples were analyzed by SGS Forensic Laboratories, Inc. (SGS-FL) in Hayward, CA. SGS is accredited by the California Department of Public Health (CDPH) and the National Institute of Science and Technology's (NIST) National Voluntary Laboratory Accreditation Program (NVLAP). SGS-FL participates in the National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing Program and has substantial experience in the analysis of asbestos.

All of the samples were analyzed using Polarized Light Microscopy with Dispersion Staining (PLM/DS) techniques in accordance with the methodology approved by the U.S. EPA. The percentage of asbestos present in the samples was determined on the basis of visual area estimation. The EPA defines ACM as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM). 40 CFR Part 763 identifies the lower limit of reliable quantification for asbestos using the PLM method as approximately one percent (1%) by volume. Regulations in California [Cal/OSHA Title 8 California Code of Regulations (CCR) 1529] define asbestos-containing construction materials (ACCM) as those materials having asbestos content of greater than one tenth of one percent (> 0.1%). Therefore, for the purpose of this survey, any amount of asbestos detected will be considered positive. In addition to the percentages, the types of asbestos minerals are also reported. The PLM method is the standard method used to analyze asbestos bulk samples.

When "None Detected" (ND) appears in the laboratory results, it should be interpreted as meaning no asbestos was observed in the sample material.

Lead Inspection

The lead survey was not a comprehensive Lead-Based Paint (LBP) or building material survey as detailed in the "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing" by The National Center for Lead-Safe Housing for Housing and Urban Development (HUD).

The U.S. Environmental Protection Agency (EPA), HUD, and CDPH define Lead-Based Paints (LBPs) as paints containing greater than 0.5% lead by weight, 5,000 parts per million, or 1.0 milligram per square centimeter (mg/cm²) total lead.

Cal/OSHA, in Title 8 CCR Section 1532.1, Lead in Construction Standard which implements California labor code 8716-6717, regulates all construction work where an employee may be occupationally exposed to lead. Paint or materials with any detectable level of lead is considered lead-containing by Cal/OSHA.

For purposes of this report, materials containing lead shall be defined as materials that contain lead at levels greater than the limit of detection for lead by weight using Flame AA laboratory analysis.

Construction work impacting materials with detectable levels of lead is subject to Cal/OSHA requirements.

Construction activities, sometimes referred to as trigger tasks, impacting materials containing any amount of lead require an initial exposure assessment. Trigger tasks are defined in Cal/OSHA 1532.1, section (d) (2) and include but are not limited to such tasks as: manual demolition, manual scraping, manual sanding, lead burning, abrasive blasting, welding, cutting and torch burning.

Visual Inspection

Accessible building materials were visually inspected using the methods presented in the federal HUD guidelines. While the HUD guidelines are only directly applicable to public housing, the principles presented are generally accepted as the industry standard for lead paint inspections.

Samples were collected from representative components, not every individual component. Lead results are assumed to be the same on like components in the same general area of the representative component that was sampled.

Bulk Sample Collection

A total of six (6) samples were collected. The paint chip samples were collected by scraping paint from the surface down to the substrate while taking care not to include substrate in the sample. All paint layers were included in the samples collected. A razor, knife or other similar tool was used, and the tools were cleaned after sample collection. The samples were individually packed, labeled and transported following proper chain-of-custody procedures to the analytical laboratory for flame atomic absorption analysis. It should be noted that the purpose of the lead survey was to assist with Cal/OSHA compliance and was not intended to be a lead-based paint inspection or risk assessment as defined by the U.S. Department of HUD.

Bulk Sample Analysis

Samples were analyzed by SGS-FL in Hayward, California. SGS-FL is accredited by the California Department of Public Health's (CDPH) Environmental Laboratory Accreditation Program (ELAP), and the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP). The samples were analyzed using EPA method 3050B/7420, flame atomic absorption analysis.

Findings and Recommendations

FACS conducted an asbestos and lead inspection survey in support of the HBM Inspection for Asbestos and Lead Stadium Retrofit project located at 7351 Tompkins Hill Rd in Eureka, California for the presence of ACMs and LCMs that will be impacted by the proposed renovation project.

Asbestos

The following materials were identified as ACMs during the survey:

No materials were identified as, or assumed to be, asbestos-containing during this survey.

Major renovations and/or demolition of the structures involved in this inspection must be permitted and conducted in compliance with Federal NESHAP as enforced by the CARB.

Any suspect materials not included in this inspection must be assumed to be an ACM until such time as they are tested and proven not to contain asbestos.

Lead

The following materials were identified as LCMs during the survey:

Yellow Paint on Metal Goal Posts

Black Paint on Metal Flag Poles

The following materials were identified as LBPs:

Yellow Paint on Wood at the Equipment Shed Eave

Any suspect materials not included in this inspection must be assumed to be an LCM until such time as they are tested and proven not to contain lead.

FACS recommends that the results of this report be incorporated into any renovation/demolition plans for this building.

Recommendations:

Demolition or renovation activities, which could disturb ACMs and/or LCMs should be performed by properly trained and qualified personnel only, and in accordance with federal, state, and local regulations, as implemented by Cal/OSHA, EPA, DTSC and the local AQMD or APCD. Prior to any demolition or renovation work, FACS recommends that the following actions be taken:

- The ACMs and LCMs can be “managed in place” unless the materials are disturbed, repaired, or removed.
- A 10-working-day notification is required to the local AQMD, APCD or CARB for every demolition project even when no ACMs are present.
- Prior to the initiation of the abatement work, the abatement contractor must complete a Notification of renovation/demolition form and a Cal/OSHA 24-hour notification (when required) and submit the forms to the appropriate agencies.
- Notification should be provided to contractors, subcontractors, and all other individuals having access to the site as to the presence of ACMs and LCMs.

- If a suspect material(s) was not accessible during the initial inspection and is discovered during renovation/demolition activities, the suspect material(s) must be assumed to contain asbestos or lead. FACS recommends the material be sampled and analyzed to determine if asbestos or lead are present.
- Metals painted with lead-containing paint or lead-based paint can be recycled.
- Wood painted building components with lead-containing paint or lead-based paint will require leachability sampling to determine disposability options.

Limitations

This investigation is limited to the conditions and practices observed and information made available to FACS. The methods, conclusions and recommendations provided are based on FACS' judgment, expertise and the standard of practice for professional service. They are subject to the limitations and variability inherent in the methodology employed. As with all environmental investigations, this investigation is limited to the defined scope and does not purport to set forth all hazards, nor indicate that other hazards do not exist.

Please do not hesitate to contact our offices at 916-726-1303 with any questions or concerns. Thank you for the opportunity to assist Redwood Community College District in promoting a more healthful environment.

Respectfully, Reviewed by:

FORENSIC ANALYTICAL

FORENSIC ANALYTICAL



Khaianne Peters
Certified Asbestos Consultant No. 23-7401
CDPH #10496
Environmental Health Specialist II



James Rich
Certified Asbestos Consultant No. 96-2035
CDPH #0000928
Senior Project Manager



Appendix A

Asbestos Inspection Documents



Appendix A

Attachment I

Material Classifications

Asbestos

No materials were identified as, or assumed to be, asbestos-containing during this survey.

The following Regulated Asbestos-Containing Materials (RACM) are present and therefore must be removed prior to demolition.

- None

Category 1 - Nonfriable ACM packings, gaskets, resilient floor coverings (not including backing), and asphaltic roofing materials that will be subjected to cutting, grinding, sanding, drilling or abrading during demolition or renovation activities must be removed prior to the demolition or renovation. The following Category 1 materials are present.

- None

Category 2 - Nonfriable materials other than Category I materials that have a high probability of becoming crumbled, pulverized, or reduced to powder by the forces expected to act upon them during demolition or renovation must be removed prior to the demolition or renovation. The following Category 2 materials are present.

- None

Major renovations and/or demolition of the structures involved in this inspection must be permitted and conducted in compliance with Federal NESHAP and CARB.

Any suspect materials not included in this inspection must be assumed to be asbestos-containing materials until such time as they are tested and proven not to contain asbestos.

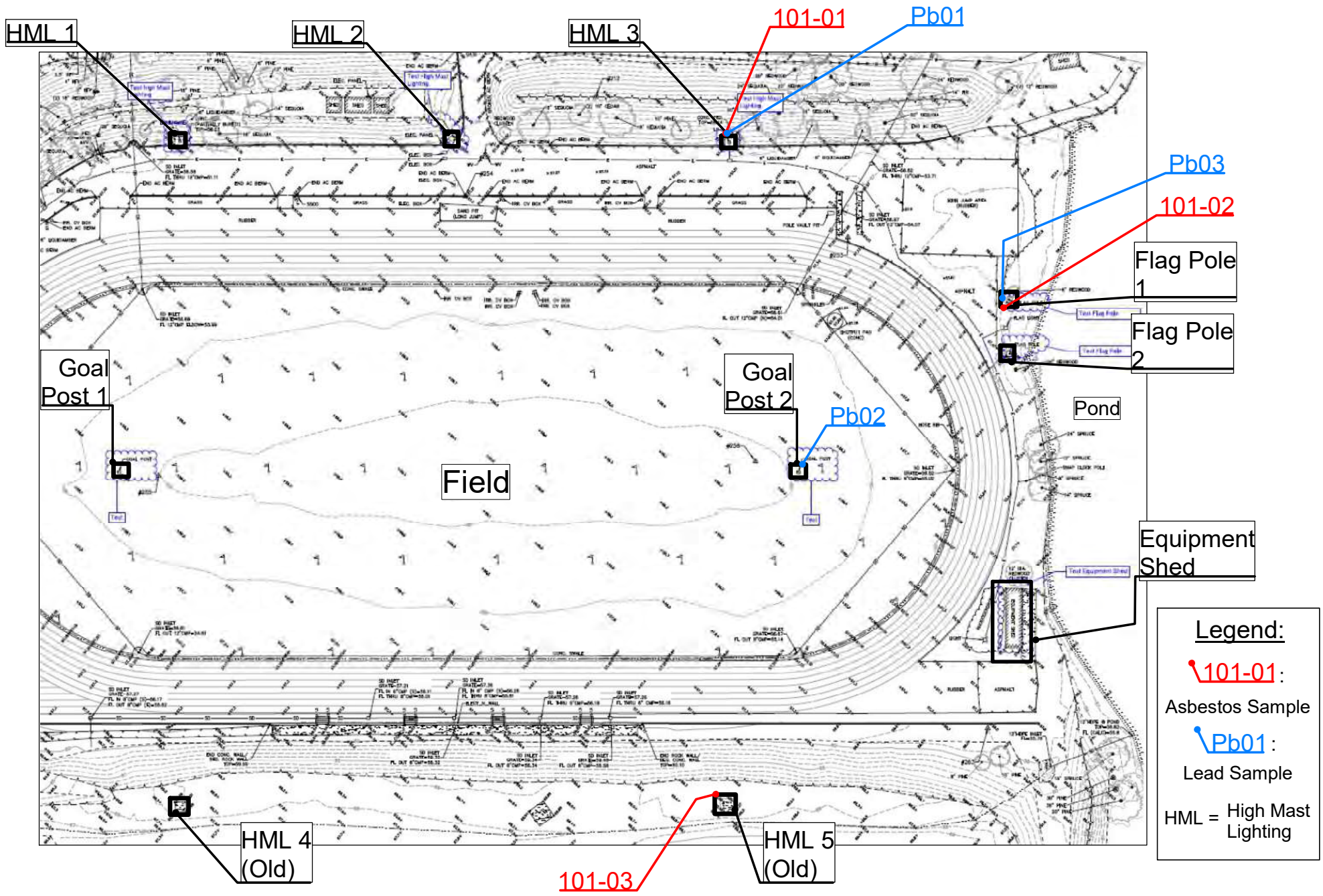


Appendix A

Attachment II

Sample Location Drawings





Legend:

- └─┘ 101-01: Asbestos Sample
- └─┘ Pb01: Lead Sample
- HML = High Mast Lighting

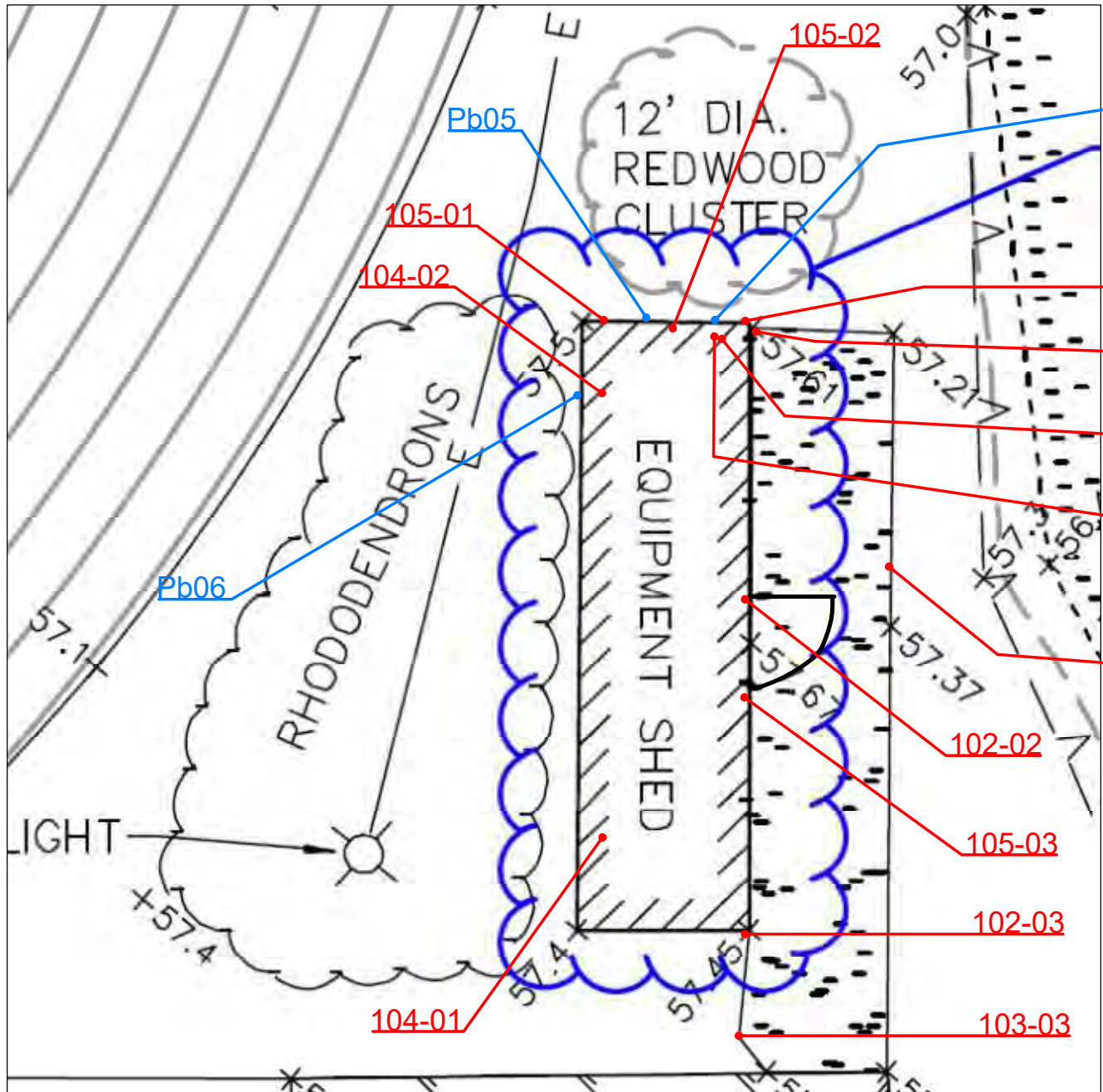


This is a design drawing and is the property of Forensic Analytical Consulting Services, Inc. It is not intended to replace required architectural or engineering plans. This drawing is not to be reused or reproduced without written permission from FACS.

Sample Location Diagram
HBM Inspection for Asbestos and Lead Stadium Retrofit Project

CLIENT: Redwoods Community College District
 LOCATION: College of the Redwoods
 7351 Tompkins Hill Road
 Eureka, CA 95501

JOB NUMBER: PJ79640
 DRAWN BY: Khaianne Peters



Legend:

● 101-01 :
Asbestos Sample

● Pb01 :
Lead Sample



Appendix A

Attachment III

Asbestos Results Table

Asbestos Survey Summary Lab Report B354701 HBM Inspection for Asbestos and Lead Stadium Retrofit Project Survey Date: December 7, 2023						
Sample Number	Material Description	Location(s) of Material	Material Number	Asbestos Content (percent)	NESHAP Classification	Approximate Quantity
101-01 thru 101-03	Concrete pad (base)	High Mast Lighting and Flag Poles - Bases	101	ND	N/A	N/A
102-01 thru 102-03	Concrete floor	Equipment shed	102	ND	N/A	N/A
103-01 thru 103-02	Concrete walkway	Equipment shed - Walkway	103	ND	N/A	N/A
104-01 thru 104-02	Roofing mastic	Equipment shed roof - at penetrations	104	ND	N/A	N/A
105-01 thru 105-03	Rolled composition roofing	Equipment shed roof	105	ND	N/A	N/A
106-01 thru 106-02	Foil/tar patch	Equipment shed roof	106	ND	N/A	N/A

N/A = Not Applicable; ND = None Detected; RACM = Regulated Asbestos Containing Material; Cat. 1 = Category I (nonfriable packings, gaskets, resilient floor coverings (not including backing), and asphaltic roofing; Cat. 2 = Category II (nonfriable materials other than Category I); Chy. = Chrysotile; Am. = Amosite; Trem. = Tremolite T = Tile; M = Mastic; SF = Square Feet; LF = Lineal Feet;

NOTE: This summary table must not be used alone. Important explanations and limitations are contained in the accompanying survey report text. Percent asbestos content is based upon visual area estimation unless noted otherwise (point count analysis was not performed).

Appendix A

Attachment IV

Laboratory Report with Chain of Custody



Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)
 NVLAP Lab Code: 101459-0

Forensic Analytical Consulting Svcs
 James Rich
 7625 Sunrise Blvd.
 Suite 104
 Citrus Heights, CA 95610

Client ID: SAC02
Report Number: B354701
Date Received: 12/11/23
Date Analyzed: 12/17/23
Date Printed: 12/18/23
First Reported: 12/18/23

Job ID/Site: PJ79640; Redwoods Community College District 7351 Tompkins Hill Rd Eureka CA 95501

SGSFL Job ID: SAC02
Total Samples Submitted: 16
Total Samples Analyzed: 16

Date(s) Collected: 12/07/2023

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
79640-101-01	12713988						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)		Asbestos (ND)					
79640-101-02	12713989						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)		Asbestos (ND)					
79640-101-03	12713990						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)		Asbestos (ND)					
79640-102-01	12713991						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)		Asbestos (ND)					
79640-102-02	12713992						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)		Asbestos (ND)					
79640-102-03	12713993						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)		Asbestos (ND)					
79640-103-01	12713994						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)		Asbestos (ND)					
79640-103-02	12713995						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components: Cellulose (Trace)		Asbestos (ND)					

Client Name: Forensic Analytical Consulting Svcs

Report Number: B354701

Date Printed: 12/18/23

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
79640-103-03	12713996						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
79640-104-01	12713997						
Layer: Black Mastic			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
79640-104-02	12713998						
Layer: Black Mastic			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
79640-105-01	12713999						
Layer: Stones			ND				
Layer: Black Semi-Fibrous Tar			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Synthetic (5 %)							
79640-105-02	12714000						
Layer: Stones			ND				
Layer: Black Semi-Fibrous Tar			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Synthetic (5 %)							
79640-105-03	12714001						
Layer: Stones			ND				
Layer: Black Semi-Fibrous Tar			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Synthetic (5 %)							
79640-106-01	12714002						
Layer: Stones			ND				
Layer: Black Semi-Fibrous Tar			ND				
Layer: Foil			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Synthetic (5 %)							
79640-106-02	12714003						
Layer: Stones			ND				
Layer: Black Semi-Fibrous Tar			ND				
Layer: Foil			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Synthetic (5 %)							

Client Name: Forensic Analytical Consulting Svcs

Report Number: B354701

Date Printed: 12/18/23

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
-----------	------------	---------------	------------------	---------------	------------------	---------------	------------------



Maria Casper, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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Client: SAC02 Sacramento, CA Office 7625 Sunrise Boulevard Suite 104 Citrus Heights, CA 95610		Sampled By: KHAI PETERS		Sample Date: 12/7/23	
		Turnaround Time: RUSH 24 hr 48 hr Extended (<u>5</u> days)			
		Analysis: <input checked="" type="checkbox"/> PLM Standard <input type="checkbox"/> PLM w/ Point Count(<input type="checkbox"/> 400 pt.; <input type="checkbox"/> 1,000 pt.)			
		Special Instructions:			
Site: 7351 Tompkins Hill Rd Eureka, CA 95501 USA			FACS Job Number: PJ79640		
FACS Project Manager: James M Rich			FACS PM Phone: 916-726-1303		
Email results to: jim.rich@facs.com			PO #: PO10877		
HA # / Sample Number	Homogeneous Material Description	Sample Location	Photo # (if applicable)		
79640-101-01	CONCRETE PAD (BASE)	HIGH MAST LIGHTING #3			
79640-101-02	CONCRETE PAD (BASE)	FLAG POLE #1			
79640-101-03	CONCRETE PAD (BASE)	HIGH MAST LIGHTING #5			
79640-102-01	CONCRETE FLOOR	EQUIPMENT SHED, N/W CORNER			
79640-102-02	CONCRETE FLOOR	EQUIPMENT SHED, WEST EAST SIDE, CENTER @ DOORWAY			
79640-102-03	CONCRETE FLOOR	EQUIPMENT SHED, EAST SIDE, SOUTH CORNER			
79640-103-01	CONCRETE WALKWAY	NEAR EQUIPMENT SHED, N/W CORNER			
79640-103-02	CONCRETE WALKWAY	NEAR EQUIPMENT SHED, EAST SIDE, CENTER AREA			
79640-103-03	CONCRETE WALKWAY	NEAR EQUIPMENT SHED, S/W CORNER			
79640-104-01	ROOFING MASTIC (PENETRATIONS)	EQUIPMENT SHED ROOF, WEST SIDE, SOUTH END			
Sampled & Relinquished by: <i>khacanned</i>		Relinquished by:		Relinquished by:	
Date & Time: 12/8/23 1000		Date & Time:		Date & Time:	
Received by: <i>FX-1622</i>		Received by:		Received by:	
Date & Time: DEC 11 2023 <i>JP</i>		Date & Time:		Date & Time:	

RECEIVED
 DEC 11 2023
 BY: *[Signature]*



Forensic Analytical Consulting Services

Sampling Data Form/Chain of Custody

Client: SAC02 Sacramento, CA Office 7625 Sunrise Boulevard Suite 104 Citrus Heights, CA 95610		Sampled By: KHAI PETERS	Sample Date: 12/7/23
		Turnaround Time: RUSH 24 hr 48 hr Extended (<u>5</u> days)	
		Analysis: <input checked="" type="checkbox"/> PLM Standard <input type="checkbox"/> PLM w/ Point Count(<input type="checkbox"/> 400 pt.; <input type="checkbox"/> 1,000 pt.)	
		Special Instructions:	
Site: 7351 Tompkins Hill Rd Eureka, CA 95501 USA		FACS Job Number: PJ79640	
FACS Project Manager: James M Rich		FACS PM Phone: 916-726-1303	
Email results to: jim.rich@facs.com		PO #: P010877	
HA # / Sample Number	Homogeneous Material Description	Sample Location	Photo # (if applicable)
79040-104-02	ROOFING MASTIC (PENETRATIONS)	EQUIPMENT SHED ROOF, N/W AREA (EQ)	
79040-105-01	ROLLED COMPOSITION ROOFING	EQ SHED - ROOF, NORTH END, WEST SIDE	
79040-105-02	ROLLED COMPOSITION ROOFING	EQ SHED - ROOF, NORTH END, CENTER	
79040-105-03	ROLLED COMPOSITION ROOFING	EQ SHED - ROOF, EAST SIDE, CENTER AREA	
79040-106-01	FOIL/TAR PATCH	EQ SHED - ROOF, N/E AREA, N/W ON PATCH	
79040-106-02	FOIL/TAR PATCH	EQ SHED - ROOF, N/E AREA, S/E ON PATCH	
			KP
Sampled & Relinquished by: <i>khaiannell</i>		Relinquished by:	Relinquished by:
Date & Time: 12/8/23 1000		Date & Time:	Date & Time:
Received by: <i>Scm</i>		Received by:	Received by:
Date & Time: DEC 11 2023		Date & Time:	Date & Time:

RECEIVED
BY: *[Signature]* FO-1622

Appendix B

Lead Inspection Documents



Appendix B

Attachment I

Laboratory Results Table

Lead Survey Summary Lab Report M256195 HBM Inspection for Asbestos and Lead Stadium Retrofit Project Survey Date: December 7, 2023					
Sample Number	Location	Component	Substrate	Color	Result (% by weight)
Pb01	High Mast Lighting Post	Light Pole	Metal	Black	<0.2
Pb02	Goal Posts	Goal Post	Metal	Yellow	0.04
Pb03	Flagpoles	Flagpole	Metal	Black	0.31
Pb04	Equipment Shed, N/E corner	Body	Wood	Brown	<0.02
Pb05	Equipment Shed, north, center	Exterior Window Trim	Wood	Brown	<0.05
Pb06	Equipment Shed, north end, west side	Exterior Eave	Wood	Yellow	3.1



Appendix B

Attachment II

Laboratory Report with Chain of Custody



Metals Analysis of Paints

(AIHA-LAP, LLC Accreditation, Lab ID #101762)

Forensic Analytical Consulting Svcs
 James Rich
 7625 Sunrise Blvd.
 Suite 104
 Citrus Heights, CA 95610

Client ID: SAC02
Report Number: M256195
Date Received: 12/11/23
Date Analyzed: 12/14/23
Date Printed: 12/18/23
First Reported: 12/18/23

Job ID / Site: PJ79640; Redwoods Community College District 7351 Tompkins Hill Rd Eureka CA 95501

SGSFL Job ID: SAC02

Date(s) Collected: 12/7/23

Total Samples Submitted: 6

Total Samples Analyzed: 6

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
79640-PB01	30931673	Pb	< 0.2	wt%	0.2	EPA 3050B/7000B
Comment: Sample submission below 0.1 grams.						
79640-PB02	30931674	Pb	0.04	wt%	0.02	EPA 3050B/7000B
79640-PB03	30931675	Pb	0.31	wt%	0.04	EPA 3050B/7000B
Comment: Sample submission below 0.1 grams.						
79640-PB04	30931676	Pb	< 0.02	wt%	0.02	EPA 3050B/7000B
Comment: Sample submission below 0.1 grams.						
79640-PB05	30931677	Pb	< 0.05	wt%	0.05	EPA 3050B/7000B
Comment: Sample submission below 0.1 grams.						
79640-PB06	30931678	Pb	3.1	wt%	0.2	EPA 3050B/7000B

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.



Kevin Poon, Laboratory Supervisor, Hayward Laboratory

Analytical results and reports are generated by SGS Forensic Laboratories at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by SGS Forensic Laboratories to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by SGS Forensic Laboratories. The client is solely responsible for the use and interpretation of test results and reports requested from SGS Forensic Laboratories. SGS Forensic Laboratories is not able to assess the degree of hazard resulting from materials analyzed. SGS Forensic Laboratories reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. Any modifications that have been made to referenced test methods are documented in SGS Forensic Laboratories' Standard Operating Procedures Manual. Sample results have not been blank corrected. Quality control and sample receipt condition were acceptable unless otherwise noted.

Note* Sampling data used in this report was provided by the client as noted on the associated chain of custody form.

Paint Chip Sample Request Form

PO# PO10877

Client: SAC02 Site: 7351 Tompkins Hill Rd Eureka, CA 95501 USA Sampled By: **KHAI PETERS**
 FACS: Sacramento, CA Office Date: **12/7/23**
 Redwoods Community College District Client #: C27123 PM: James M Rich
 Contact: James M Rich Phone: 916-726-3747 Proj #: PJ79640

Turnaround Time: <12hr Same-D 1-Day 2-Day 3-Day **5-Day** Other Due Date & Time:
 Analysis: **Flame AA (Pb)** Other
 Email results to: **JIM.RICH@FACS.COM**

Sample #	Sample Location	Component	Color	Substrate	Condition
791040-PB01	HIGH MAST LIGHTING #3	LIGHT POLE	BLACK	METAL	G
791040-PB02	GOAL POST #2	GOAL POST	YELLOW	METAL	F
791040-PB03	FLAG POLE #1	FLAG POLE	BLACK	METAL	G
791040-PB04	EQUIPMENT SHED, N/E CORNER	SHED BODY	BROWN	WOOD	F
791040-PB05	EQUIPMENT SHED, NORTH, CENTER	EXT. WINDOW TRIM	BROWN	WOOD	F
791040-PB06	EQUIPMENT SHED, NORTH END, WEST SIDE	EXT. EAVE	^{KP} YELLOW	WOOD	G

Substrate: wood, metal, concrete, plaster, drywall, brick **G-GOOD F-FAIR** KP

Shipped via: **FedEx** Airborne UPS US Mail Courier Drop Off Other

Relinquished by: khairianneto Date and Time: 12/8/23 1000	Relinquished by: Date and Time: DEC 11 2023	Relinquished by: Date and Time:
Received by: Date and Time:	Received by: Date and Time: [Signature]	Received by: Date and Time:

Appendix C

Representative Photographs



Photo #1: Three former high mast lighting, north side of track and field. Black paint on metal light pole, sample Pb01.



Photo #2: High mast lighting sitting on concrete base, material 101.



Photo #3: Goal post on east side of football field, yellow paint on metal, sample Pb02.



Photo #4: Two former flag poles on east side of track and field. Black paint on metal flag pole, sample Pb03.

Appendix C

Representative Photographs - Continued



Photo #5: Two former high mast lighting concrete bases, south side of track and field.



Photo #6: Equipment shed tucked away in south east corner of track and field area.

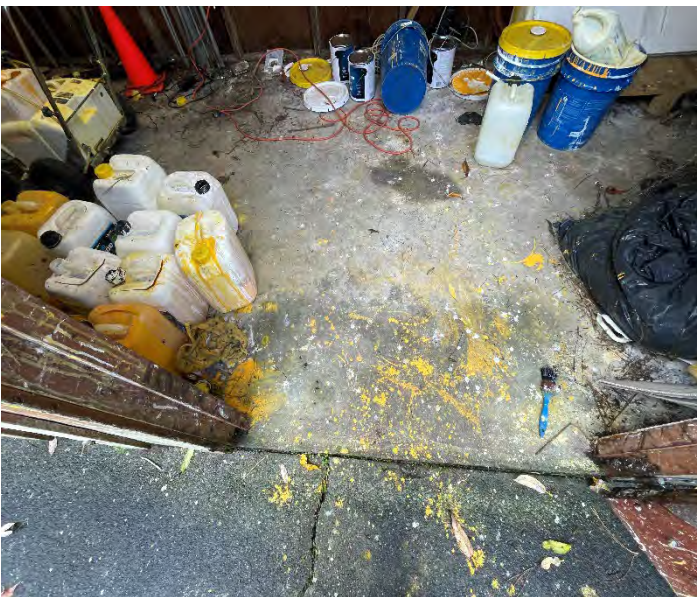


Photo #7: Concrete floor inside of shed (material 102) and concrete walkway up to shed (material 103).



Photo #8: Shed comprised of wood walls and ceiling.

Appendix C

Representative Photographs - Continued



Photo #9: Rolled composition roofing on equipment shed.



Photo #10: Roofing mastic at shed roof penetrations, (material 104).



Photo #11: Brown paint on wood body of shed and on window trim.



Photo #12: Yellow paint on wood eave, west side of equipment shed.

Appendix D

Certifications of Personnel



**Right People
Right Perspective
Right Now**

www.forensicanalytical.com

**SECTION 01 14 00
WORK RESTRICTIONS**

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY OF WORK RESTRICTION REQUIREMENTS

- A. Prior to the start of Work, Contractor shall familiarize itself with the Work Restrictions as they relate to all Work required by the Contract Documents.
- B. Temporary Work Activity Plan shall include:
 - 1. Full size drawing (30"x42") of site plan showing the proposed locations and dimensions of temporary facilities and activities, including but not limited to, all proposed office trailers, equipment and material storage areas on the Project Site; safe and ADA complaint access (ingress/egress) for pedestrians and vehicles around the construction areas; proposed haul routes; all temporary construction, and way-finding signage; temporary fenced area(s), noise and safety barriers, and dust partitions; and temporary measures to maintain continuous and uninterrupted code compliant use of all occupied and surrounding areas impacted by construction activities. Identify any areas that require temporary paving for stabilization or prevention of tracking of mud, and for ADA complaint ingress and egress. Indicate if the use of supplemental or other staging areas might be required. Also see Section 01 50 00 Temporary Facilities and Control for additional requirements.
 - 2. Contractor shall submit two (2) hard copies at the pre-construction meeting, and email Adobe PDF Format, of the initial submittal of the Temporary Work Activity Plan for review by the District, Architect, and by personnel from the Campus (e.g., Buildings & Grounds, Police Services, and other representatives).
- C. Contractor shall construct dust partitions and other barriers as required prior to the start of abatement or demolition activities, whichever may occur first, and they must remain in place until the completion of that activity where required.
- D. Contractor shall perform and complete all Temporary Work Activities to ensure the following:
 - 1. The work areas, roads, parking lots, and streets are to be kept clear, clean, and free of loose debris, construction materials and partially installed work which would create a safety hazard or interfere with subcontractor and personnel duties and traffic. The Contractor shall sweep the areas clean at the end of each workday and make every effort to keep dust and noise to a minimum at all times.

1.3 SUMMARY OF WORK RESTRICTIONS

- A. General:** All Temporary Work Activities must be completed within the timelines, work shift times, and the scheduled time period as required by the Contract Documents. Comply with the following:
1. The Temporary Work Activity Plan shall be approved by the District prior to any Work starting on the Project Site.
 2. Contractor shall have all temporary fencing, signage, ADA compliant pathways and other temporary measures described in Paragraph 1.2 above installed, operational and accepted by the District prior to starting Work as applicable.
- B. Time Related Work Restrictions within the Contract Time**
1. Although the Contract Time is a total of **120123** calendar days between the Notice to Proceed and Final Completion, as articulated in Section 00 52 00, Construction Agreement Form, Work by the Contactor is restricted and limited to specific time periods at specific locations during this contract duration as follows:
 - 1.1. **Milestones:**
 - 1.1.1 **Substantial Completion – 120 935**calendar days from the Notice to Proceed
 - 1.1.2 **Building Final Completion – 3** calendar days following Substantial Completion of the Community Stadium Upgrade Project.
 - 1.1.3 **College Move** ~~--Abatement and Demolition activities cannot start on the existing PE Structures until the College completes the move into the new PE buildings, which is anticipated to complete by the January start of the Spring 2027 semester.~~The move period for the College is **80–14** calendar days following Final Completion of the Community Stadium Upgrade Project.
 - 1.1.4 **Abatement and Demolition – Final Completion** of the project **120** calendar days from the College's completion of the move to the new facilities.
 - 1.2. **All Work at the Project Site:** Work at the Project Site cannot commence any earlier than **fourteen (14) calendar days** after the District issues the Notice to Proceed, unless approved by the District.
 - 1.3. **Rain and Impacts of Rain:** See Section 01 11 00, Summary of Work for related requirements to include in the Contractor's **P-6Microsoft Projects** Baseline Schedule an activity for rain and the impacts of rain on this project.
 - 1.4. **Saturday Work:** Contractor shall include in its bid the cost to work eight hours between 8AM and 5PM for **10** Saturdays on critical and near critical path schedule activities at the Project site (i.e., near critical path schedule activities include any schedule activity with less than 5 workdays of total float). This effort includes the cost for the Contractor and its subcontractor personnel, including all field office overhead for the Contractor and the applicable subcontractors working on these **10** Saturdays (assume 6 workers, including foreman in addition to prime contractor personnel).
 - 1.5. **Sunday Work:** Contractor **CANNOT** work on Sundays or Holidays.
 - 1.6. **College Finals Week:** The **Contractor shall not perform work during Finals Week (May 4-10, 2024) (i.e., include 5 Workdays in the schedule)** that results in the generation of noise that will disturb students taking finals. The Contractor shall submit to the District for approval the activities the Contractor may want to perform during each final's week.

Unless otherwise approved by the District/College, said work cannot be performed during Final Week(s) during the contract duration.

- 1.7. **Utility Shutdowns:** Utility shutdowns to be coordinated with the District so as to minimize impact to campus operations. Scheduling will depend on College operations and may require weekend work and/or backup power.
2. The Contractor is responsible for its own means and methods to comply with these work restrictions, and to submit a schedule in accordance with Section 00 70 00, Article 3.8.

C. Other Project Requirements and Restrictions

1. The Contractor's staging area for trailers, construction vehicles, construction equipment and materials are restricted within the temporary construction fencing of the project site and the area shown on the **attached Exhibit A at the end of this Section.AS001 Sheet in the Bid Set.** Contractor shall not block the fire access road at any time within the project site or utilize for parking, staging or locating trailers. Contractor must always allow Fire District access into the project site and unobstructed use of the fire access road to other buildings on the west side of the project site. Contractor is responsible for obtaining parking passes from the Police Services.
2. **Truck Hauling Routes.** Obtain Humboldt County approval for preferred construction traffic routing over public streets and/or other construction truck access and egress from public streets to the Site. Contractor shall avoid routing trucks through residential areas.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All labor, equipment, materials, and all other requirements shall be provided and will be the sole responsibility of the Contractor for execution of entire work described in this specification section.

PART 3 - EXECUTION

3.1 MEANS AND METHODS OF CONSTRUCTION

- A. Contractor to provide and shall be responsible for any and all means and methods that will be constructed, implemented and/or maintained on the site for all work described above.

END OF SECTION 01 14 00



College of the Redwoods - Stadium Upgrade Xtreme Turf Technical Package





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- 1. Substitution Request Form**
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- 4. Synthetic Turf System**
- 5. Sample Warranty**
- 6. ASTM Testing**
- 7. Lisport Testing**
- 8. References**

Per requirements of 32 18 23, 1.3.B, There is no information provided regarding local representation and post installation support, or product installer.

The listed sample warranty does not conform to the contract documents, as it appears to represent a warranty for the turf materials only, rather than a complete warranty for the entire turf system. Per the contract documents 32 18 23, 1.5.E:

A. The synthetic turf warranty shall be a comprehensive warranty, insured, for 8 years including all materials and workmanship including, but not limited to fiber, backing, secondary coating, infill and installation of the entire synthetic turf system. Separate, compartmentalized warranties for specific portions shall not be acceptable.

RSH
1-17-24



CORPORATE PROFILE



Be More



We are a dynamic, global synthetic turf company committed to BE MORE.

Our mission to “Be More” is ingrained in every facet of our business, every employee and throughout our value chain. With a foundation of innovation, integrity and quality, Act Global strives to positively impact society and maximize land use through the use of synthetic turf.



Innovate More.

Advancing turf products and services, with a focus on research, development and a vision to innovate.



Protect More.

Investing in green-friendly technologies, enhancing safety and promoting sustainable practices.



Play More.

Enhancing sports, community spaces and leisure activities through synthetic turf.



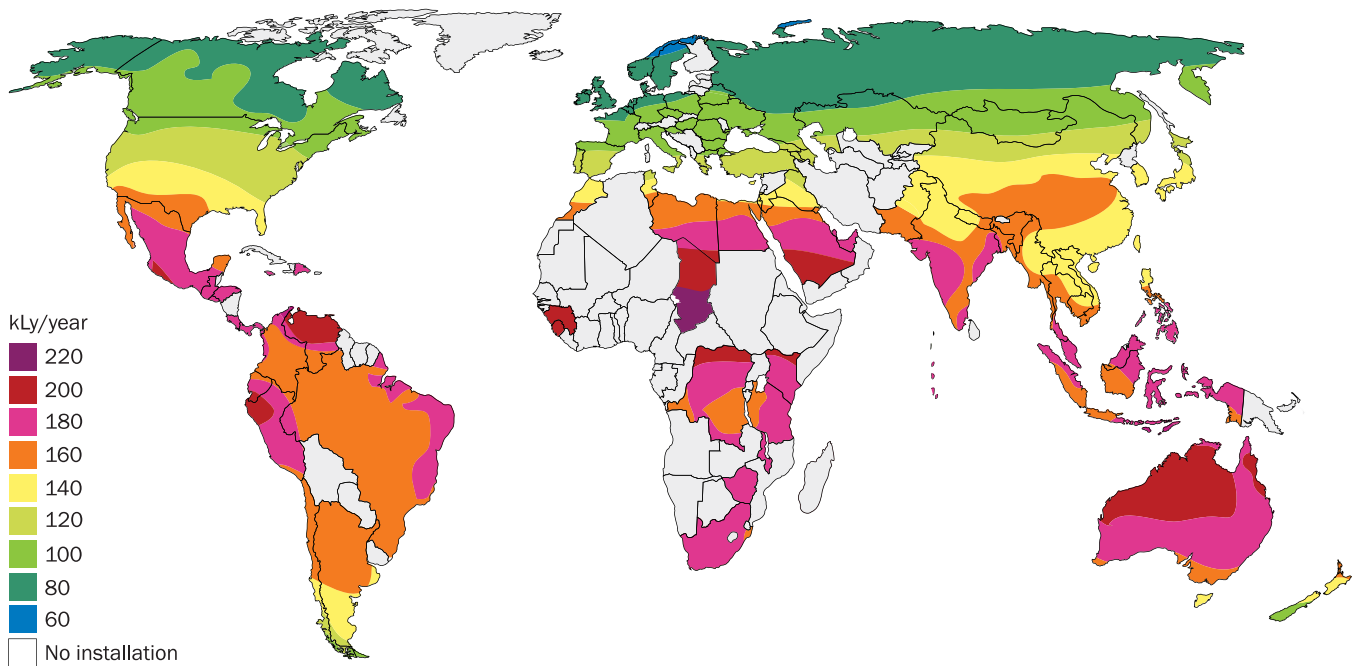
Give More.

Supporting charitable and global aid organizations around the world.

As one of the **WORLD'S LARGEST** producers of synthetic turf, we take quality seriously.

📍 **Manufacturing facilities on 3 continents**

■ **Installations in over 90 countries**



1 kLangley = kcal/cm² = 41.84 MJ/m²
1 kLangley/year = 1.33 W/m²

UV EXPOSURE IN COUNTRIES WITH ACT GLOBAL INSTALLATIONS

Map shows global Kilo-Langley levels, a measure of UV exposure. The colored areas indicate Act Global installations, located in areas with high UV concentrations.



ISO 9001 Quality

Act Global adheres to strict international standards proven to increase quality. We maintain state of the art operations to ensure each order is of the highest quality, and our team manually inspects every turf roll coming out of production. Strict quality controls, reporting and annual audits keep our operations lean, clean and accountable.





A vision to INNOVATE.

PRODUCT RANGE



Our sports turf has been used in community fields to elite professional stadia around the world.



Reinforced natural grass system combines the best properties of synthetic and natural turf to offer elite performance and durability.



Artificial grass provides natural looking, low-maintenance landscape solution.



Patented aviation turf enhances safety and operations for airports.



Patented synthetic turf capping system offers protection for long-term cover of landfills.

WHAT SETS US APART

- ✓ USA-based research, manufacturing, and construction firm
- ✓ 2000+ installations in over 90 countries and 16 UBU Branded NFL Fields
- ✓ Over 280 FIFA Certified Fields
- ✓ FIFA Quality Licensee for Football Turf
- ✓ ISO 9001 Quality Certification
- ✓ Certified Synthetic Turf Council Manufacturer
- ✓ Patented technologies
- ✓ World Rugby Preferred Turf Producer
- ✓ FIH Preferred Turf Supplier
- ✓ Worldwide industry & charitable partnerships
- ✓ Player safety & performance based on top natural grass stadiums
- ✓ Comprehensive environmental, ASTM, EN/DIN, UV & Lisport durability testing





We understand and address the need for **Player Safety.**

Millions of athletes participate in sports every year, yet injuries are common, and player safety must be a top priority.

OVERUSE AND FATIGUE

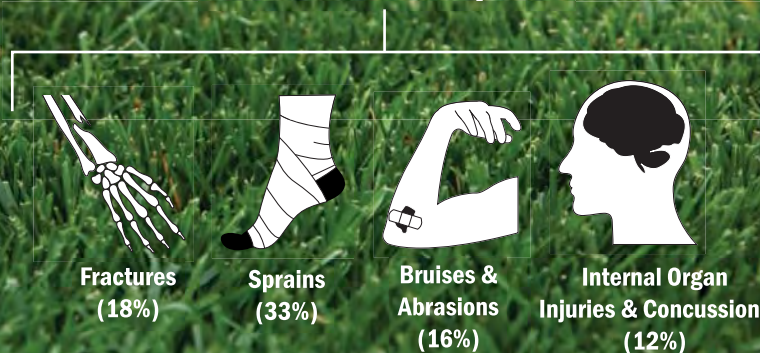
Many players do not incorporate enough rest time between training hours and games, and overuse and fatigue will influence injury rate.

“41% of player injuries can be related to fatigue.”

CHILD ATHLETE INJURIES

- ✓ In 2012, 1,353,750 children under age 19 visited an emergency room for sports injury.
 - ✓ 1 in 3 were injured seriously enough to miss practices or games, and some suffer life-long consequences.
 - ✓ 75% of children surveyed responded they rely on their coaches to keep them safe.
- Source: Safe Kids Worldwide & Boston University*

Most Common Injuries



Engineered for Safety and Performance

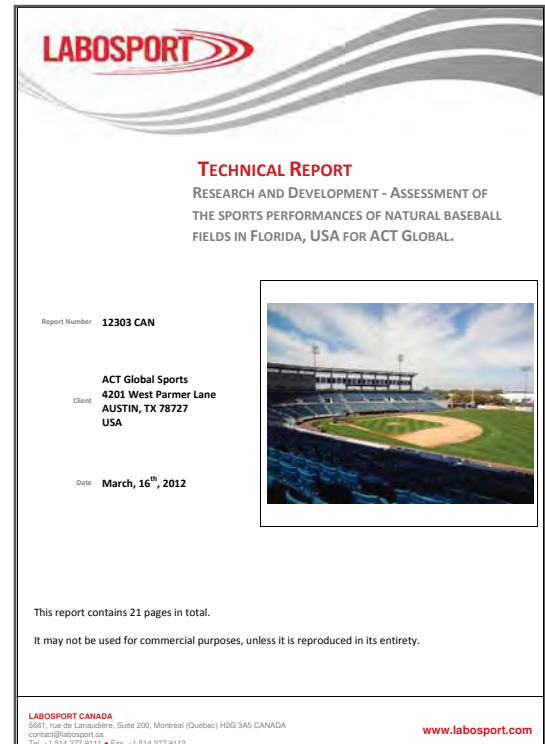
CHOOSE SAFETY CHOOSE QUALITY

When choosing Xtreme Turf by Act Global, a customer is selecting a turf system which is:

- ✓ Designed and built to stringent performance and safety standards, per international guidelines set by FIFA, FIH, World Rugby
- ✓ Tested against the best natural grass benchmarks
- ✓ Verified by independent field tests and Certifications



The Synthetic Turf Council adopted the **FIFA QUALITY PROGRAMME** as a part of Its performance guidelines for multi-use fields.



FIFA field testing applies to soccer, football and baseball surfaces

TEST METHODOLOGY—Benchmark natural grass

LOCATION: New York Yankees and Houston Astros spring training facilities, top European natural grass soccer stadia, NFL facility natural grass field, and Kyle Field at Texas A&M.

CONCLUSION: Parameters set by FIFA Quality Concept fall within the testresults. Act Global's systems have proven performance comparable to top natural grass for major sports.

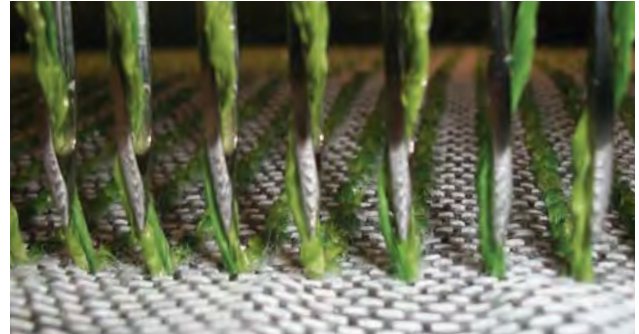
THE SYNTHETIC TURF COUNCIL HAS ALSO ADOPTED THE FIFA QUALITY CONCEPT AS A PART OF ITS PERFORMANCE GUIDELINES.

Inspired by Nature, Engineered to Exceed. Verified by Testing



Natural Grass Benchmarks

We start with the best **NATURAL GRASS BENCHMARKS** and latest **SAFETY DATA**, considering a variety of markets, needs and regulations.



Designed to PERFORM

- ✓ Grass fibre and system testing that exceeds **TYPICAL ASTM REQUIREMENTS**
- ✓ Melting point, breaking strength, tuft bind, strength, elongation, dtex/denier, thickness, width and environmental
- ✓ UV and artificial weathering
- ✓ Instron tester for tensile strength
- ✓ Extended Deltec Lisport testing up to 200,000 cycles



NFL

TEAM	GAME	PRACTICE	TRAINING
Arizona Cardinals		•	
Buffalo Bills		•	
Chicago Bears		•	•
Denver Broncos		•	
Houston Texans		•	
Minnesota Vikings	•		
New Orleans Saints		•	•
Pittsburgh Steelers		•	•
San Francisco 49ers		•	
Tennessee Titans		•	
	1	9	3

13 FIELDS

- ✓ Act Global was the synthetic turf supplier for the US Bank stadium in 2019.
- ✓ Act Global has practice and training fields at 9 NFL teams across the country
- ✓ The 2018, 2014 and 2013 NFL Super Bowls were played on an Act Global surface.
- ✓ Nike plays on an Act Global surface for Bo Jackson Field at their elite training campus and world headquarters in Oregon. It's currently used as the design premise for Nike shoe development.
- ✓ The 2017 Mercedes-Benz Superdome turf was donated to Jefferson West School District in Kansas. The 2013 surface was donated to the NORD Foundation for the benefit of the children of New Orleans.

Act Global's brands features indoor and outdoor synthetic turf surfaces for use in a variety of sporting events, including football, baseball, field hockey, soccer, rugby and lacrosse. Our fields are currently utilized by teams ranging from professional franchises, collegiate and major indoor arena leagues to local high schools and municipalities.



US Bank Stadium
Minneapolis, MN
**HOME OF THE 2018
SUPER BOWL LII**

NCAA

COLLEGIATE TEAMS

- Adams State College
- Belmont University (3 fields)
- Defiance College (3 fields)
- Dominican University
- Illinois College
- Mount Mercy University
- New Mexico State University
- Northwestern College (3 fields)
- Oberlin College
- Olivet Nazarene University
- Purdue University
- Santa Barbara City College
- Shorter College
- Southern University
- Southeastern Louisiana University
- St. Cloud State
- Tarleton State University
- Tulane University
- University of California - Berkeley



UNIVERSITY OF KENTUCKY
Commonwealth Stadium

- University of Hawai'i
- University of Houston
- University of Kentucky
- University of Massachusetts - Lowell
- University of Minnesota
- University of Moncton
- University of Nevada - Las Vegas
- University of Nevada - Las Vegas
- University of Nevada - Las Vegas
- University of Oregon (3 fields)
- University of Pittsburgh (2 fields)
- Ursinus College
- Valdosta State University
- Valley City State University
- Washington University - St. Louis

NOTABLE ACCOMPLISHMENTS

- Ball Parks of America (5 fields)
- Cobb County School District (16 fields)
- Las Vegas Sports Complex
- NFL Hall of Fame (14 fields)
- Nike World Headquarters
- LA Kiss - AFL Field

ASBA AWARDS

- Shorter College - Georgia
- University of Las Vegas
- Las Vegas Sportsplex
- La Playa Stadium - Santa Barbara CC
- Nusenda Community Stadium
- University of Oregon - Pape Field



UNIVERSITY OF HOUSTON - TDECU STADIUM



CERTIFICATES



ABS Quality Evaluations

Certificate Of Conformance

This is to certify that the Quality Management System of:

Act Global

**410 South River Street
Calhoun, GA 30701
U.S.A.**

has been assessed by ABS Quality Evaluations, Inc. and found to be in conformance with the requirements set forth by:

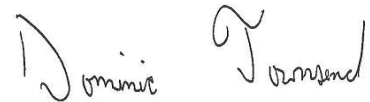
ISO 9001:2015

The Quality Management System is applicable to:

MANUFACTURE ARTIFICIAL SPORTS SURFACES AS WELL AS LANDSCAPE TURF FOR RESIDENTIAL AND COMMERCIAL APPLICATIONS.

This certificate may be found on the ABS QE Website (www.abs-qe.com). For certificates issued in the People's Republic of China information may also be verified on the CNCA website (www.cnca.gov.cn).

Certificate No:	45450
Certification Date:	16 December 2010
Effective Date:	15 December 2022
Expiration Date:	15 December 2025
Revision Date:	15 December 2022



Dominic Townsend, President



Validity of this certificate is based on the successful completion of the periodic surveillance audits of the management system defined by the above scope and is contingent upon prompt, written notification to ABS Quality Evaluations, Inc. of significant changes to the management system or components thereof.

ABS Quality Evaluations, Inc. 1701 City Plaza Drive, Spring, TX 77389, U.S.A.
Validity of this certificate may be confirmed at www.abs-qe.com/cert_validation.



CERTIFICATE OF MEMBERSHIP

BE IT KNOWN THAT

ACT GLOBAL

IS A FULL MEMBER OF THE SYNTHETIC TURF COUNCIL THROUGH DECEMBER 31, 2023
AND AGREES TO ABIDE BY THE STC'S BYLAWS, CODE OF ETHICS, AND CODE OF CONDUCT.

A handwritten signature in black ink, reading "Melanie Taylor", positioned above a horizontal green line.

MELANIE TAYLOR, CAE, PRESIDENT & CEO, SYNTHETIC TURF COUNCIL
BY AUTHORITY OF THE STC BOARD OF DIRECTORS



AMERICAN SPORTS BUILDERS ASSOCIATION

Through Its Certification Board

Has Conferred Upon

Mark Weightman

The Designation

CERTIFIED FIELD BUILDER - Synthetic Turf

FOR EFFORTS TO RAISE THE PROFESSIONAL
STANDARDS OF FIELD CONSTRUCTION AND
FOR HAVING SUCCESSFULLY FULFILLED THE
CONDITIONS OF ELIGIBILITY AND PASSED THE
REQUIRED EXAMINATION.

In witness whereof we have set our hands on
this 3rd day of December, 2020

Certification expires: December 31, 2023.

Executive Director

Certification Chairman



XtremeTurf[™]



TOP SPORTS TURF SYSTEMS

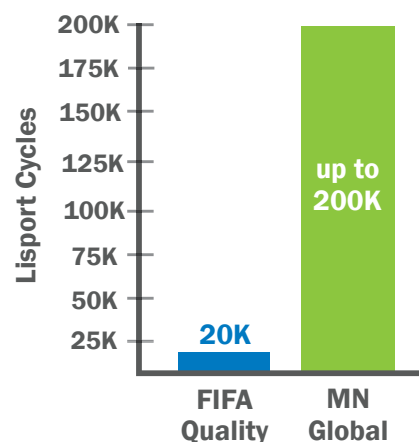
 **Play More.**



Play longer. Train harder. Perform better.

With the most durable monofilament available.

Xtreme Turf DX features an exclusive MN Global™ dual-diamond yarn blend, which outperforms other monofilament systems on a combination of measures. The innovative design resists degradation and splitting, while offering optimal performance, skin-friendliness and natural grass like appearance. Pitches equipped with the durable DX are proven to last longer, to offer tremendous value for various high intensity sport applications.



XtremeTurf™ DX

SPORT APPLICATIONS



A perfect trio of durability, skin comfort and resiliency in our most natural looking system.

Diamond

Our highly durable 360 micron fiber resists degradation and splitting to withstand the most intense sports use.



Winged Diamond

300 micron non-abrasive, soft fiber designed for player comfort.

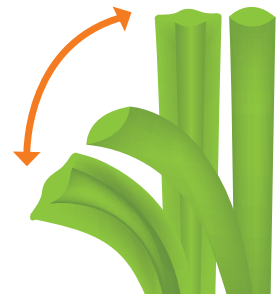
Train Harder.

DX does not compromise yarn softness for strength. The **highly skin-friendly** yarn improves player comfort and safety, and will pass FIFA skin friction and abrasion tests with ease.

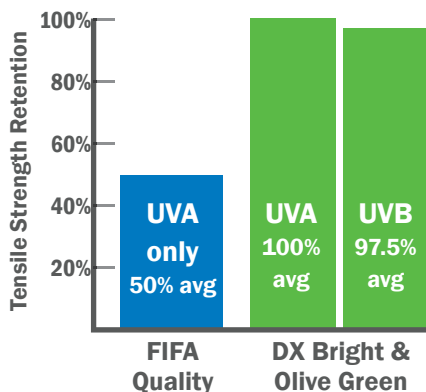
Perform Better.

A unique **'bounce back' characteristic** protects the surface from becoming flat or compacted, to keep your players and your field performing at peak condition for years of use.

BOUNCE BACK



UV + CLIMATIC TESTING



Play Longer.

With an advanced yarn design plus **maximum UV inhibitors**, DX withstands the toughest sports and environmental conditions. The DX monofilament yarns can reach **200,000 Lisport cycles** until splitting to offer maximum usage and life expectancy of your field.

Test Methods:

Artificial weathering and 3,000 hours of UVA/UVB exposure.

Results:

- ✓ Exceed standards for EN 15330-1, FIFA, WORLD RUGBY, FIH, STC and ESTO
- ✓ Internal testing also completed up to 10,000 hours UV exposure



FEATURED PROJECTS



FIFA 2015 WOMEN'S WORLD CUP

NAME OF FACILITY: Stade Olympic de Montreal

LOCATION: Montreal, Canada

CLIENT NEED: World class professional performance

The Xtreme Turf pitch at Montreal Stadium hosted ten U-20 Women's World Cup games, including the Final.



TAMPA BAY ROWDIES TRAINING FACILITY

LOCATION: Tampa, FL

CLIENT NEED: Maximum durability for heavy use training field
Installed with organic infill.

Xtreme Turf is found in over 2,000 installations in over 90 countries. The system is installed over a suitable substrate in accordance with designs and specifications recommended by Act Global.

PRODUCT SPECIFICATIONS

CHARACTERISTICS	SPECIFICATIONS
YARN	Polyethylene with Exclusive 300/360 Micron Monofilament
FILM TYPE	MN Global (Monofilament)
PILE WEIGHT	44 oz/sy
DENIER	11,500 Monofilament
PRIMARY BACKING WEIGHT	8 oz/sy
SECONDARY BACKING WEIGHT	20 oz/sy
TOTAL WEIGHT	72 oz/sy
PILE HEIGHT	2.25" or 57 mm
TUFTING GAUGE	1/2"
PRIMARY BACKING	Multi-Layer
SECONDARY BACKING	Polyurethane Coating
WIDTH	15'
PERFORATION	Yes
INFILL	Recommended 75% or greater of the pile height

*These are typical specifications, subject to standard manufacturing tolerances and customer options
College of the Redwoods - Stadium Upgrade



XtremeTurfTM



SAMPLE WARRANTY

 **Play More.**

Eight Year Standard Warranty

College of the Redwoods - Stadium Upgrade
7351 Tompkins Hill Rd, Eureka, CA 95501

Act Global Americas Inc. ("Act Global") endeavors to use the highest quality materials and the latest manufacturing techniques in the production of Synthetic Turf. Our products are manufactured according to our product specifications. The fibers and backing are independently warranted by the respective supplier.

The Synthetic Turf supplied by Act Global is guaranteed against defects in workmanship for a period of eight years from the date of manufacturing. For the purposes of this warranty, the product shall be deemed to have failed in UV stability if the original tensile strength of the Synthetic Turf decreases by more than 50 percent during the warranty period.

The term "Synthetic Turf", as used herein, shall only include product supplied by Act Global. This guarantee shall not cover any defects, failure or damage in or to the Synthetic Turf, which is:

- a) subject to abuse, misuse, negligence or improper maintenance
- b) installed, repaired, altered or replaced by any person other than a pre-approved installer using pre-approved infill and installation materials and quantities.
- c) damaged, directly or indirectly, including but not limited to, on account of, accident, vandalism, machinery, spiked shoes, animals, misuse, fire, flood, reflections, chemical reactions, acts of God, static or dynamic loads exceeding Act Global specifications at time of installation, improper or faulty subsurface preparation, failure of the subsurface after installation including settling of the surface, and the use of dry cleaning fluids or improper cleaning methods
- d) exposed to light other than natural light or approved artificial light.

Synthetic turf is considered a consumable product; therefore, this warranty excludes wear and tear.

This guarantee is expressly in lieu of all conditions and warranties expressed or implied in fact or by law or otherwise, including without limitation, any implied conditions or warranties as to merchantability or fitness for a particular purpose. No person or party is authorized to create any obligation or liability for Act Global and only the guarantee expressed herein shall apply. Act Global's obligations under this guarantee are restricted to the repair or, at its sole option,

replacement of all, or the affected parts covered herein. Act Global liability under this warranty is limited to the material value of the item to be repaired or replaced and only if maintenance has been performed and documented in accordance to Act Global's maintenance program.

The remedy of repair or replacement set forth herein shall be sole remedy and Act Global shall have no other obligations or liability in connection with any matter or thing, including without limitation, damages for personal injury or damages related to lost revenue, increased costs, downtime costs and all other indirect or consequential damages.

Act Global endeavors to handle all warranty claims promptly and professionally conditional on customer's account being in good standing at time of claim. It is agreed that all claims by purchaser made under the foregoing guarantee shall be invalid and null and void unless made in writing to Act Global within eight years from date of manufacture and within thirty days of learning of the cause giving rise to its claim. This Warranty is issued to the direct buyer of Act Global and is not transferable.

Act Global Americas Inc.

Signed:

Manufactured Date:

Project Name:

XtremeTurfTM



ASTM TESTING

 **Play More.**



TEST REPORT

CLIENT:			
Company:	ACT Global	Report Number:	79575
Address:	410 South River Street	Lab Test Number:	3172-2535—2536
	Calhoun, GA 30701	Test Completion Date:	2/6/2020
		Report Date:	2/6/2020
Requested By:	Fred Gregg	Page:	1 of 1

TEST MATERIAL:					
Material Type:	Synthetic Turf		Date Received:	1/22/2020	
Material Condition:	EXCELLENT:	XXX	GOOD:	POOR:	REJECTED:
Style:	DX60				
Infill:	9mm 20/40 Silica Sand (bottom layer) + 35mm 10/20 Ambient SBR Rubber (top layer)				

TESTING METHODS REQUESTED:			
<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM D1907	Test Method:	Standard Test Method for Linear Density of Yarn by the Skein Method (Denier)
Standard:	ASTM D2256	Test Method:	Standard Test Method for Tensile Properties of yarns by the Single Strand Method
Standard:	ASTM D7138	Test Method:	Standard Test Method for Determination of Melting Temperatures of Synthetic Fibers
Standard:	ASTM D3218	Test Method:	Standard Specification of Polyolefin Monofilaments (Ribbon Thickness & Width)
Standard:	ASTM D5848	Test Method:	Standard Test Method for Mass Per Unit Area of Pile Yarn Floorcoverings
Standard:	ASTM D5823	Test Method:	Standard Test Method for Tuft Height of Pile Yarn Floorcoverings
Standard:	ASTM D5793	Test Method:	Standard Test Method for Binding Sites per Unit Length or Width of Pile Yarn Floorcoverings
Standard:	ASTM D1335	Test Method:	Standard Test Method for Tuft Bind of Pile Yarn Floorcoverings
Standard:	ASTM D5034	Test Method:	Standard Test Method for Breaking Strength of Textile Fabrics (Grabs)
Standard:	ASTM D2859	Test Method:	Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials

SAMPLING PLAN:	
Sampling Date:	1/22/20
<ul style="list-style-type: none"> Specimen sampling is performed in the sampling department at TSI. The sampling size of specimens is determined by the test method requirements. In the event a specific sampling size is not called for, a determination will be made based on previous testing experience and approved for use by an authorized manager. All samples are subjected to the outside environmental conditions of temperature and relative humidity. Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested 	

DEVIATION FROM TEST METHOD:	
State reason for any Deviation from, Additions to, or Exclusions From Test Method.	
None	

TEST SUMMARY:		
Ribbon		
TEST METHOD	TEST DESCRIPTION	TEST RESULTS - Lab # 3172-2535
		Monofilament, MN Slide pro-X Big Diamond
ASTM D1907/D1907M-12(2018)	Yarn Denier	12.007
ASTM D2256/D2256M-10(2015)	Breaking Strength / Elongation	18.4 lbs/force / 103.99%
ASTM D7138-16	Fiber ID: Melt Point	118°C
ASTM D3218-07(2018)	Average Ribbon Width	1,131 microns
ASTM D3218-07(2018)	Average Ribbon Thickness	340 microns

TEST SUMMARY:			
*Performance			
TEST METHOD	TEST DESCRIPTION	TEST RESULTS	
ASTM D2859-16	Pill Flammability	8 out of 8 Pass	Meets 16CFR 1630 (FF1-70)

*Performance testing conducted on specimens with above listed infill

TEST SUMMARY:		
TEST METHOD	TEST DESCRIPTION	TEST RESULT
ASTM D5848-10e1	Total Product Weight	72.67 oz/yd ²
ASTM D5848-10e1	Pile Weight	44.38 oz/yd ²
ASTM D5848-10e1	Primary Backing	8.10 oz/yd ²
ASTM D5848-10e1	Secondary Weight	20.19 oz/yd ²
ASTM D5823-19	Average Pile Height	2.375"
ASTM D5793-18	Stitch Count per 1" / Gauge	3.0 SPI / 1/2" gauge
ASTM D1335-17e1	Average Tuft Bind Strength	16.7 lbs/force
ASTM D5034-09(2017)	Average Grab Tear Strength	MD: 261 lbs/force CMD: 261 lbs/force

Uncertainty:
We undertake all assignments for our clients on a best effort basis. Our findings and judgments are based on the information to us using the latest test methods available. TSI can only ensure the test results for the specific items tested. Unless otherwise noted in the deviations sections of this report, all tests are performed in compliance with stated test method.

Test Report Approval: Erle Miles, III, Lab Director Testing Services (TSI) LLC



TSI Accreditation: Our laboratory is accredited by the US Dept. of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is: NVLAP 100108-0. TSI is a certified independent testing laboratory by the Synthetic Turf Council

OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. THESE LETTERS AND REPORTS ARE FOR THE USE ONLY OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME TESTING SERVICES, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. OUR REPORTS, LETTERS, NAME, SEALS, OR INSIGNIA ARE NOT UNDER ANY CIRCUMSTANCES TO BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

817 Showalter Ave
Dalton, GA 30722
(706) 226-1400
tsioffice@optilink.us

XtremeTurfTM



MN GLOBAL LISPORT TESTING



Play More.

SPORT SURFACES RESEARCH AND DEVELOPMENT
SYNTHETIC TURF

ACCELERATED MECHANICAL LISPORT AGEING
ACT GLOBAL XTREME TURF DX60 (MN
GLOBAL 400 YARN)

“FIBER WEARING”

FINAL REPORT :

RESULTS OF TURF SAMPLE ACT GLOBAL XTREME TURF DX60
(MN GLOBAL 400) SUBMITTED TO 200,000 CYCLES LISPORT

- REPORT NUMBER: 18109US-B1
- DATE: 2-06-2019
- ORDER FROM: GUILLAUME LOUBERSAC

LABOSPORT USA

1806 S Dixie Hwy Ste G – Dalton, GA 30720
www.labosport.com

I: Presentation of the study

I-1 Objective of the study

One sample of synthetic turf submitted to an accelerated mechanical wear test with Lisport. For each sample, the evolution of fiber wear is documented at a periodical interval. The type of wearing and the percentage of fibers per type of wearing is documented.

I-2 Principle of Test Method

The sample of synthetic turf is subjected to an accelerated mechanical wear test : Lisport – 200,000 cycles.

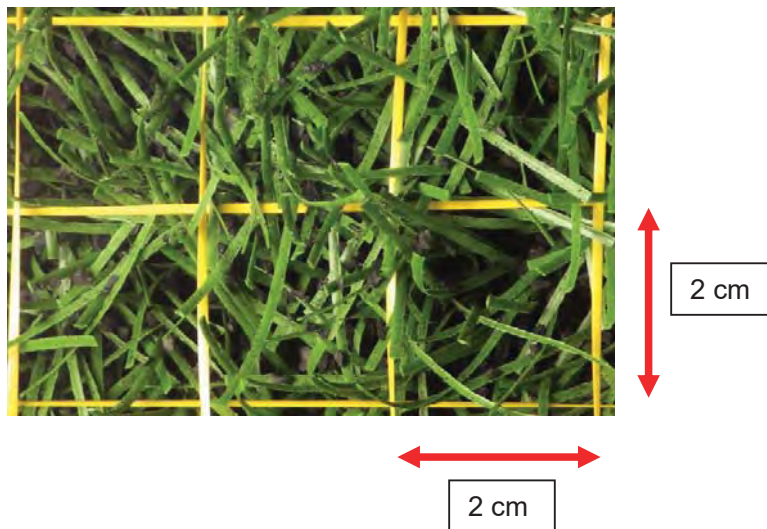
The status of fibers wear is evaluated at regular intervals: first after 5,000 cycles and then every 10,000 cycles until 200,000 cycles.

At each interval, the level of wear is documented by evaluating the individual state of randomly selected fibers.

The fibers have 4 possible states:

- Good / no effect
- Hair / splintering
- Cracks / fracturing
- Splitting

A recapitulative graph presents the evolution of the wear results along the Lisport cycles. A photo is used to document each step of wearing. To facilitate the comparison, a grid is used to take the pictures : the size of the squares on the grid is 2 x 2 cm (cf. example below).



IV: Analysis of results

IV-1 Act Global Xtreme Turf DX60 (400)

The sample Xtreme Turf D60 is characterized with a good resistance to mechanical accelerated ageing :

After 20,000 cycles of Lisport wearing, 100% of its fibers remain "good/no effect". After 80,000 cycles, minor Hair/Splintering began and was noticed throughout the remaining cycles to 200,000. However the Hair/Splintering level never reached a high level.

No fractures or cracks were noticed during simulated wear, even after 200,000 Lisport cycles.

72% of fibers remained in good condition after 200,000 Lisport cycles.

V: Conclusion

The turf sample Xtreme Turf DX60 (400) has been submitted to mechanical accelerated ageing with LISPORT test, for a total of 200,000 cycles.

The state of the fiber has been documented after 5,000, 10,000 through 200,000 cycles of Lisport wearing.

The evaluation of the mechanical ageing is based on four possible states:

- No effect, fibers show no degradation
- Hair / splintering
- Cracks / fracturing
- Splitting

On the basis on the observations, the conclusion of the test campaign is :

The sample showed great resistance to wear and only had minor tuft loss even after 200,000 Lisport cycles, meaning the backing held the fiber in place well.

There was a moderate level of flattening noticed after 100,000 Lisport cycles, which means the fiber started to have trouble staying upright.

No splitting of fiber occurred, even after 200,000 Lisport cycles.

February 6, 2019.

Reported by:
Daniel Edmonds
LABOSPORT USA Sports Turf Technician,



XtremeTurf[™]



REFERENCES

 **Play More.**



U.S. BANK STADIUM
Minneapolis, MN

XtremeTurf™

**NATIONAL FOOTBALL LEAGUE
EXPERIENCE**



DENVER BRONCOS
Broncos Central



CHICAGO BEARS
Walter Payton Center



TENNESSEE TITANS
Practice Field



ARIZONA CARDINALS
Practice Field



ADIDAS NORTH AMERICAN HEADQUARTERS
Portland, Oregon



TORONTO BLUE JAYS
Training Facility



LEXINGTON LEGENDS
Lexington, Kentucky



TAMPA BAY ROWDIES
Training Facility



RICE UNIVERSITY
NCAA Division I Baseball

XtremeTurf™

**COLLEGIATE
EXPERIENCE**



UNIVERSITY OF KENTUCKY
NCAA Division I Soccer Complex



WARNER UNIVERSITY
NCAA Division I Multipurpose



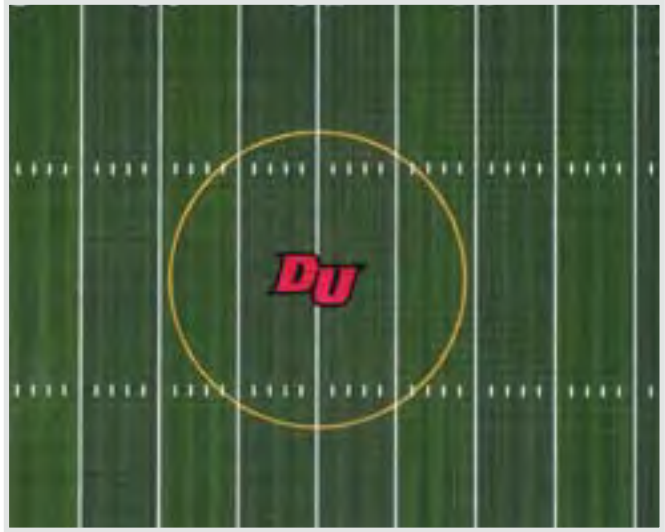
JACKSONVILLE STATE UNIVERSITY
NCAA Division I Football



UNIVERSITY OF TOLEDO
NCAA Division I Baseball



TREVECCA UNIVERSITY
NCAA Division II Practice Soccer Field



DRURY UNIVERSITY
NCAA Division II Multipurpose



MASSACHUSETTS MARITIME ACADEMY
NCAA Division III Baseball



EMMANUEL COLLEGE - CLEMENTE FIELD
NCAA Division III Multipurpose



XtremeTurf™

HIGH SCHOOL
EXPERIENCE



BRADENTON CHRISTIAN SCHOOL
Bradenton, Florida



EAST VIEW HIGH SCHOOL
Georgetown, Texas



NUNEZ PARK
San Bernardino, California



PLUM SENIOR HIGH SCHOOL
Pittsburgh, Pennsylvania



BALLPARKS OF AMERICA
Branson, Missouri

XtremeTurf™

**HIGH SCHOOL
EXPERIENCE**



WEST ORANGE STARK HIGH SCHOOL
Orange, Texas



EAST VIEW HIGH SCHOOL
Georgetown, Texas



LOGANSPORT HIGH SCHOOL
Logansport, Louisiana



PLUM SENIOR HIGH SCHOOL
Pittsburgh, Pennsylvania

Project	City	State	SQFT	Product	Use
U.S. Bank Stadium	Minneapolis	MN	130,000	Xtreme Turf Speed S5	NFL Football & NCAA Baseball
Chicago Bears - Halas Hall	Chicago	IL	13,300	Xtreme Turf Speed S5	NFL Football Practice Field
Tampa Bay Rowdies Training Facility	Tampa	FL	84,966	Xtreme Turf DX	USL Soccer
Toronto Blue Jays Training Facility	Boca Chica	DR	39,737	Xtreme Turf DXF	MLB Baseball
Lexington Legends	Lexington	KY	125,000	Xtreme Turf F	MiLB Baseball
Adidas North American Headquarters	Portland	OR	23,182	Xtreme Turf DXF	Soccer
Rice University	Houston	TX	127,033	NR34	NCAA Division I Baseball
University of Toledo	Toledo	OH	38,483	NR34	NCAA Division I Baseball
Trevecca University	Nashville	TN	39,600	Xtreme Turf DX	NCAA Division II Soccer Practice Field
Massachusetts Maritime Academy	Buzzards Bay	MA	100,000	Xtreme Turf DXF	NCAA Division III Baseball
IMG Academy	Bradenton	FL	96,000	Xtreme Turf DXF	Football & Lacrosse
Plum Senior High School	Pittsburgh	PA	216,159	Xtreme Turf DXF	Football, Soccer, Lacrosse, Baseball & Softball - 3 total fields
Bradenton Christian School	Bradenton	FL	235,000	Xtreme	Football, Soccer, Lacrosse, Baseball & Softball
Nunez Park	San Bernardino	CA	75,600	Xtreme Turf F	Soccer
Logansport High School	Logansport	LA	72,626	Xtreme Turf DXFT	Baseball & Softball

Project	City	State	SQFT	Product	Use
U.S. Bank Stadium	Minneapolis	MIN	130,000	Xtreme Turf Speed S5	NFL Football & NCAA Division I Baseball
Chicago Bears - Walter Payton Center	Chicago	IL	81,600	Xtreme Turf Speed S5	NFL Football Practice Facility
Tampa Bay Rowdies Training Facility	Tampa	FL	84,966	Xtreme Turf DX	USL Soccer
Laredo Heat FC	Laredo	TX	117,744	Xtreme Turf DX	National Premier Soccer League
Toronto Blue Jays Training Facility	Boca Chica	DR	39,737	Xtreme Turf DXF	MLB Baseball
Lexington Legends	Lexington	KY	125,000	Xtreme Turf F	MILB Baseball
Adidas North American Headquarters	Portland	OR	23,182	Xtreme Turf DXF	Soccer
Professional Box Lacrosse Association	Elmira	NY	30,000	Multiplay Pro	Professional Lacrosse
University of Kentucky Soccer Complex	Lexington	KY	35,254	Xtreme Turf DX	NCAA Division I Soccer
Rice University	Houston	TX	127,033	NR34	NCAA Division I Baseball
University of Toledo	Toledo	OH	38,483	NR34	NCAA Division I Baseball
Warner University	Lake Whales	FL	104,855	Xtreme Turf DXF	NCAA Division I Multipurpose - Football & Soccer
Trevecca University	Nashville	TN	39,600	Xtreme Turf DX	NCAA Division II Soccer Practice Field
Drury University	Springfield	MO	63,363	Xtreme Turf DXF	NCAA Division II Multipurpose - Football & Soccer
Massachusetts Maritime Academy	Buzzards Bay	MA	100,000	Xtreme Turf DXF	NCAA Division III Baseball
IMG Academy	Bradenton	FL	96,000	Xtreme Turf DXF	Football & Lacrosse
Plum Senior High School	Pittsburgh	PA	216,159	Xtreme Turf DXF	Football, Soccer, Lacrosse, Baseball & Softball - 3 total fields
Bradenton Christian School	Bradenton	FL	235,000	Xtreme Turf DXF	Football, Soccer, Lacrosse, Baseball & Softball
Nunez Park	San Bernardino	CA	75,600	Xtreme Turf F	Soccer
Indian Land Soccer Complex	Indian Land	SC	126,032	Xtreme Turf DXF	Soccer & Lacrosse
East View High School	Georgetown	TX	125,464	NR34	Baseball
Grand Haven High School	Grand Haven	MI	94,904	Xtreme Turf DXF	Soccer & Lacrosse
Albany Middle School	Albany	CA	76,000	Xtreme Turf DXF	Football & Soccer
Blanchet Catholic High School	Salem	OR	84,000	Xtreme Turf DXF	Multipurpose
Cross County High School	Cherry Valley	AR	89,034	Xtreme Turf DXF	Football & Soccer

ACTGLOBAL™



XtremeTurf™ UBU

SPORTS



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AIRPORTS



TURFSCAPE.

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Act Global's products and services are available through distribution partners in over 90 countries.

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ASIA PACIFIC | MIDDLE EAST | AFRICA

P.O. BOX 53191
Limassol 3301
Cyprus

SALES LOCATIONS

AMERICAS Texas, California, Florida, Georgia, Kansas, Oklahoma, Oregon, New Hampshire, Pennsylvania, Illinois
ASIA PACIFIC Australia, China and Thailand
EUROPE Cyprus, France, Netherlands, Poland and United Kingdom



SUBSTITUTION REQUEST FORM

Contractor Name: _____
Contract #: _____


RFS # _____ Date: _____
 DSA Application #: 01-121308
 Campus: College of the Redwoods - Eureka
 Project No., Name: Community Stadium Upgrade Project

Contractor pursuant to General Conditions submits the proposed items. If the District accepts such items so described, the undersigned may furnish such item with all necessary labor, materials, equipment and incidentals to perform and complete the Work.

Item No.	SPECIFIED ITEM OR DRAWING	SPECIFICATION SECTION	PROPOSED SUBSTITUTION (and name of Subcontractor if different)
2	2.3 Additive Alternate #1 - Supplemental Pad	2.3 B	Shockbase PRO pad

CERTIFICATION

Under penalty of perjury under the Laws of California, I certify that the proposed substitution will be readily available, perform adequately the functions and achieve the results called for by the design concept, be similar in substance to that specified, and be suited to the same use as that specified in Contract Documents.

Contractor: FieldTurf USA, Inc. Sara Marinelli, Project Manager  1/12/2024
(Please print name of company) Name and Title (print/type) Contractor Authorized Representative Date

A. Does the substitution affect dimensions shown on Drawings? No.
B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution? The substitution request does not affect design, engineering and detailing costs.
C. What effect does the substitution have on other trades? None.
D. Will substitution cause change to Project Schedule, or to critical delivery dates? Add ? Shorten ? No change.
E. Differences between proposed substitution and specified item? Equivalent performance.
F. What is the Cost Differential including all mark-ups? Shockbase PRO will be approximately a minimum of \$0.10/sf less than Brock Powerbase YSR.
G. Are Manufacturer's guarantees for the proposed item the same as for item specified? Explain differences. Yes.
H. The undersigned accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution. Yes.
I. The undersigned states that the function, appearance and quality are equivalent or superior to the specified item. Yes.

A/E Response: <input checked="" type="radio"/> Accepted <input type="radio"/> Not Accepted <input type="radio"/> Accepted As Noted <input type="radio"/> Received Too Late BY: <u>RSR</u> Date: <u>1-16-24</u>	District Representative Response: <input type="radio"/> Accepted <input type="radio"/> Not Accepted <input type="radio"/> Accepted As Noted <input type="radio"/> Received Too Late By: _____ Date: _____
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SHOCKBASE PRO – TYPICAL PROPERTIES

IDENTIFICATION	DESCRIPTION
Product	ShockBase Pro
Material Type	Expanded Polypropylene
Color	White
Part Format	Interlocking Panel

SPECIFICATIONS	TYPICAL VALUE	UNIT
Part Thickness, nominal	25	mm
Part Field Coverage	20.96	ft ²
Part Length, nominal	1752.6	mm
Part Width, nominal	1180	mm
Hole Perforation Size	12.7	mm

SPECIFICATIONS	TYPICAL VALUE	METHOD
Tensile Strength	106 psi	ASTM D3574-E
Tensile Elongation	37 %	ASTM D3574-E
Compressive Strength		
@ 25% Strain	28 psi	ASTM D3575-D
@ 50% Strain	47 psi	ASTM D3575-D
Compressive Strength – 35 psi / 30 min.	8 %	ASTM D3575-C (mod.)
Coefficient of Linear Thermal Expansion per 1°C	0.072 mm/m	ASTM D696
+30°C to -30°C Expansion	7.6 mm/panel	ASTM D696
Thermal Conductivity	0.0431 W/mK	ASTM C518
Thermal Resistance	0.58 Km ² /W	ASTM C518
Water Infiltration Rate	43,369 mm/hr	EN 12616
In-Plane Flow Rate (Horizontal Drainage)		
0.5%, 2 kPa Stress	0.92 gal/min/ft	ASTM D4716
0.75%, 2 kPa Stress	1.07 gal/min/ft	ASTM D4716
1%, 2 kPa Stress	1.22 gal/min/ft	ASTM D4716
1.25%, 2 kPa Stress	1.37 gal/min/ft	ASTM D4716
1.5%, 2 kPa Stress	1.53 gal/min/ft	ASTM D4716
Head Injury Criterion – 1.3m Fall Height	736 HIC	ASTM F3146
Head Injury Criterion – 1.4m Fall Height	809 HIC	ASTM F3146
Impact Attenuation (Gmax)	86 G	ASTM F355-A
Shock Absorption	69 %	ASTM F3189
Vertical Deformation	9.1 mm	ASTM F3189



TECHNICAL COMPARISON

SHOCK PAD PERFORMANCE

PROPERTY	METHOD	SHOCKBASE PRO	BROCK POWERBASE YSR™	SOTERIAMAX™ BY SAFEPLAY
Impact Attenuation	ASTM F355-A	86 G	86 G	83 G [†]
Critical Fall Height	ASTM F3146	1.3 m	1.2 m	1.2m [‡]
Shock Absorption	ASTM F3189	69%	71%	70% [§]
Vertical Deformation	ASTM F3189	9.1 mm	11.2 m	9.6mm [§]
Energy Restitution	ASTM F3189	38 %	38%	35% [§]
Head Injury Criterion – 1.0 m	ASTM F3146	538 HIC / 162 G	561 HIC / 167 G	-
Head Injury Criterion – 1.3 m	ASTM F3146	736 HIC / 204 G	819 HIC / 227 G	1145 HIC / 226 G [‡]
Head Injury Criterion – 1.4 m	ASTM F3146	809 HIC / 221 G	902 HIC / 246 G	-

SHOCK PAD DRAINAGE – FLOW RATE

METHOD	CONDITION	UNIT	SHOCKBASE PRO	BROCK POWERBASE YSR™	SOTERIAMAX™ BY SAFEPLAY
ASTM D3385	Vertical Drainage	IN / HR	794	729	732 ^μ
ASTM D4716	Hydraulic gradient: 0.50% Stress: 2 kPa	GAL / MIN / FT	0.92	0.33	0.3 ^α
ASTM D4716	Hydraulic gradient: 0.75% Stress: 2 kPa	GAL / MIN / FT	1.07	0.47	0.4 ^α
ASTM D4716	Hydraulic gradient: 1.00% Stress: 2 kPa	GAL / MIN / FT	1.22	0.60	0.5 ^α
ASTM D4716	Hydraulic gradient: 1.25% Stress: 2 kPa	GAL / MIN / FT	1.37	0.74	-
ASTM D4716	Hydraulic gradient: 1.50% Stress: 2 kPa	GAL / MIN / FT	1.53	0.87	-

ShockBase Pro and Brock PowerBase YSR results based off Report number: R21060CAN-A1

[†] SoteriaMax™ by SafePlay results based off report number: R21270CAN-AG1

[‡] SoteriaMax™ by SafePlay results based off report number: R21270CAN-AI1

[§] SoteriaMax™ by SafePlay results based off report number: R21270CAN-AE1

^μ SoteriaMax™ by SafePlay results based off report number: R21270CAN-AJ1

^α SoteriaMax™ by SafePlay results based off report number: R21270CAN-AK1



SUBSTITUTION REQUEST FORM

Contractor Name: _____
Contract #: _____


RFS # _____ Date: _____
 DSA Application #: 01-121308
 Campus: College of the Redwoods - Eureka
 Project No., Name: Community Stadium Upgrade Project

Contractor pursuant to General Conditions submits the proposed items. If the District accepts such items so described, the undersigned may furnish such item with all necessary labor, materials, equipment and incidentals to perform and complete the Work.

Item No.	SPECIFIED ITEM OR DRAWING	SPECIFICATION SECTION	PROPOSED SUBSTITUTION (and name of Subcontractor if different)
1	1.3 Synthetic Turf Surfacing	1.3. A	FieldTurf XM360

CERTIFICATION

Under penalty of perjury under the Laws of California, I certify that the proposed substitution will be readily available, perform adequately the functions and achieve the results called for by the design concept, be similar in substance to that specified, and be suited to the same use as that specified in Contract Documents.

Contractor: FieldTurf USA, Inc. Sara Marinelli, Project Manager  1/12/2024
(Please print name of company) Name and Title (print/type) Contractor Authorized Representative Date

A. Does the substitution affect dimensions shown on Drawings? No.
B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution? The substitution request does not affect design, engineering and detailing costs.
C. What effect does the substitution have on other trades? None.
D. Will substitution cause change to Project Schedule, or to critical delivery dates? Add ? Shorten ? No change.
E. Differences between proposed substitution and specified item? Equivalent fiber, equivalent performance.
F. What is the Cost Differential including all mark-ups? FieldTurf XM360 2.25" is approximately \$0.64/sf less than FieldTurf CORE 2.25"
G. Are Manufacturer's guarantees for the proposed item the same as for item specified? Explain differences. FieldTurf CORE offers a 10-year warranty, whereas FieldTurf XM360 offers 8-years which is inline with specifications.
H. The undersigned accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution. Yes.
I. The undersigned states that the function, appearance and quality are equivalent or superior to the specified item. Yes.

<p>A/E Response:</p> <p><input checked="" type="radio"/> Accepted</p> <p><input type="radio"/> Not Accepted</p> <p><input type="radio"/> Accepted As Noted</p> <p><input type="radio"/> Received Too Late</p> <p>BY: <u>RSH</u> Date: <u>1-16-24</u></p>	<p>District Representative Response:</p> <p><input type="radio"/> Accepted</p> <p><input type="radio"/> Not Accepted</p> <p><input type="radio"/> Accepted As Noted</p> <p><input type="radio"/> Received Too Late</p> <p>By: _____ Date: _____</p>
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SUBSTITUTION REQUEST FORM

Contractor Name: Hellas Construction, Inc.
 Contract #:

RFS # 1 Date: 1/12/2024
 DSA Application #: 01-121308
 Campus: College of the Redwoods - Eureka
 Project No., Name: Community Stadium Upgrade Project

Contractor pursuant to General Conditions submits the proposed items. If the District accepts such items so described, the undersigned may furnish such item with all necessary labor, materials, equipment and incidentals to perform and complete the Work.

Item No.	SPECIFIED ITEM OR DRAWING	SPECIFICATION SECTION	PROPOSED SUBSTITUTION (and name of Subcontractor if different)
1	Brock Power Base YSR-25mm	32 18 23	SoteriaMax

CERTIFICATION

Under penalty of perjury under the Laws of California, I certify that the proposed substitution will be readily available, perform adequately the functions and achieve the results called for by the design concept, be similar in substance to that specified, and be suited to the same use as that specified in Contract Documents.

Contractor: Hellas Construction, Inc. Keny Patel, Chief Estimator 1/12/2024
(Please print name of company) Name and Title (print/type) Contractor Authorized Representative Date

A. Does the substitution affect dimensions shown on Drawings?
No effects on the dimensions shown on Drawings.

B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?
Yes.

C. What effect does the substitution have on other trades?
No effects on other trades.

D. Will substitution cause change to Project Schedule, or to critical delivery dates? Add ? Shorten ?
No change to Project Schedule.

E. Differences between proposed substitution and specified item?
Please see the attached comparison chart.

F. What is the Cost Differential including all mark-ups?
No cost difference.

G. Are Manufacturer's guarantees for the proposed item the same as for item specified? Explain differences.
Yes, the guarantees for the proposed item are the same.

H. The undersigned accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution.
Yes.

I. The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.
Yes.

A/E Response: <input checked="" type="radio"/> Accepted <input type="radio"/> Not Accepted <input type="radio"/> Accepted As Noted <input type="radio"/> Received Too Late BY: <u>RSH</u> Date: <u>1-16-24</u>	District Representative Response: <input type="radio"/> Accepted <input type="radio"/> Not Accepted <input type="radio"/> Accepted As Noted <input type="radio"/> Received Too Late By: _____ Date: _____
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January 3, 2024

Robert Harding, Principal
D.A. Hogan & Associates, Inc.
1450 114th Ave. SE, Suite 225
Bellevue, WA 98004

Dear Mr. Harding,

After carefully studying the strengths and shortcomings of expanded polypropylene pads on the market, SafePlay has spent years developing, testing, and patenting SoteriaMAX®, an EPP pad, and Elia Renufill®, an olive-based infill. While leveraging the inherent advantages of expanded polypropylene for shock attenuation, we have at the same time incorporated unique features that improve the performance and experience for end users, installers, and owners alike.

These include:

- **Evaporative Cooling** – SoteriaMAX is engineered to hold (but not absorb) a reservoir of water on the surface of the pad. This water is in turn sopped up by hydrophilic infills – like our olive particulate infill, Elia Renufill™-- which helps keep the field wet and reinforces the cooling properties of the overall turf system.
- **Improved Permeability** – SoteriaMAX features large vents to allow greater drainage, a Shark Tail interlocking fastening system that augments permeability, and sloped quadrants on the surface of the pad that guide water to exit points. The result is improved permeability.
- **Shark Tail Connections** – In addition to adding extra drainage capacity, the SoteriaMAX pads interlock with built-in expansion and contraction gauges to aid installation.
- **Enhanced Airflow** – With large air vents, SoteriaMAX allows for 300% more airflow than existing products with pinholes. This can mitigate the insulation properties of expanded polypropylene (an issue which has quietly plagued the industry for years, especially in climates with temperature swings) and improve the installation process.

The features above and more are protected by one or more United States Patents or Patents-Pending, including 8,858,349; 10,415,193; D886,333; D874,682; 16,565,688.

Hellas has embraced SafePlay's SoteriaMAX pad and Elia infill, and we do work with them throughout the country. However, I would like to clarify that Hellas does *not* have exclusive access SafePlay's product lines. We are typically specified as basis of design (or equivalent to Brock Powerbase/YSR) within public bids. Last week, Clark County Schools in Las Vegas, NV received bids on 8 fields, all specifying SafePlay's SoteriaMAX pad and Elia infill. We have provided pricing to multiple bidders.

The SoteriaMAX pad does not infringe on any other EPP (Expanded Polypropylene) pad in the market. SafePlay is not currently involved and has not been involved in any litigation over the construction of SoteriaMAX or any patents regarding this pad or its construction.

With equal or superior products that have been proven in laboratory and installed on millions of square feet across the US and Europe, there is no reason to rely on a single supplier for pads. Should you have any questions about our products or performance, do not hesitate to contact us.

Regards,

Filipe Macedo

Filipe Macedo
Vice President of Business Development



Hellas has installed or will install SoteriaMAX at:

Muckleshoot Tribal School	2024
Fredericksburg ISD	2024
Frenship ISD	2024
City of Laredo Soccer Field 1	2024
City of Laredo Soccer Field 2	2024
Borah High School	2024
Faucett Elementary School	2023
Lincoln High School Baseball	2023
Lincoln High School Softball	2023
Capital High School	2023
Grapevine-Colleyville ISD – 3 Fields	2022
Tri-County North High School	2022
Giaudrone Middle School	2022
Mason Middle School	2022
Legion Park City of Woodburn	2022
RFK High School	2022
Hammer Federal Test Facility	2021
Midway High School	2021

A NEW SOLUTION TO AN AGE-OLD PROBLEM



SOCCER

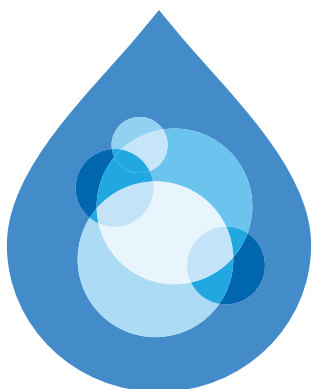
LACROSSE

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PLAYGROUNDS

RUGBY

FIELD HOCKEY



SOTERIATMMAX

THE SELF-COOLING PAD

THE NEW AND IMPROVED EXPANDED POLYPROPYLENE PAD

SOTERIA MAX™

The SoteriaMax™ pad is named for the Greek goddess of safety and deliverance from harm. The pad's name pays homage to its fundamental mission – to protect athletes on the field with groundbreaking engineering.

Soteria reimagines field performance and changes player expectations. Soteria improves impact attenuation, feel underfoot, field temperatures, drainage, and even the installation process.

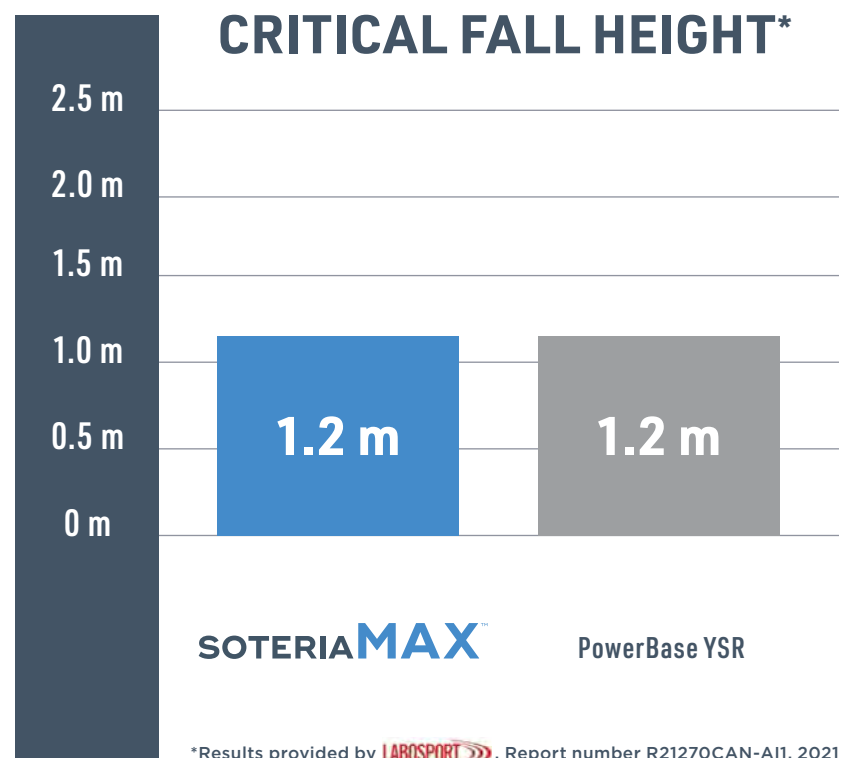


PROVEN PROTECTION

HIC (SIMULATED HEAD IMPACTS)



Soteria's expanded polypropylene materials provide exceptional Critical Fall Height (CFH) ratings. The Head Injury Criterion (HIC) test is a conservative test that estimates the highest drop at which a 'critical' injury could be sustained.

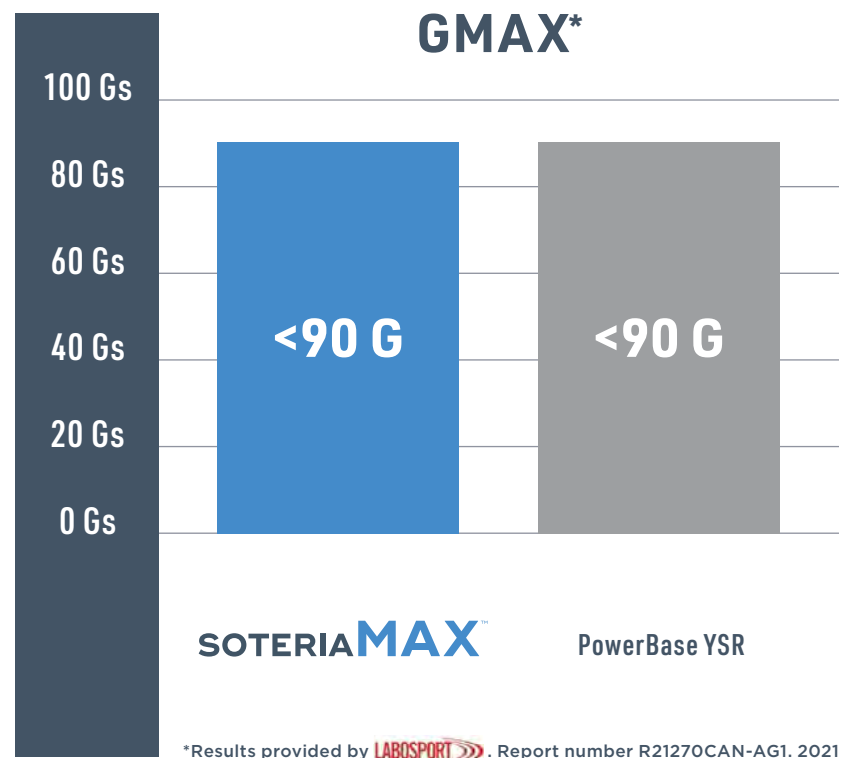


*Results provided by **LABOSPORT**. Report number R21270CAN-A11. 2021

GMAX (SHOCK ATTENUATION)



Soteria also improves another measure of shock attenuation – Gmax. This standard has been used for decades to evaluate the amount of force returned to an athlete by the playing surface.

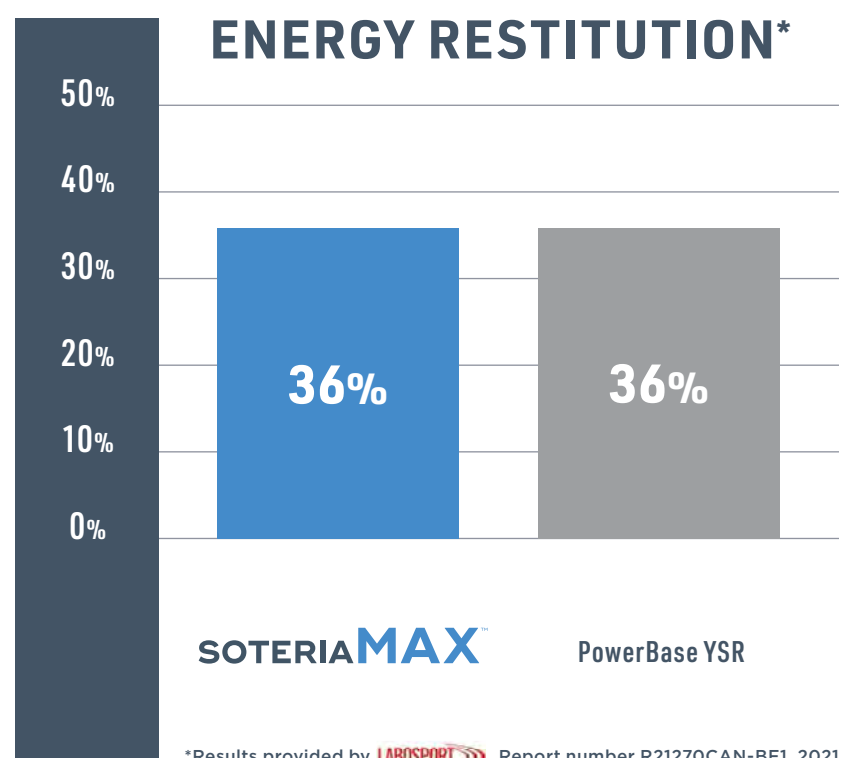


*Results provided by **LABOSPORT**. Report number R21270CAN-AG1. 2021

ENERGY RESTITUTION (FIRMNESS UNDER FOOT)



Because Soteria improves shock absorption, the system can incorporate natural infill materials which provide a firmer and more earthy feel than elastomeric infill particles. This in turn ensures optimal energy restitution – or the amount of energy that is returned to the athlete when running on the surface.



*Results provided by **LABOSPORT**. Report number R21270CAN-BF1. 2021

PROVEN PROTECTION

<90G
GMAX

GUARANTEED LOWER GMAX RATINGS

OPTIMAL ENERGY RESTITUTION

36%

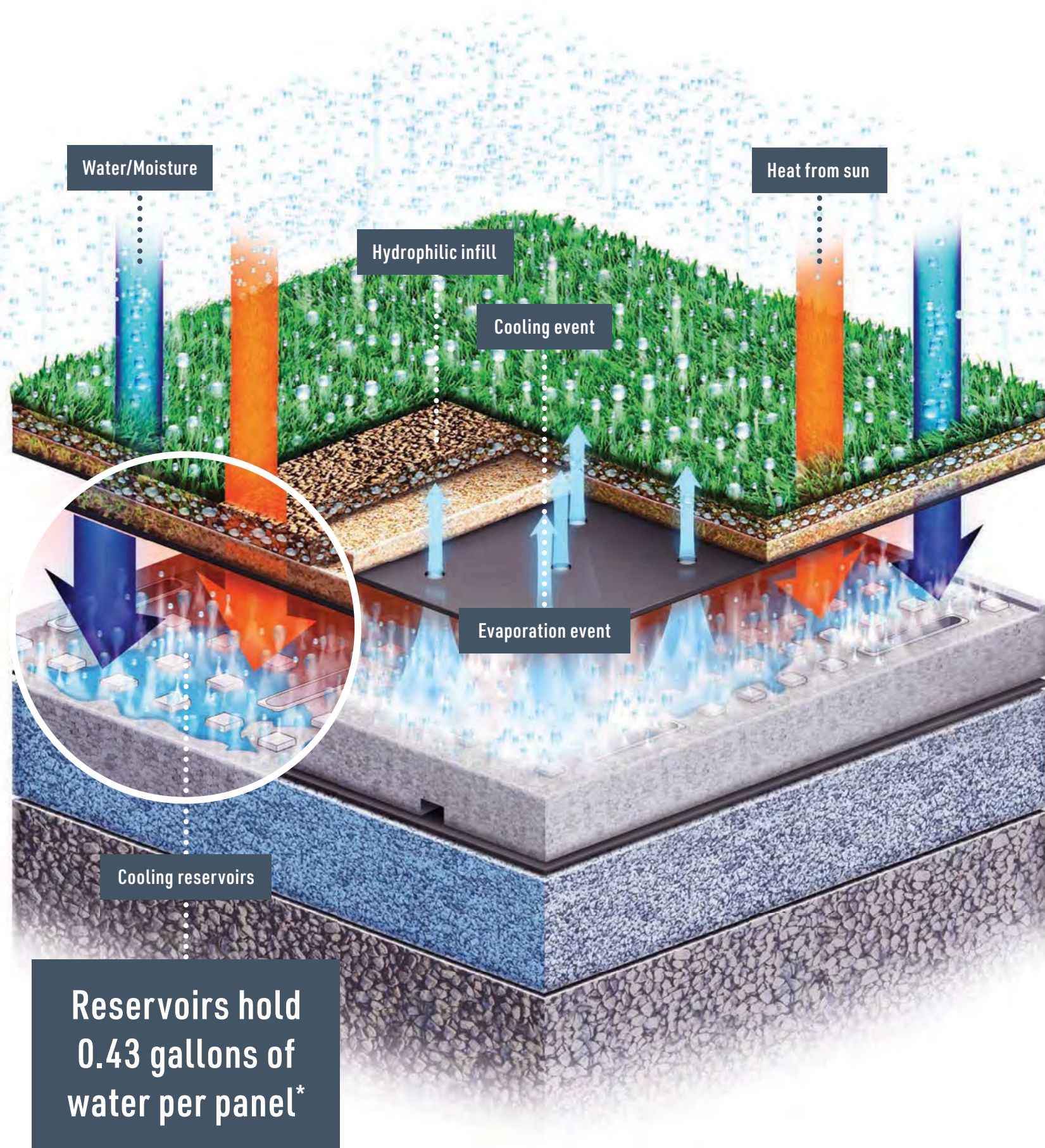


EVAPORATIVE COOLING

SoteriaMax™ is intentionally designed to work with cooling infill systems.

Soteria's built-in cooling reservoirs retain optimal water reserves to evaporate up through the turf and augment the work of natural infills. When combined with hydrophilic infill options - which absorb and slowly release moisture - the full synthetic turf system design works in concert to reduce field temperatures.

SOTERIA IS THE SELF-COOLING PAD.



*Surface volume calculations. 2021.

EVAPORATIVE COOLING

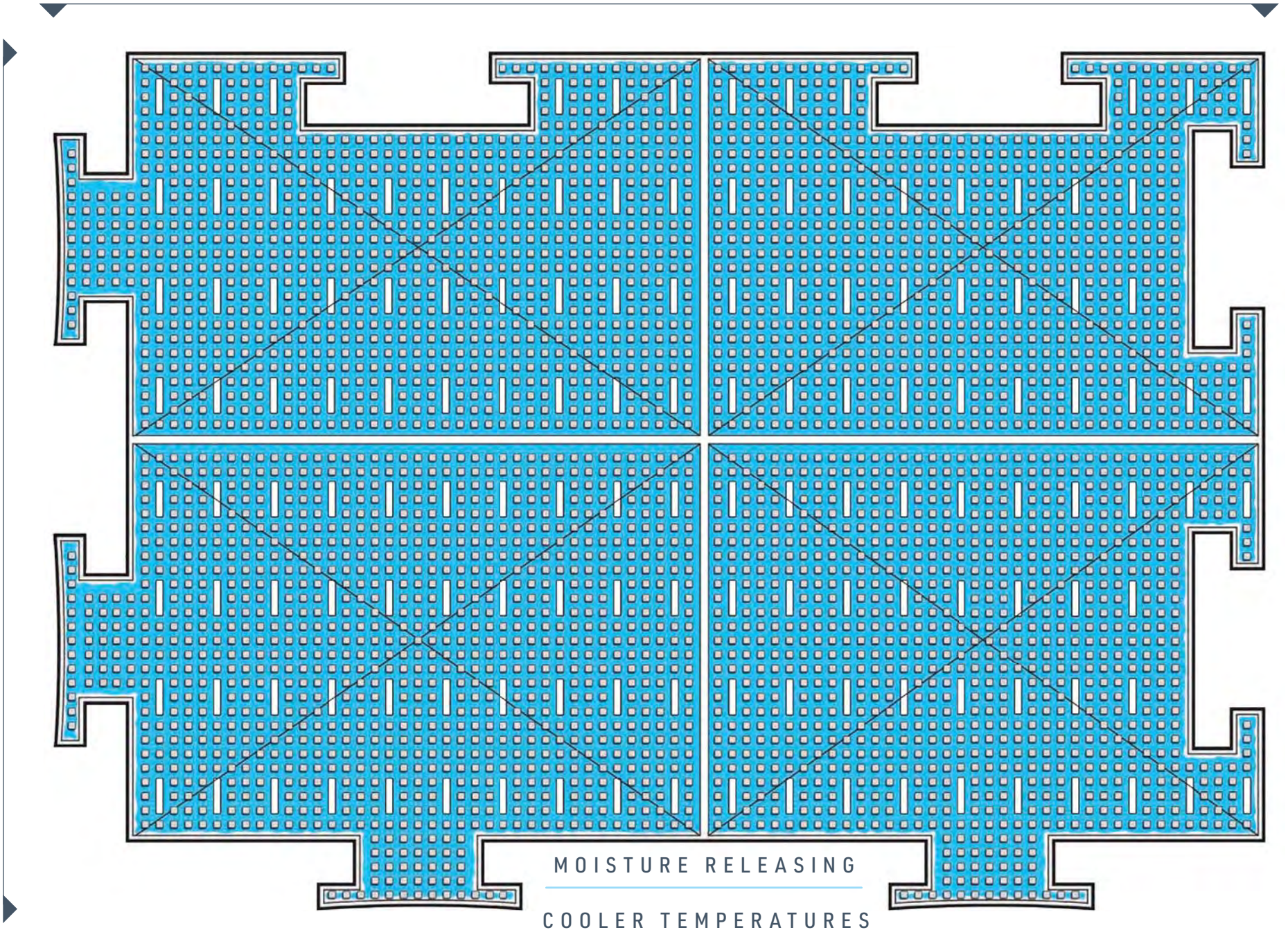
RESERVOIRS HOLD

0.43
gallons

OF WATER PER PANEL*

*Surface volume calculations. 2021.

ONE SOTERIA MAX PANEL

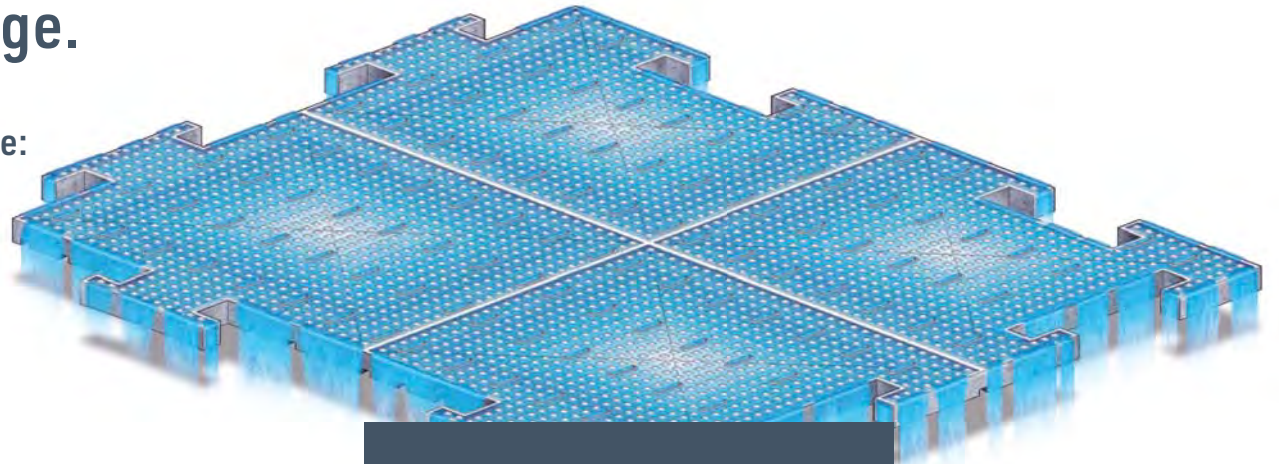


HIGH FLOW DRAINAGE

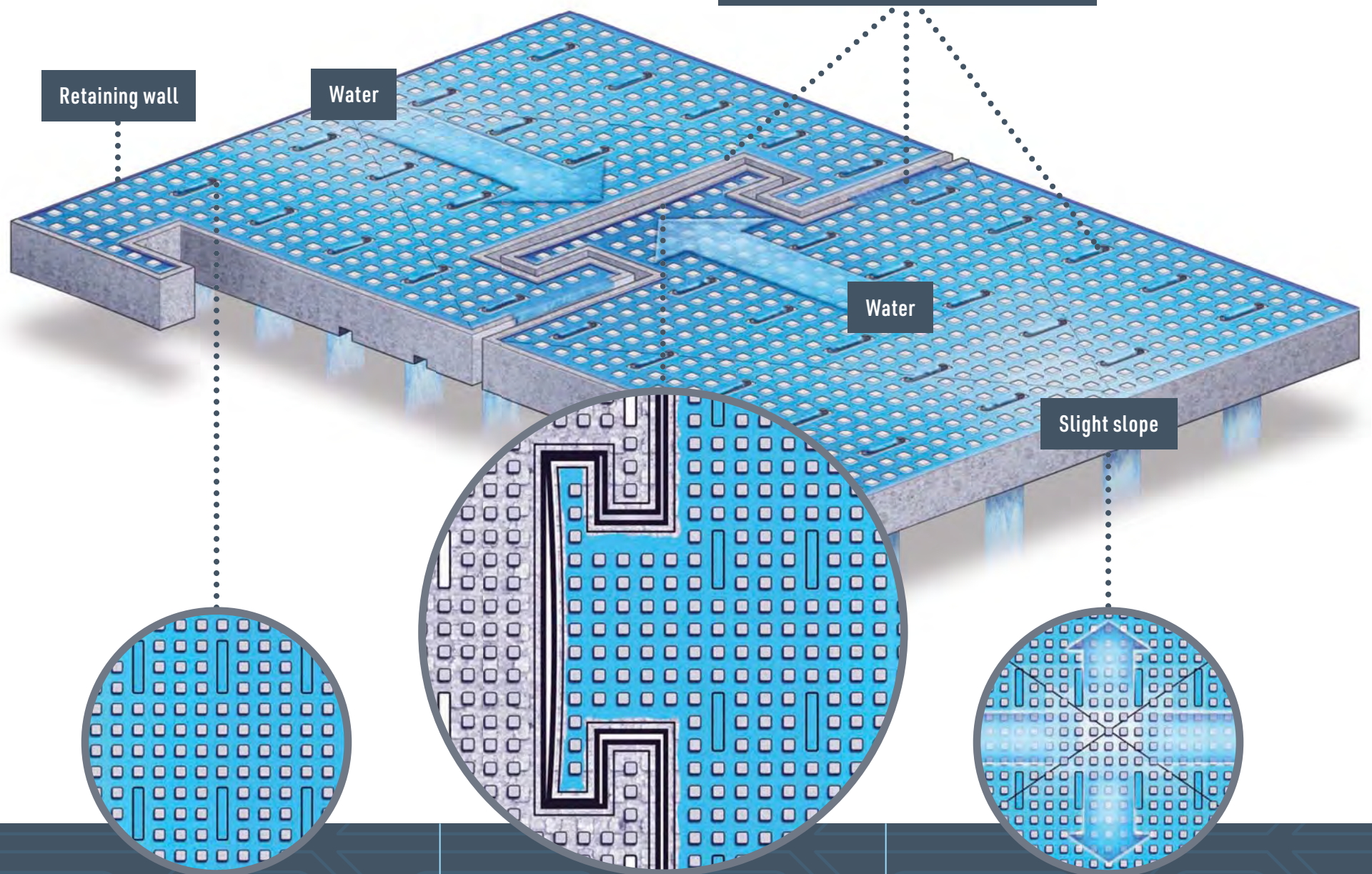
The SoteriaMax™ pad's breakthrough design creates effective drainage.

Three unique features maximize drainage:

- Lipped Vents
- Shark Tail Connections
- Slope



High flow drainage



Retaining wall

Water

Water

Slight slope

LIPPED VENTS

These allow the pad to retain water and create a cooling reservoir. When the water exceeds the height of the lip, it spills over into the enlarged vents. Each vent is five times the size of the competition's pinhole.

SHARK TAIL CONNECTIONS

Shark Tail Connections incorporate a convex curve where the pads interlock. This augments drainage capacity while preventing any buckling of adjacent pads.

SOTERIA MAX'S SLIGHT SLOPE

The slope is imperceptible under foot and guides water to the vents, edges, and Shark Tail Connections.

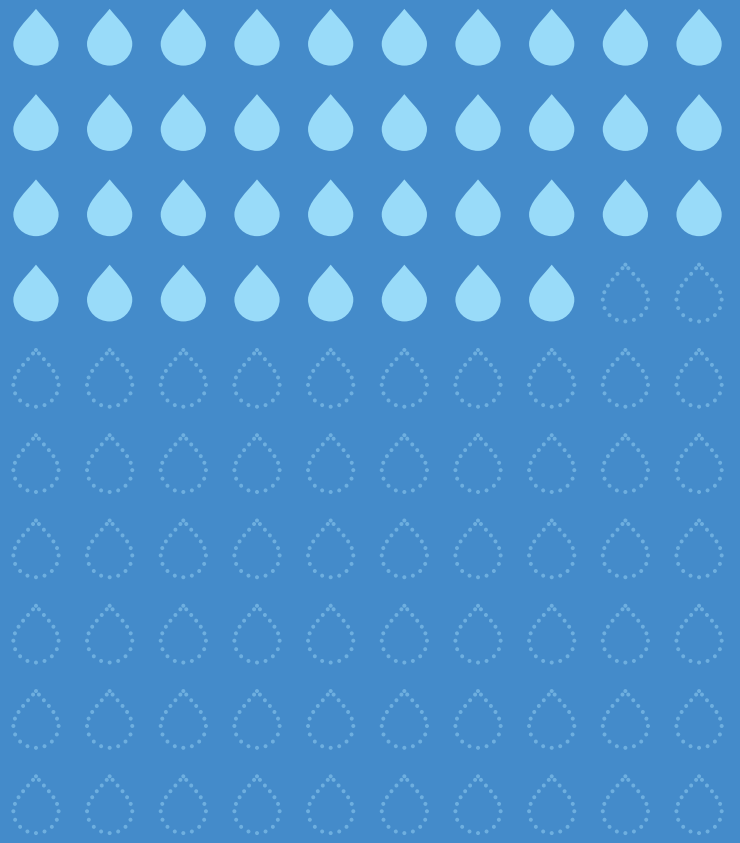
OVERALL, SOTERIA MOVES **38%** MORE WATER PER HOUR THAN THE COMPETITION'S EXPANDED POLYPROPYLENE PAD.*

HIGH FLOW DRAINAGE

38%

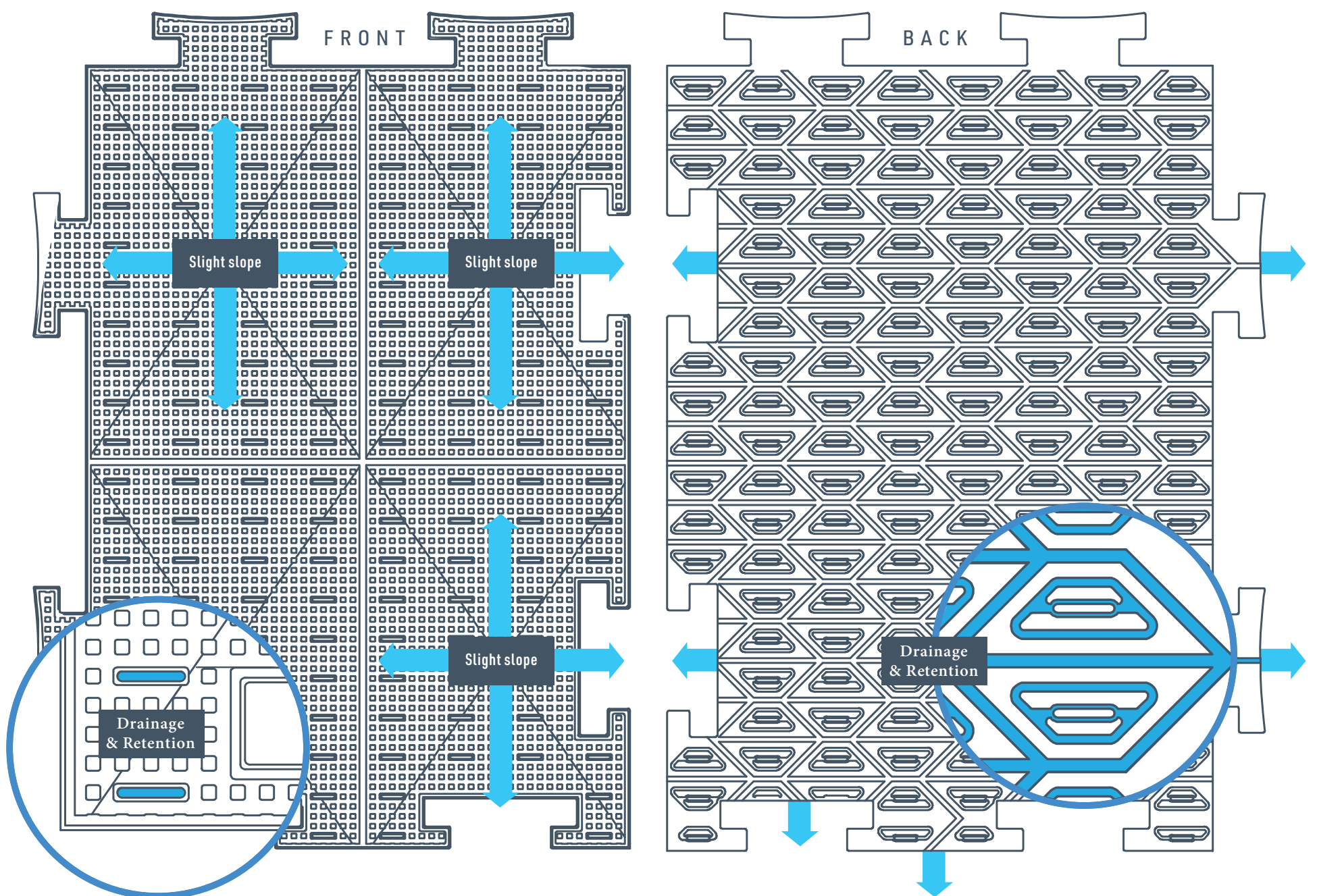
MORE WATER

PER HOUR*



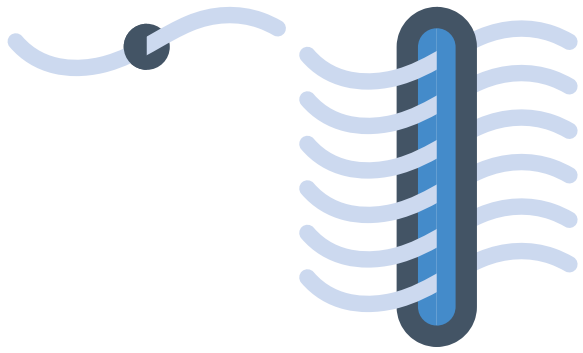
*Results provided by [LANSIT](#). Report number R20141CAN-A1. 2021

VERTICAL AND HORIZONTAL EFFECTIVE DRAINAGE



SMOOTH INSTALLATION

300%
MORE VERTICAL
AIRFLOW*



PowerBase YSR

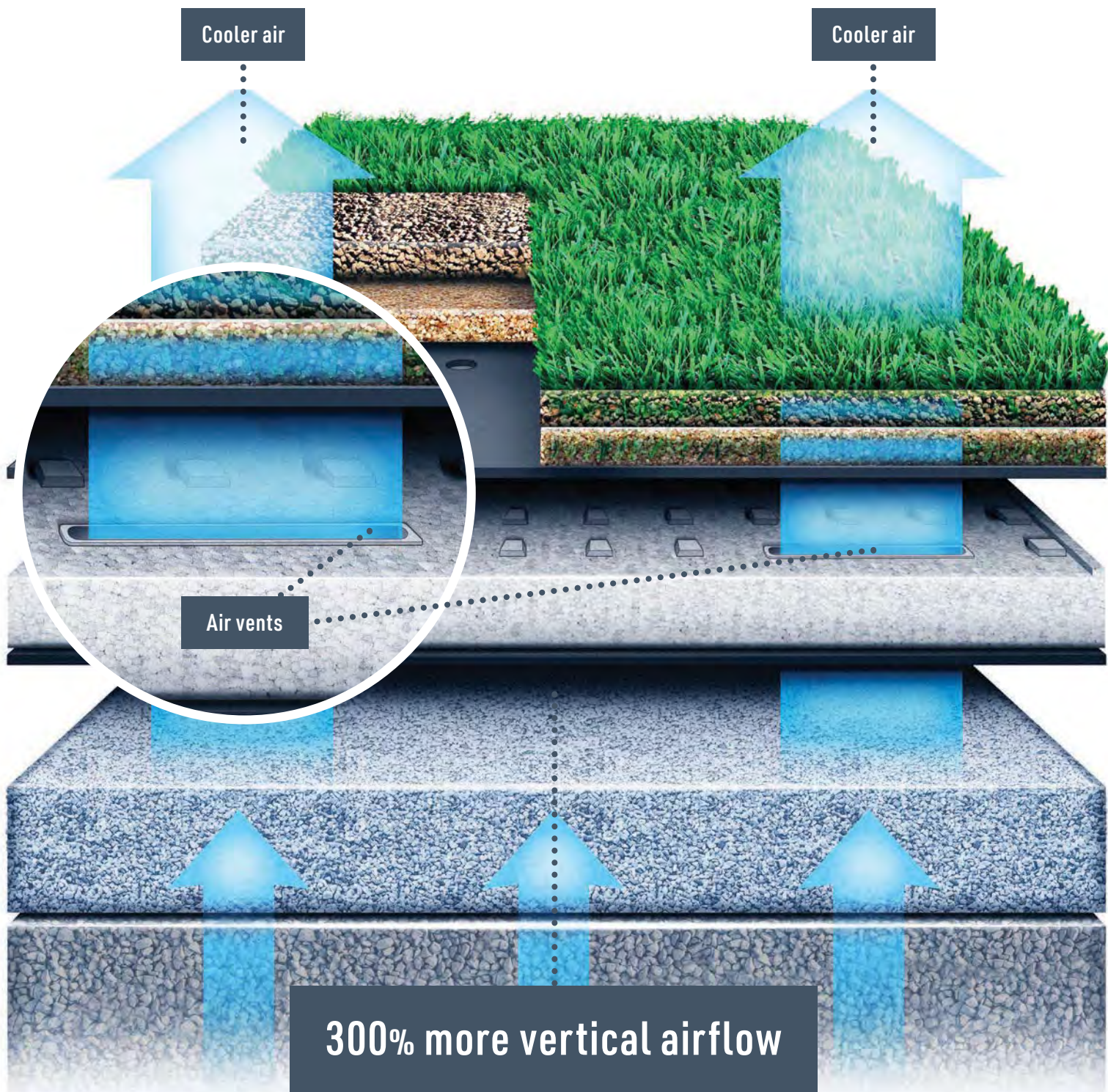
SOTERIAMAX

SoteriaMax's air vents allow greater airflow through the pad. This innovation is critical to improving the field installation process.

Other expanded polypropylene pads work as insulators, causing major installation problems industry-wide. With other EPP pads, a robust insulation layer blocks temperature exchange between the cool stone base and the synthetic turf. When the turf is heated by the sun and the heat has nowhere to escape, the turf can expand and contract, moving lines and popping seams in the process. This in turn drives up costs for installers and end-users alike.

Soteria Max's design incorporates large air vents in lieu of pinholes. This allows at least 300% more vertical airflow than others' pinhole drainage method, mitigating the insulation properties of expanded polypropylene.

*Surface volume calculations. 2021.



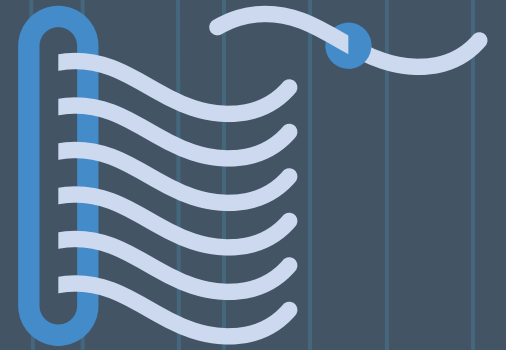
SMOOTH INSTALLATION

300%
MORE VERTICAL
AIRFLOW*

*Surface volume calculations. 2021.

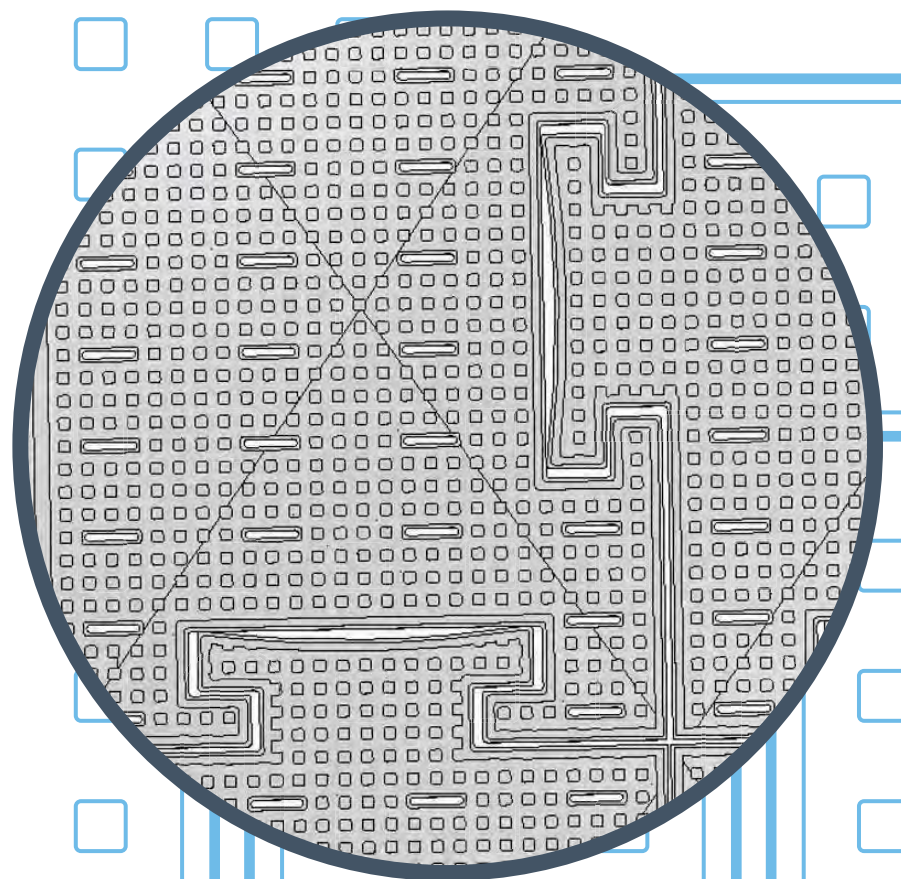
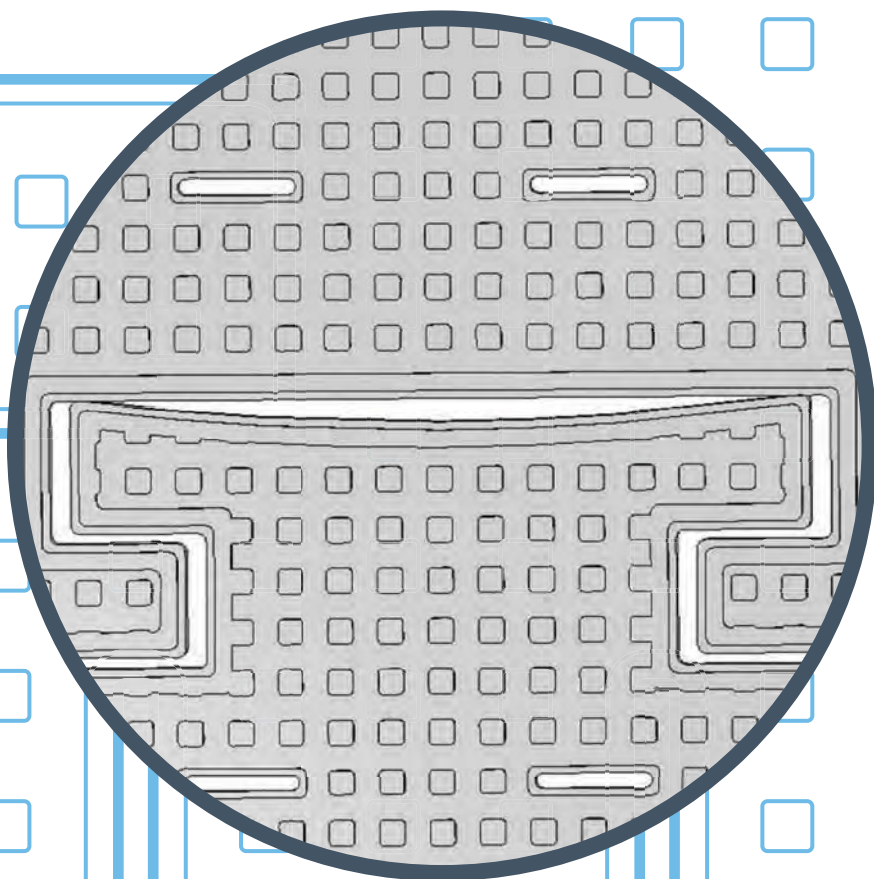
SOTERIA MAX

PowerBase YSR

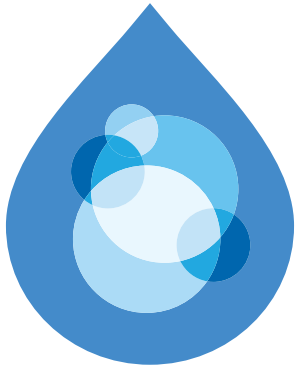


INNOVATIVE PAD IMPROVES INSTALLATION

• SHARK TAIL EXPANSION GAUGES •



LONG TERM INVESTMENT

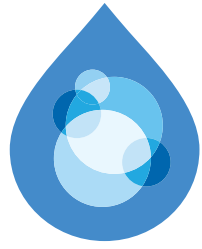


With outstanding technical performance, SoteriaMax™ provides the best value in the market for expanded polypropylene turf pads.

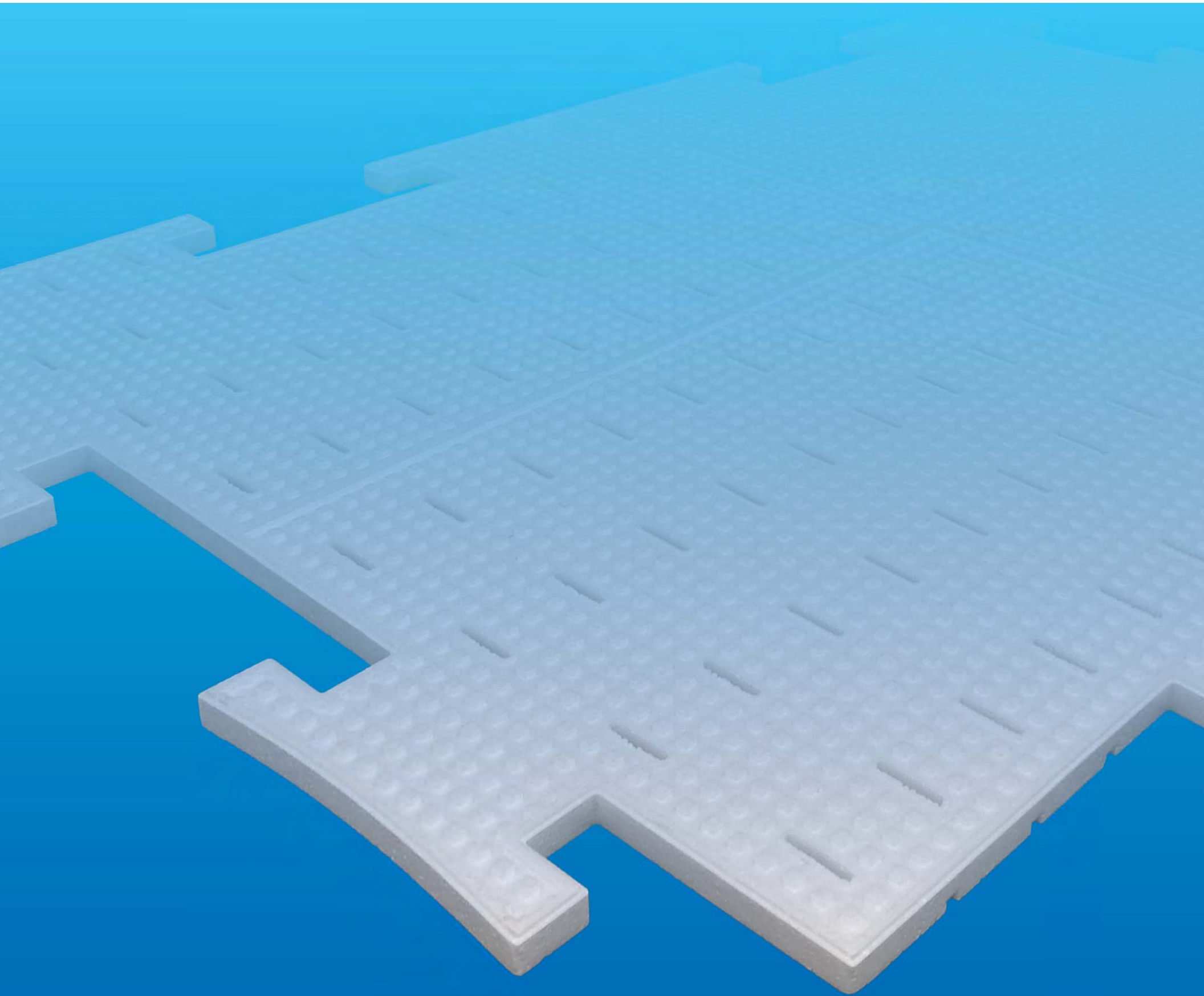
	TEST METHOD	VERIFICATION	SOTERIA MAX BY SAFEPLAY	POWER BASE YSR
NOMINAL THICKNESS	-	-	25 mm	25 mm
TENSILE STRENGTH	ASTM D3574 - E	LABOSPORT R21270CAN-AA1	> 80 psi	> 80 psi
TENSILE ELONGATION	ASTM D3574 - E	LABOSPORT R21270CAN-AA1	> 30%	> 30%
COMPRESSION STRENGTH 25% strain 50% strain	ASTM 3575-08 - D	LABOSPORT R21270CAN-AC1	≥ 20 psi > 30 psi	≥ 20 psi > 30 psi
COMPRESSION SET (35 psi for 30 min - set after 24 hrs)	Internal Test Method	Internal Test Method	<10%	<10%
COEFFICIENT OF LINEAR THERMAL EXPANSION (per 1°C change)	ASTM D696	JSP ARPRO	<0.10 mm /m	<0.10 mm /m
THERMAL CONDUCTIVITY (Lambda value)	EN 12667:2001 / ISO 7345	ARPRO Thermal conductivity and CLTE	0.0377 W/mK	0.0377 W/mK
THERMAL RESISTANCE (R value)	EN 12667:2001 / ISO 7345	ARPRO Thermal conductivity and CLTE	0.64 km2/W	0.64 km2/W
WATER ABSORPTION (after 24 immersion)	DIN 53 428	JSP ARPRO	≤1%	≤1%
WATER PERMEABILITY	ASTM 1551-9 / DIN 18 035-6	LABOSPORT R21270CAN-AJ1	> 500 in/hr	> 500 in/hr
LATERAL TRANSMISSIVITY Flow rate at .005 gradient Flow rate at .0075 gradient Flow rate at .01 gradient	ASTM D4716	LABOSPORT R21270CAN-AJ1	per Labosport testing 0.30 gpm/ft 0.40 gpm/ft 0.50 gpm/ft	per Labosport testing 0.30 gpm/ft 0.40 gpm/ft 0.50 gpm/ft
HEAD INJURY CRITERION 1000 - Critical Fall Height	ASTM F3146	LABOSPORT R21270CAN-AI1	1.2 m	1.2 m
GMAX	ASTM F355 - A	LABOSPORT R21270CAN-AG1	<90 g	<90 g
SHOCK ABSORPTION	ASTM F3189	LABOSPORT R21270CAN-AE1	>60%	>60%
VERTICAL DEFORMATION	ASTM F3189	LABOSPORT R21270CAN-AE1	<10mm	<10mm
ENERGY RESTITUTION	ASTM F3189	LABOSPORT R21270CAN-BF1	36%	36%
RESISTANCE TO CHEMICALS	JSP Method	JSP Based on ASTM F925	≤2	≤2
MICROBIOLOGICAL ANALYSIS BACTERIA RESISTANCE Fungi resistance	ASTM G22	Express Analytical Services 99-04-306-02	No Growth No Growth	No Growth No Growth
HEAVY METALS	CAM 17	eurofins 15-02-0865	Compliant	Compliant
VOCs	EPA Method 8260B	Material Certification	Compliant	Compliant
SVOCs	EPA Method 8270C	Material Certification	Compliant	Compliant
CALIFORNIA TITLE 22	California Title 22	eurofins 15-02-0865	Compliant	Compliant
CALIFORNIA PROPOSITION 65	Prop 65	Material Certification	Certified	Certified

SOTERIA MAX™

SAFEPLAY LLC
TESTED. TRUSTED. TRUE.



SOTERIAMAX[™]
THE SELF-COOLING PAD



THE NEW AND IMPROVED EXPANDED POLYPROPYLENE PAD



SAFEPLAY LLC
TESTED. TRUSTED. TRUE.

SOTERIAMAX.COM



MASON MIDDLE SCHOOL

Tacoma Public Schools

3901 N. 28th St, Tacoma, WA 98407

SPORTS

Track & Field, Football, Baseball, Soccer, Multi-purpose, Lacrosse, Softball

PROJECT SCOPE & PRODUCTS

Track: epiQ Tracks V300

Turf: Matrix Helix

Construction: Field Construction

CONTACT INFORMATION

Morris Aldridge

(253) 8784532

maldrid@tacoma.k23.wa.us

ARCHITECT - ENGINEER

D.A. Hogan and Associates

FINAL CONTRACT

\$1,424,240

COMPLETION

2022

PROJECT ID

20220167



GIAUDRONE MIDDLE SCHOOL

Tacoma Public Schools

4902 South Alaska St., Tacoma, WA 98408

SPORTS

Track & Field, Football, Baseball, Soccer, Multi-purpose, Lacrosse, Softball

PROJECT SCOPE & PRODUCTS

Track: epiQ Tracks V300

Turf: Matrix Helix, Pea Gravel

Construction: Field Construction

CONTACT INFORMATION

Morris Aldridge

(253) 878 4532

maldrid@tacoma.k13.wa.us

ARCHITECT - ENGINEER

D.A. Hogan and Associates

FINAL CONTRACT

\$1,424,240

COMPLETION

2022

PROJECT ID

20220168

RFK HIGH SCHOOL

Delano Joint Union High School District
1401 Heitt Avenue, Delano, CA 93215

SPORTS

Football, Soccer

PROJECT SCOPE & PRODUCTS

Turf: Realfill, Matrix Helix, Ecotherm

CONTACT INFORMATION

Matt Carter
661-543-9033
mcarter@djuhsd.org

FINAL CONTRACT

\$901,900

COMPLETION

2021

PROJECT ID

20210560





SUBSTITUTION REQUEST FORM

Contractor Name: _____
Contract #: _____

RFS # _____ Date: 1/15/2024

DSA Application #: 01-121308

Campus: College of the Redwoods - Eureka

Project No., Name: Community Stadium Upgrade Project

Contractor pursuant to General Conditions submits the proposed items. If the District accepts such items so described, the undersigned may furnish such item with all necessary labor, materials, equipment and incidentals to perform and complete the Work.

Item No.	SPECIFIED ITEM OR DRAWING	SPECIFICATION SECTION	PROPOSED SUBSTITUTION (and name of Subcontractor if different)
	32 18 23 1.3 A	32 18 23	TenCate - AllSport Diamond 2.25" 48oz, VPG Inc.

CERTIFICATION

Under penalty of perjury under the Laws of California, I certify that the proposed substitution will be readily available, perform adequately the functions and achieve the results called for by the design concept, be similar in substance to that specified, and be suited to the same use as that specified in Contract Documents.

Contractor: Valley Precision Grading, Inc. Lawrence Hamocon, VP Operations 1/15/2024

(Please print name of company) Name and Title (print/type) Contractor Authorized Representative Date

A. Does the substitution affect dimensions shown on Drawings? No.
B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution? No changes to cost.
C. What effect does the substitution have on other trades? No affect to any trades.
D. Will substitution cause change to Project Schedule, or to critical delivery dates? Add ? Shorten ? No change to project schedule, if anything we could possibly shorten the lead time on turf material.
E. Differences between proposed substitution and specified item? Heavier face weight, stronger, thicker more durable monofilament.
F. What is the Cost Differential including all mark-ups? No cost difference.
G. Are Manufacturer's guarantees for the proposed item the same as for item specified? Explain differences. Yes and per specification section 32 18 23 1.4 A, TenCate is an approved manufacture and we produce fibers for 2 other specified manufactures.
H. The undersigned accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution. Yes.
I. The undersigned states that the function, appearance and quality are equivalent or superior to the specified item. Yes, the submitted system is superior to the specified system and we, TenCate, are an approved fiber manufacture per 32 18 23 1.4 A

A/E Response: <input checked="" type="radio"/> Accepted <input type="radio"/> Not Accepted <input type="radio"/> Accepted As Noted <input type="radio"/> Received Too Late BY: <u>RSB</u> Date: <u>1-16-24</u>	District Representative Response: <input type="radio"/> Accepted <input type="radio"/> Not Accepted <input type="radio"/> Accepted As Noted <input type="radio"/> Received Too Late By: _____ Date: _____
--	--



A TENCATE COMPANY 

Table of Contents

- 1. College of the Redwoods provided Substitution Request From**
- 3/4. Vendor Background and Experience**
- 4. Information of local representation**
- 6. Proof of Bondability**
- 8. Product Manufacture Background and Experience**
- 11. Product Installer Background and Experience**
- 31. Product Samples**

Complete samples with infill. No infill provided. We take no exception to the specified infill systems.

- 32. Product Performance**
- 11. References (See references of VPG Inc., installations)**



Valley Precision Grading & Tencate Grass – California's Ultimate Team.




Valley Precision Grading, Inc. (VPG) is a full-service synthetic turf and track specialty contractor, delivering high-quality surfaces for over 15 years. As one of California's top sports construction companies, we have built over 100 fields and have serviced over 300 fields.



In 2020, Tencate Grass invested in California by selecting the best sports field builder, which has tremendously enhanced our capabilities. Tencate Grass is widely regarded as the world leader in synthetic turf fibers and engineered backings, allowing it to make high-performance sports turf for the demanding California environment. The addition of VPG to the Tencate Grass organization provides California clients with a true fully vertically integrated sports construction company. From the resin being made into fiber, the turf being tufted and coated, civil construction to turf installation and post-install service – it's all under one company that performs it all.

VPG has always provided its clients with the highest level of quality and performance in their construction practices. We are now proud to supply them with IRONTURF, a premium woven turf product. As the world's most durable turf product, IRONTURF is uniquely suited to handle the year-round usage that California facilities received and the high UV exposure that exists. Additionally, it gives athletes the performance and safety they need with lower infill movement and years of installations at the highest level of sports worldwide. IRONTURF's weaving and coating process ensures that its fully recyclable at the end of its life cycle, making it the green choice.



Combining Tencate Grass's 200 years of manufacturing experience and premium synthetic turf products with VPG's proven track record of building California's top-level sports facilities and our unmatched team of experts ensures your project is being built on-time and to the highest standards that Tencate Grass utilizes and what California clients expect from a one-source athletic facility contractor!

THIS BOND SHALL BE FILED WITH THE REGISTRAR OF CONTRACTORS
STATE OF CALIFORNIA
CONTRACTORS STATE LICENSE BOARD

SURETY CODE _____

BOND NO. 016241512

Contractor's Bond

(BUSINESS AND PROFESSIONS CODE SECTIONS 7071.5-7071.11)

LICENSE NO. 65434889

OR

APP. FEE NO. _____

The premium on this bond is \$ 175.00 for the term 11/15/2023 - 07/31/2025

KNOW ALL BY THESE PRESENTS: That Valley Precision Grading, Inc.
BUSINESS NAME SHOWN ON APPLICATION OR LICENSE

whose address for service is 3330 Luyung Drive, Rancho Cordova, CA 95742
STREET ADDRESS CITY STATE ZIP CODE

as Principal, and Liberty Mutual Insurance Company
NAME OF SURETY

a corporation organized under the laws of MA

and authorized to transact a general surety business in the State of California, as Surety, are held and firmly bound unto the State of California, for the penal sum of Twenty-Five Thousand Dollars (\$25,000) for the payment of which well and truly to be made we bind ourselves, our heirs, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, The provisions of Sections 7071.6 and 7071.8, *Business and Professions Code*, require that the Principal file or have on file with the Registrar a bond issued by an admitted surety in the sum of \$25,000 and this bond is executed and tendered in accordance therewith.

NOW THEREFORE, The conditions of the foregoing obligation are that if the Principal shall comply with and be subject to the provisions of Division 3, Chapter 9 (commencing with Section 7000) of the Business and Professions Code, then this obligation shall be null and void; otherwise to remain in full force and effect.

PROVIDED HOWEVER, This bond is issued subject to the following express conditions:

1. This bond may be cancelled by the Surety in accordance with the provisions of Sections 996.310 et seq. of the *Code of Civil Procedure*.
2. This bond shall be deemed continuous in form and shall remain in full force and effect and shall run concurrently with the license period for which license is granted and each and every succeeding license period or periods for which said Principal may be licensed, after which liability hereunder shall cease except as to any liability or indebtedness therefore incurred or accrued hereunder.
3. The limitation of the liability of the surety and the conditions of the bond are as set forth in Sections 7071.5 and 7071.6, *Business and Professions Code* and any person claiming against said bond may bring an action in a proper court on this bond for the amount of the damage he may suffer as a result of such acts or omissions by the Principal except that such action must be brought within two (2) years after the expiration of the license period during which the act or omission occurred, or within two (2) years of the date of license of active licensee was inactivated, canceled or revoked, whichever occurs first, except provided further that a claim for fringe benefit shall be brought within six (6) months after the date the fringe benefit delinquencies were discovered, and any civil action thereon shall be filed within two (2) years after the date the fringe benefit contributions were due.
4. This bond is executed by the Surety to comply with the provisions of Division 3, Chapter 9, (commencing with Section 7000) of the *Business and Professions Code* and of Part 2, Title 14, Chapter 2 (commencing with Section 995.010) of the *Code of Civil Procedure* and said bond shall be subject to all of the terms and provisions thereof.

5. This bond to become effective November 15, 2023
DATE

Liberty Mutual Insurance Company 175 Berkeley Street, Boston, MA 02116
NAME OF SURETY ADDRESS FOR SERVICE

I certify (or declare) under penalty of perjury under the laws of the State of California that I have executed the foregoing bond under an unrevoked power of attorney.

Executed in Newnan, GA on November 15, 2023, under the laws of the State of California.
CITY AND STATE DATE

Certificate of Authority # 2131

Signature of Attorney-in-Fact Michelle Deligne

Printed or Typed Name of Attorney-in-Fact Michelle Deligne

Address of Attorney-in-Fact 47 Postal Parkway, Newnan, GA 30263-2885

Telephone Number of Attorney-in-Fact 770-683-1000



CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of California

County of Coweta

On November 15, 2023 before me, Jennifer S. Freeman, Notary Public

personally appeared Michelle Deligne

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature Jennifer S. Freeman
Jennifer S. Freeman Notary Public Signature

Place Notary Public Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to the persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document CA Contractors License Bond

Document Date November 15, 2023 Number of Pages: two (2)

Signer's Name: _____

- Individual
- Corporate Officer – Title(s): _____
- Partner - Limited General
- Guardian or Conservator
- Attorney-in-Fact
- Trustee
- Other: _____

Signer is representing Liberty Mutual Insurance Company



- Individual
- Corporate Officer – Title(s): _____
- Partner - Limited General
- Guardian or Conservator
- Attorney-in-Fact
- Trustee
- Other: _____

Signer is representing _____





This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint Michelle Deligne all of the city of Newnan, state of GA its true and lawful attorney-in-fact, with full power and authority hereby conferred to sign, execute and acknowledge the following surety bond:

Principal Name: Valley Precision Grading, Inc.
Obligee Name: State of California
Surety Bond Number: 016241512
Bond Amount: See Bond Form

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 15th day of November, 2023.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey

David M. Carey, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 15th day of November, 2023, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, and West American Insurance Company do hereby certify that this power of attorney executed by said Companies is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 15th day of November, 2023.



By: Renee C. Llewellyn

Renee C. Llewellyn, Assistant Secretary

TUFTED TURF

 **GreenFields**
HIGH PERFORMANCE TURF

ALLSPORT DIAMOND

FIFA[®]
QUALITY

Preferred
Producer

**ALLSPORT DIAMOND is the best performing,
most durable tufted monofilament turf in the world.**

Teams can always count on a natural ball roll with ALLSPORT DIAMOND fields. Our unique diamond design helps fibers stand up straighter and resist splitting, and the ribbed surface reduces glare and keeps these fields looking great.

YARN

DENSITY (DENIER)	12,000/6
THICKNESS (MICONS)	365
MELTING POINT	128° C 260°F
BREAKING STRENGTH	24 lbs/force
LEAD CONTENT (PPM)	<100

STANDARD COLORS

FIELD GREEN Pantone: 575C	LIME GREEN Pantone: 7496C	FIELD GREEN/ LIME GREEN
BROWN Pantone: 1545C	NAVY BLUE Pantone: 282C	FLORIDA BLUE Pantone: 281C
GRAY Pantone: 422+429	BLACK Pantone: 000C	RED Pantone: 185C
ORANGE Pantone: 166C	BLUE LAGOON Pantone: 2925C	RED CLAY Pantone: 7526C
CRIMSON Pantone: 202C	BLUEPLE Pantone: 268C	TAN Pantone: 728C
BRIGHT YELLOW Pantone: 136C	WHITE Pantone: 000	VEGAS GOLD Pantone: 466C

TURF

PILE CONTENT



DIAMOND FIBERS STAND STRAIGHTER FOR LONGER

TenCate U.V. resistant 12,000/6 XWRD monofilament

PRIMARY BACKING

7.5 oz/yd²; TenCate K29 Backing (Double Layer Thiobac, black, U.V. stabilized, Layer 1: 100% PP, Layer 2: PET/PP blend)

SECONDARY BACKING

20 oz/yd² Polyurethane coating with drainage holes

TOTAL WEIGHT

75.5 oz/yd²

PILE HEIGHT

2 1/4 inch

FACE WEIGHT*

48 oz/yd²

MACHINE GAUGE

1/2 inch

SET UP

1 end/needle

ROLL WIDTH

182 inch

WATER PERMEABILITY

13.2 gal/yd²/min (unfilled)

TUFT BIND (ASTM D1335)

≥ 9 lbs

GRAB TEAR (ASTM D5034)

274 lbs length, 395 lbs width

PILL FLAMMABILITY (ASTM D2859)

Pass



BEST FOR SOCCER



Pile Height, Max Thickness, Face Weight, Primary & Secondary Backing, and Total Weight can differ by ±10%. The Stitch Rate will change according to the exact specifications and can differ by ±1. Roll Width can differ by ±0.8 inch.

GreenFields has the right to alter each product specification in order to improve the system according to the latest standards. GreenFields is not legally liable in case of noncompliance with the above mentioned specifications.

*Face Weight reflects entire length of yarn, including portion woven into backing, which is consistent with standard ASTM method of measuring tuft including back stitch.



Tencate Grass Monofilament Field References

Lewiston High School

Jason Fuller, Athletic Director

jfuller@lewistonpublicschools.org

207-795-4119

Field Installed: 2017 (Lewiston, ME)

University of Colorado

CU – Camp Kittredge

Larry Hill

303-492-1367

Field Installed: 2018 (Boulder, CO)

Real Salt Lake Soccer Club

Craig Martin

801-727-2700

Field Installed: 2018 (Salt Lake City, UT)

Broomfield Commons Championship Field

Jeff Kroeger

970-231-5858

Field Installed: 2016 (Broomfield, CO)

Philip S. Miller Park (Outdoor Field)

Jeff Smullen

303-814-7458

Field Installed: 2014 (Castle Rock, CO)

Castle View High School

Derek Chaney

303-387-0091

Field Installed: 2017 (Castle Rock, CO)

Ponderosa High School

Tim Ottmann

303-387-4106

Field Installed: 2014 (Parker, CO)

Rock Canyon High School

Tom Brieske

303-387-3014

Field Installed: 2014 (Highlands Ranch, CO)

Ignacio High School

Rocco Fuschetto

970-563-0500

Field Installed: 2014 (Ignacio, CO)

Valley Precision Grading, Inc.

Athletic Construction Specialist



Reference List:

Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Bill 'Wildcat' Morris Rebel Park	University of Nevada, Las Vegas	4350 S University Center Dr, Las Vegas, NV 89119	167,181	2023	Matt Ivie Senior Project Manager, Planning & Construction 702-895-0493 matthew.ivie@unlv.edu
Contreras High School Stadium	Los Angeles Unified School District	322 Lucas Ave, Los Angeles, CA 90017	73,678	2023	Larry Foster Owner's Representative (831) 646-1383 larry@bfsla.com
St Francis High School Football Field	St. Francis High School	1885 Miramonte Ave, Mountain View, CA 94040	89,641	2023	Robert Copple Facilities Director (650) 968-1213 ext 257 robertcopplesfhs.com
Highlands High School Ball Fields	Twin Rivers Unified School District	6601 Guthrie St, North Highlands, CA 95660	168,524	2023	Chris Zunino Owner's Representative 707-483-0965 czunino@greystonewest.com
Rio Linda High School Ball Fields	Twin Rivers Unified School District	6309 Dry Creek Rd, Rio Linda, CA 95673	198,422	2023	Chris Zunino Owner's Representative 707-483-0965 czunino@greystonewest.com

Valley Precision Grading, Inc.

Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
The Branson School	The Branson School	39 Fernhill Ave, Ross, CA 94957	68,600	2023	David Hanson Chief Financial and Operating Officer 415-454-3612 david_hanson@branson.org
Bishop Gorman High School - Football	Bishop Gorman High School	5959 S Hualapai Way, Las Vegas, NV 89148	76,440	2023	Brent Browner Director of Athletic Training Center (702) 732-1945 bbrowner@bishopgorman.org
Vista Del Mar – Tommy’s Field	Vista Del Mar	3200 Motor Ave, Los Angeles, CA 90034	74,000	2023	Larry Foster Owner's Representative (831) 646-1383 larry@bfsla.com
Welch Field - Courtyard	University of San Francisco	2130 Fulton St, San Francisco, CA 94117	49,065	2023	Michael London Associate Vice President Facilities Management (415) 265-5445 melondon@usfca.edu
Vista Sports Park	City of Vista	1600 Sports Park Way, Vista, CA 92083	181,742	2023	Chris Arce Public Works Operations Manager (760) 643-5459 carce@ci.vista.ca.us
John F. Kennedy High School	West Contra Costa Unified School District	4300 Cutting Blvd, Richmond, CA 94804	86,853	2023	Justin Merritt General Contractor – Owner’s Rep (415) 260-1832 justinm@bhmconstruction.com

Valley Precision Grading, Inc.

Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Christina M. Hixson Softball Park	University of Nevada, Reno	100 Dolly Dr, Reno, NV 89512	49,020	2023	Linda Garza Head Softball Coach (775) 682-6925 lgarza2@unr.edu
Granada Hills Charter	Granada Hills Charter	17081 Devonshire St., Northridge, CA 91325	39,941	2023	Norm Holloway Chief Operating Officer (818) 360-2361 ext. 350 nholloway@ghctk12.com
Stanford University - Johnson Field	Stanford University	691 Pampas Ln, Stanford, CA 94305	93,340	2022	Blaise Restifo Director of Sports Turf (216) 255-1376 Blaise.Restifo@stanford.edu
Rocklin High School	Rocklin Unified School District	5301 Victory Ln, Rocklin, CA 95765	92,369	2022	Craig Rouse Senior Director Facilities, Maintenance & Operations (916) 630-2246 crouse@rocklinusd.org
Thacher School	The Thacher School	5025 Thacher Rd, Ojai, CA 93023	90,000	2022	Ed Bennett Director of Facilities (805) 640-3231 ebennett@thacher.org
Peter Johansen High School	Modesto City Schools	641 Norseman Dr, Modesto, CA 95357	103,385	2022	Tim Zearley Associate Superintendent, Business Services (209) 574-1594 Zearley.T@monet.k12.ca.us

Valley Precision Grading, Inc.

Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Joseph A Gregori High School	Modesto City Schools	3701 Pirrone Rd, Modesto, CA 95356	106,384	2022	Tim Zearley Associate Superintendent, Business Services (209) 574-1594 Zearley.T@monet.k12.ca.us
Amador High School	Amador County Unified School District	330 Spanish St, Sutter Creek, CA 95685	82,400	2022	Jared Critchfield Assistant Superintendent (209) 257-5345 jcritchfield@acusd.org
Highlands High School	Twin Rivers Unified School District	6601 Guthrie St, North Highlands, CA 95660	87,642	2022	Perry Herrera Director of Facilities Construction & Engineering 1-916-566-1600 ext. 36205 Perry.Herrera@twinriversusd.org
Grant Union High School	Twin Rivers Unified School District	1400 Grand Ave, Sacramento, CA 95838	86,458	2022	Perry Herrera Director of Facilities Construction & Engineering 1-916-566-1600 ext. 36205 Perry.Herrera@twinriversusd.org
Bishop Gorman High School - Baseball Infield	Bishop Gorman High School	5959 S Hualapai Way, Las Vegas, NV 89148	27,869	2022	Bryan Price Owner's Representative (702) 399-9003 bryan@flooringsolutionsnv.com
Argonaut High School	Amador County Unified School District	501 Argonaut Ln, Jackson, CA 95642	82,400	2022	Jared Critchfield Assistant Superintendent (209) 257-5345 jcritchfield@acusd.org

Valley Precision Grading, Inc.

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Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Wilder Fields #1	City of Orinda	101 Wilder Rd, Orinda, CA 94563	99,322	2022	Scott Christie, P.E. Public Works/Engineering (925) 253-4219 schristie@cityoforinda.org
Wilder Fields #2	City of Orinda	101 Wilder Rd, Orinda, CA 94563	121,260	2022	Scott Christie, P.E. Public Works/Engineering (925) 253-4219 schristie@cityoforinda.org
Santa Rosa Junior College - Baseball	Sonoma County Junior College District	1501 Mendocino Ave, Santa Rosa, CA 95401	142,898	2021	Justyn Holt Owner's Representative (707) 528-1172 jholt@wrightcontracting.com
Chabot College – Baseball Field	Chabot-Las Positas Community College District	25555 Hesperian Blvd, Hayward, CA 94545	138,685	2021	Walter Belvins Director of Maintenance & Operations (707) 337-0506 wblevins@clpccd.org
Calaveras High School	Calaveras Unified School District	350 High School St, San Andreas, CA 95249	97,640	2021	Jesse Walsh Supervisor of Maintenance & Operations (209) 754-2331 jwalsh@calaveras.k12.ca.us
West Valley College (Softball)	West Valley-Mission Community College District	14000 Fruitvale Avenue, Saratoga, CA 95070	75,125	2021	John Vlahos Dean and Athletics Director - Health, Human Development and Athletics (408) 741-4606 john.vlahos@westvalley.edu

3330 Luyung Drive Rancho Cordova, CA 95742 * Office 916.638.8800 * Fax 916.638.8808

General Engineering Contractor * CSLB# 783244 * DIR# 100002356

Valley Precision Grading, Inc.

Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
College of Sequoias	Sequoias Community College District	915 S Mooney Blvd, Visalia, CA 93277	86,564	2021	Byron Woods Dean of Facilities (559) 730-3908 byronw@cos.edu
Negoesco Soccer Field	University of San Francisco	222 Stanyan St, San Francisco, CA 94117	82,114	2021	Michael London Associate Vice President Facilities Management (415) 265-5445 melondon@usfca.edu
Santa Rosa Junior College - Baseball	Sonoma County Junior College District	1501 Mendocino Ave, Santa Rosa, CA 95401	142,898	2021	Matt Markovich Dean of Kinesiology, Athletics & Dance / Athletic Director (707) 524-1849 mmarkovich@santarosa.edu
Santa Rosa Junior College - Softball	Sonoma County Junior College District	1501 Mendocino Ave, Santa Rosa, CA 95401	50,081	2021	Matt Markovich Dean of Kinesiology, Athletics & Dance / Athletic Director (707) 524-1849 mmarkovich@santarosa.edu
Brook Haven Middle School	Sebastopol Union School District	7905 Valentine Ave, Sebastopol, CA 95472	96,012	2021	Brent Ono Facility Supervisor (707) 338-0412 bono@sebusd.org

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Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Davis High School	Davis Joint Unified School District	315 W 14th St, Davis, CA 95616	87,600	2020	David Burke Executive Director of Capital Operations (530) 759-2182 dburke@djud.net
Vacaville High School	Vacaville Unified School District	100 W Monte Vista Ave, Vacaville, CA 95688	87,946	2020	Mike Papadopoulos Athletic Director (707) 453-6011 mikep@vacavilleusd.org
Memorial Stadium	Napa Valley Unified School District	1400 Menlo Ave, Napa, CA 94558	90,252	2020	Michael Pearson Facilities, Maintenance & Operations (707) 253-3538 mpearson@nvusd.org
Napa High School	Napa Valley Unified School District	2475 Jefferson St, Napa, CA 94558	77,876	2020	Michael Pearson Facilities, Maintenance & Operations (707) 253-3538 mpearson@nvusd.org
American Canyon High School	Napa Valley Unified School District	3000 Newell Dr, American Canyon, CA 94503	80,528	2020	Michael Pearson Facilities, Maintenance & Operations (707) 253-3538 mpearson@nvusd.org
Luther Burbank High School	Sacramento City Unified School District	3500 Florin Road, Sacramento 95823	86,383	2020	Chris Ralston Facilities Management, Maintenance and Operations, and Resource Management (916) 395-3970 chris-ralston@scusd.edu

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General Engineering Contractor * CSLB# 783244 * DIR# 100002356

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Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Vintage High School	Napa Valley Unified School District	1375 Trower Ave, Napa, CA 94558	81,937	2020	Michael Pearson Facilities, Maintenance & Operations (707) 253-3538 mpearson@nvusd.org
Redwood Middle School	Napa Valley Unified School District	3600 Oxford St, Napa, CA 94558	78,134	2020	Michael Pearson Facilities, Maintenance & Operations (707) 253-3538 mpearson@nvusd.org
Silverado Middle School	Napa Valley Unified School District	1133 Coombsville Rd, Napa, CA 94558	77,876	2020	Michael Pearson Facilities, Maintenance & Operations (707) 253-3538 mpearson@nvusd.org
Dos Palos High School	Dos Palos Oro Loma Joint Unified School District	1701 E Blossom St, Dos Palos, CA 93620	79,325	2020	Matt McColloch Director of Maintenance, Operations, and Transportation (209) 392- 0292 mmccolloch@dpol.net
Sunnyside High School	Fresno Unified School District	1019 S Peach Ave, Fresno, CA 93727	82,000	2020	Alex Belanger Chief Executive, Operations (559) 457-6126 william.belanger@fresnounified.org
Twelve Bridges High School	Western Placer Unified School District	2360 Fieldstone Dr, Lincoln, CA 95648	86,700	2020	Michael Adell Director of Facilities (916) 645-5100 madell@wpusd.org

Valley Precision Grading, Inc.

Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Kesterson Field	San Domenico School	1500 Butterfield Rd, San Anselmo, CA 94960	44,492	2019	John Campbell Construction Project Manager 415-258-1990 ext. 1138 jcampbell@sandomenico.org
Archbishop Riordan High School	Archdiocese of San Francisco	175 Frida Khalo Way, San Francisco, CA 94112	114,715	2019	Brandon Ramsey Director of Plant/Facilities (415) 799-2185 bramsey@riordanhs.org
Foothill High School	Pleasanton Unified School District	4375 Foothill Rd, Pleasanton, CA 94588	81,775	2019	Mehdi Rajabzadeh Executive Director, Operations (925) 426-4400 mrajabzadeh@pleasantonusd.net
Thomas Downey High School	Modesto City Schools	1000 Coffee Rd, Modesto, CA 95355	80,875	2019	Roger Orth Senior Director, Maintenance and Operations (209) 574-1618 orth.r@monet.k12.ca.us
Placer High School	Placer Union High School District	275 Orange St, Auburn, CA 95603	79,550	2019	Jeff Patton Director of Maintenance, Operations & Facilities (530) 308-7461 jpatton@puhsd.k12.ca.us
Del Oro High School	Placer Union High School District	3301 Taylor Rd, Loomis, CA 95650	76,225	2019	Jeff Patton Director of Maintenance, Operations & Facilities (530) 308-7461 jpatton@puhsd.k12.ca.us

Valley Precision Grading, Inc.

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Las Positas College	Chabot-Las Positas Community College District	3000 Campus Hill Dr, Livermore, CA 94551	106,545	2019	Walter Belvins Director of Maintenance & Operations (707) 337-0506 wblevins@clpccd.org
Stevenson School - Lower Field	Stevenson School	3152 Forest Lake Rd, Pebble Beach, CA 93953	91,350	2019	Martin Souza Owners Representative (831) 594-4239 mesouza9@yahoo.com
Roosevelt Elementary School	Burlingame School District	1151 Vancouver Ave, Burlingame, CA 94010	5,417	2019	Omar Esquivel Maintenance Department Supervisor (650) 259-3919 oesquivel@burlingameschools.org
San Carlos School	Diocese of Monterey	450 Church Street Monterey, CA 93940	41,030	2019	Cindy Rybkowski Business Manager (831) 375-1324 rybkowski@sancarlosschool.org
Livermore Park	City of Folsom	6004 Riley St, Folsom, CA 95630	106,129	2019	Brad Nelson Senior Park Planner (916) 461-6633 bnelson@folsom.ca.us
St. Raphael School - Courtyard	Archdiocese of San Francisco	1100 Fifth Ave, San Rafael, CA 94901	6,101	2019	Steve Bowers Director of Building and Construction (415) 292-0806 bowerss@adsfrpsc.org

Valley Precision Grading, Inc.

Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Bulldog Stadium - Fresno State University	Fresno State University	1600 E Bulldog Ln, Fresno, CA 93710	103,600	2019	Matt Studwell Associate Athletics Director for Facilities & Operations (559) 278-6323 mstudwell@mail.fresnostate.edu
McLane High School	Fresno Unified School District	2727 N Cedar Ave, Fresno, CA 93703	100,975	2019	Alex Belanger Chief Executive, Operations (559) 457-6126 william.belanger@fresnounified.org
Dublin High School	Dublin Unified School District	8151 Village Pkwy, Dublin, CA 94568	81,200	2019	Charlotte Irwin Director, Maintenance & Operations (925) 828-2551 ext. 8070 irwincharlotte@dublinusd.org
Salinas High School	Salinas Union High School District	726 S Main St, Salinas, CA 93901	76,290	2019	Richard Alvarez Manager of Maintenance & Safety (831) 796-7000 richard.alvarez@salinasuhd.org
De La Salle High School	De La Salle High School	1130 Winton Drive Concord, CA 94518	75,670	2018	Leo Lopo Vice President for Athletics (925) 288-8144 lopozl@dlshs.org
River Valley High School	Yuba City Unified School District	801 El Margarita Rd, Yuba City, CA 95993	102,725	2018	Mark Button Director of Maintenance Facilities (530) 822-5252 mbutton@ycusd.org

Valley Precision Grading, Inc.

Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
San Jose State University - Football	San Jose State University	1257 S 10th St, San Jose, CA 95112	84,972	2018	Ben Thienes Assistant Athletics Director for Football Operations (408) 924-1290 ben.thienes@sjsu.edu
San Jose State University - Softball	San Jose State University	1251 S 10th Street San Jose, CA 95112	48,372	2018	Nathan Vasquez Associate Director, Maintenance and Operations (408) 924-8004 nathan.vasquez@sjsu.edu
Marin Catholic High School	Archdiocese of San Francisco	675 Sir Francis Drake Blvd, Greenbrae, CA 94904	93,664	2018	Steve Bowers Director of Building and Construction (415) 292-0806 bowerss@adsfrpsc.org
Berkeley High School	Berkeley Unified School District	1980 Allston Way, Berkeley, CA 94704	76,001	2018	Jeff Snow Facility & Operations Manager (510) 644-4567 jeffreysnow@berkeley.net
Hiram Johnson High School	Sacramento City Unified School District	6879 14th Ave, Sacramento, CA 95820	95,362	2018	Chris Ralston Facilities Management, Maintenance and Operations, and Resource Management (916) 395-3970 chris-ralston@scusd.edu

Valley Precision Grading, Inc.

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Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
West Campus High School	Sacramento City Unified School District	5022 58th St, Sacramento, CA 95820	83,478	2018	Chris Ralston Facilities Management, Maintenance and Operations, and Resource Management (916) 395-3970 chris-ralston@scusd.edu
Carondelet High School	Carondelet High School	3737 Valley Vista Rd, Walnut Creek, CA 94598	100,431	2018	Dean Elmore Director of Facilities (925) 686-5353 Ext 174 delmore@carondeleths.org
Will C. Woods High School	Vacaville Unified School District	998 Marshall Rd, Vacaville, CA 95687	89,951	2018	Doug McCalla Owner's Representative (916) 553-4400 doug@capitalpm.com
Morgan Hill Sports Complex	City of Morgan Hill	16500 Condit Rd, Morgan Hill, CA 95037	180,588	2018	Yat Cho Senior Project Manager (408) 778-6480 yat.cho@morganhill.ca.gov
C. K. McClatchy High School	Sacramento City Unified School District	3066 Freeport Blvd, Sacramento, CA 95818	79,694	2017	Chris Ralston Facilities Management, Maintenance and Operations, and Resource Management (916) 395-3970 chris-ralston@scusd.edu

Valley Precision Grading, Inc.

Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
De Anza College	Foothill-De Anza Community College District	21250 Stevens Creek Blvd, Cupertino, CA 95014	110,300	2017	Manny DaSilva Operations Manager De Anza Community College (408) 864-5536 dasilvamanny@fhda.edu
Mendota High School	Mendota Unified School District	1282 Belmont Ave, Mendota, CA 93640	90,821	2017	Jose Alcaide Chief Financial Officer (559) 655-4942 jalcaide@mendotausd.k12.ca.us
Sierra College	Sierra Joint Community District	5100 Sierra College Blvd, Rocklin, CA 95677	85,011	2017	Amanda Mellett Sierra College Facilities Plant Operations Coordinator (916) 660-7667 amellett@sierracollege.edu
Oakdale High School	Oakdale Joint Unified School District	739 W G St, Oakdale, CA 95361	87,389	2017	Dave Bacigalupi (209) 847-3007 dbacigalupi@ojusd.org
Bob Mathias Stadium - Tulare High School	Tulare Joint Union High School District	755 E Tulare Ave, Tulare, CA 93274	95,258	2017	Phillip Hampton Operations Manager (559) 688-2021 phillip.hampton@tulare.k12.ca.us

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Northgate High School	Mt. Diablo Unified School District	425 Castle Rock Rd, Walnut Creek, CA 94598	79,178	2017	David Hart Building and Grounds Manager Maintenance & Operations 925- 825-7440 Ext. 3865 hartd@mdusd.org
Stevenson School - Upper Field	Stevenson School	3152 Forest Lake Rd, Pebble Beach, CA 93953	87,165	2017	Martin Souza Owners Representative (831) 594-4239 mesouza9@yahoo.com
Jesuit High School - Baseball Infield	Jesuit High School	1200 Jacob Ln, Carmichael, CA 95608	28,000	2017	Hank Weinberger Director of Athletics (916) 482-6060
Exeter Union High School	Exeter Unified School District	505 Rocky Hill Dr, Exeter, CA 93221	80,295	2017	George Eddy Superintendent (559) 592-9421 ext. 0403 geddy@exeter.k12.ca.us
Sonora High School	Sonora Union High School District	430 N Washington St, Sonora, CA 95370	82,689	2016	Mark Alberto Maintenance & Operations Manager (209) 532-5511 ext 5162 malberto@sonorahs.k12.ca.us
Deran Koligian Stadium	Central Unified School District	4200 N Grantland Ave, Fresno, CA 93723	130,109	2016	Joseph Martinez Director - Facilities Planning (559) 274-4700 ext. 12100

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Highlands High School	Twin Rivers Unified School District	6601 Guthrie St, North Highlands, CA 95660	82,014	2016	Perry Herrera Director of Facilities Construction & Engineering 1-916-566-1600 ext. 36205 Perry.Herrera@twinriversusd.org
Negoesco Soccer	University of San Francisco	222 Stanyan St, San Francisco, CA 94117	82,334	2016	Michael London Associate Vice President Facilities Management (415) 265-5445 melondon@usfca.edu
Ulrich/Benedetti Baseball	University of San Francisco	2497 Golden Gate Ave, San Francisco, CA 94117	107,065	2016	Michael London Associate Vice President Facilities Management (415) 265-5445 melondon@usfca.edu
Los Gatos High School	Los Gatos-Saratoga High School	17421 Farley Road West Los Gatos, CA 95030	124,868	2016	Bill Sanderson Superintendent (408) 354-6401 bsanderson@lgsuhd.org
Shoreline Athletic Fields	City of Mountain View	2450 Garcia Ave, Mountain View, CA 94043	205,916	2015	Ed Arango Assistant Public Works Director (650) 903-6311
Branson School - Tom Ryan Field	The Branson School	39 Fernhill Ave Ross, CA 94957	66,752	2015	Peter Arnold Owner's Representative (415) 258-9580 parnold@abeyarnold.com

Valley Precision Grading, Inc.

Athletic Construction Specialist



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Foothill High School	Twin Rivers Unified School District	5000 McCloud Dr, Sacramento, CA 95842	82,711	2015	Perry Herrera Director of Facilities Construction & Engineering 1-916-566-1600 ext. 36205 Perry.Herrera@twinriversusd.org
Grant Union High School	Twin Rivers Unified School District	1400 Grand Ave, Sacramento, CA 95838	82,658	2015	Perry Herrera Director of Facilities Construction & Engineering 1-916-566-1600 ext. 36205 Perry.Herrera@twinriversusd.org
Ygnacio Valley High School	Mt. Diablo Unified School District	755 Oak Grove Rd, Concord, CA 94518	77,326	2015	David Hart Building and Grounds Manager Maintenance & Operations 925- 825-7440 Ext. 3865 hartd@mdusd.org
College Park High School	Mt. Diablo Unified School District	201 Viking Dr, Pleasant Hill, CA 94523	95,921	2015	David Hart Building and Grounds Manager Maintenance & Operations 925- 825-7440 Ext. 3865 hartd@mdusd.org
Dover Elementary School	West Contra Costa Unified School District	1870 19th Street, San Pablo, CA 94806	14,267	2015	Ellen Mejia Hooper Director of Facilities & Planning (510) 231-1100
Gilroy High School	Gilroy Unified School District	750 W 10th Street Gilroy, CA 95020	81,080	2015	Paul Nadeau Planning & Management Director (669) 205-7921 paul.nadeau@gilroyunified.org

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Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Soquel High School	Santa Cruz City Unified School District	401 Soquel San Jose Rd, Soquel, CA 95073	90,919	2015	Jim Monreal Assistant Superintendent of Business Services (830) 429-3410 ext. 48224
Patelco Fields - Bernal Community Park	City of Pleasanton	7001 Pleasanton Ave, Pleasanton, CA 94566	319,811	2015	Brian Fiorio Park Maintenance Supervisor, Operations Services Department (925) 931-5573 bfiorio@cityofpleasantonca.gov
Rio Linda High School	Twin Rivers Unified School District	6309 Dry Creek Rd, Rio Linda, CA 95673	80,518	2015	Perry Herrera Director of Facilities Construction & Engineering 1-916-566-1600 ext. 36205 Perry.Herrera@twinriversusd.org
Jesuit High School - Football	Jesuit High School	1200 Jacob Ln, Carmichael, CA 95608	85,823	2015	Hank Weinberger Director of Athletics (916) 482-6060
Summerville High School	Summerville Union High School District	17555 Tuolumne Rd, Tuolumne, CA 95379	85,980	2014	Gilbert Hammerbeck Director of Maintenance & Operations (209) 928-4228 ghammerbeck@summbears.net
Cayetano Park	City of Livermore	698 Portola Ave, Livermore, CA 94551	89,900	2014	Jason Calkins Public Works Supervisor (925) 960-8020
Moreau Catholic High School	Moreau Catholic High School	27170 Mission Blvd, Hayward, CA 94544	87,925	2014	Scott Rea Director of Site Services (510) 881-4300 srea@moreaucatholic.org

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John F. Kennedy High School	Sacramento City Unified School District	6715 Gloria Dr, Sacramento, CA 95831	90,020	2014	Chris Ralston Facilities Management, Maintenance and Operations, and Resource Management (916) 395-3970 chris-ralston@scusd.edu
Laguna Grande Soccer	City of Monterey	401 Virgin Ave, Monterey, CA 93940	28,180	2014	Karen Larson Parks and Recreation Director (831) 646-3866 larson@monterey.org
Live Oak High School	Morgan Hill Unified School District	1505 E Main Ave, Morgan Hill, CA 95037	86,016	2014	Ricky Carrillo Director Facilities and Maintenance (408) 201-6087 ext. 51087 carrillor@mhusd.org
Ring Mountain Day School	Mill Valley Soccer Club	70 Lomita Dr, Mill Valley, CA 94941	15,100	2014	Jon Bontz Director of Operations (415) 640-2655 jonbontz@yahoo.com
De Anza High School – Practice Field	West Contra Costa Unified School District	5000 Valley View Rd, Richmond, CA 94803	28,179	2014	Ellen Mejia Hooper Director of Facilities & Planning (510) 231-1100
De Anza High School – Softball Field	West Contra Costa Unified School District	5000 Valley View Rd, Richmond, CA 94803	58,870	2014	Ellen Mejia Hooper Director of Facilities & Planning (510) 231-1100
De Anza High School – Soccer Field	West Contra Costa Unified School District	5000 Valley View Rd, Richmond, CA 94803	92,737	2014	Ellen Mejia Hooper Director of Facilities & Planning (510) 231-1100

Valley Precision Grading, Inc.

Athletic Construction Specialist



Project Name	Customer	Location	Project Size	Completion Year	Reference Contact Information
Maxwell Field	University of California, Berkeley	2175 Gayley Road Berkeley, CA	75,026	2014	Felix Deleon Director Campus Operations (510) 643-0713 fdeleon8@berkeley.edu
Rosemont High School	Sacramento City Unified School District	9594 Kiefer Blvd, Sacramento, CA 95827	87,222	2013	Chris Ralston Facilities Management, Maintenance and Operations, and Resource Management (916) 395-3970 chris-ralston@scusd.edu

Transaction Record



TRACKING NO.:
774799509316

SHIP DATE:
Jan 12, 2024

ESTIMATED SHIPPING CHARGES:
170.13 USD

From address

Janet Edwards
Tencate Grass
255 KRAFT DR
307211502 GA DALTON
US
Phone: 4233558043
j.edwards@tencategrass.com

To address

Philip Newsom-President
TBP Architecture
1777 Oakland Blvd
Suite 320
94596 CA WALNUT CREEK
US
Phone: 8084217080

Package information

Pieces	Weight	Dimensions (LxWxH)	Carriage value	Package options
1 x	2.00 lb			n/a
Packaging type: Your Packaging		Service: FedEx First Overnight		Pickup / drop-off type: I'll drop off my shipment at a FedEx location

Billing information

Bill transportation cost to: *****485 P.O. No.: FROM LAWRENCE
Bill duties, taxes and fees to: HAMACON
Your reference: REDWOOD COLLEGE- TURF SUB Invoice No.:
Department No.:

Please note: This transaction record is neither a statement nor an invoice, and does not confirm shipment tendered to FedEx or payment. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1000, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; Consult the applicable FedEx Service Guide for details. The estimated shipping charge may be different than the actual charges for your shipment. Differences may occur based on actual weight, dimensions, and other factors. Consult the applicable FedEx Service Guide or the FedEx Rate Sheets for details on how shipping charges are calculated.



TESTING TECHNOLOGY FOR SPORT

Laboratory Analysis Report

Allsport Ultra 2.25in 45oz

Report Number: 92794/3480

Report Status: Final

Client: Greenfields

1131 Broadway St

Dayton, TN 37321



UNITED STATES

4295 Cromwell Road, Suite 204
Chattanooga, Tennessee 37421

Phone: +1-423-541-5526


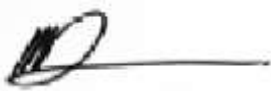
Email: support@sportslabs.com
Web: www.sportslabs.com

REGIONAL LOCATIONS

- Seattle, Washington
- Columbia, Missouri
- Dallas, Texas
- Tampa, Florida
- Los Angeles, California
- Montreal, Quebec

Foreword

This report has been prepared by Sports Labs with all reasonable skill, care, and diligence within the terms of the contract with the Client and within the limitations of the resources devoted to it.
This report is confidential to the Client, and Sports Labs accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

Report Written By:	Gustavo Munoz	Report Checked By:	Kieran O'Donnell
Date:	11/28/2022	Date:	11/28/2022
Signed:		Signed:	

Test Laboratory

Test Laboratory Name:	Sports Labs
Address:	4295 Cromwell Road, Suite 204
City & ZIP Code:	Chattanooga 37421
State or Province:	Tennessee
Country:	United States of America
Telephone:	+1 (423) 541-5526
Email:	Kieran@sportslabs.com

Client

Client's Name:	Greenfields
Address:	1131 Broadway St
City & ZIP Code:	Dayton 37321
State or Province:	Tennessee
Country:	United States of America

Product Description		
Product Name:	Allsport Ultra 2.25 in 52oz	
Synthetic Turf Name:	Allsport Ultra	
Performance Infill:	Sand	4.2 lb/ft ²
Stabilizing Infill:	SBR	3.0 lb/ft ²
Shockpad:	None	
Substrate:	Concrete	
Number of Conditioning Rolls:	50	
Free Pile Height:	13 mm	

Surface Image:



Sample Reference

Laboratory Job No.	92793	
Sample Reference No.	Synthetic Turf	3479
	Performance Infill	3425
	Stabilising Infill	3396
	Shockpad	N/A
Ambient Temperature Range During Testing (unless otherwise stated)	71.0 – 75.0 °F	
Ambient Humidity Range During Testing	40 – 60 %	

Performance Testing Results				
Property	Test Method	Test Condition	Mean Result	Requirement
Shock Absorption	AAA FIFA TM 04a	DRY	60.2%	57 – 68 %
		WET	59.0%	
		6020 Lisport XL Cycles	58.5%	
Vertical Deformation	AAA FIFA TM 05a	DRY	8.6 mm	6 – 10 mm
		WET	8.0 mm	
		6020 Lisport XL Cycles	7.7 mm	
Rotational Resistance - Studded	EN 15301–1: 2007	DRY	32 Nm	27 – 48 Nm
		WET	29 Nm	
		6020 Lisport XL Cycles	38 Nm	
Critical Fall Height - HIC	ASTM F3146	DRY	1.11 m	≥ 1.3 m
		WET	1.13 m	
		6020 Lisport XL Cycles	1.06 m	
Gmax	ASTM F1936	PRE-WEAR DRY	123	No Requirement
		PRE-WEAR WET	118	
		POST WEAR DRY	147	
Water Permeability	EN 12616	TURF ONLY	364 In/hr	No Requirement
		WITH INFILL	398 In/hr	

Performance Testing Results			
Property	Test Method	Test Condition	Mean Result
Ball Roll	EN 12234 2013	INITIAL	5.96 m
		6020 Lisport XL Cycles	9.43 m

Synthetic Turf - Identification		
Test method		Mean Result
Carpet Mass	ISO 8543: 1998	105.45 Oz/yd ²
Pile Weight	ISO 8543: 1998	45.30 Oz/yd ²
No. of Tufts	ISO 1763: 1986	8000 m ²
Pile Length	ISO 2549: 1972	2.24"
Yarn Type	Visual	Monofilament and Slit-film

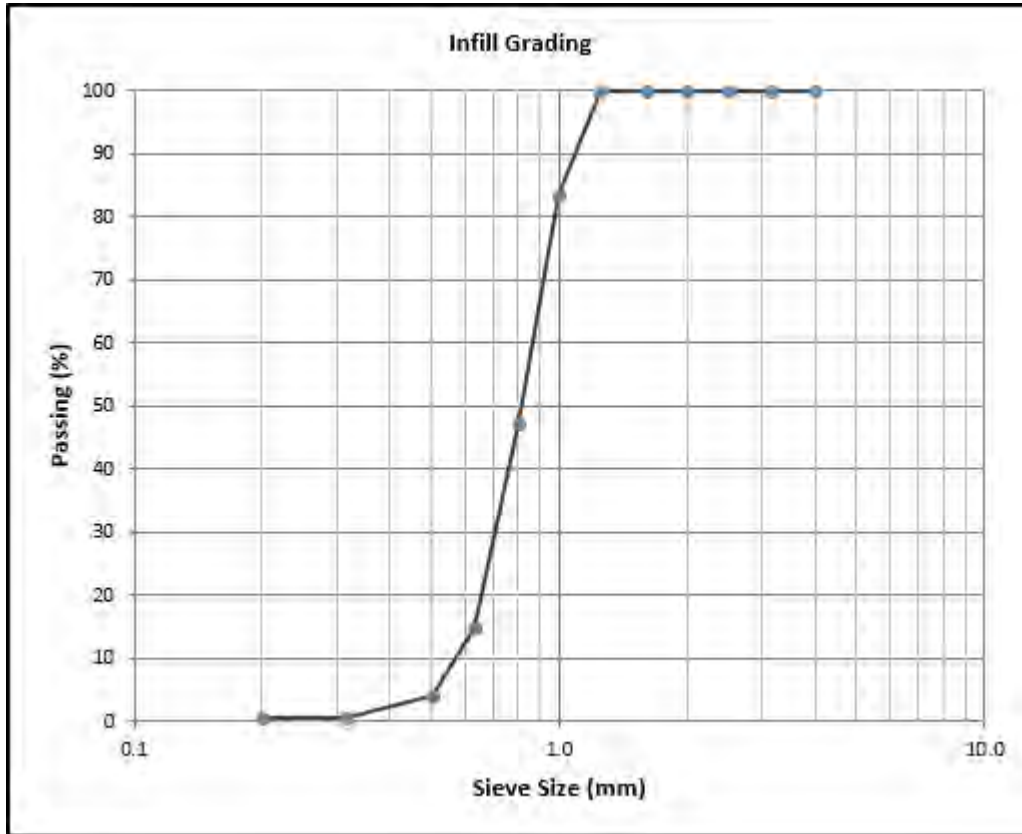
Synthetic Turf – Material Tests				
Test method		Test Condition	Mean Result	
Tuft Withdrawal	ISO 4919: 2012	Un-aged	13.03 Lbs.	
Carpet Tensile Strength	EN 13934–1: 2013	Un-aged	Direction of Manufacturer	>200 Lbf
			Perpendicular of Manufacturer	>200 Lbf

Synthetic Turf – Heat Test		
Phase	Elapsed Time [min]	Surface Temperature [°F]
1	0	86.72
	5	107.06
	10	116.96
	15	121.82
	20	125.6
2	30	130.64
	40	132.8
	50	136.04
	60	138.02
3	75	139.46
	90	143.06
	105	142.7
	120	143.06
	135	143.96
	150	144.14
	165	145.22
	180	145.22

Stabilizing Infill - Identification

Stabilizing Infill Name Sand

Stabilizing Infill – Material Tests

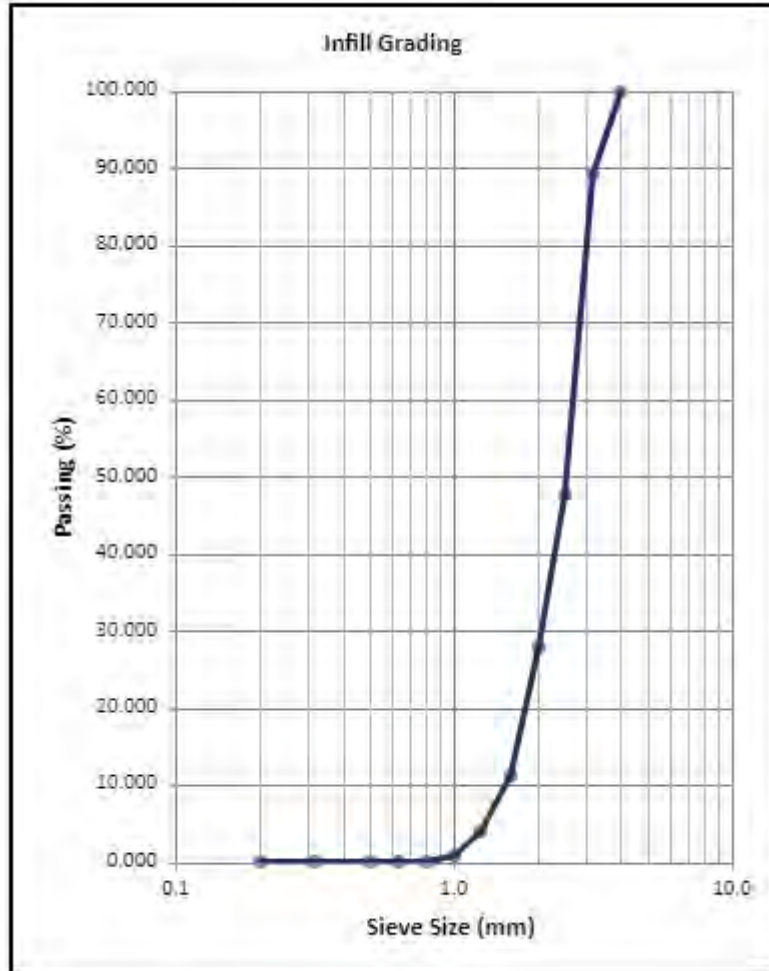


Property	Test Method	Mean Result
Particle Size	EN 933-1: 2012	0.315 – 1.00
Particle Shape	EN 14955: 2005	Round
Colour	Visual	White

Performance Infill - Identification

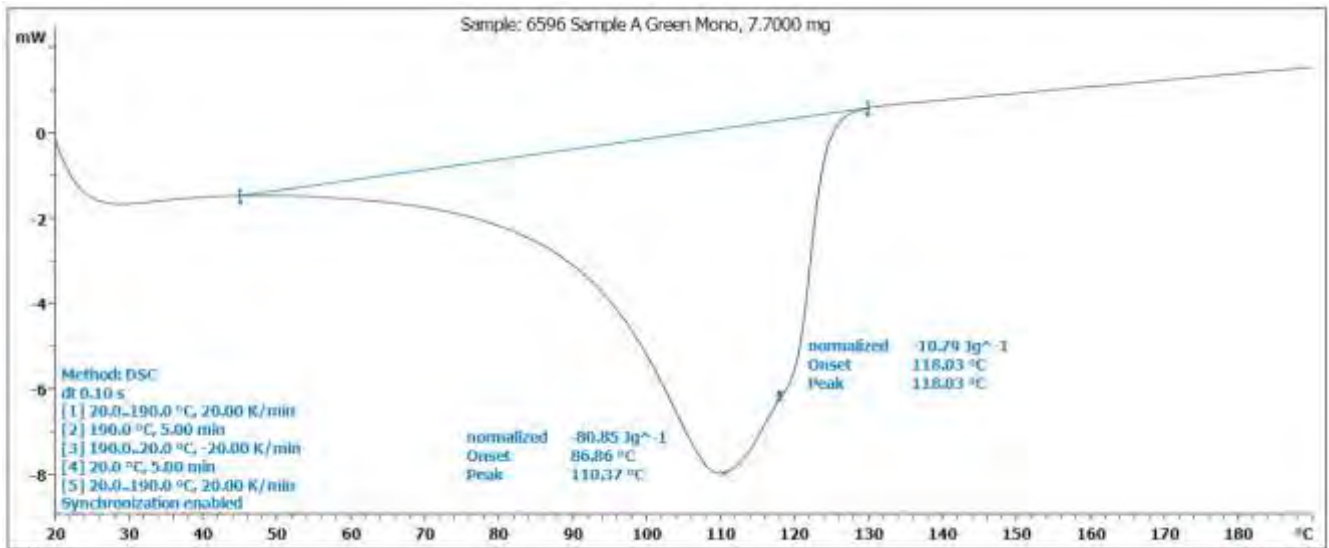
Performance Infill Name | **SBR**

Performance Infill – Material Tests



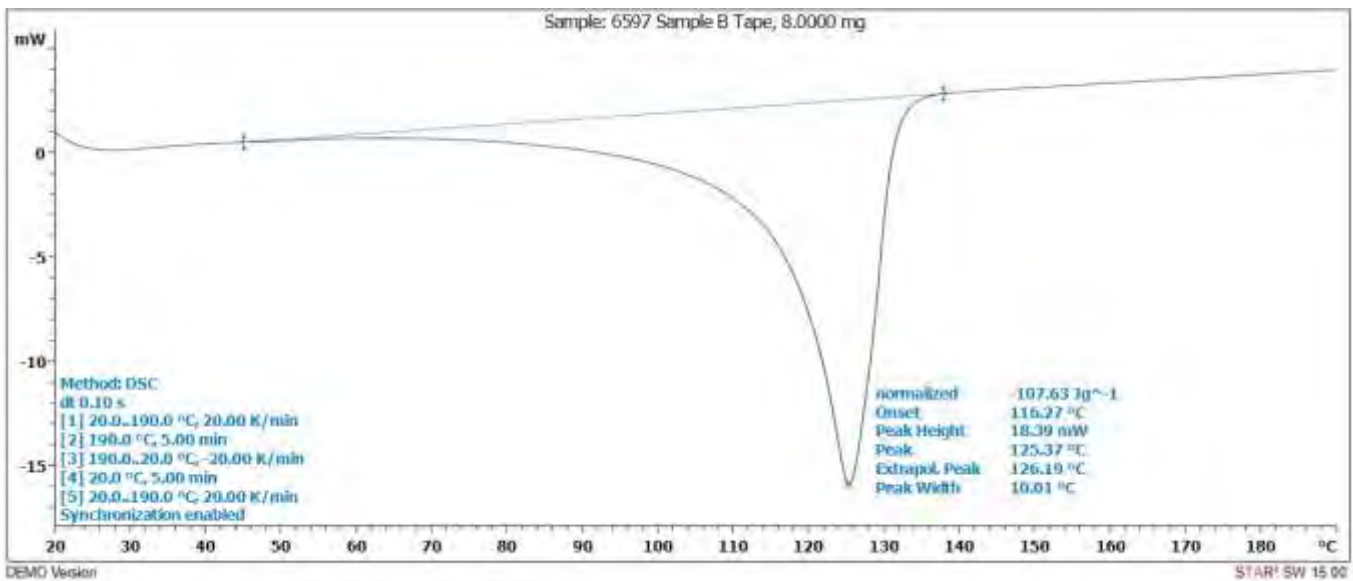
Property	Test Method	Mean Result
Particle Size	EN 933-1: 2012	1.0 – 3.15
Particle Shape	EN 14955: 2005	A2
Loose Bulk Density	EN 1097-3: 1998	0.41 g/cm³
Colour	Visual *	Black

Differential Scanning Calorimetry Results



Green Monofilament- Peak

244.45 °F



Tape- Peak

257.67 °F

Sample Photos

0 Cycles



2000 Cycles



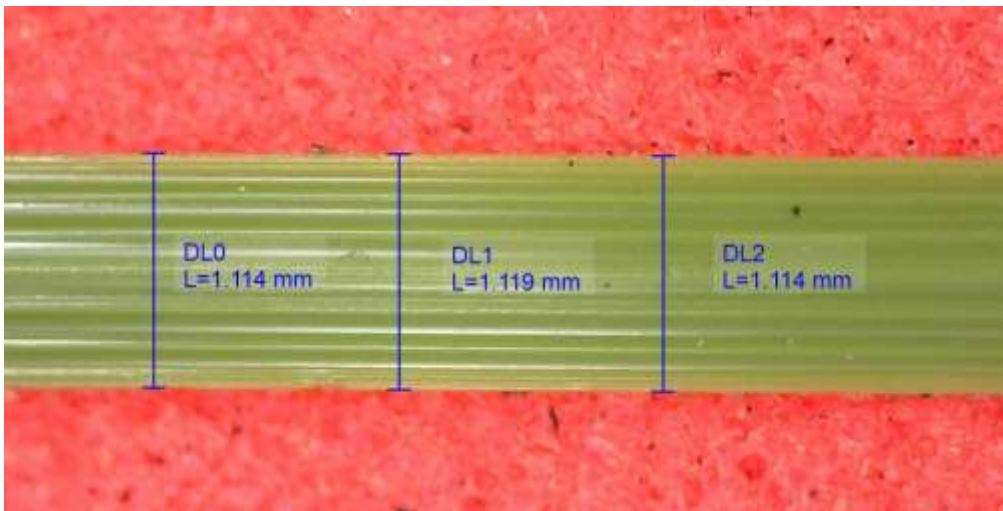
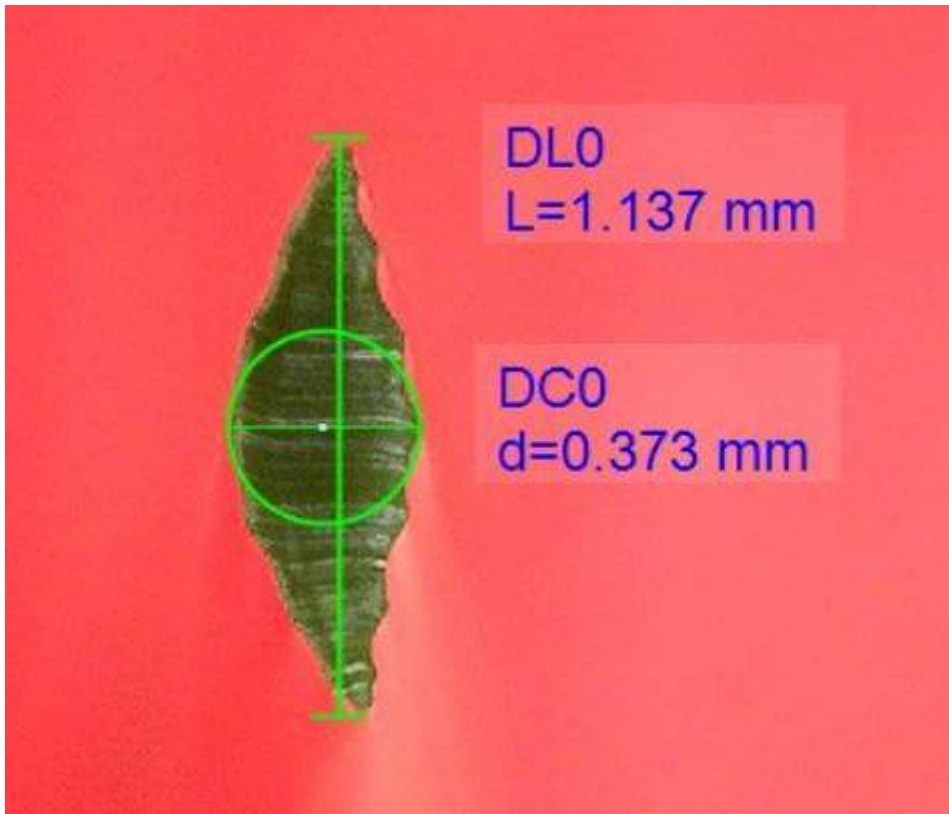
4000 Cycles



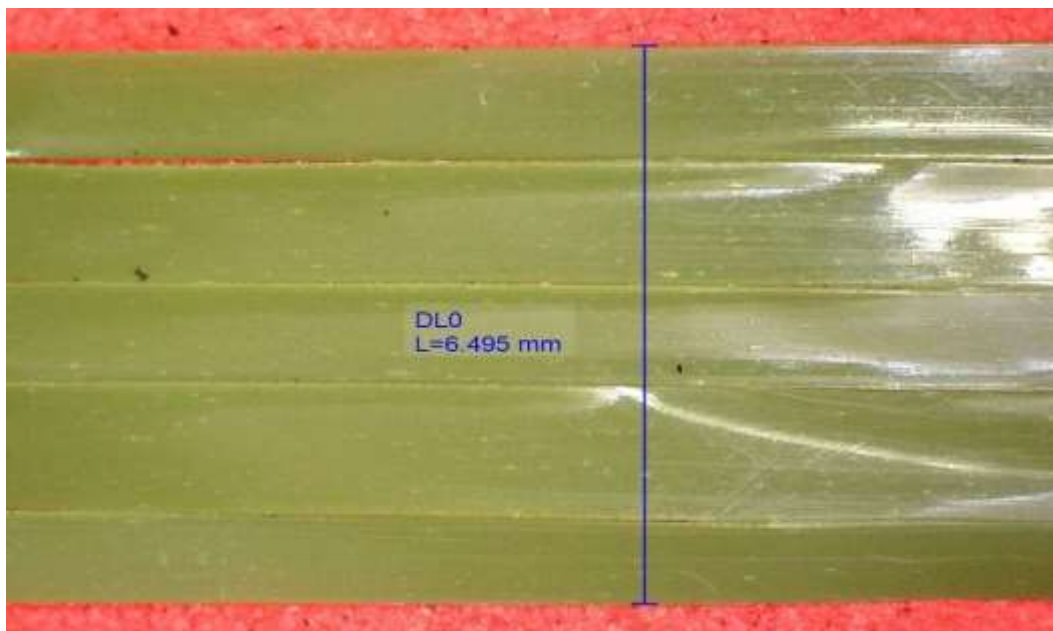
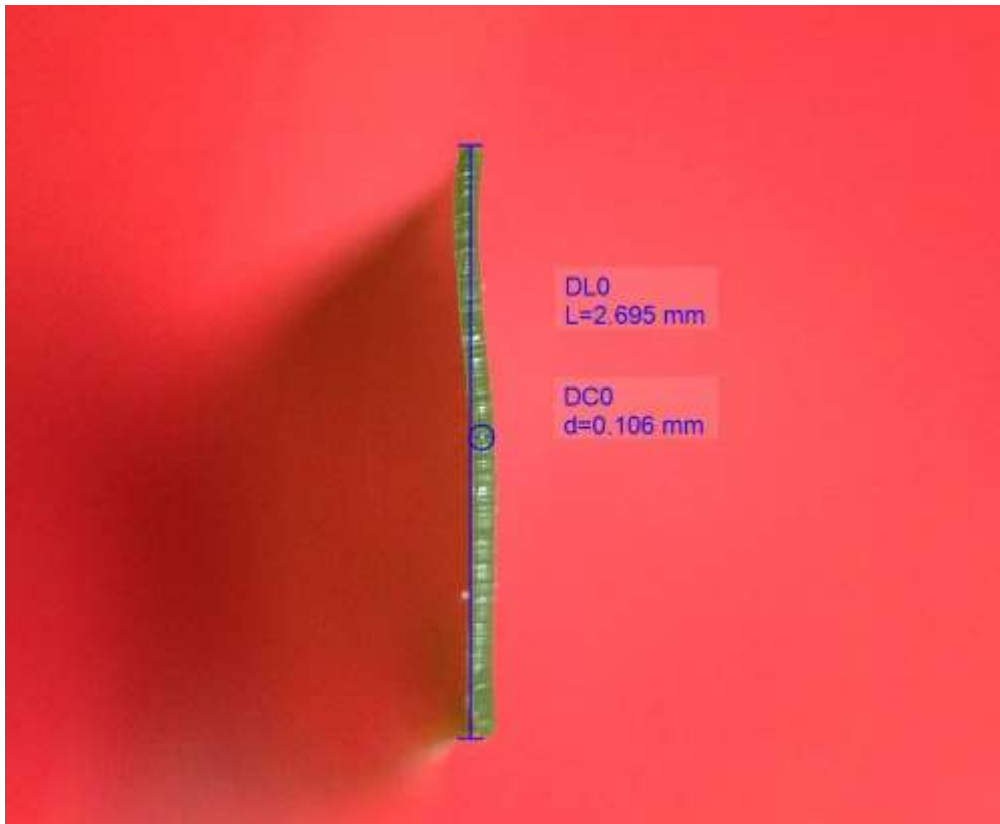
6000 Cycles



Monofilament Yarn Photos



Slit film Yarn Photos



End of Report



TESTING TECHNOLOGY FOR SPORT

Laboratory Analysis Report

Allsport Ultra 2.25in 52oz

Report Number: 92794/3480

Report Status: Final

Client: Greenfields

1131 Broadway St

Dayton, TN 37321



UNITED STATES

4295 Cromwell Road, Suite 204
Chattanooga, Tennessee 37421

Phone: +1-423-541-5526



Email: support@sportslabs.com
Web: www.sportslabs.com

REGIONAL LOCATIONS

- Seattle, Washington
- Columbia, Missouri
- Dallas, Texas
- Tampa, Florida
- Los Angeles, California
- Montreal, Quebec

Foreword

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This report is confidential to the Client, and Sports Labs accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

Report Written By:	Gustavo Munoz	Report Checked By:	Kieran O'Donnell
Date:	11/28/2022	Date:	11/28/2022
Signed:		Signed:	

Test Laboratory

Test Laboratory Name:	Sports Labs
Address:	4295 Cromwell Road, Suite 204
City & ZIP Code:	Chattanooga 37421
State or Province:	Tennessee
Country:	United States of America
Telephone:	+1 (423) 541-5526
Email:	Kieran@sportslabs.com

Client

Client's Name:	Greenfields
Address:	1131 Broadway St
City & ZIP Code:	Dayton 37321
State or Province:	Tennessee
Country:	United States of America

Product Description		
Product Name:	Allsport Ultra 2.25 in 52oz	
Synthetic Turf Name:	Allsport Ultra	
Performance Infill:	Sand	4.2 lb/ft ²
Stabilizing Infill:	SBR	3.0 lb/ft ²
Shockpad:	None	
Substrate:	Concrete	
Number of Conditioning Rolls:	50	
Free Pile Height:	14 mm	

Surface Image:



Sample Reference

Laboratory Job No.	92794	
Sample Reference No.	Synthetic Turf	3480
	Performance Infill	3425
	Stabilising Infill	3396
	Shockpad	N/A
Ambient Temperature Range During Testing (unless otherwise stated)	71.0 – 75.0 °F	
Ambient Humidity Range During Testing	40 – 60 %	

Performance Testing Results				
Property	Test Method	Test Condition	Mean Result	Requirement
Shock Absorption	AAA FIFA TM 04a	DRY	64.5%	57 – 68 %
		WET	63.8%	
		6020 Lisport XL Cycles	58.3%	
Vertical Deformation	AAA FIFA TM 05a	DRY	10.0 mm	6 – 10 mm
		WET	9.5 mm	
		6020 Lisport XL Cycles	7.7 mm	
Rotational Resistance - Studded	EN 15301–1: 2007	DRY	30 Nm	27 – 48 Nm
		WET	31 Nm	
		6020 Lisport XL Cycles	38 Nm	
Critical Fall Height - HIC	ASTM F3146	DRY	1.14 m	≥ 1.3 m
		WET	1.20 m	
		6020 Lisport XL Cycles	1.10 m	
Gmax	ASTM F1936	PRE-WEAR DRY	119	No Requirement
		PRE-WEAR WET	117	
		POST WEAR DRY	134	
Water Permeability	EN 12616	TURF ONLY	331 In/hr	No Requirement
		WITH INFILL	409 In/hr	

Performance Testing Results			
Property	Test Method	Test Condition	Mean Result
Ball Roll	EN 12234 2013	INITIAL	5.90 m
		6020 Lisport XL Cycles	8.86 m

Synthetic Turf - Identification		
Test method		Mean Result
Carpet Mass	ISO 8543: 1998	82.71 Oz/yd ²
Pile Weight	ISO 8543: 1998	54.35 Oz/yd ²
No. of Tufts	ISO 1763: 1986	9700 m ²
Pile Length	ISO 2549: 1972	2.25"
Yarn Type	Visual	Monofilament and Slit-film

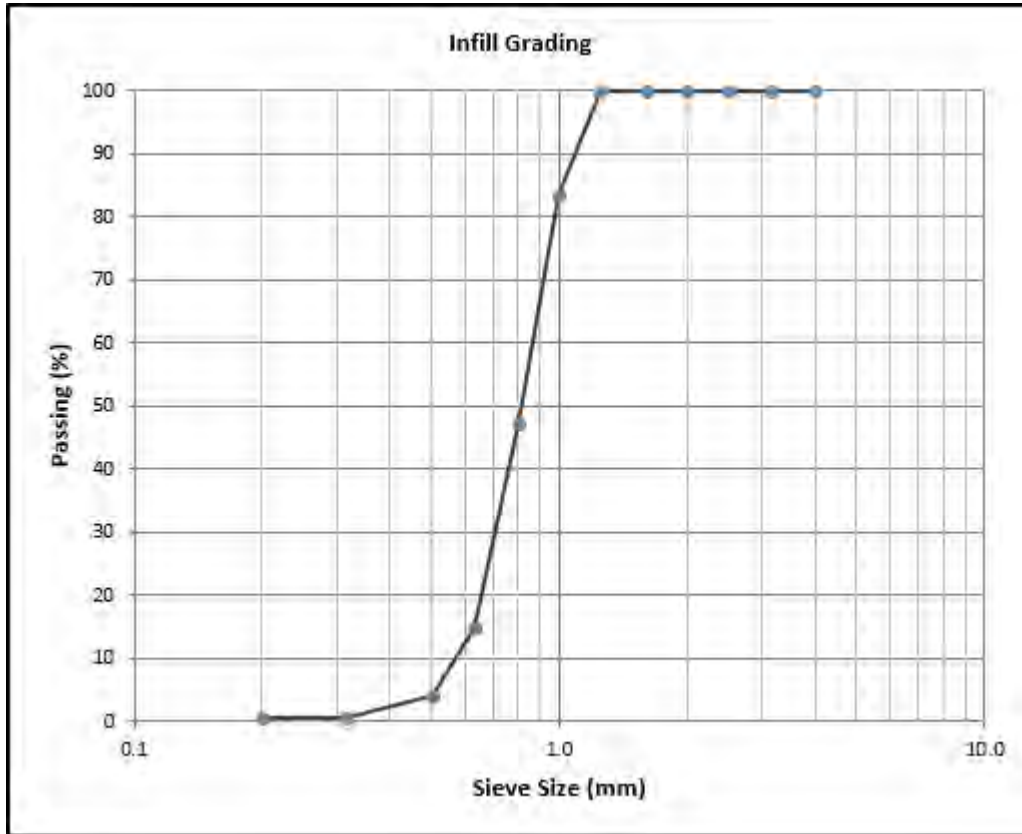
Synthetic Turf – Material Tests				
Test method		Test Condition	Mean Result	
Tuft Withdrawal	ISO 4919: 2012	Un-aged	14.39 Lbs.	
Carpet Tensile Strength	EN 13934-1: 2013	Un-aged	Direction of Manufacturer	>200 Lbf
			Perpendicular of Manufacturer	>200 Lbf

Synthetic Turf – Heat Test		
Phase	Elapsed Time [min]	Surface Temperature [°F]
1	0	84.92
	5	102.02
	10	110.66
	15	115.7
	20	120.2
2	30	124.7
	40	127.58
	50	129.56
	60	131.18
3	75	133.34
	90	136.04
	105	137.66
	120	138.74
	135	139.46
	150	140.72
	165	141.44
	180	142.34

Stabilizing Infill - Identification

Stabilizing Infill Name Sand

Stabilizing Infill – Material Tests

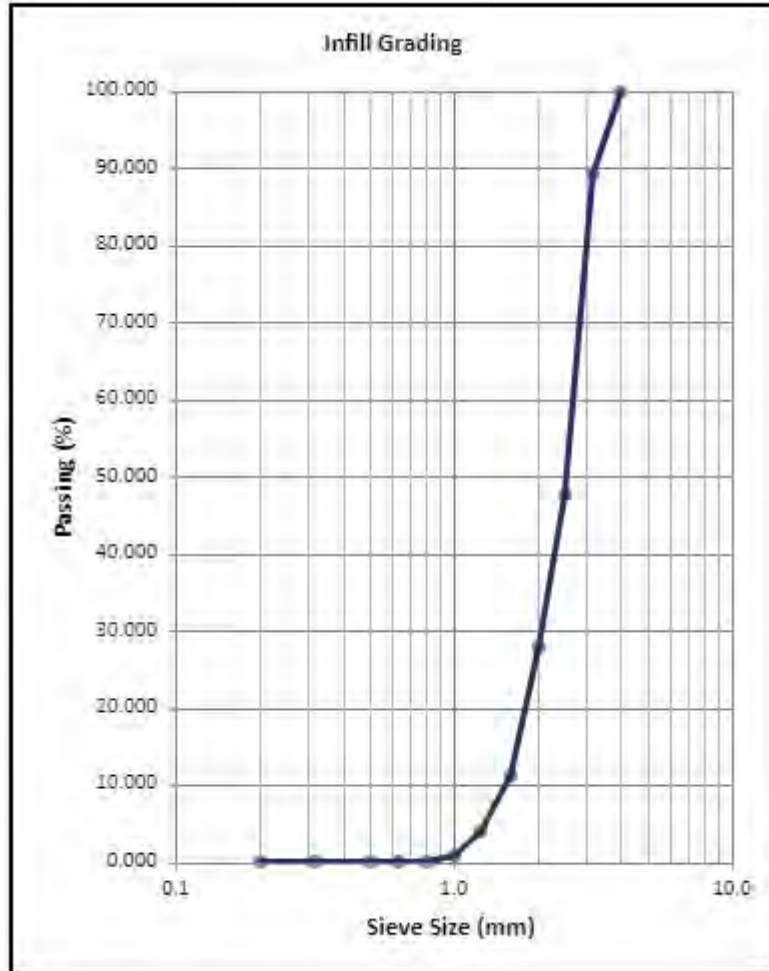


Property	Test Method	Mean Result
Particle Size	EN 933-1: 2012	0.315 – 1.00
Particle Shape	EN 14955: 2005	Round
Colour	Visual	White

Performance Infill - Identification

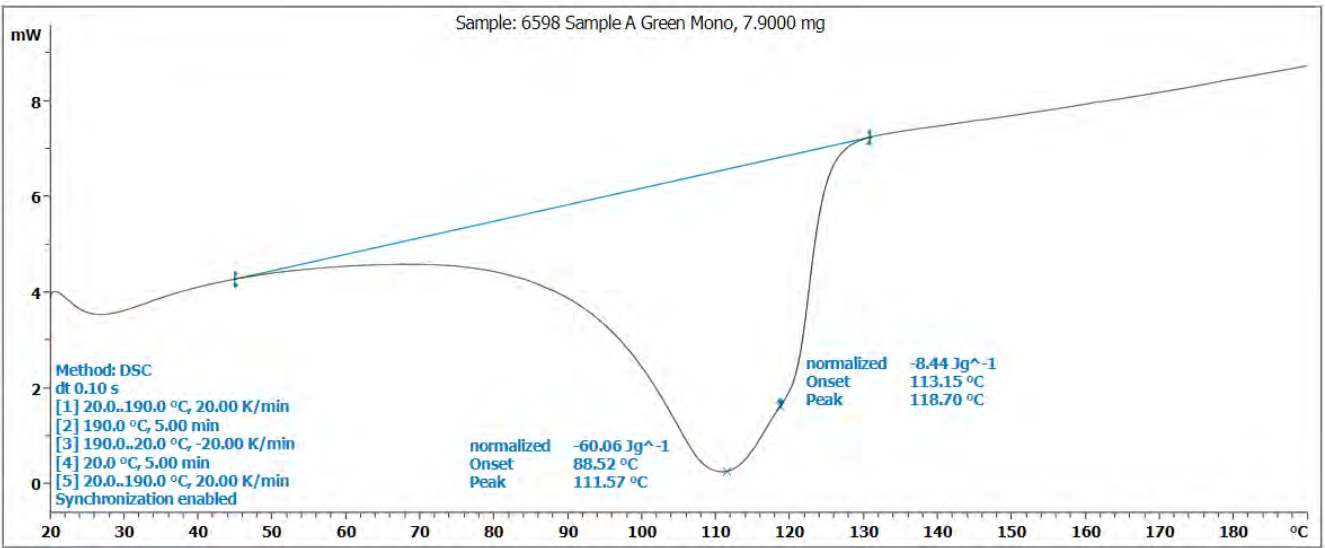
Performance Infill Name | **SBR**

Performance Infill – Material Tests



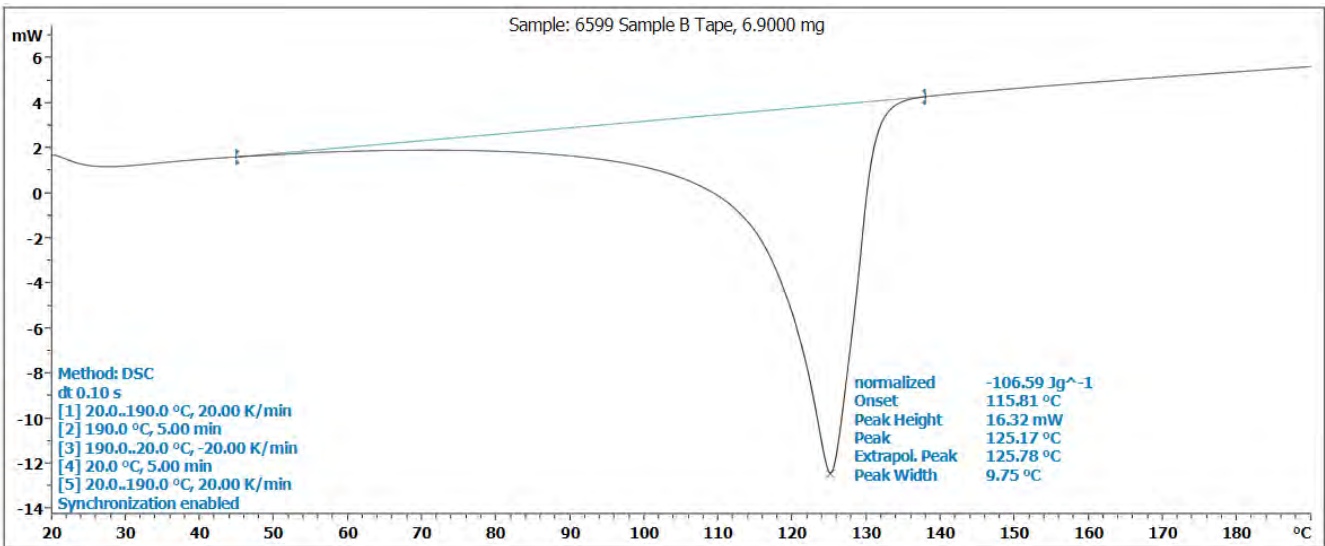
Property	Test Method	Mean Result
Particle Size	EN 933-1: 2012	1.0 – 3.15
Particle Shape	EN 14955: 2005	A2
Loose Bulk Density	EN 1097-3: 1998	0.41 g/cm ³
Colour	Visual *	Black

Differential Scanning Calorimetry Results



Green Monofilament- Peak

245.66 F



Tape- Peak

258.35°F

Sample Photos

0 Cycles



2000 Cycles



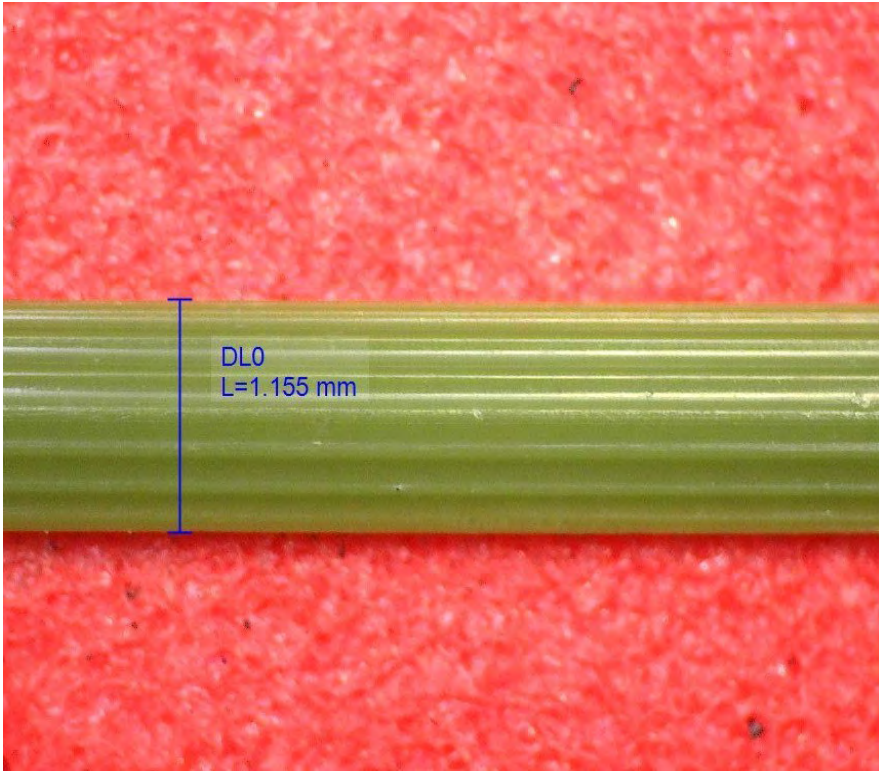
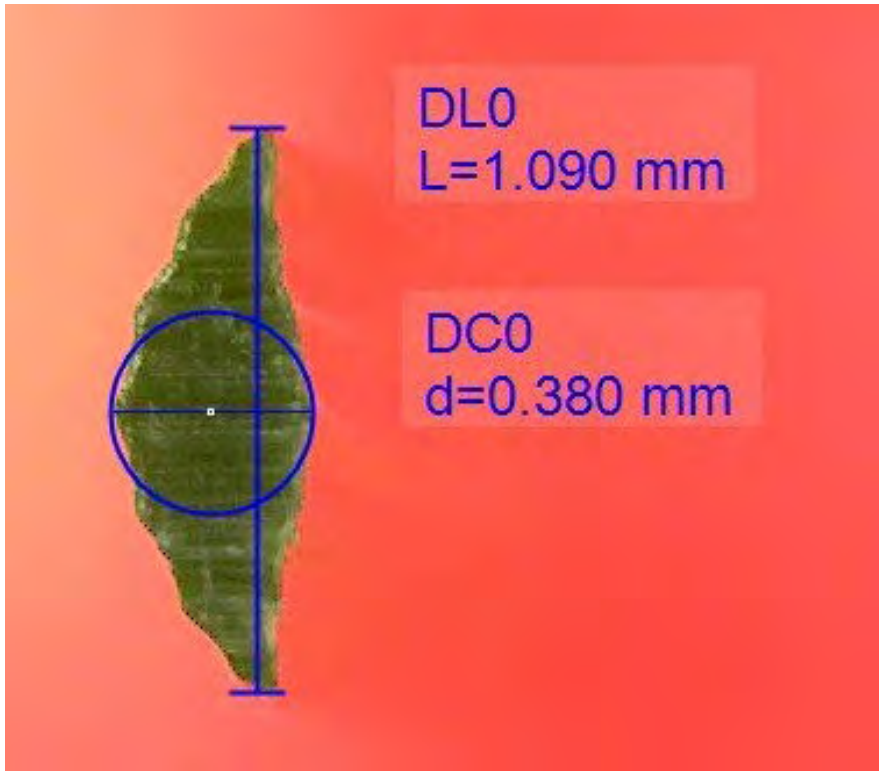
4000 Cycles



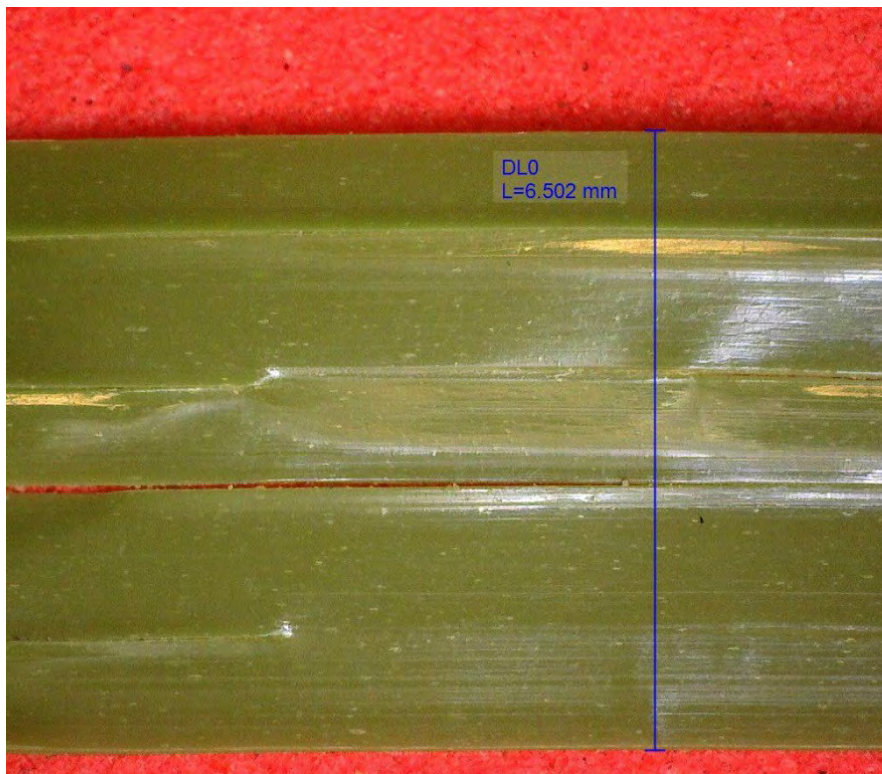
6000 Cycles



Monofilament Yarn Photos



Slit film Yarn Photos



End of Report

DATE: 04-30-2018

TEST NUMBER: 0403172

CLIENT: Green Fields

TEST CONDUCTED: ASTM F1551 Shoe Traction (Soccer and Football)



PRODUCT NAME: 1287201

DESCRIPTION OF PRODUCT TESTED: Turf

GENERAL PRINCIPLE

The shoe traction was determined on the submitted samples using a football cleat loaded to 25 lbs. force. The force to initiate movement was calculated in four directions and averaged. This value is considered the shoe traction.

TEST RESULTS

FOOTBALL						
IDENTIFICATION	TL	DT	SHOE TRACTION	DT WET	SHOE TRACTION WET	TL
Initiate	0.36	1.04	1.46	1.07	1.43	0.35
Sustain	0.25	0.76	1.02	0.74	0.99	0.23

SOCCER						
IDENTIFICATION	TL	DT	SHOE TRACTION	DT WET	SHOE TRACTION WET	TL
Initiate	0.32	0.96	1.28	0.45	0.94	0.30
Sustain	0.21	0.64	0.85	0.62	0.61	0.20

APPROVED BY: *Gary Anthony*

This report is provided for the exclusive use of the client to whom it is addressed. It may be used in its entirety to gain product acceptance from duly constituted authorities. This report applies only to those samples tested and is not necessarily indicative of apparently identical or similar products. This report, or the name of Professional Testing Laboratory Inc. shall not be used under any circumstance in advertising to the general public.



FIFA LABORATORY TEST REPORT

Test manual 2015
01.01.2015

Product	GreenFields Allsport Diamond 60 115 13.2 s sbr
FIFA Licensee	Greenfields B.V.
Test Institute	Labosport Ltd
Test Number	55141
External Test Number	LSUK.18-0254
Date of Test	15.05.2018
Test Result	Passed
Quality Level	FIFA Quality & Quality PRO
Test Type	Initial



Licensee

Main Address

Name	Greenfields B.V.
Address	G. van der Muelenweg 2
ZIP / City	7443 RE / Nijverdal
Website	www.greenfields.eu
Contact Email	info@greenfields-swiss.ch
Contact Phone	+31/548633333


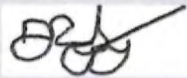
Test institute

Main Address

Name	Labosport Ltd
Address	Unit 3 Aerial Way, Hucknall Business Park Watnall Road
ZIP / City	NG15 6DW / HUCKNALL, NOTTINGHAM
Website	
Contact Email	
Contact Phone	



Approval

Test Institute Director	Dr Colin Young
Signature	
Date	24.05.2018
Test Institute Engineer	David Rigby (Laboratory Manager)
Signature	
Date	15.05.2018



1 – Test Results

Name	Comment	Result
1 - Summary		
Vertical ball rebound FIFA Quality		Passed
Vertical ball rebound FIFA Quality Pro		Passed
Angeled ball rebound FIFA Quality		Passed
Angeled ball rebound FIFA Quality Pro		Passed
Reduced ball roll FIFA Quality		Passed
Reduced ball roll FIFA Quality Pro		Passed
Shock absorption FIFA Quality		Passed
Shock absorption FIFA Quality Pro		Passed
Deformation FIFA Quality		Passed
Deformation FIFA Quality Pro		Passed
Rotational resistance FIFA Quality		Passed
Rotational resistance FIFA Quality Pro		Passed
Skin / surface friction		Passed
Skin abrasion		Passed
1 - Test Details Object		
Product Name		GreenFields Allsport Diamond 60 115 13.2 s sbr
Product ID		-
Synthetic Turf System		GreenFields Allsport Diamond 60 150 13.2
Performance infill		SBR
Stabilising infill		Sand
Shock-pad or elastic layer		-
Sub-base composition		Rigid engineered base
2 - Test Details Test Institute		
Date(s) of test		15.05.2018



Name	Comment	Result
Report created by		Nicole Marshall
Other Test Engineer on site		Scott Parkin (Senior Lab Technician)
Laboratory Test report number		LSUK.18-0254
Test Institute Project number		LSUK.18-0254
3 – Product Declaration (Manufacturer)		
Manufacturer		Belakos BV, Belgotex Pty or Sports & Leisure Group N.V.
Tuft pattern		Straight stitch pattern
Yarn manufacturer yarn 1		TenCate Grass
Product name, code yarn 1		DIA XQ RIB 365 : MS D2 132-6 XWR
Pile yarn profile yarn 1		Diamond
Pile thickness (µm) yarn 1		365.0
Pile colour (RAL) value 1 yarn 1		6025
Pile colour (RAL) value 2 yarn 1		6010
Pile colour (RAL) value 3 yarn 1		-
Pile width (mm) yarn 1		1.05
Number of tufts/m ² yarn 1	ISO1773	9034.00
Pile length (mm) yarn 1	ISO 2549	60.00
Pile weight (g/m ²) yarn 1	ISO 8543	1627.00
Pile yarn characterization yarn 1		PE
Pile yarn dtex yarn 1		13200
Yarn manufacturer yarn 2		-
Product name, code yarn 2		-
Pile yarn profile yarn 2		-
Pile thickness (µm) yarn 2		
Pile colour (RAL) value 1 yarn 2		-
Pile colour (RAL) value 2 yarn 2		-



Name	Comment	Result
Pile colour (RAL) value 3 yarn 2		-
Pile width (mm) yarn 2		
Number of tufts/m ² yarn 2	ISO1773	
Pile length (mm) yarn 2	ISO 2549	
Pile weight (g/m ²) yarn 2	ISO 8543	
Pile yarn characterization yarn 2		-
Pile yarn dtex yarn 2		
Yarn manufacturer yarn 3		-
Product name, code yarn 3		-
Pile yarn profile yarn 3		-
Pile thickness (μ m) yarn 3		
Pile colour (RAL) value 1 yarn 3		-
Pile colour (RAL) value 2 yarn 3		-
Pile colour (RAL) value 3 yarn 3		-
Pile width (mm) yarn 3		
Number of tufts/m ² yarn 3	ISO1773	
Pile length (mm) yarn 3	ISO 2549	
Pile weight (g/m ²) yarn 3	ISO 8543	
Pile yarn characterization yarn 3		-
Pile yarn dtex yarn 3		
Primary backing Product name, code		D12
Primary backing Manufacturer		TenCate Thiobac
Re-enforcement scrim Product name, code		-



Name	Comment	Result
Re-enforcement scrim Manufacturer		-
Secondary backing Product name, code		PU
Secondary backing Manufacturer		Textile rubber
Secondary backing Dry application rate (g/m ²)		678.0
Carpet Minimum tuft withdrawel force (N)		>40
Carpet Carpet mass per unit area (g/m ²)		2434.0
Method of jointing		Bonded
Bonded joints Adhesive brand name		149 2C-Turf Adhesive
Bonded joints Adhesive manufacturer		HB Fuller
Bonded joints Application rate (g/m)		300 - 350 g/m
Bonded joints Jointing film brand name		Seaming tape 145
Bonded joints Jointing film manufacturer		CECO
Stitched seams Tread brand name/product code		-
Stitched seams Tread manufacturer		-
Stitched seams Stitch rate (stitch per 1m)		
Performance Infill Product name, code		SBR
Performance Infill Manufacturer		Genan GmbH



Name	Comment	Result
Performance Infill Material type		Genan FINE
Performance Infill Material grading		0.7 - 2.0 mm
Performance Infill Particle shape	prEN 14955	spherical, moderate angular
Performance Infill Particle size range	EN 933-Part 1	0.7 - 2.0 mm
Performance Infill Bulk density (g/cm ³)	EN 1097-3	0.490
Performance Infill Application rate (kg/m ²)		16.5
Stabilising Infill Product name, code		Sand
Stabilising Infill Manufacturer		Filcom
Stabilising Infill Material type		Filter sand
Stabilising Infill Material grading		0.4 - 1.0 mm
Stabilising Infill Particle shape	prEN 14955	Rounded
Stabilising Infill Particle size range	EN 933-Part 1	0.5 - 1.0 mm
Stabilising Infill Bulk density (g/cm ³)	EN 1097-3	1.56
Stabilising Infill Application rate (kg/m ²)		23.8
Shockpad, E-layer Product name, code		-
Shockpad, E-layer Manufacturer		-
Shockpad, E-layer Type		-
Shockpad, E-layer Composition		-
Shockpad, E-layer Bulk density (g/cm ³)		



Name	Comment	Result
Shockpad, E-layer Thickness	EN 1979	
Shockpad, E-layer Shock absorption (%)	FIFA 4a	
Shockpad, E-layer Deformation	FIFA 5a	
Shockpad, E-layer Tensile strength (N)		
Shockpad, E-layer Mass per unit area (kg/m ²)		
Other, detail		
4 – Product Identification		
Artificial Turf Carpet mass per unit area [g/m ²]		2558
Artificial Turf Tufts per unit area [m ²]		9034
Artificial Turf Pile length above backing [mm]		60.7
Artificial Turf Pile weight [g/m ²]		1662
Artificial Turf Water permeability of carpet [mm/h]		>2000
Artificial Turf Free pile height		11
Performance infill Particle size range [mm]		0.8 - 2.0mm
Performance infill Particle shape		Angular A3
Performance infill Bulk density [g/cm ³]		0.451
Performance infill Infill depth [mm]		28
Performance infill Thermographic analysis organic [%]		63



Name	Comment	Result
Performance infill Thermographic analysis inorganic [%]		37
Stabilising infill Particle size range [mm]		0.5 - 1.0mm
Stabilising infill Particle shape		Irregular B2
Stabilising infill Bulk density [g/cm ³]		1.52
Shock pad / E-layer Shock absorption [%]	if part of supplied system	
Shock pad / E-layer Deformation	if part of supplied system	
Shock pad / E-layer Thickness	if part of supplied system	
Other, detail		
5 - Test Results Ball / Surface interaction		
Vertical Ball Rebound Initial Dry (Quality)	0.6 - 1m	0.75
Vertical Ball Rebound Initial Dry (Pro)	0.6 - 0.85m	0.75
Vertical Ball Rebound Initial Wet (Quality)	0.6 - 1m	0.74
Vertical Ball Rebound Initial Wet (Pro)	0.6 - 0.85m	0.74
Vertical Ball Rebound after simulated wear 3'000 cycles (5*)	0.6 - 0.85m	0.77
Vertical Ball Rebound after simulated wear 6'000 cycles (5*)	0.6 - 1m	0.78
Vertical Ball Rebound after simulated wear 3'000 cycles (20*)	0.6 - 0.85m	
Vertical Ball Rebound after simulated wear 6'000 cycles (20*)	0.6 - 1m	



Name	Comment	Result
Angeled Ball Rebound Dry	45 - 80 %	52
Angeled Ball Rebound Wet	45 - 80 %	59
Reduced Ball Roll Initial Dry (Quality)	4 - 10 m	6.1
Reduced Ball Roll Initial Dry (Pro)	4 - 8 m	6.1
Reduced Ball Roll after simulated wear 3'000 cycles (5*) Dry	4 - 8 m	6.4
Reduced Ball Roll after simulated wear 3'000 cycles (5*) Wet	4 - 8 m	6.5
Reduced Ball Roll after simulated wear 3'000 cycles (20*) Dry	4 - 8 m	
Reduced Ball Roll after simulated wear 3'000 cycles (20*) Wet	4 - 8 m	
Reduced Ball Roll after simulated wear 6'000 cycles (5*) Dry	4 - 12 m	6.7
Reduced Ball Roll after simulated wear 6'000 cycles (5*) Wet	4 - 12 m	6.8
Reduced Ball Roll after simulated wear 6'000 cycles (20*) Dry	4 - 12 m	
Reduced Ball Roll after simulated wear 6'000 cycles (20*) Wet	4 - 12 m	
Shock absorption Initial Dry (Quality)	57 - 68 %	63.4



Name	Comment	Result
Shock absorption Initial Dry (Pro)	62 - 68 %	63.4
Shock absorption Initial Wet (Quality)	57 - 68 %	63.9
Shock absorption Initial Wet (Pro)	62 - 68 %	63.9
Shock absorption after simulated wear 3'000 cycles (5*)	62 - 68 %	62.8
Shock absorption after simulated wear 3'000 cycles (20*)	62 - 68 %	
Shock absorption after simulated wear 6'000 cycles (5*)	57 - 68 %	62.2
Shock absorption after simulated wear 6'000 cycles (20*)	57 - 68 %	
Shock absorption 50°C	57 - 68 %	63.10
Shock absorption -5°C	57 - 68 %	64.70
Deformation Initial Dry (Quality)	6 - 11 m	10.0
Deformation Initial Dry (Pro)	6 - 10 m	10.0
Deformation Initial Wet (Quality)	6 - 11 m	9.0
Deformation Initial Wet (Pro)	6 - 10 m	9.0
Deformation after simulated wear 3'000 cycles (5*)	6 - 10 m	8.5
Deformation after simulated	6 - 10 m	



Name	Comment	Result
wear 3'000 cycles (20*)		
Deformation after simulated wear 6'000 cycles (5*)	6 - 11 m	8.5
Deformation after simulated wear 6'000 cycles (20*)	6 - 11 m	
Rotational Resistance Initial Dry (Quality)	27 - 48 Nm	34
Rotational Resistance Initial Dry (Pro)	32 - 43 Nm	34
Rotational Resistance after simulated wear 3'000 cycles (5*)	32 - 43 Nm	35
Rotational Resistance after simulated wear 3'000 cycles (20*)	32 - 43 Nm	
Rotational Resistance after simulated wear 6'000 cycles (5*)	27 - 48 Nm	37
Rotational Resistance after simulated wear 6'000 cycles (20*)	27 - 48 Nm	
Skin / surface friction Dry	0.35 - 0.75 μ	0.63
Skin abrasion Dry	\pm 30 %	20
Other, detail		
6 – Environmental impact (artificial, light, water)		
Pile yarn 1 Colour change after artificial weathering	\geq Grey scale 3	Light Green: 5
Pile yarn 2 Colour change after artificial weathering	\geq Grey scale 3	Dark Green: 4-5
Pile yarn 3 Colour change	\geq Grey scale 3	-



Name	Comment	Result
after artificial weathering		
Pile yarn 1 Yarn tensile strength after artificial weathering	Change \leq 50 %	Light Green: -3.0%
Pile yarn 2 Yarn tensile strength after artificial weathering	Change \leq 50 %	Dark Green: 0.6%
Pile yarn 3 Yarn tensile strength after artificial weathering	Change \leq 50 %	-
Polymeric infill Colour change after artificial weathering	\geq Grey scale 3	4
Polymeric infill Visual change in composition after artificial weathering	No change	No change
Complete system Water permeability	$>$ 180 mm/h	2962
Stitched joints Strength un-aged	\geq 1000N/100mm	
Stitched joints Strength water aged	\geq 1000N/100mm	
Bonded joints Strength un-aged	\geq 75/100mm	151
Bonded joints Strength water aged	\geq 75/100mm	133
Carpet tuft Withdrawal force un-aged	\geq 30N	35
Carpet tuft Withdrawal force water aged	\geq 30N	31
Heat Category	for information	3
Splash Characteristics	for information	$>$ 1.5
7 - Miscellaneous (shock pad, sub-base - if part of the system)		

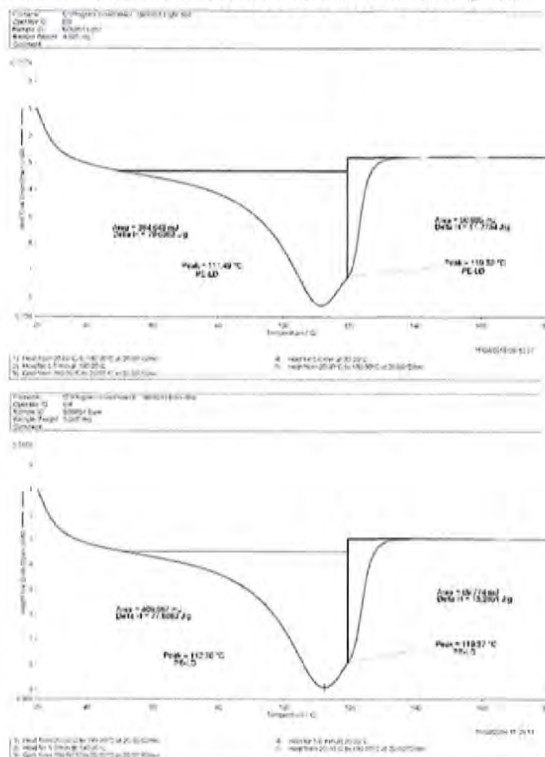


Name	Comment	Result
Shock Pad / E-layer tensile strength un-aged	≥ 0.15 MPa	
Sub-base Composition		N/A
Sub-base Particle size range		N/A
Sub-base Particle shape		N/A
Sub-base Thickness		N/A
Sub-base Compaction & test method		N/A
Other, detail		Results after UV ageing are from report 16742/1794 and 16742/1364 issued by Sports Labs Ltd. LABOSPORT does not assume any liability or responsibility to the user or other third party, for the accuracy, completeness or representativeness of this result.



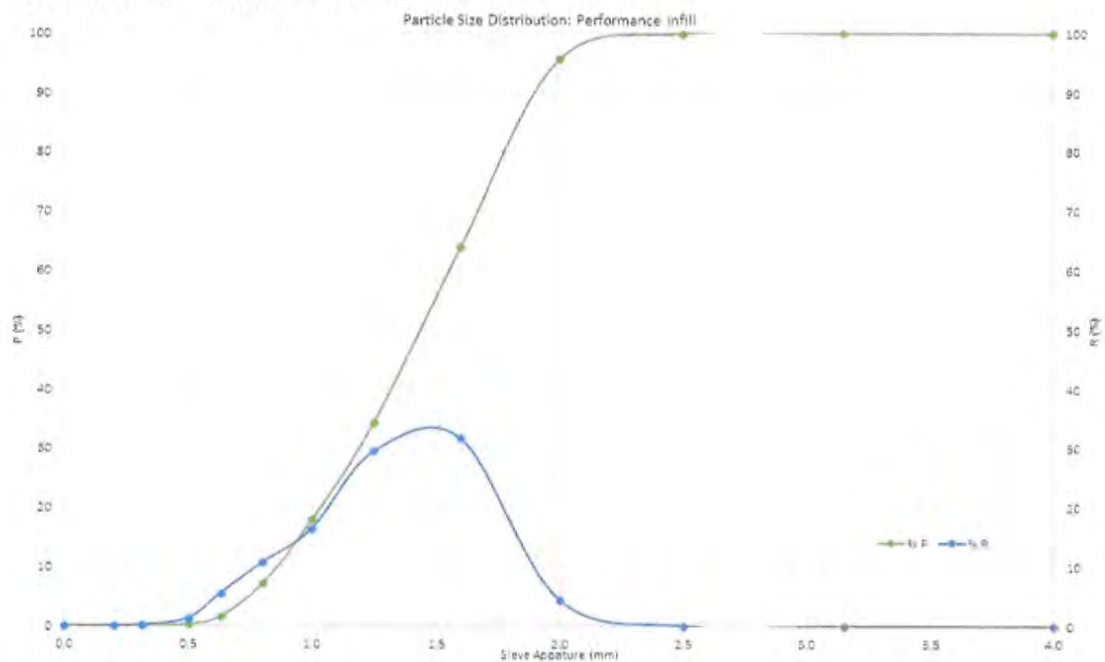
2 – Test Images

DSC Diff. Scan. Colorimetry scans of pile yarn



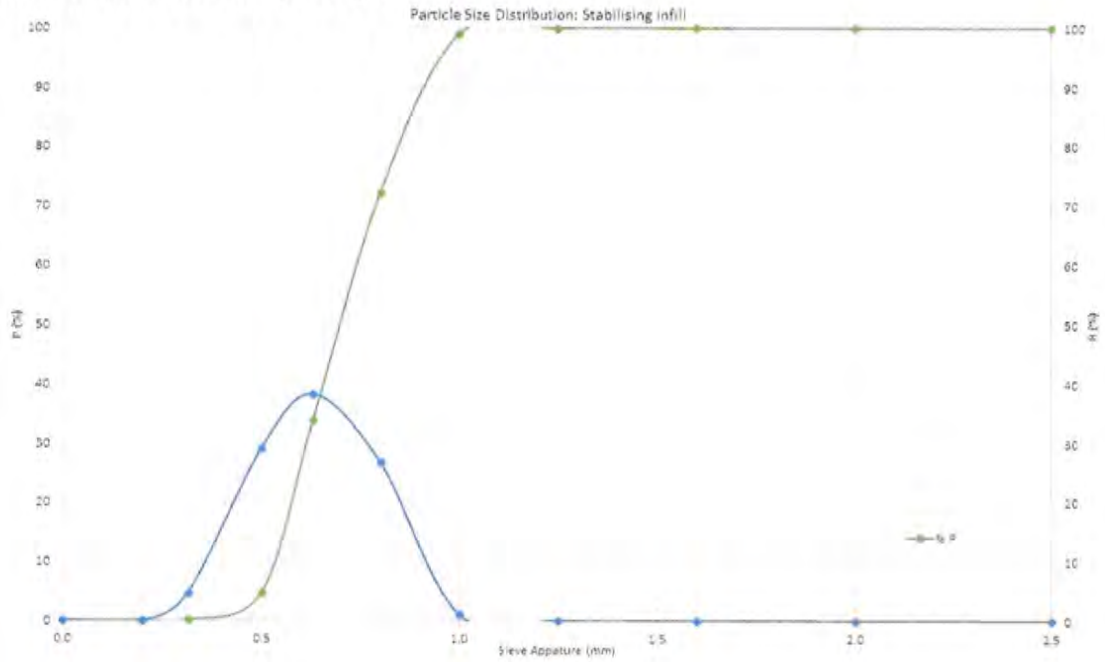


Performance infill particle grading curve



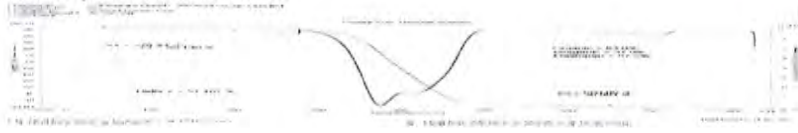


Stabilising infill particle grading curve





TGA of performance infill





Simulated wear - Before 1



Simulated wear - Before 2



Simulated wear - Before 3





Simulated wear - After 1



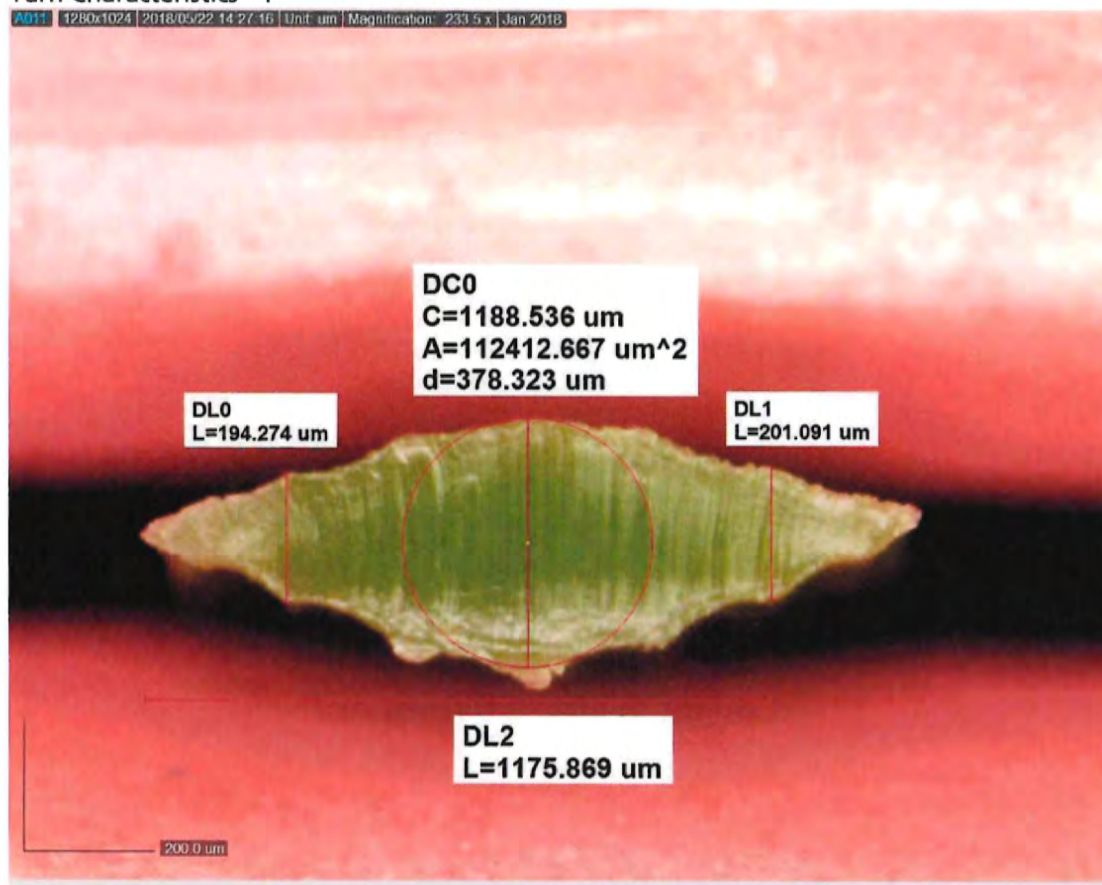
Simulated wear - After 2



Simulated wear - After 3

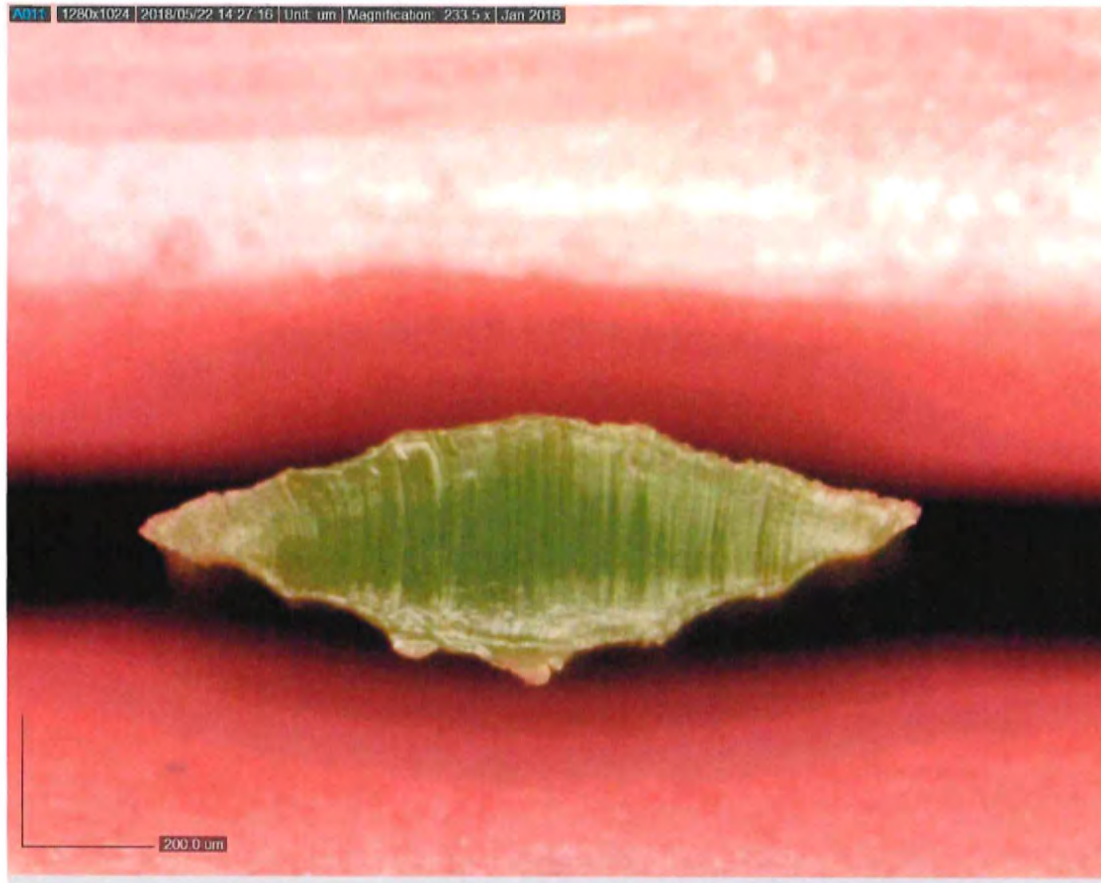


Yarn Characteristics - 1



Yarn Characteristics - 2

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Yarn Characteristics - 3





Yarn Characteristics - 4

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CONSTRUCTION BID DOCUMENTS (Redwoods Community College District)

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1. Section 00 11 16 Notice Inviting Bids
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 - c. Iran Contracting Act Certification
 - d. Compliance with Economic Sanctions Certification
 - e. Bid Bond
5. Section 00 45 13 Bidders' Qualifications Questionnaire
6. Section 00 45 00 Certification of Site Visit
7. Section 00 45 19 Non-collusion Declaration
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10. ~~Section 00 54 36—BIM~~
11. Section 00 55 00 Notice to Proceed
12. Section 00 61 13 Performance Bond and Payment Bond
13. Section 00 70 00 Contract/General Conditions

**Section 00 11 16
NOTICE INVITING BIDS**

Community Stadium Upgrade Project

College of the Redwoods
7351 Tompkins Hill Road
Eureka, California 95501

1. Notice is hereby given that the Governing Board of the Redwoods Community College District (“District”), of the County of Humboldt, State of California, will receive sealed bids for the Community Stadium Upgrade Project (“Project”) up to, but not later than, 11:00 a.m., on January 25th, 2024, and will thereafter publicly open and read aloud the bids. All bids shall be received in the Board Room SS 202A, on the Second Floor of the Student Services/Administration Building on the Eureka College of the Redwoods Campus, 7351 Tompkins Hill Rd, Eureka, California 95501. The Scope of Work and Supporting Documents are available for examination on the College of the Redwoods Purchasing webpage ***beginning on December 21, 2023:*** <https://www.redwoods.edu/businessoffice/Purchasing>.

Construction Cost Estimate: **\$5,500,000 - \$7, 252,000**

California License Required: A or B

In general, the Work consists of, but is not limited to, demolition of an existing Track, Field and equipment shed, and the construction of new track, artificial turf field, ADA access paths of travel, viewing platforms, utilities, storm drain, landscape, irrigation & other site development.

The District does not provide hardcopies of bid documents or reimburse cost of printing, delivery, or any expenses related to the bidding process.

For information directly from the District, you may also log on to the District Website: <https://www.redwoods.edu/businessoffice/Purchasing> Project documents available include, but are not limited to, plans, specifications, addenda, bidders lists, bid results, etc., and can be viewed on this District webpage.

All questions related to this project must be submitted, via email, to:

Leslie Marshall, Director – Facilities & Planning

Redwoods Community College District
7351 Tompkins Hill Rd., Eureka, CA 95501

Email: Leslie-Marshall@redwoods.edu

2. Each bid shall be completed on the Bid Proposal Form included in the Contract Documents, and must conform and be fully responsive to this invitation, the plans and

specifications and all other Contract Documents. Copies of the Contract Documents are available for examination on the College of the Redwoods Purchasing webpage **beginning on December 21, 2023:**

<https://www.redwoods.edu/businessoffice/Purchasing>.

3. Each bid shall be accompanied by cash, a cashier's or certified check, or a bidder's bond executed by a surety licensed to do business in the State of California as a surety, made payable to the District, in an amount not less than ten percent (10%) of the maximum amount of the bid (made payable to the Redwoods Community College District). The check or bid bond shall be given as a guarantee that the bidder to whom the contract is awarded will execute the Contract Documents and will provide the required payment and performance bonds and insurance certificates within ten (10) days after the notification of the award of the contract. The District reserves the right to forfeit Bid Bond submitted for failure of the successful bidder to secure Payment & Performance Bonds.

The successful bidder will be required to furnish a labor and material bond in an amount equal to one hundred percent (100%) of the contract price and a faithful performance bond in an amount equal to one hundred percent (100%) of the contract price within ten (10) calendar days from the date of issuance of the Notice to Proceed, said bonds to be secured from a surety company acceptable to the Redwoods Community College District and authorized to execute such surety in the State of California.

4. The successful bidder shall comply with the provisions of the Labor Code pertaining to payment of the generally prevailing rate of wages and apprenticeships or other training programs. The Department of Industrial Relations has made available the general prevailing rate of per diem wages in the locality in which the work is to be performed for each craft, classification or type of worker needed to execute the contract, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes. Copies of these prevailing rates are available to any interested party upon request and are online at <http://www.dir.ca.gov/DLSR>. The Contractor and all Subcontractors shall pay not less than the specified rates to all workers employed by them in the execution of the Contract. It is the Contractor's responsibility to determine any rate change.
5. The schedule of per diem wages is based upon a working day of eight hours. The rate for holiday and overtime work shall be at least time and one half.
6. Pursuant to Public Contract Code §4104, each bid shall include the name and location of the place of business of each subcontractor who shall perform work or service or fabricate or install work for the contractor in excess of one-half of one percent (1/2 of 1%) of the bid price. The bid shall describe the type of the work to be performed by each listed subcontractor.

7. No bid may be withdrawn for a period of sixty (60) days after the date set for the opening for bids except as provided by Public Contract Code §§5100 *et seq.* The District reserves the right to reject any and all bids and to waive any informalities or irregularities in the bidding.
8. Minority, women, and disabled veteran contractors are encouraged to submit bids. ~~This bid is subject to Disabled Veteran Business Enterprise requirements.~~
9. The project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations. In accordance with SB 854 (California Labor Code sections 1725.5 and 1770 *et seq.*), all bidders, contractors and subcontractors working at the site shall be duly registered with the Department of Industrial Relations at time of bid opening and at all relevant times. Proof of registration shall be provided as to all such contractors prior to the commencement of any work.
10. Each bidder shall possess at the time the bid is awarded the following classification(s) of California State Contractor's license: A or B
11. By approving these bid documents, if the Project is over \$5,000, retention will be 5% of the project cost. If the Governing Board finds that the Project is substantially complex and unique, it will therefore require a retention amount of up to 10% for the following reasons:

12. X Bidders' Conference. A mandatory bidders' conference will be held at the **Theater, College of the Redwoods, 7351 Tompkins Hill Rd, Eureka, CA 95501 on Thursday, January 11th 2024 at 11:00 AM, with a site walk following at the Community Stadium** for the purpose of acquainting all prospective bidders with the Contract Documents and the Project site. **Failure to attend the conference may result in the disqualification of the bid of the non-attending bidder.**

_____ No Bidders' Conference.

REDWOODS COMMUNITY COLLEGE DISTRICT

By: Keith Flamer

DATED: December 1, 2023

Publication Dates: 1) December 7, 2023__ 2) December 11, 2023

Section 00 21 13
INSTRUCTIONS TO BIDDERS

Each bid submitted to the Redwoods Community College District (“District”) for the Community Stadium Upgrade Project (“Project”) shall be in accordance with the following instructions and requirements, which are part of the Contract Documents for this Project.

1. Issuing Of Documents
 - a. Bidding Documents may be examined at the Redwoods Community College District, 7351 Tompkins Hill Rd., Eureka CA, 95501. By Appointment: Leslie Marshall, Director-Facilities & Planning, phone: (707) 476-4382.
2. Qualifications Of Bidders
 - a. Bidders may be required to furnish additional evidence satisfactory to the District that they have sufficient means and sufficient experience in the class of work called for to enable them to complete the Contract in a satisfactory manner. ~~The District has pre-qualified General Contractors for this project, and the list of pre-qualified General Contractors can be found on the District’s web site: <https://www.redwoods.edu/businessoffice/Purchasing>~~
 - b. Bidders shall be Contractors properly licensed in accordance with the laws of the State of California.
 - c. The successful Bidder shall furnish satisfactory Certificates of Insurance coverage as specified in the Contract Documents.
3. Bidders’ Conference. A mandatory bidders’ conference will be held at the **Theater, College of the Redwoods, 7351 Tompkins Hill Rd, Eureka, CA 95501 on Thursday, January 11th 2024 at 11:00 AM, with a site walk following at the Community Stadium**, for the purpose of acquainting all prospective bidders with the Contract Documents and the Project site. It is imperative that all prospective bidders attend this conference. The failure to attend the conference will result in the disqualification of the bid of the non-attending bidder.
4. Requests for Information. A bidder’s failure to request clarification or interpretation of an apparent error, inconsistency or ambiguity in the Contract Documents waives that bidder’s right to thereafter claim entitlement to additional compensation based upon an ambiguity, inconsistency, or error, which should have been discovered by a reasonably prudent Contractor, subject to the limitations of Public Contract Code §1104. Any questions relative to the bid shall be in writing and directed to the District Superintendent or designee at the address specified for receipt of bid proposals. These requests shall be submitted to the District at least five working days prior to the date the bid is due.
5. Deadline For Receipt of Bids. Each bid shall be sealed and submitted to the District Superintendent or designee no later than, 11:00 AM., on Thursday, January 25th, 2024. The District suggests that bids be hand delivered in order to ensure their timely receipt. Any bids received after the time stated, regardless of the reason, shall be returned, unopened, to the bidder.

6. Receipt And Opening Of Bids
 - a. Redwoods Community College District hereinafter referred to as the District, will receive Bids at the same time and place specified in the Invitation to Bid.
 - b. Complete the Bid Form included in the Project Manual.
 - c. The envelopes containing the Bids shall be sealed, addressed to the District, and designated as “Community Stadium Upgrade Project, College of the Redwoods”. The envelope shall contain the name and address of the Bidder.
 - d. Bids that are mailed shall have the previously-described envelope placed inside an envelope addressed to: REDWOODS COMMUNITY COLLEGE DISTRICT, 7351 Tompkins Hill Rd., Eureka CA, 95501 ATTENTION: Leslie Marshall, Director-Facilities & Planning. Bids should be mailed in time to be received prior to the time set forth in the Invitation to Bid.
 - e. Bids which are conditional (or which make alterations, omissions, or reservations to the terms of the Bidding Documents) may be rejected as non-responsive.
 - f. All monetary figures are required, both in writing and in numerals. In event of conflict between written quotations and numerical quotations, written quotations shall govern.
 - g. Type or print all bid data legibly in ink except signatures which shall be in script. Mistakes may be crossed out and corrections inserted, if each is initialed in ink by signer of Bid.
 - h. Bidder's business address and signature shall be on the Bid. A Bid by a partnership shall furnish the full names of partners and be signed in the partnership name by one member of the partnership, or by authorized representative, followed by the signature and designation of the person signing. Bids by corporations, with corporate seal affixed, shall be signed with the legal name of the corporation followed by the name of the state of incorporation and by the signature and designation of the person authorized to bind it to the matter. The name of each person signing shall also be typed or printed below the respective signatures. When required by the District, satisfactory evidence of authority of the office signing in behalf of the corporation shall be furnished.
 - i. No Bids will be received after the date and time set forth in the Notice Inviting Bids.

7. Bid Proposal Forms. All bid proposals shall be made on the form provided by the District. All items on the form shall be filled out in ink. Numbers should be stated in figures, and the signatures of all individuals must be in long hand. The completed form should be without interlineations, alterations, or erasures

8. Execution of Forms. Each bid shall give the full business address of the bidder and must be signed by the bidder or bidder’s authorized representative with his or her usual signature. Bids by partnerships must furnish the full names of all partners and must be signed in the partnership name by a general partner with authority to bind the partnership in such matters. Bids by corporations must be signed with the legal name of the corporation, followed by the signature and designation of the president, secretary, or other person authorized to bind the corporation in this matter. The name of each person signing shall also be typed or printed below the signature. When requested by the District, satisfactory evidence of the authority of the officer signing on behalf of the corporation or partnership shall be furnished. A bidder's failure to properly sign required forms may result in rejection of the bid. All bids must include the bidder's contractor license number(s) and expiration date(s).

9. Bid Security. Bid proposals shall be accompanied by a certified or cashier's check or bid bond for an amount not less than ten percent (10%) of the bid amount, payable to the District. A bid bond shall be secured from an admitted surety company, licensed in the State of California, and satisfactory to the District. The bid security shall be given as a guarantee that the bidder will enter into the Contract if awarded the work, and in the case of refusal or failure to enter into the Contract within ten (10) calendar days after notification of the award of the Contract or failure to provide the payment and performance bonds and proof of insurance as required by the Contract Documents, the District shall have the right to award the Contract to another bidder and declare the bid security forfeited. The District reserves the right to pursue all other remedies in law or equity relating to such a breach including, but not limited to, seeking recovery of damages for breach of contract. Failure to provide bid security, or bid security in the proper amount, shall result in rejection of the bid.

10. Withdrawal of Bid Proposals. Bid proposals may be withdrawn by the bidders prior to the time fixed for the opening of bids, but may not be withdrawn for a period of sixty (60) days after the opening of bids, except as permitted pursuant to Public Contract Code §5103.

11. Addenda or Bulletins. The District reserves the right to issue addenda or bulletins prior to the opening of the bids subject to the limitations of Public Contract Code §4104.5. Any addenda or bulletins issued prior to bid time shall be considered a part of the Contract Documents.

12. Bonds. The successful bidder shall be required to submit payment and performance bonds as specified in and using the bond forms included with the Contract Documents. All required bonds shall be based on the maximum total contract price as awarded, including additive alternates, if applicable.

13. Rejection of Bids and Award of Contract. The District reserves the right to waive any irregularities in the bid and reserves the right to reject any and all bids. The Contract will be awarded, if at all, within sixty (60) calendar days after the opening of bids to the lowest responsible and responsive bidder, subject to Governing Board approval. The time for awarding the Contract may be extended by the District with the consent of the lowest responsible, responsive bidder.

14. Bid Protests
 - a. Inquiries or questions based on alleged patent ambiguity of the plans, specifications or estimate must be communicated as a bidder inquiry prior to bid opening. Any such inquiries or questions, submitted after bid opening, will not be treated as a bid protest.
 - b. Bidder may file a protest with the District against the Bid of other Bidder or Bidders ("Bid Protest") subject to the provisions of this Article. The procedures and time limits set forth in this Article are mandatory and are a Bidder's sole and exclusive remedy in protesting other Bidders' bids. Failure to comply with these procedures shall constitute a waiver of any right to pursue a Bid Protest, or to contest the District's award of the contract for the

work that is the subject of the Bid, in any legal proceeding before any authority with jurisdiction.

- c. Bid Protests and Responses shall be governed by the following time limitations:
 - i. Bidder must deliver any Bid Protest to the District, in writing, before 2:00PM, five (5) working days after the date of bid opening. The District will reject any Bid Protest not received by the District by this deadline. Bidder must concurrently deliver a copy of its Bid Protest to all Bidders against whose Bids the Bid Protest is directed. The Bidder must
15. Execution of Contract. The successful bidder shall, within ten (10) calendar days of the Notice of Award of the Contract, sign and deliver to the District the executed contract along with the bonds and certificates of insurance required by the Contract Documents. In the event the successful bidder fails or refuses to execute the Contract or fails to provide the bonds and certificates as required, the District may declare the bidder's bid deposit or bond forfeited as liquidated damages, and may award the work to the next lowest responsible, responsive bidder, or may reject all bids and, in its sole discretion, call for new bids. In all cases, the District reserves the right, without any liability, to cancel the award of Contract at any time prior to the full execution of the Contract.
 16. Drawings and Specifications. All drawings, specifications and other documents used or prepared during the project shall be the exclusive property of the District.
 17. Evidence of Responsibility. Upon the request of the District, a bidder shall submit promptly to the District satisfactory evidence showing the bidder's financial resources, the bidder's experience in the type of work being required by the District, the bidder's availability to perform the Contract and any other required evidence of the bidder's qualifications and responsibility to perform the Contract. The District may consider such evidence before making its decision to award the Contract. Failure to submit requested evidence may result in rejection of the bid.
 18. Taxes. Applicable taxes shall be included in the bid prices.
 19. Bid Exceptions. Bid exceptions are not allowed. If the Bidder has a comment regarding the bid documents or the scope of work, the Bidder shall submit those comments to the District for evaluation at least five working days prior to the opening of the bids. No oral or telephonic modification of any bid submitted will be considered and a sealed written modification may be considered only if received prior to the opening of bids. E-mailed or faxed bids or modifications will not be accepted.
 20. Discounts. Any discounts which the bidder desires to provide the District must be stated clearly on the bid form itself so that the District can calculate the net cost of the bid proposal. Offers of discounts or additional services not delineated on the bid form will not be considered by the District in the determination of the lowest responsible responsive bidder.

21. Quantities. The quantities shown on the plans and specifications are approximate. The District reserves the right to increase or decrease quantities as desired.
22. Prices. Bidders must quote prices F.O.B. unless otherwise noted. Prices should be stated in the units specified and bidders should quote each item separately.
23. Samples. On request, samples of the products being bid shall be furnished to the District.
24. Special Brand Names/Substitutions. In describing any item, the use of a manufacturer or special brand does not restrict bidding to that manufacturer or special brand, but is intended only to indicate quality and type of item desired, except as provided in §3400 of the Public Contract Code. Substitute products will be considered either prior to or after the award of the Contract in accordance with §3400 and as set forth in either the Supplemental Conditions or the Specifications. All data substantiating the proposed substitute as an "equal" item shall be submitted with the written request for substitution. The District reserves the right to make all final decisions on product and vendor selection.
25. Container Costs and Delivery. All costs for containers shall be borne by the bidder. All products shall conform to the provisions set forth in the federal, county, state and city laws for their production, handling, processing and labeling. Packages shall be so constructed to ensure safe transportation to the point of delivery.
26. Bid Negotiations. A bid response to any specific item of the bid using terms such as "negotiable," "will negotiate," or similar phrases, will be considered non-responsive.
27. Prevailing Law. In the event of any conflict or ambiguity between these instructions and state or federal law or regulations, the latter shall prevail. All equipment to be supplied or services to be performed under the bid proposal shall conform to all applicable requirements of local, state and federal law, including, but not limited to, Labor Code §§1771, 1778 and 1779.
28. Allowances. An "allowance" means an amount included in the bid proposal for work that may or may not be included in the Project, depending on conditions that will become known only after the Project is underway.
29. Subcontractors. Pursuant to the Subletting and Subcontracting Fair Practices Act, Public Contract Code §§4100-4114, every bidder shall, on the enclosed Subcontractor List Form, set forth:
 - a. The name and location of the place of business of each Subcontractor who will perform work or labor or render service to the bidder in or about the work or fabricate and install work in an amount in excess of one-half (1/2) of the one percent (1%) of the bidder's total bid.
 - b. If the bidder fails to specify a Subcontractor for any portion of the work to be performed under the Contract in excess of one-half (1/2) of one percent (1%) of the bidder's total bid, bidder agrees that bidder is fully qualified to and shall perform that

portion of the work. The successful bidder shall not, without the written consent of the District or compliance with Public Contract Code §§4100 - 4114, either:

- 1) Substitute any person as Subcontractor in place of the Subcontractor designated in the original bid;
- 2) Permit any subcontract to be voluntarily assigned or transferred or allow the work to be performed by anyone other than the original Subcontractor listed in the bid; or
- 3) Sublet or subcontract any portion of the work in excess of one-half (1/2) of one percent (1%) of the total bid as to which the bidder's original bid did not designate a Subcontractor.

30. Examination of Contract Documents and Work Site. Before submitting a bid proposal, all bidders shall carefully examine the Contract Documents, including the plans and specifications, shall visit the site of the proposed work, and shall fully inform themselves of all conditions in and about the work site, as well as applicable federal, state and local laws and regulations that may affect the work. No bidder shall visit the site without prior authorization of the District. Bidders shall contact the District Superintendent or designee for coordination of site visits.

31. Form and Approval of Contract. The Contract Documents must be approved by the Governing Board of the District and its legal counsel. The bidder selected by the District shall execute the contract provided by the District.

32. Licenses and Permits. Each bidder shall at all times possess all appropriate and required licenses or other permits to perform the work as identified in the Contract Documents. Upon request, each bidder shall furnish the District with evidence demonstrating possession of the required licenses or permits.

33. Denial of Right to Bid. Contractors or Subcontractors who have violated state law governing public works shall be denied the right to bid on this public works contract pursuant to Labor Code §1777.7.

34. Bidders Interested in More Than One Bid. No person, firm, or corporation shall make, or file, or be interested in more than one bid. However, a person, firm, or corporation that has submitted a subproposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders or from submitting a prime proposal.

35. Contractor's State License Board. Contractors and Subcontractors are required by law to be licensed and regulated by the California Contractors' License Board.

36. 32. Labor Compliance. The project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations. In accordance with SB

854, all bidders, contractors and subcontractors working at the site shall be duly registered with the Department of Industrial Relations at time of bid opening and at all relevant times. Proof of registration shall be provided as to all such contractors prior to the commencement of any work.

37. Iran Contracting Act Certification/Compliance with Economic Sanctions Certification. Contractors shall submit the Iran Contracting Act Certification and the Compliance with Economic Sanctions Certification with their Bid. Bids submitted without these certifications shall be deemed non-responsive and will not be considered.

38. 34. Additive and Deductive Items: Method of Determining Lowest Bid. Pursuant to Public Contract Code §20103.8, if the bid solicitation includes additive and/or deductive items, the checked [X] method shall be used to determine the lowest bid: *[check one]*

(a) The lowest bid shall be the lowest bid price on the base contract without consideration of the prices on the additive or deductive items.

(b) The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive items that were specifically identified in the bid solicitation or Bid Proposal Form as being used for the purpose of determining the lowest bid price. Alternates may not be selected in order.

(c) The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive items taken in order from a specifically identified list of those items that, when in the solicitation, and added to, or subtracted from, the base contract, are less than, or equal to, a funding amount publicly disclosed by the District before the first bid is opened.

(d) The lowest bid shall be determined in a manner that prevents any information that would identify any of the bidders or the proposed Subcontractors or suppliers from being revealed to the public entity before the ranking of all bidders from lowest to highest has been determined.

If no method is checked, sub-paragraph (a) shall be used to determine the lowest bid.

Notwithstanding, the method used by the District to determine the lowest responsible bidder, the District retains the right to add to or deduct from the Contract any of the items included in the bid solicitation. Alternates may not be selected in order.

39. Bid Protest. Any bid protest must be in writing and received by the District Office before 5:00 p.m. no later than three (3) working days following bid opening and shall comply with the following requirements:

a. The bid protest must contain a complete statement of the basis for the protest and all supporting documentation.

- b. The party filing the protest must have actually submitted a bid for the Project. A Subcontractor of a bidder submitting a bid for the Project may not submit a bid protest. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest.
- c. The protest must refer to the specific portion or portions of the Contract Documents upon which the protest is based.
- d. The protest must include the name, address and telephone number of the person representing the protesting bidder.
- e. The bidder filing the protest must concurrently transmit a copy of the bid protest and all supporting documentation to all other bidders with a direct financial interest which may be affected by the outcome of the protest, including all other bidders who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
- f. The bidder whose bid has been protested may submit a written response to the bid protest. Such response shall be submitted to the District before 5 p.m. no later than two (2) working days after the deadline for submission of the bid protest or receipt of the bid protest, whichever is sooner, and shall include all supporting documentation. Such response shall also be transmitted concurrently to the protesting bidder and to all other bidders who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
- g. The procedure and time limits set forth in this section are mandatory and are the bidder's sole and exclusive remedy in the event of bid protest. The bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code claim or legal proceedings.
- h. If the District determines that a protest is frivolous, the protesting bidder may be determined to be non-responsible and that bidder may be determined to be ineligible for future contract awards by the District.
- i. A "working day" for purposes of this section means a weekday during which the District's office is open and conducting business, regardless of whether or not school is in session.

SECTION 00 30 00
AVAILABLE INFORMATION

REPORT AND INFORMATION

Existence of reports, record drawings, and utility surveys: Redwoods Community College District, its consultants, and prior contractors may have collected documents providing a general description of the site and conditions of the work. These documents may consist of geotechnical reports for and around the site, record drawings, utility drawings, and information regarding underground utilities. These reports, documents and other information are not part of the Contract Documents and do not show new work to be constructed, rather, they show existing conditions that Contractor may have to address as part of its construction planning.

Available Documentation - The following documents are either available for review through District office, or the District's web site:

Existing PE/~~Fieldhouse~~ Building Drawings

~~Creative Arts Project As-Built Drawings~~

Underground Utility Project Drawings

E.1 College of the Redwoods Building Infrastructure and Site Utilities

E.2 College of the Redwoods Building Infrastructure and Site Utilities - Addendum 1

Geotechnical Reports - LACO

~~Geotechnical and Geologic Hazard Evaluation Report – New Gymnasium, May 1, 2020~~

Geotechnical and Geologic Hazard Evaluation Report – New Fieldhouse Building,
December 30, 2020

Addendum Number 2 to Geotechnical and Geologic Hazards Evaluation Report – New
Gymnasium and Fieldhouse Building. November 16, 2021

Addendum to Note 48 Compliant Geotechnical and Geologic Hazard Evaluation Report New
Fieldhouse Building Retaining Walls. December 1, 2022

Hazardous Materials Reports

~~04/08/2022 GHD Asbestos Assessment Report – Fieldhouse and Physical Education
Buildings~~

~~08/01/2023 FACS Lead Survey Report – Fieldhouse and Physical Education Buildings~~

~~12/15/2023 FACS Asbestos and Lead Survey Report Stadium Retrofit Project~~

~~College of the Redwoods Campus COVID-19 Rules~~

Contractor shall acknowledge and accept that the documents are not a part of the Contract Documents and are made available to bidders for reference only. The District and its representatives are not

responsible for any and all discrepancies between the documents and the existing and actual as-built conditions, and do not guarantee the accuracy of the documents.

The District and Architect assume no responsibility for the completeness or accuracy of the documents or the records compiled there from and the interpretations made from the documents. There is no express or implied guarantee that the conditions indicated in the documents are representative of those existing throughout the building and/or site. Conditions differing substantially from those indicated may be encountered.

END OF SECTION 00 30 00

**Section 00 41 00
BID PROPOSAL FORM**

Governing Board
Redwoods Community College District

Dear Members of the Governing Board:

The undersigned, doing business under the name of _____, having carefully examined the location of the proposed work, the local conditions of the place where the work is to be done, the Notice Inviting Bids, the General Conditions, the Instructions to Bidders, the Plans and Specifications, and all other Contract Documents for the proposed _____ Project ("Project"), and having accurately completed the Bidder's Questionnaire, proposes to perform all work and activities in accordance with the Contract Documents, including all of its component parts, and to furnish all required labor, materials, equipment, transportation and services required for the construction of the Project in strict conformity with the Contract Documents, including the Plans and Specifications, as follows:

BASE BID:

For the sum of _____ Dollars (\$ _____).

ADDITIVE/DEDUCTIVE ALTERNATE *[if applicable]*:

Additive/Deductive Alternate #1 _____
Add/Subtract _____ Dollars (\$ _____)

Additive/Deductive Alternate #2 _____
Add/Subtract _____ Dollars (\$ _____)

Additive/Deductive Alternate #3 _____
Add/Subtract _____ Dollars (\$ _____)

Additive/Deductive Alternate #4 _____
Add/Subtract _____ Dollars (\$ _____)

Additive/Deductive Alternate #5 _____
Add/Subtract _____ Dollars (\$ _____)

Additive/Deductive Alternate #6 _____
Add/Subtract _____ Dollars (\$ _____)

Additive/Deductive Alternate #7 _____

Add/Subtract _____ Dollars (\$ _____)

Additive/Deductive Alternate #8 _____
Add/Subtract _____ Dollars (\$ _____)

The undersigned has checked carefully all the above figures and understands that the District is not responsible for any errors or omissions on the part of the undersigned in making this bid.

Enclosed find certified or cashier's check no. _____ of the _____ Bank for _____ Dollars (\$ _____) or Bidder's Bond of the _____ surety company in an amount of not less than ten percent (10%) of the entire bid. The undersigned further agrees, on the acceptance of this proposal, to execute the Contract and provide the required bonds and insurance and that in case of default in executing these documents within the time fixed by the Contract Documents, the proceeds of the check or bond accompanying this bid shall be forfeited and shall become the property of the District.

Contractor agrees to commence the work within the time specified in the Notice to Proceed. It is understood that this bid is based upon completing the work within the number of calendar days specified in the Contract Documents.

ADDENDA:

Receipt of the following addenda is hereby acknowledged:

Addendum # _____ Dated: _____ Addendum # _____ Dated: _____
Addendum # _____ Dated: _____ Addendum # _____ Dated: _____
Addendum # _____ Dated: _____ Addendum # _____ Dated: _____

Respectfully submitted,

Company: _____

Address: _____

By: _____
(Please Print Or Type)

Signature: _____

Title: _____

Date: _____

Telephone: _____

Contractor's License No: _____ Expiration Date _____

Required Attachments:

- Subcontractor List Form
- Non-Collusion Declaration
- Workers Compensation Certificate
- Iran Contracting Act Certification
- Compliance with Economic Sanctions Certification
- Bid Bond (or Cashier's or Certified Check)
- Bidders' Questionnaire

WORKERS' COMPENSATION CERTIFICATE

Labor Code §3700 in relevant part provides:

"Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.
- (b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees."

I am aware of the provisions of §3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract and will require all Subcontractors to do the same.

Contractor

By: _____

In accordance with Article 5 (commencing at §1860), Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under this Contract.

IRAN CONTRACTING ACT CERTIFICATION

(Public Contract Code Sections 2202-2208)

As required by California Public Contract Code Section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor’s status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200 et seq.) is true and correct:

- The Contractor is not:
 - identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or
 - a financial institution that extends, for 45 days or more, credit in the amount of \$20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.
- The District has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, the District will be unable to obtain the goods and/or services to be provided pursuant to the Contract.
- The amount of the Contract payable to the Contractor for the Project does not exceed \$1,000,000.

(or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signature	Date
-----------	------

Name	Title
------	-------

Name of Contractor

COMPLIANCE WITH ECONOMIC SANCTIONS CERTIFICATION

As required by Executive Order N-6-22, issued by Governor Gavin Newsom on March 4, 2022 (“EO”), the Contractor certifies compliance with the economic sanctions imposed in response to Russia’s actions in Ukraine, including with respect to, but not limited to, the federal executive orders identified in the EO and the sanctions identified on the U.S. Department of the Treasury website (<https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/ukraine-russia-related-sanctions>). Contractor understands that failure to comply may result in the termination of this Agreement.

If this Agreement is valued at \$5 million or more, Contractor understands and agrees that within 45 days of receipt of the Notice to Proceed, it must report in writing to the District on steps it has taken to comply with the EO and with Federal Executive Order 14065, including but not limited to, desisting from making new investments in, or engaging in financial transactions with Russian entities.

Signature _____ Date _____

Name _____ Title _____

Name of Contractor _____

BID BOND

We, the Contractor, _____ as principal (“Principal”), and _____, as surety (“Surety”), are firmly bound unto the Redwoods Community College District (“District”) in the penal sum of ten percent (10%) of the total amount of the bid of the Principal submitted to the District for the work described below for the payment of which sum in lawful money of the United States, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by this agreement.

Whereas, the Principal has submitted the accompanying bid (“Bid”) dated _____, for the following project (“Project”):

COMMUNITY STADIUM UPGRADE PROJECT

Now, therefore, if the Principal does not withdraw its Bid within the period specified, and if the Principal is awarded the Contract and within the period specified fails to enter into a written contract with District, in accordance with the Bid as accepted, or fails to provide the proof of required insurance, the performance bond and/or the payment bond by an admitted surety within the time required, or in the event of unauthorized withdrawal of the Bid, if the Principal pays the District the difference between the amount specified in the Bid and the amount for which District may otherwise procure the required work and/or supplies, if the latter amount is in excess of the former, together with all related costs incurred by District, then the above obligation shall be void and of no effect. Otherwise, the Principal and Surety shall pay to the District the penal sum described above as liquidated damages.

Surety, for value received, hereby agrees that no change, extension of time, alteration or addition to the term of the Contract or the call for bids, or to the work to be performed thereunder, or the Specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition.

In witness whereof the above-bound parties have executed this instrument under their several seals this _____ day of _____, 20__, the name and corporate seal of each corporate Party being hereunder affixed and these presents duly signed by its undersigned representative, pursuant to the authority of its governing body.

(Corporate Seal)

Principal/Contractor

By _____

Title: _____

(Corporate Seal)

Surety

Attach Attorney-In-Fact Certificate

By _____

Title

To be signed by Principal and Surety and Acknowledgment and Notary Seal to be attached.

BIDDER'S QUESTIONNAIRE
{Not required if Contractor has prequalified}

for

COMMUNITY STADIUM UPGRADE PROJECT

TO THE BIDDER:

In making its award, the Governing Board will take into consideration the Bidder's experience, financial responsibility and capability. The following questionnaire is a part of the bid. Any bid received without this completed questionnaire may be rejected as nonresponsive. The Board will use, but will not be limited to, the information provided herein for evaluating the qualifications and responsibility of the bidder and the bidder's organization to carry out satisfactorily the terms of the Contract Document. The questionnaire must be filled out accurately and completely and submitted with the bid. Any errors, omissions or misrepresentation of information may be considered as a basis for the rejection of the bid and may be grounds for the termination of any contract executed as a result of the bid.

A. Description of Bidder's Organization

1. Firm Name _____

2. Address _____

3. Telephone Number _____

4. Type of Organization

a. Corporation? Yes ____ No ____

If yes, list the officers and positions, and the State in which incorporated.

If the Bidder corporation is a subsidiary, give name and address of parent corporation.

b. Partnership? Yes ____ No ____

If yes, list partner names and addresses

General Partners:

Limited Partners:

c. Individual Proprietorship? Yes ____ No ____

If yes, list name and address of proprietor:

B. Nature of Operations

1. How long have you been engaged in the contracting business under your present business name? _____

2. How many years of experience does your business have in construction work similar to that called for under this bid? _____

3. Have you now contracts, or have you ever contracted, to provide construction for any school district, community college district or county office of education in the State of California?
Yes ____ No ____

a. If "yes," on a separate attached sheet, provide the following information for all construction projects you have had with school districts, community college districts and county offices of education during the last four (4) years:

1. Year contract awarded
2. Type of work
3. Contract completion time called for/actual completion time
4. Contract price

5. For whom performed, including person to call for a reference and telephone number
 6. Location of work
 7. Number of stop notices filed
 8. For each contract, list any lawsuits filed relating to that contract in which you were a defendant or plaintiff
 9. Amount of liquidated damages assessed.
- b. On a separate attached sheet, provide the following information for all construction contracts of a similar nature as called for in this bid that you have had with entities other than school districts, community college districts and county offices of education during the last four (4) years:
1. Year contract awarded
 2. Type of work
 3. Contract completion time called for/actual completion time
 4. Contract price
 5. For whom performed, including person to call for reference and phone number
 6. Location of work
 7. Number of stop notices filed
 8. For each contract list any lawsuits filed relating to that contract in which you were a defendant or plaintiff
 9. Amount of liquidated damages assessed.
- c. For each construction contract that you have failed to complete within the contract time in the last four years please state the reasons for the untimely performance.`

C. Financial and Credit Data

1. If your bid is considered for award, and if requested by the District, will you supply the following data? Yes ____ No ____
 - a. Names and addresses of any banks where you regularly do business.
 - b. The names and addresses of any banks, finance companies, dealers, suppliers, or others where you have notes or loans.
 - c. Give credit references, including at least three trade or industry suppliers with whom you regularly deal.
2. Will you submit on request a balance sheet for the past three (3) years? Yes ____ No ____
3. Where have you engaged in the construction business, or any other type of business, in the last five years?

Name of Business Location Type of Business Years in Business

If any of the business endeavors referred to above are no longer operating, or you are no longer associated with them, please give brief details:

4. The following surety companies may be contacted as references as to the financial responsibility and general reliability of the bidder:

Surety Name Contact Person Phone Number

I certify under penalty of perjury that the foregoing is true and correct. Executed at _____, California, on _____, 20__.

Signature of Bidder _____

Name (*print*) _____

Section 00 45 19

NON-COLLUSION AFFIDAVIT
(TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID)

State of California
County of Humboldt

_____, being first duly sworn, deposes and says that he or she is of _____, the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date: _____ Signature: _____

State of California
County of Humboldt

On _____, before me, _____, Notary Public, personally appeared

_____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing is true and correct.

WITNESS my hand and official seal.

Date: _____ Signature: _____

[SEAL]

END OF 00 45 19

**SECTION 00 51 00
NOTICE OF AWARD**

Date:

To: Address:

Project Description: COMMUNITY STADIUM UPGRADE PROJECT

The District has considered the bid submitted by you for the above described work in response to its Notice Inviting Bids for the Project.

You are hereby notified that your bid has been accepted in the amount of: _____
_____ (\$ _____).

You are required to execute the Contract, deliver to the District two fully executed Contracts, and furnish the required Performance Bond and Payment Bond using the bond forms provided in the Contract Documents and the required certificates of insurance within ten (10) calendar days from the date of issuance of this Notice.

If you fail to execute the Contract and to furnish the bonds and insurance within ten (10) calendar days from the date of issuance of this Notice, the District will be entitled to consider all your rights arising out of its acceptance of your bid as abandoned and your Bid Bond forfeited. The District will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the District. Within ten (10) calendar days after you comply with these conditions, the District will return to you one fully signed counterpart of the Construction Agreement.

Dated this _____ day of _____, 20__.

By _____
Authorized District Signature

Receipt of this above Notice of Award is hereby acknowledged by:

_____, this is the _____
day of _____, 200__.

By _____
Title _____

**SECTION 00 52 00
CONSTRUCTION AGREEMENT FORMS**

CONTRACT NO. _____
(Construction Agreement)

=====

This Agreement shall not be enforceable until ratified and approved by the Redwoods Community College District’s Governing Board. The estimated board meeting is January 2, 2024.

(§1.1) Parties: (Public Agency) **REDWOODS COMMUNITY COLLEGE DISTRICT**
7351 Tompkins Hill Rd., Eureka, CA 95501

(Contractor) _____
Address: _____

(§1.2) Effective Date: _____

(§1.3) The Work: **COMMUNITY STADIUM UPGRADE PROJECT**

(§1.4) Substantial Completion Time: **935-171** Calendar Days from the Notice to Proceed.

(§1.4.1) Final Completion Milestone for the Stadium associated work: **60-3** Calendar Days from Substantial Completion.

(§1.5) The Bidder acknowledges that this project contains a Final Completion Milestone and bidder agrees that this milestone must be substantially completed and accepted by the Owner before a written “Notice to Proceed” is issued for the demolition of the existing Art Building. Bidder also agrees to pay, as liquidated damages the amounts specified below for each consecutive calendar day after the expiration of the consecutive calendar days allowed for each phase.

(§1.5.1) Liquidated Damages, Substantial Completion **\$2,000/** per calendar day Work is delayed

(§1.5.2) Liquidated Damages, Remaining Work and Final Completion: **\$1,000 /** per calendar day Remaining Work is delayed for 1) Final Completion Milestone (§1.4.1) Community Stadium Upgrade

(§1.6) Public Agency's Agent: **REDWOODS COMMUNITY COLLEGE DISTRICT (“District”)**

(§1.7) Contract Sum: **MILLION, THOUSAND, HUNDRED DOLLARS and NO CENTS**
(\$00,000,000.00)

2. SCOPE OF WORK:

The Work consists of:

1. CONSTRUCTION OF A COMMUNITY STADIUM UPGRADE
2. SITE WORK INCLUDING UTILITIES, PATHS OF TRAVEL, SITE LIGHTING CONDUIT, FLATWORK, LANDSCAPING, AND OTHER SITE DEVELOPMENT

3. ABATEMENT OF HAZARDOUS MATERIALS AND DEMOLITION OF THE EXISTING EQUIPMENT BUILDINGS AND SURROUNDING SITE AREAS
4. OTHER WORK AS INDICATED IN THE CONTRACT DOCUMENTS

3. WORK CONTRACT, CHANGES

- (a) By their signatures below, effective on the above date, these parties promise and agree as set forth in this Agreement, incorporating by these references labor and materials contained in Section 2, Scope of Work.
- (b) Contractor shall, at Contractor's own cost and expense, and in a workmanlike manner, fully and faithfully perform and complete the work; and will furnish all materials, labor, services, equipment, and transportation necessary, convenient and proper in order fairly to perform the requirements of this contract, all strictly in accordance with the Public Agency's plans, drawings and specifications.
- (c) The work can be changed only with Public Agency's prior written order specifying such change and its cost agreed to by the parties; and the Public Agency shall never have to pay more than specified in Section 1.7 without such an order.

4. TIME: NOTICE TO PROCEED AND ACCEPTANCE

- (a) Contractor shall start this work as directed in the specifications or the Notice to Proceed and shall complete it as specified in Section 1, Completion Time.
- (b) Remaining Work after Substantial Completion. If the Architect or District determines that the work required by the Contract is Substantially Complete during any inspection conducted pursuant to this Agreement or Specification Section 01 77 00, Closeout Procedures, the Contractor shall be notified of that determination and the District shall determine if there is Remaining Work. A list of Remaining Work shall be issued only by the District or the Architect and only after the District has certified Substantial Completion. The District or Architect shall give the Contractor the necessary instructions for correction or completion of the Remaining Work, and the Contractor shall immediately comply with and execute such instructions within the Contract Time. Upon completion of the Remaining Work, another inspection shall be made that shall constitute the Final Inspection, provided the Remaining Work has been completed to the satisfaction of the District. If the remaining work has been completed to the satisfaction of the District, the District shall make the final acceptance and notify the Contractor in writing of this acceptance as of the date of Final Inspection.
- (c) Final Acceptance – Upon due notice from the Contractor of completion of the entire project, the District shall make an inspection. If all construction provided for and contemplated by the contract is found to be completed to the District's satisfaction, then that inspection shall constitute the Final Inspection and the District shall notify the Contractor in writing of final acceptance effective as of the date of the Final Inspection.
- (d) Default for failure to Complete Remaining Work In the event the Contract Time expires before the Remaining Work is completed to the satisfaction of the District, the District may provide notice to the Contractor that the Remaining Work shall be completed by Contractor to the satisfaction of the District within ten consecutive calendar days from the date of such notice. The failure of the Contractor to satisfactorily complete the Remaining Work within the ten days shall entitle to District to declare Contractor in default and thereafter terminate the Contract. The ten-day notice provided under this paragraph shall not be construed as adding any time to the Contract Time and is a time period solely for the purposes of providing notice of default.

- (e) Application for Final Payment. After the Contractor has completed all Remaining Work to the satisfaction of the District and delivered all maintenance and operating instructions, schedules, guarantees, warranties, bonds, certificates of inspection, marked-up record documents and other documents as required by the Contract, and after the District or Architect has indicated that the work is acceptable, Contractor may make application for final payment following the Payments Procedures for progress payments. The final application for payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to the District) of all liens arising out of or filed in connection with the work on the project.
- (f) Final Payment and Acceptance. If the Architect determines that the work has been completed and the Contractor's other obligations under the Contract have been fulfilled, the Architect shall, within ten working days after receipt of the final application for payment, indicate in writing the Architect's recommendation of payment and present the application to District for payment. Thereupon the Architect shall prepare a Certificate of Final Completion. Otherwise, Architect shall return the application to Contractor indicating in writing the reasons for refusing to recommend final payment. Contractor shall make the corrections identified in the Architect's refusal to recommend final payment. Thirty days after presentation to District of the application and accompanying documentation, with the Architect's recommendation and notice of acceptability of the work, the amount recommended by Architect shall be come due and payable by District to Contractor.

5. LIQUIDATED DAMAGES

5.1 LIQUIDATED DAMAGES - SUBSTANTIAL COMPLETION

If the Contractor fails to complete this contract and this Work within the time fixed therefore, allowance being made for contingencies as provided herein, Contractor becomes liable to the Public Agency for all its loss and damage there from; and because, from the nature of the case, it is and will be impracticable and extremely difficult to ascertain and fix the Public Agency's actual damage from any delay in performance hereof, it is agreed that Contractor will pay as liquidated damages to the Public Agency the reasonable sum specified in Section 1, the result of the parties' reasonable endeavor to estimate fair average compensation therefore, for each calendar day's delay in finishing said Work or Phase of Work; and if the same be not paid, Public Agency may, in addition to its other remedies, deduct the same from any money due or to become due Contractor under this Contract. If the Public Agency for any cause authorizes or contributes to a delay, suspension of work or extension of time, its duration shall be added to the time allowed for completion, but it shall not be deemed a waiver nor be used to defeat any right of the Agency to damages for non-completion or delay hereunder. Pursuant to Government Code Section 4215, the Contractor shall not be assessed liquidated damages for delay in completion of the work, when such delay was caused by the failure of the Public Agency or the owner of a utility to provide for removal or relocation of existing utility facilities.

5.2 LIQUIDATED DAMAGES-THE REMAINING WORK.

The Remaining Work, as such work is determined by the Public Agency or Public Agency's Representative, shall be completed within the Contract Time or any proper extension thereof granted by Public Agency. If the Contractor shall neglect, fail or refuse to complete the Remaining Work within the Contract Time or any proper extension thereof granted by the Public Agency, then the Contractor does hereby agree, as part consideration for the awarding of this Contract, to pay to the Public Agency the amount specified in the Contract, not as a penalty but as liquidated damages for the Remaining Work for each such breach of Contract set forth herein for each and every consecutive calendar day that the Contractor shall be in default after expiration of the Contract Time.

6. INTEGRATED DOCUMENTS

The plans, drawings and specifications and special provisions of the Public Agency's Invitation to Bid, and Contractor's accepted bid for this work are hereby incorporated into this Contract; and they are intended to cooperate, so that anything exhibited in the plans or drawings and not mentioned in the specifications or special provisions, or vice versa, is to be executed as if exhibited, mentioned and set forth in both, to the true intent and meaning thereof when taken all together; and differences of opinion concerning these shall be finally determined by the Public Agency.

7. PAYMENT

- (a) For strict and literal fulfillment of these promises and conditions, and full compensation for all this work, the Public Agency shall pay the Contractor the sum specified in Section 1, except that in unit price contracts the payment shall be for finished quantities at unit bid prices.
- (b) On or about the first day of each calendar month, the Contractor shall submit to the Public Agency a verified application for payment, supported by a statement showing all materials actually installed during the preceding month, the labor expended thereon, and the cost thereof; whereupon, after checking, the Public Agency shall issue to Contractor a certificate for the amount determined to be due, minus five (5%) percent thereof pursuant to the Public Agency's General Terms and Conditions, but not until defective work and materials have been removed, replaced and made good.

8. PAYMENTS WITHHELD

- (a) The Public Agency or its agent may withhold any payment, or because of later discovered evidence nullify all or any certificate for payment, to such extent and period of time only as may be necessary to protect the Public Agency from loss because of:
 - (1) Defective work not remedied, or work not completed, or
 - (2) Claims filed or reasonable evidence indicating probable filing, or
 - (3) Failure to properly pay subcontractors or for material or labor, or
 - (4) Reasonable doubt that the work can be completed for the balance then unpaid, or
 - (5) Damage to another contractor, or
 - (6) Damage to the Public Agency, other than damage due to delays.
- (b) The Public Agency shall use reasonable diligence to discover and report to the Contractor, as the work progresses, the materials and labor which are not satisfactory to it, so as to avoid unnecessary trouble or cost to the Contractor in making good any defective work or parts.
- (c) Thirty-five (35) calendar days after Public Agency files its notice of completion of the entire work, it shall issue a certificate to the Contractor and pay the balance of the contract price after deducting all amounts withheld under this contract, provided the Contractor shows that all claims for labor and materials have been paid, no claims have been presented to the Public Agency based on acts or omissions of the Contractor, and no liens or withhold notices have been filed against the work or site, and provided there are not reasonable indications of defective or missing work or of late-recorded notices of liens or claims against Contractor.

9. INSURANCE

Contractor's Liability Insurance: Before the commencement of the Work, the Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in California as admitted carriers with a financial rating of at least A status as rated in the most recent edition of Best's Insurance Reports or as amended by the Supplementary General Conditions, if any, such insurance as will protect the Public Agency from claims set forth below, which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations are by the Contractor, by a Subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

- (a) Claims for damages because of bodily injury, sickness, disease, or death of any person. District would require indemnification and coverage for employee claim;
- (b) Claims for damages insured by usual personal injury liability coverage, which are sustained by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor or by another person;
- (c) Claims for damages because of injury or destruction of tangible property, including loss of use resulting therefrom, arising from operations under the Contract Documents;
- (d) Claims for damages because of bodily injury, death of a person, or property damage arising out of the ownership, maintenance, or use of a motor vehicle, all mobile equipment, and vehicles moving under their own power and engaged in the Work;
- (e) Claims involving contractual liability applicable to the Contractor's obligations under the Contract Documents, including liability assumed by and the indemnity and defense obligations of the Contractor and the Subcontractors; and
- (f) Claims involving Completed Operations, Independent Contractors' coverage, and Broad Form property damage, without any exclusions for collapse, explosion, demolition, underground coverage, and excavating. (XCU)
- (g) Claims involving sudden or accidental discharge of contaminants or pollutants.

Subcontractor Insurance Requirements: The Contractor shall require its Subcontractors to take out and maintain similar public liability insurance and property damage insurance as required under the above paragraph, titled "Contractor's Liability Insurance, in amounts commensurate with the value of the subcontract. A "claims made" or modified "occurrence" policy shall not satisfy the requirements of the above paragraph, titled "Contractor's Liability Insurance, without prior written approval of the District.

Additional Insured Endorsement Requirement: The Contractor shall name, on any policy of insurance, the District, Architect, Construction Manager, Inspector, the State of California, their officers, employees, agents and independent contractors as Additional Insured. Subcontractors shall name the Contractor, the District, Architect, Construction Manager, Inspector, the State of California, their officers, employees, agents and independent contractors as Additional Insured.

The Additional Insured Endorsement included on all such insurance policies shall be on a CG 2010 11 85 form, CG2033 07 04 (Operations) and a CG2037 07 04 (Completed Operations) or their equivalent, and shall state that coverage is afforded the additional insured with respect to claims arising out of operations and Completed Operations performed by or on behalf of the insured. If the Additional Insured have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The insurance provided by the Contractor must be designated in the policy as primary to any insurance obtained

by the Public Agency. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

Workers' Compensation Insurance: During the term of this Contract, the Contractor shall provide workers' compensation insurance for all of the Contractor's employees engaged in Work under this Contract on or at the Site of the Project and, in case any of the Contractor's Work is subcontracted, the Contractor shall require the Subcontractor to provide workers' compensation insurance for all the Subcontractor's employees engaged in Work under the subcontract. Any class of employee or employees not covered by a Subcontractor's insurance shall be covered by the Contractor's insurance. In case any class of employees engaged in Work under this Contract on or at the Site of the Project is not protected under the Workers' Compensation laws, the Contractor shall provide or cause a Subcontractor to provide adequate insurance coverage for the protection of those employees not otherwise protected. The Contractor shall file with the District certificates of insurance as required under Section 00 70 00, Article 11.6, and in compliance with Labor Code § 3700.

Specific Insurance Requirement: Contractor shall take out and maintain and shall require all subcontractors, if any, whether primary or secondary, to take out and maintain:

- (a) Workers' Compensation Insurance: \$1,000,000.00; Contractor is aware of and complies with Labor Code Section 3700 and the Worker's Compensation Law.
- (b) Comprehensive General Liability Insurance with a combined single limit per occurrence of not less than \$5,000,000.00 and \$10,000,000.00 project specific aggregate, or Commercial General Liability Insurance (including automobile insurance) which provides limits of not less than:

(1)	Per occurrence (combined single limit)	\$5,000,000.00
(2)	Project Specific Aggregate (for this project only)	\$10,000,000.00
(3)	Products and Completed Operations	\$5,000,000.00

- (c) Insurance Covering Special Hazards

The following Special hazards shall be covered by riders or riders to above mentioned public liability insurance or property damage insurance policy or policies of insurance, in amounts as follows:

- | | | |
|-----|---|----------------|
| (1) | Automotive and truck where operated in amounts | \$1,000,000.00 |
| (2) | Material Hoist where used in amounts | \$1,000,000.00 |
| (3) | Explosion, Collapse and Underground
(XCU coverage) | \$1,000,000.00 |

- (d) In addition, provide Excess Liability Insurance coverage in the amount of Two Million Dollars (\$2,000,000.00).
- (e) There shall be no endorsements or exclusions related to soils movement or subsidence including: soil erosion, freezing or thawing, improperly compacted soil or construction defects, roots of trees or shrubs, collapse of storm or sewer drains, or natural occurring shrink or swell soil.

Builder's Risk/ "All Risk" Insurance/ Course-of-Construction Insurance Requirements: The Contractor, during the progress of the Work and until final acceptance of the Work by District upon completion of the entire Contract, shall maintain Builder's Risk, Course of Construction or similar first party property coverage issued on a replacement cost value basis consistent with the total replacement cost of all insurable Work and the Project included within the Contract Documents. Coverage is to insure against all risks of accidental direct physical loss, and must include, by the basic grant of coverage or by endorsement, the perils of vandalism, malicious mischief (both without any limitation regarding vacancy or occupancy), fire, sprinkler leakage, civil

authority, sonic boom, earthquake, flood, collapse, wind, lightning, smoke and riot. The coverage must include debris removal, demolition, increased costs due to enforcement of building ordinance and law in the repair and replacement of damage and undamaged portions of the property, and reasonable costs for the Architect's and engineering services and expenses required as a result of any insured loss upon the Work and Project which is the subject of the Contract Documents, including completed Work and Work in progress, to the full insurable value thereof. Such insurance shall include the District and the Architect as additional named insureds, and any other person with an insurable interest as designated by the District. The **maximum deductible** for this policy shall be **no greater than \$25,000** unless approved by the District.

The Contractor shall submit to the District for its approval all items deemed to be uninsurable. The risk of the damage to the Work due to the perils covered by the "Builder's Risk/All Risk" Insurance, as well as any other hazard which might result in damage to the Work, is that of the Contractor and the surety, and no claims for such loss or damage shall be recognized by the District nor will such loss or damage excuse the complete and satisfactory performance of the Contract by the Contractor.

10. BONDS

Bond Requirements: Prior to commencing any portion of the Work, the Contractor shall furnish separate payment and performance bonds for its portion of the Work which shall cover 100% faithful performance of and payment of all obligations arising under the Contract Documents and/or guaranteeing the payment in full of all claims for labor performed and materials supplied for the Work. All bonds shall be provided by a corporate surety authorized and admitted to transact business in California as sureties.

To the extent, if any, that the Contract Price is increased in accordance with the Contract Documents, the Contractor shall, upon request of the Public Agency, cause the amount of the bonds to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to the Public Agency. To the extent available, the bonds shall further provide that no change or alteration of the Contract Documents (including, without limitation, an increase in the Contract Price, as referred to above), extensions of time, or modifications of the time, terms, or conditions of payment to the Contractor will release the surety. If the Contractor fails to furnish the required bonds, the Public Agency may terminate the Contract for cause.

On signing this contract, Contractor shall deliver to Public Agency for approval good and sufficient bonds with sureties, in amount(s), specified in the specifications or special provisions, guaranteeing faithful performance of this contract and payment for all labor and materials hereunder.

11. FAILURE TO PERFORM

If the Contractor at any time refuses or neglects, without fault of the Public Agency or its agent(s), to supply sufficient materials or workers to complete this agreement and work as provided herein, for a period of ten days or more after written notice thereof by the Public Agency, the Public Agency may furnish same and deduct the reasonable expenses thereof from the contract price.

12. LAWS APPLY: General

Both parties recognize the applicability of various federal, state and local laws and regulations, especially Chapter 1 of Part 7 of the California Labor Code (beginning with Section 1720, and including Sections 1735, 1777.5, 1777.6, forbidding discrimination) and intend that this agreement complies therewith. The parties specifically stipulate that the relevant penalties and forfeitures provided in the Labor Code, especially in Sections

1775, 1776, and 1813, concerning prevailing wages and hours, shall apply to this agreement as though fully stipulated herein.

13. SUBCONTRACTORS

Public Contract Code Sections 4100-4113 are incorporated herein.

14. WAGE RATES

- (a) Pursuant to Labor Code Section 1773, the Director of the Department of Industrial Relations has ascertained the general prevailing rates of wages per diem, and for holiday and overtime work, in the locality in which this work is to be performed, for each craft, specified in the call for bids for this work and are on file with the Public Agency, and are hereby incorporated herein.
- (b) This schedule of wages is based on a working day of eight (8) hours unless otherwise specified; and the daily rate is the hourly rate multiplied by the number of hours constituting the working day. When less than that number of hours are worked, the daily wage rate is proportionately reduced, but the hourly rate remains as stated.
- (c) The Contractor, and all subcontractors, must pay at least these rates to all persons on this work, including all travel, subsistence, and fringe benefit payments provided for by applicable collective bargaining agreements. All skilled labor not listed above must be paid at least the wage scale established by collective bargaining agreement for such labor in the locality where such work is being performed. If it becomes necessary for the Contractor or any subcontractor to employ any person in a craft, classification or type of work (except executive, supervisory, administrative, clerical or other non-manual workers as such) for which no minimum wage rate is specified, the contractor shall immediately notify the Public Agency which shall promptly determine the prevailing wage rate therefore and furnish the Contractor with the minimum rate based thereon, which shall apply from the time of the initial employment of the person affected and during the continuance of such employment.

15. HOURS OF LABOR

Eight hours of labor in one calendar day constitutes a legal day's work, and no worker employed at any time on this work by the Contractor or by any subcontractor shall be required or permitted to work longer thereon except as provided in Labor Code Sections 1810-1815.

16. APPRENTICES

Properly indentured apprentices may be employed on this work in accordance with Labor Code Sections 1777.5 and 1777.6, forbidding discrimination.

17. PREFERENCE FOR MATERIALS

The Public Agency desires to promote the industries and economy of Humboldt County, and the Contractor therefore promises to use the products, workers, laborers and mechanics of this County in every case where the price, fitness and quality are at least equal.

18. ASSIGNMENT

This agreement binds the heirs, successors, assigns, and representatives of the Contractor; but Contractor cannot assign it in whole or in part, nor any monies due or to become due under it, without the prior written consent of the Public Agency and the Contractor's surety or sureties, unless they have waived notice of assignment.

19. NO WAIVER BY PUBLIC AGENCY

Inspection of the work and/or materials, or approval of work and/or materials inspected, or statement by any officer, agent or employee of the Public Agency indicating the work or any part thereof complies with the requirements of this contract, or acceptance of the whole or any part of said work and/or materials, or payments therefore, or any combination of these acts, shall not relieve the Contractor of Contractor's obligation to fulfill this contract as prescribed; nor shall the Public Agency be thereby stopped from bringing any action for damages or enforcement arising from the failure to comply with any of the terms and conditions hereof.

20. HOLD HARMLESS AND INDEMNITY

- (a) Contractor promises to and shall hold harmless and indemnify from the liabilities as defined in this section.
- (b) The Indemnitees benefited and protected by this promise are the Public Agency and its elective and appointive boards, commissions, officers, agents and employees.
- (c) The liabilities protected against are any liability or claim for damage of any kind allegedly suffered, incurred or threatened because of actions defined below, including personal injury, death, property damage, inverse condemnation, or any combination of these, regardless of whether or not such liability, claim or damage was unforeseeable at any time before the Public Agency approved the improvement plan or accepted the improvements as completed, and including the defense of any suit(s) or action(s) at law or equity concerning these.
- (d) The actions causing liability are any act or omission (negligent or non-negligent) in connection with the matters covered by this contract and attributable to the contractor, subcontractor(s), or any officer(s), agent(s), or employee(s) of one or more of them.
- (e) Non-conditions: The promise and agreement in this section is not conditioned or dependent on whether or not any Indemnities has prepared, supplied, or approved any plan(s), drawing(s), specifications(s) or special provision(s) in connection with this work, has insurance or other indemnification covering any of these matters, or that the alleged damage resulted partly from any negligent or willful misconduct of any Indemnities.

21. EXCAVATION

Contractor shall comply with the provisions of Labor Code Section 6705, if applicable, by submitting to Public Agency a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during trench excavation.

22. Not Used**23. WARRANTY**

- (a) In addition to any other warranties or guaranties in the Contract Documents, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.
- (b) (This warranty shall continue for a period of 1 year from the date of final acceptance of the Work, unless otherwise provided or extended in the Contract Documents. If the District takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the District takes possession.
- (c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to District-owned or controlled real or personal property, when that damage is the result of—
 - (1) The Contractor's failure to conform to contract requirements; or
 - (2) Any defect of equipment, material, workmanship, or design furnished.
- (d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year or as otherwise provided or extended from the date of repair or replacement.
- (e) The District shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.
- (f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the District shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.
- (g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall—
 - (1) Obtain all warranties that would be given in normal commercial practice;
 - (2) Require all warranties to be executed, in writing, for the benefit of the District, if directed by the District; and
 - (3) Enforce all warranties for the benefit of the District, if directed by the District.
- (h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the District may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.
- (i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the District nor for the repair of any damage that results from any defect in District-furnished material or design.
- (j) This warranty shall not limit the District's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

24. CONSEQUENTIAL DAMAGES

The Contractor and Public Agency waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes:

- (a) Damages incurred by the Public Agency for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- (b) Damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination. Nothing contained in this subparagraph shall be deemed to preclude an award of liquidated direct damages, when applicable, in accordance with the requirements of the Contract Documents.

25. HAZARDOUS MATERIALS

- (a) If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos, lead or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Public Agency in writing.
- (b) The Public Agency shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to verify that it has been rendered harmless. The Public Agency shall furnish in writing to the Contractor the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written notification from the Public Agency and Contractor. The Contract Time shall be extended appropriately.

26. SAFETY

- (a) **Safety Programs.** In addition to and as required by other Sections of the Contract Documents, the Contractor shall be solely responsible for initiating, maintaining and supervising all safety programs required by applicable law, ordinance, regulation or governmental orders in connection with the performance of the Contract, or otherwise required by the type or nature of the Work. The Contractor's safety program shall include all actions and programs necessary for compliance with California or federally statutorily mandated workplace safety programs, including without limitation, compliance with the California Drug Free Workplace Act of 1990 (California Government Code §§8350 et seq.). Without limiting or relieving the Contractor of its obligations hereunder, the Contractor shall require that its Subcontractors similarly initiate and maintain all appropriate or required safety programs. Prior to commencement of Work, the Contractor shall meet with the campus Buildings and Grounds Manager, Project Manager, and Construction Manager to review Contractor's safety precautions and implementation of safety programs during the Work.
- (b) **Safety Precautions.** In addition to and as required by other Sections of the Contract Documents, the Contractor shall be solely responsible for initiating and maintaining reasonable precautions for safety of,

and shall provide reasonable protection to prevent damage, injury or loss to: (i) employees on the Work and other persons who may be affected thereby; (ii) the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and (iii) other property or items at the site of the Work, or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction. The Contractor shall take adequate precautions and measures to protect existing roads, sidewalks, curbs, pavement, utilities, adjoining property and improvements thereon (including without limitation, protection from settlement or loss of lateral support) and to avoid damage thereto. Without adjustment of the Contract Price or the Contract Time, the Contractor shall repair, replace or restore any damage or destruction of the foregoing items as a result of performance or installation of the Work.

- (c) **Safety Signs, Barricades.** In addition to and as required by other Sections of the Contract Documents, the Contractor shall erect and maintain, as required by existing conditions and conditions resulting from performance of the Contract, reasonable safeguards for safety and protection of property and persons, including, without limitation, posting danger signs and other warnings against hazards, promulgating safety regulations and notifying Districts and users of adjacent sites and utilities.
- (d) **Safety Notices.** In addition to and as required by other Sections of the Contract Documents, the Contractor shall give or post all notices required by applicable law and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

27. Not Used

28. SIGNATURES AND ACKNOWLEDGEMENT

Public Agency, By: _____
Keith Flamer – President/Superintendent

Note to Contractor: (1) Execute acknowledgement form below, and (2) if a corporation, affix Corporate Seal.

Contractor, hereby also acknowledging awareness of and compliance with Labor Code S1861 concerning Worker's Compensation Law.

Contractor:
By: _____ (CORPORATE SEAL)
(Designate Official Capacity – **COMPANY NAME**)

Print NAME and TITLE

License Number

Federal ID Number

NOTARY PUBLIC

=====

State of California)ss. ACKNOWLEDGEMENT (By Corporation, Partnership or Individual)
County of Humboldt)

The person(s) signing above for Contractor, known to me in individual and business capacity as stated, personally appeared before me today and acknowledged that he/she/they executed it and that the corporation or partnership named above executed it.

Dated: _____

(NOTARIAL SEAL)

END OF SECTION 00 52 00

SECTION 00-54-36
BUILDING INFORMATION MODELING (BIM)
EXHIBIT I

1.—General

The contractor shall create a construction model that shall be used for the coordination of all trades. The contractor shall be responsible for providing accurate as-built information in a timely manner for the duration of the project. Contractor will be allowed to use a design model as a reference. The design intent model is only for reference purposes and the Revit electronic model file cannot be used as the basis for the construction model either through copying and pasting Revit objects or by renaming the Revit file name. The design model will contain the Revit objects and floor plan and elevation views but will not contain sheets, sections views, and detail(annotation) views. It is expected that the contractor will create these BIM elements as part of creating the construction model.

The Construction model is to be created new from the construction documents, shop drawing models, fabrication models, and any coordination model. At a minimum, once a week, during construction the updated construction model will be published and posted to the BIM 360 Collaborate Site. The contractor shall be responsible for providing and maintaining the BIM 360 Collaborate site for the duration of the construction and closeout of the project. However, the District shall have administrative rights to the BIM 360 Collaborate site.

The Contractor will provide a total (3) three licenses of BIM 360 Collaborate for use by the District, the Construction Manager and the Design Team members. The licenses are to be provided within 15 days of Contractor award. The licenses will remain active for the entire duration of the project and for an additional six months after Final Acceptance of the building. Contractor will provide all needed Revit, Navisworks and BIM 360 Collaborate licenses for their own forces as well as for subcontractors.

2.—BIM Execution Plan

The Contractor shall review the Design team's BIM execution plan and submit questions within thirty (30) days of contract award. The design team and the District shall review and respond to the request within (14) days of submittal.

Contractor will submit an outline of the Construction BIM Execution Plan within (15) days of contractor award. Within (45) days of contractor award the Contractor will submit the Construction BIM Execution Plan. The format and scope of the Construction BIM Execution Plan will be similar to the Design Team's BIM Execution Plan but will contain information specific to creating construction models and will confirm the BIM requirements listed in Section 00-54-36. The design team and the District shall review and respond with any comments to the submitted Construction BIM Execution Plan within (14) days of submittal.

Within (10) days of the Construction BIM Execution Plan being accepted the Contractor will hold a Construction BIM Execution Plan Kick Off Meeting. All key subcontractors, the Contractor's BIM Manager, Architect, Construction Manager and the District will be invited to the meeting. The purpose of the meeting will be to review the Construction BIM Execution Plan.

3.—Collision Reports

The Contractor is to use Navisworks Manage software for collision reporting. Collision reports from Navisworks should be published weekly in a standard XML, HTML, or Text format as created by Navisworks. These reports shall include the following information at a minimum:

- Description of Collision Report
- Date of Collision Report Run
- List of all Collisions detected, their status, and their proposed solution.

All Navisworks collision information will be uploaded to the BIM 360 Collaborate Site. At the Contractor's option the Contractor can use BIM 360 Collaborate for collision reporting if in certain situations it is more suitable or expedient than Navisworks.

4.—Concurrent As-Builts

General

The contractor shall submit a plan to the District for review, prior to the start of construction that outlines the process for concurrent as-built documentation. Concurrency is mandated. Methods for recording as-built information are left to the discretion of the contractor. Potential options include traditional methods, and/or periodic laser scanning of completed or partially completed primary systems coordinated with the sequence of construction. Primary systems include, but may not be limited to: structural framing, primary HVAC duct runs, primary fire protection main runs, primary electrical conduits (larger than 3/4" diameter), and ceiling grids layouts. This information should also be included in the Construction BIM Execution Plan.

5.—Scheduling

The sequence of concurrent as-builts shall be recorded in the contractor's project schedule as a line item event.

6.—Commissioning Requirements

Commissioning data including but not limited to design intent, performance criteria and operations data shall be recorded and/or linked to the BIM Compliant model as commissioning occurs throughout the project. Commissioning requirements shall be coordinated with the requirements noted in the construction documents. It shall be the contractor's responsibility to coordinate the information sources and integrate this information into the BIM Compliant model for transfer at the completion of the project.

7.—Terminology

As-Built Documents

As-built documents are the collection of paper drawings or electronic drawings that typically reside in the contractor's onsite trailer that contain mark-ups, annotations, and comments about changes that have been made to the contract documents during the construction phase.

As-Built Model

Design Intent Models that have been updated throughout the construction process. These changes and updates have been communicated from the Contractor to the Design Team through the comments, annotations, and mark-ups from the As-Built Documents. These typically, but not always, are discipline specific models.

BIM Execution Plan (BEP)

A plan that is created from Design BIM Execution Plan. The BEP helps to define roles and responsibilities within a project team.

Critical Path Modeling

Critical Path Modeling Is a method of demonstrating Integrated Project Delivery. It sets a plan within the design team that accounts for the activities of each discipline and how they interact with each other. It builds upon a critical path method for those activities, and allows the project team to schedule a complete project.

Design Team

The Design Team is considered to be the Architect and all of the consultants that provide design services for a project. These design services can be rendered at any time during the project.

.DWF is a file type that was developed by Autodesk to be locked file for drawing sheets and model data. It can be used as a file transfer for estimating data, markups, and other third party software. It can be a combination of 3D and 2D information within the same file.

.DWG is a native AutoCAD file format. It is a widely used file format for exchanging drawing information and 3D information to different programs. While not a database file type, it still has lots of uses for exchanging information.

.GBxml file is a Green Building file type. It is used to run simulations through energy modeling software. It is a widely accepted file format for those types of software.

LEED

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a suite of standards for environmentally sustainable construction. Based on a point system, a building can achieve different ratings based on the performance of the design, construction, and operation of the building.

Navisworks

Navisworks is software that allows for the viewing of multiple model formats. This ability to “view” these files also allows for Navisworks to simulate the interaction between model files. That includes collision reporting, time lining, and coordination.

.NWC file is a Navisworks Cache File that is used by Navisworks to quickly read many other file types. All linked files in Navisworks have an .NWC file created automatically. In addition, Revit will export directly to the very small file type of .NWC for quick access by Navisworks.

.NWD A much larger file than the .NWC, the .NWD file shows a snapshot in time of Navisworks file. No linked files exist but all geometry is included.

.NWF file is a native Navisworks file which has all linked files, clashes, markups, animations, schedules, etc.

Record Drawing

The production of Record Drawings is the capturing of the As-Built Document’s annotation, comments, and mark-ups in a drawing format only. This does not typically include the updating of any models.

.RVT

An **.RVT** file is a native REVIT file type. It is also the deliverable file format for all projects. This includes all of the Design Team’s models.

8. Project Closeout

1. As part of the closeout process the Contractor will submit the following to the District:
 - a. Scanned Field Set Drawings As-Builts (.pdf format)

- b. — O&M Manuals (paper/.pdf/excel format)
- c. — Coordination Models in their native file format

9. Contractor’s Key BIM Personnel

1. — The Contractor must have a BIM Manager on staff with at least 3 years of proven construction coordination experience with projects similar in size a scope to District project. Submit the BIM Managers resume at the same time of the Contractor’s Project Manager or Superintendent. The BIM Manager’s responsibilities include, but are not limited to the following as well as Sub Section 10 below:
 - d. — Lead the BIM Construction Coordination Team and be the main point of contact for the coordination process.
 - e. — Ensure all BIM Construction Team Members follow the requirements of the District’s BIM Guidelines and the Contractor’s BIM Execution Plan.
 - f. — Ensure the BIMs are of optimum quality and appropriate level of development (LOD) for the current BIM Coordination activities.
 - g. — Make sure all models from all disciplines are uploaded according to the BIM Coordination Schedule on time and in the correct file formats.
 - h. — Assemble all discipline’s BIMs into a Consolidated Model for coordination.
 - i. — Maintain the master Construction BIM coordination files with all disciplines integrated on a BIM Collaboration Server.
 - j. — Provide regular Clash Reporting for BIM Construction Team members and other project stakeholders to review.
 - k. — Deliver a clash-free fully coordinated Consolidated BIM Model.
 - l. — Have a solid working knowledge of AEC BIM collaboration software and any other software tools to be used for BIM and model checking.
 - m. — Serve as the Point of Contact for all internal and external BIM’s with District and the Design Team.
 - n. — Have pro-active approach to problem solving and ensuring that everyone has what they need when they need it.

10. Construction Roles and Responsibilities

10.1 — Roles

10.1.1. BIM Manager: BIM Manager for Contractor

1. Management and implementation of the BIM Coordination process.
2. Administer access to BIM and the tools used to facilitate the coordination process.
3. Identify major coordination issues through the use of clash detection.
4. Provide markups of the model within the coordination tool.
5. Facilitate team in resolving issues by offering solutions to conflicts.
6. Assist the team with clashes that could not be resolved in trade-to-trade coordination.
7. Create sign-off files and narratives.

8. Provide extensive support as it relates to software and workflow.

10.1.2. Trade Coordinator: Each trade shall have a lead contact and decision maker who will be required to attend coordination meetings.

1. Make decisions for movements in coordination to resolve clashes.
2. Verify that components are modeled to the correct Level of Detail (LOD) and match submittal data.
3. Run independent clash detection within the collaborative software chosen by Contractor after each daily update.
4. Create markups to be reviewed during coordination meetings, and communicate with other trades in an attempt to resolve the markups.
5. Evaluate constructability, sequencing, installation requirements, and means and methods of systems that are considered and incorporated in the model effort during coordination.
6. Ultimately responsible for making sure models are being uploaded on time and are complete.
7. Ensure uploads are completed on time, as requested by BIM Manager.
8. Provide shop drawings for sign-off of each phase of BIM.
9. Provide equipment submittals and/or cut sheets when requested.
10. Ensure that the standards listed in this document are met before each upload.

10.1.3. Trade Modeler: Main modeler for each respective trade (responsibilities may be merged with Trade Coordinator).

1. Modeling of trade systems and components.
2. Required to attend coordination meetings as needed.
3. Coordinate adjustments to the model to resolve clashes.
4. Upload models daily and when requested by BIM Manager or Trade Coordinator
5. Provide quality control of responsible models to be used in BIM.

11. Construction Models and Development

This BIM is known as the “Construction Model”. It includes models provided by of the subcontractors, which will be managed and kept current by the Contractor through the lifecycle of the project with all resolved constructability issues, Change Orders and RFI’s for the record set. The construction models are to be developed with fabrication software. There should not be a conversion process from construction to fabrication unless agreed upon by the contractor. This is to avoid problems with the conversion as well as identify constructability issues within the design during the population process of each model.

Naming Convention

11.1.1. File Naming

1. Typical Syntax (for projects with one package of contract documents): ProjectName-Discipline-Building.Level.file.type. Include proposed file naming in the BIM Execution Plan.

A. All caps, single dashes, no underscores, no spaces, no dates, no project numbers.

B. The internal file name is the same name uploaded to BIM 360 Collaborate.

11.1.2. Layer or Workset Naming

1. Layers should be descriptive of the elements they contain:

A. For Example: PL-DCW-Valves = Plumbing—Domestic Cold Water—Valves

B. For Example: PL-DCW-Valves-Clear = Plumbing—Domestic Cold Water—Valves—Clearances

11.1.3. Object naming

1. Any element or component name within a model shall reflect the component or system installed

2. For Example: A block modeled to represent an AHU should have the AHU number associated with it in the naming convention (AHU1).

2. Modeling Standards

11.2.1. Project Origin

1. The civil Engineer will provide Control Points to be used by the Design team as a reference for developing the project gridlines and setting the survey point and base point in Revit for the project.

2. The project origin (X,Y,Z) will be defined in the Architectural Design Intent Model. Usually, this will be located at one corner of the property line boundary.

3. It is the Architect responsibility to verify the accuracy of the coordinates and to provide a grid intersection at 0,0,0 for all other team members.

11.2.2. Worksets

1. All Revit models will be “shared projects” (worksets enabled).

2. An existing model shall be an exception to this standard.

11.2.3. Levels & Grids

1. All Levels and Grids must be “Copy Monitored” from the architectural model, and remain “Monitored” throughout the project.

2. All Levels and Grids must be located on the “Shared Levels and Grids” workset / layers. This allows other project participants to easily hide the grids from linked models.

11.2.4. Model Sharing

1. Tool

A. The project will be using BIM 360 Collaborate to facilitate and coordinate the models produced.

B. BIM 360 Collaborate will host all of the most current and design models from each participating discipline.

2. Folder Structure and models

A. See appendix “A” for file folder structure

B. The naming of the models uploaded to the corresponding discipline folder shall stay consistent

C. The location shall be verified after each upload. See appendix “H” for upload workflow

11.2.5. Reference Levels

1. All objects should be placed on the correct reference level or floor level

2. If objects are elevated above reference levels, they should be referenced from the proper elevation callout. This ensures proper collaboration and integration of the BIM with the project team and their respected software.

11.2.6. Object Heights

1. All objects modeled should fall within the proper reference levels. For example, walls, both exterior and interior functioning, should be modeled to begin at floor height and continue only to the elevation reference line directly above.

11.2.7. DO NOT MODEL OBJECTS TWICE

1. One exception may be when a vertical pipe is passing floor to floor, it is beneficial to verify that the location below matches the location above

11.2.8. Analytical Objects

1. All referenced objects that do not pertain to the model it is located within should be excluded from uploads
2. Use Xref's or links to eliminate having to clean the model at every point of upload

11.2.9. Purging Models

1. When uploading or sharing a model, there should not be any of the following:

- A. floating objects
- B. objects that do not pertain to the model
- C. layers that do not contain any components

11.2.10. Object Types

1. Floors

- A. All floors should be modeled at the right reference plane to ensure proper dimensioning and takeoff.
- B. Shafts and vertical opening should be used to cut voids through horizontal planes. Editing the face of each wall should be discouraged unless reasoning dictates the cut should be made.
- C. Floor thickness should reflect the slab and deck total thickness

2. Walls

A. Types

11.2.10.2.A.1 Basic Walls—used to define architecture scope of interior and exterior walls. Structural Walls—used by the structural team to define shear walls and structural bearing walls.

11.2.10.2.A.2 Curtain Wall Systems—exterior wall systems used to define assemblies that extend in heights above 9'-0".

11.2.10.2.A.3 Exterior Glazed Wall Systems—glass wall assembly systems

11.2.10.2.A.4 Storefront Systems—glass wall assembly systems that are between 7'-0" to 9'-0".

11.2.10.2.A.5 Window Systems—glass window assembly systems that are between 7'-0" or less.

11.2.10.2.A.6 Fire Rated Walls—used to define the fire barrier within the wall

11.2.10.2.A.7 Shaft Walls—Used to define the shaft wall condition

11.2.10.2.A.8 By choosing the proper wall type, the team can ensure that all assembly codes and data information attached to each object will be correct.

11.2.10.2.A.9 All objects modeled should fall within the proper reference levels. Walls, both exterior and interior functioning, should be modeled to begin at floor height and continue only to the elevation reference line directly above

11.2.10.2.A.10 Wall and Openings by Face should be utilized to cut voids through the vertical faces of wall assemblies. An “edit profile” command can be used if necessary, or if the “Wall Openings” and “Openings by Face” commands cannot create the desired object effect.

B.—Object Description vs. Modeling/Drawings

C.—All descriptions given to the object must match the objects parameters/ data

D.—Example: a description of a column footing will say “F7” to indicate a 7’-0” x 7’-0” x 3’-6” footing; the footing must be drawn/modeled to the description. This will ensure that all objects are correct in the BIM and be able to help the project team coordinate other systems that may run close to said objects.

E.—Example: a description of a partition wall that terminates 6” above the ceiling plane. The wall should be drawn to terminate above the ceiling plane (wall height will be determined by Design Project Team).

11.2.11.Object Information Input

1. Object Function

A. Choose the function of the wall from the following categories using Uniformed codes: Interior

11.2.11.1.A.1 Exterior

11.2.11.1.A.2 Foundation

11.2.11.1.A.3 Retaining

11.2.11.1.A.4 Core Shaft

11.2.11.1.A.5 Soffit B. Choose the proper category for equipment such as:

11.2.11.1.B.1 Mechanical Equipment

11.2.11.1.B.2 Electrical Equipment

11.2.11.1.B.3 Fire Protection Equipment

11.2.11.1.B.4 Plumbing Equipment

11.2.11.1.B.5 Plumbing Fixtures

11.2.11.1.B.6 Electrical Fixtures

2. Data Integration

A. At a minimum, all information found on the stamped Record Set of 2D drawings is to be integrated. These fields are to include all information commonly found as (but not limited to): Notes, Schedules*, Type Mark, Description, Detail, Nameplate Data, Key Notes, Sheet Notes, SOO, Specific Nameplate Data.

11.2.11.2.A.1 Fully Developed Schedules* to include, but not limited to this sample set:

11.2.11.2.A.1.1 Lighting

11.2.11.2.A.1.2 Doors—full detail and ratings, assembly

11.2.11.2.A.1.3 Equipment—nameplate data set

11.2.11.2.A.1.4 Fire Alarm

11.2.11.2.A.1.5 Flow and control diagrams—locations, control points, notes

11.2.11.2.A.1.6 HVAC

11.2.11.2.A.1.7 Plumbing fixture schedule—associated data fields, notes

~~11.2.11.2.A.1.8 Plumbing systems components schedule DWV—detail, notes~~

~~11.2.11.2.A.1.9 Mechanical ventilation compliance—room name, number, type designation, air balance, ACH, exhaust, supply, volume, transfer, ceiling height, balance to corridor, etc.~~

~~11.2.11.2.A.1.10 Electrical Distribution~~

~~11.2.11.2.A.1.11 Panel schedules—panel full detail, system branch, isolation, service locations, load, feeder, voltage, etc.~~

~~11.2.11.2.A.1.12 Partition, Area Separation, and similar Rated Assemblies~~

~~B. All equipment (pumps, AHU, FCU, boilers, etc.) must include manufacturer specific information, within the model, and field verified for accurate representation in the model. Refer to LOD matrix Attachment #1 for more information.~~

~~C. All systems that are non-accessible must be field verified for location.~~

~~D. All items that have room number attributes shall have place holder for a second room number.~~

~~11.2.12.—Logistics~~

~~1. All BIM Construction Team members involved in the construction model coordination process shall cooperate and compromise with one another to develop combined solutions that achieve the project's goals and overall design intent.~~

~~2. As previously mentioned, the architectural, Structural and MEP design work will be made available with Revit 2018, respectively, and/or other details provided in 2D format. These backgrounds / models can be utilized by the subcontractors in the 2D and/or 3D environment. These construction models will be further detailed by the responsible subcontractors.~~

~~3. While populating, each trade should be in conversation with the trades around them.~~

~~4. Coordination outside of the BIM meetings will be required for items such as, but not limited to, housekeeping pads, IT equipment, and small conflicts between 2 trades.~~

~~11.2.13 Scheduling~~

~~1.—Contractor will develop a modeling/coordination schedule that will align with the overall construction schedule. Contractor will be required to maintain this schedule so that the modeling/coordination schedule and the overall construction schedule are maintained.~~

~~11.2.14. Coordination Concept~~

~~1. Construction Coordination~~

~~A. Clash Detection~~

~~11.2.14.1.A.1 Software will analyze the BIM for physical interferences (clashes) between building systems and components. Construction level clash detection results in a reduction of field conflict, RFI's, and change orders. Coordination with off-site prefabricated components is improved. Construction helps avoid budget and schedule conflicts~~

~~B. Clearance Checking~~

~~11.2.14.1.B.1 It is accomplished by adding a clearance element, on a separate layer, to the model that requires a clearance. Modeling and clashing equipment clearances helps identify access, installation and code related clearances for facilities management and maintenance.~~

~~C. Clash Resolution~~

~~11.2.14.1.C.1 Conflicts found during clash detection need to be resolved within the fabrication BIM authoring platform in order to be incorporated into shop drawings. Virtually solving the issue ahead of time avoids costly errors and revisions as well as schedule impacts and occupancy delays~~

~~D. Coordination Sign-Off~~

~~11.2.14.1.D.1 After construction coordination is complete, a set of 2D and 3D coordination drawings are to be created with the BIM Construction Team and Architect submittal review.~~

~~11.2.15. Modeling Requirements~~

~~1. General Requirements~~

~~A. Model clearance requirements—Areas which must remain clear for code or service consideration including but not limited to insulation, monokote, equipment, access clearance around piping or other systems requiring a code specific clearance. All in-wall system equipment and devices to be modeled.~~

~~B. Model wall and ceiling access doors where required.~~

~~C. Model working area around J-boxes, panels, etc.~~

~~D. Model working area around A/V equipment.~~

~~E. Model swing area around panel doors.~~

~~F. Elevated access zones are to be modeled from the top of the eqp. to the floor below.~~

~~G. Pre-fabrication—anything that will be pre-fabricated should be included in the BIM. This will ensure proper spacing and connections.~~

~~H. Supports/ seismic braces will be required in the BIM.~~

~~I. Model all in-wall or surface mounted devices and or equipment~~

~~2. Architectural Model~~

~~A. Wall thickness and height—required for routing main utilities, locating VAV boxes, identifying priority wall framing, wall penetrations, fire stopping.~~

~~B. Walls, slabs, Doors, Interior Windows, and signage.~~

~~C. Hard ceilings and soffits—required for identifying structural integration and clearances, HVAC diffuser locations, electrical fixture locations, and routing of utilities.~~

~~D. Suspended acoustical ceilings—required for identifying structural integration and clearances, HVAC diffuser locations, electrical fixture locations, and routing of utilities.~~

~~E. Exterior walls and storefronts—required for identifying the location of rain water leaders.~~

~~F. Shaft/Chase walls—required for identifying the correct locations of plumbing vents and HVAC shafts.~~

~~G. Architectural features requiring utilities—required for mechanical routing.~~

~~H. Architectural features in mechanical spaces—required for mechanical routing.~~

~~3. Cold Steel Framing Model~~

~~A. Top and bottom track, kickers, and z-clips to be used for coordination.~~

~~B. Framing/block-outs for MEP trades as needed.~~

~~C. Door framing and headers.~~

~~D. Head of wall conditions.~~

E. Any no-fly zones required for installation or representation of an object.

4. Structural Model

A. Beams and columns—required for coordinating above ceiling MEP/FP utilities.

B. Braces and gusset plates—required for coordinating above ceiling MEP/FP utilities.

C. Miscellaneous supports—required for coordinating above ceiling MEP/FP utilities.

D. External wall framing connections—required for coordinating with MEP/FP and Architectural trades.

E. Beams penetrations—required for coordinating above ceiling MEP/FP utilities.

F. Decking layout, Bent plates, and deck closures.

G. Base isolators with required clearances and access paths for removal

H. Lateral dampers along with required clearances.

5. HVAC Model

A. CAV's/VAV's/Phoenix Valves/FCU's/Humidifiers/AHU's or any other mechanical equipment and the associated access or code related clearance.

B. Valve train components and associated access or code related clearance.

C. Medium pressure duct and SMACNA required reinforcement and supports—required for coordination and routing of other trades.

D. Low pressure duct and SMACNA required reinforcement and supports—required for coordination and routing of other trades.

E. Shaft locations and supports—required for coordination and routing of other trades and for locating smoke dampers, etc.

F. Fire smoke dampers—required in coordination, especially if walls are also provided in the model.

G. Flex ducts—required for showing how low pressure ducts connect to the diffusers.

H. Diffuser locations and sizes—required for coordination of finish utilities with the other fixtures in a room (like electrical fixtures, etc.).

I. SMACNA required reinforcement and supports—Hangers and seismic bracing—required for coordination and routing of other trades and for inserting the deck correctly before installation begins.

J. HVAC piping to VAV and CAV boxes—required for coordination and routing of other trades.

K. All equipment and clearance plus access zones—required for coordination and routing of other trades (can be drawn as 3D blocks with accurate connection points).

L. CAV & VAV Boxes including all access zones required for maintenance.

M. Motors and access to motors/thermal resets, disconnect switches, and Damper access doors.

N. Insulation

O. Structural equipment pads

P. Access zones, no Fly zone (Radiant tubing areas).

Q. Wall and ceiling access doors (access zones shown above and below).

6. Mechanical Piping

- A. All ½” piping required for building system function
 - B. All insulation required
 - C. All equipment and housekeeping pads
 - D. All Valves
 - E. High point vents, drains, low point valves, etc.
 - F. Hangers and seismic bracing—required for coordination and routing of other trades and for inserting the deck correctly before installation begins.
 - G. Seismic joints and movement clearances
 - H. Access and clearance zones required
 - I. Wall and ceiling access doors (access zones shown above and below).
7. Electrical Model—include under slab electrical and low voltage
- A. All Conduit or bundles of wiring adding up to 1 1/2” in diameter and above are to be modeled. All homerun conduits from panel to homerun junction box will be modeled.
 - B. Feeder conduit—required for coordination with other trades.
 - C. Junction boxes associated with modeled devices or conduit homeruns required for coordination with other trades.
 - D. Lighting fixtures—required for coordination with other trades and finish utilities like ceiling grid, sprinkler heads, HVAC diffusers and specialty lighting.
 - E. Lighting supports and seismic required for architectural lighting that exceeds 20lbs.—required for routing and coordination of other trades.
 - F. Cable trays and supports—required for coordination with other trades.
 - G. Trapeze pathways for home runs—required for coordination.
 - H. Outlets and switch locations in rooms—Architectural model determines locations.
 - I. Hangers and seismic bracing associated with conduit home runs, large feeder runs, or trapeze pathways—required for coordination with other trades and for inserting the deck.
 - J. Equipment panels—required for coordinating with wall framing to determine backing, etc.
 - K. Electrical rooms—required for coordination with wall framing and other trades.
 - L. Fire alarm devices and equipment only—required for coordination with other trades.
 - M. Wall devices that could impact in-wall coordination.
 - N. Structural equipment pads
 - O. Access zones
 - P. Wall and ceiling access doors (access zones shown above and below).
8. Plumbing Model—including under slab plumbing.
- A. All piping ½” and greater along with any valves are to be modeled.
 - B. Plumbing fixtures including trap primers—required for coordination with other trades.
 - C. Graded cast iron pipe lines—required for coordination with other trades.

- D. Waste and vent lines—required for coordination with other trades and with architectural walls and shafts.
 - E. Cold and hot water piping including valves—required for coordination with other trades.
 - F. Gas piping and gas mains including valves, ZVB's, headwalls, etc.—required for coordination with other trades.
 - G. Piping to associated equipment
 - H. Hangers and seismic bracing—required for coordination with other trades and for inserting before installation.
 - I. Boiler and other equipment—required for coordination (can be drawn as 3d blocks with accurate connection points).
 - J. Specialty piping—required for coordination with other trades
 - K. Structural equipment pads
 - L. Insulation
 - M. Access zones
 - N. Wall and ceiling access doors (access zones shown above and below).
9. Sprinkler Model
- A. All piping ½" and associated valves or equipment greater are to be modeled.
 - B. Sprinkler mains and branches—required for coordination with other trades.
 - C. Sprinkler head drops—required for coordination with finish utilities like electrical lighting, diffusers, etc. Avoid using elements that are nonmanipulatable for connection to heads.
 - D. Sprinkler pipes—required for coordination with other trades.
 - E. Hangers—required for coordination with other trades.
 - F. Seismic bracing.
 - G. Clearance zones.
 - H. Access zones.
 - I. Wall and ceiling access doors (access zones shown above and below).
10. A/V Model
- A. All Conduit or bundles of wiring adding up to 1" in diameter and above are to be modeled
 - B. Rough in of ceiling support locations
 - C. Project light paths—useful to ensure proper viewing of projector image.
 - D. Cable tray—required if an extra tray is used for A/V.
11. Controls
- A. Wall mounted panels, terminal cabinets, in-line devices and other equipment including all clearances and access zones
 - B. All conduit required for coordination
12. Site Utilities
- A. All systems ¾" and greater

~~B. All fittings, valves, reinforcements, manholes, pumps or other eqp.~~

~~C. All clearances and access zones~~

~~13. Equipment~~

~~A. All Equipment that may affect the design or dimensions of a room~~

~~B. All point of connections~~

~~C. Access zones~~

~~D. Seismic bracing~~

~~11.2.16.Coordination Prioritization~~

~~1. The Construction coordination process will not interfere with the construction schedule. This Construction Coordination timing is critical so the team can receive approvals required prior to the first construction deck activity.~~

~~A. HVAC and Plumbing contractors will need to procure pipe anchor embeds to meet early concrete work as indicated in the schedule.~~

~~B. HVAC and Plumbing contractors will need to obtain approval on the seismic joints early in order to model the final locations correctly that correlate with the anchor locations. M&P contractors will drive anchor wall heights depending on routing and seismic joint elevation limitations.~~

~~C. Early approvals of major AHU and FCU equipment to ensure model connection points of the approved product and included in model~~

~~D. It is critical to the coordination process that the trades that will require seismic engineering, engage their preferred engineer as early as award. It is suggested that the project team utilize the same engineer to avoid unnecessary conflicts and engage in a more efficient seismic layout.~~

~~11.2.17.BIM Team Scopes~~

~~1. During BIM Construction coordination, modeling scopes will be prioritized by the Contractor per the requirements of the contract documents and the Contractor's Coordination Schedule.~~

~~2. Subcontractors shall develop 3D fabrication model for coordination with sufficient level of detail for accurate coordination.~~

~~3. Shop drawings shall be produced from the models used for construction coordination.~~

~~4. In general, all work in scope shall be modeled in the 3D environment.~~

~~11.2.18.Model Ownership~~

~~1. During construction, major ownership of the Construction Model is held by the Contractor., and contracts with all model authors (i.e.: subcontractors, consultants, etc.). The model authors are individually responsible for the content and outcome from the use of their model in the BIM.~~

~~2. At project completion, the ownership is transferred to the Contra Costa County Community College District.~~

~~11.2.19.Infrastructure~~

~~1. Common Platform~~

~~A. The primary collaboration platform is BIM 360 Collaborate. Access to BIM 360 Collaborate will be provided to each participating party by the Contractor. Subcontractors may consider Navisworks as alternatives for those additional users if appropriate. Access to software must not impact the performance of any team members.~~

~~2. BIM File Sharing~~

~~A. BIM 360 Collaborate will be used for collaboration and file sharing, with access rights provided by the Contractor, and file sharing for miscellaneous use by the subcontractors.~~

~~3. Hardware / Equipment~~

~~A. All participants will be expected to provide all necessary computers, software, and peripherals with sufficient capacity to ensure a reliable work flow.~~

~~11.2.20.Process~~

~~1. Model Flow Summary~~

~~A. Model flow is an iterative process involving the Model Authors, Model Managers, and the common model communication platform is BIM 360 Collaborate for this project.~~

~~B. The model flow begins with a Model Author and the design intent which it is derived from (plans, specifications, and RFI responses, etc.). The Model Authors predominantly communicate directly with the common platform, calling on any other model which they need to coordinate with, review, or back check. They also speak through the Model Managers for the following reasons:~~

~~11.2.20.1.B.1 Issues requiring contractor Input~~

~~11.2.20.1.B.2 Cumbersome coordination items / multi-trade~~

~~11.2.20.1.B.3 Model QA / QC by management~~

~~2. Design changes and RFI's~~

~~A. As RFI's and CO's are distributed, it is each trades responsibility to review and implement the response into their model. A log that documents this implementation will be kept and maintained by each trade and provided to the Contractor upon request.~~

~~B. Distribution of this log will be required prior to any BIM coordination meeting.~~

~~11.2.21.Model Collaboration~~

~~1. Each of the sub-contractor disciplines has communications through the General Contractor.~~

~~2. Contractor will assist the project team in determining when their model / plans need to change due to coordination results. Contractor, will be able to manage these communications by receiving a copy of any email, file transfer, or other means to satisfy open communications and keeping managers "in the loop."~~

~~3. BIM 360 Collaborate—Online Cloud-Based Collaboration tool.~~

~~4. It is strongly recommended to "Collaborate" on a regular basis (daily). Each participant does their own work and asked to share and correct their own model. It also recommended to visually inspecting each upload for quality that could impact other trades. BIM 360 Collaborate will automatically notify other parties and the Contractor's BIM Manager.~~

~~5. Through BIM 360 Collaborate, Contractor's BIM manager will be able to regularly (daily) monitor the coordination activities from each participant and how the activities were performed.~~

~~11.2.22. Process Flow~~

~~A. Detailing~~

~~11.2.22.1.A.1 Areas/zones for priority coordination are established by and scheduled by the Contractor. The schedule will direct the Team's focus on a week-by-week basis.~~

~~11.2.22.1.A.2 The subcontractor references the applicable 2D and 3D data to conduct its modeling.~~

~~B. Coordination & Clash Detection Process~~

~~11.2.22.1.B.1 The subcontractor produces a fabrication model based on the information provided and uploads their own model to BIM 360 Collaborate for collaboration and clash detection.~~

~~11.2.22.1.B.2 Each subcontractor will be responsible for resolving clashes of their trade by collaborating and communicating outside of Clash detection meetings in order to reduce the amount of conflict prior to these meetings.~~

~~11.2.22.1.B.3 The first clash detection and resolution meeting is hosted by the Contractor who has reviewed the unresolved model clashes and saved each as a viewpoint prior to the meeting. Through the meeting, resolutions are assigned and recorded among the trades~~

~~11.2.22.1.B.4 This process is repeated, requiring trades to review updated models and coordinate around any newly discovered clashes caused by their work, other subcontractors' work, and/or vendors until a given area is fully coordinated.~~

~~2. Coordination Expectations~~

~~A. It is expected that the trade contractors will perform QC checks for their discipline for completeness and design intent.~~

~~B. Each subcontractor shall be responsible for updating backgrounds and models with all approved Change Orders affecting them, constructability review items, and any RFI responses throughout the project. They shall also raise to the attention of the Contractor any previous construction model issues not updated within the current construction model.~~

~~C. The BIM process is suited to improve coordination of the design and construction process, as well as deliver improved information for facility management. Required files and documents will be uploaded to the Contractor's designated collaboration site. The Contractor and Sub-contractors are required to coordinate models between specialties to verify clearance, analyze conflicts/clashes and deliver quality documentation to reduce RFI and Change order submissions.~~

~~D. The subcontractor is required to understand and coordinate with the work of all other trades in the development of the 3D model. The subcontractor shall check and provide quality control over the work of their detailers, preferably by a foreman, so that their 3D model accurately represent the design intent as it will be exactly installed in the field to operate properly in a fully integrated system that meets all building codes and the requirements of other jurisdictions and local agencies over this project (Fire Marshall, ADA,). Any deviation during installation should be notified by the trade responsible and approved by the Contractor and the Architect of Record.~~

~~E. If the Contractor or subcontractor lacks the in-house modeling, hardware and/or software to accurately generate the 3D Model, it may outsource this modeling effort to a 3rd party. Any 3rd party information should be included in the BIM Execution Plan.~~

~~F. It is recommended that the geometry from the BIM should be exported to total station or equal for an accurate, coordinated construction layout. This will increase efficiency in the layout of systems, reduce overall margin of error and ultimately preserve design intent during construction.~~

~~G. Project Drawings and required for construction will be extracted from this model. The final "As-built" model is what will be integrated to the District's facilities management programs.~~

~~H. Background creation for coordination must be produced by the trade that is in need of another trades background. This can be done by downloading said Revit model and exporting the necessary backgrounds or through model links.~~

~~12. Model Authors~~

~~1. Their internal modeling process for each trade is not described in the scope of this manual, but the collaboration process is as follows:~~

~~2. Contractor assigns action items to project team members during the subcontractor clash resolution meetings, and the viewpoints are sent to the relevant Model Author. PDF pen markups are also useful. A coordination meeting is held with the BIM Construction Team members in the days following, where the issues are viewed and resolved.~~

~~3. The Model Authors shall arrive at the meeting with an idea of how each of their clashes can be resolved. Each clash is discussed collaboratively, and action items are assigned and recorded.~~

~~4. The Model Author (or subcontractor(s) if assigned) makes the changes to their model and back checks against any newly discovered clashes caused by this work or other changes that may be concurrent.~~

~~5. The model file is posted (Collaborated) to BIM 360 Collaborate daily and clashed daily.~~

~~6. BIM 360 Collaborate will automatically update the facilitated model with the model and it is the responsibility of the model author to review their model against the facilitated model for new or resolved clashes.~~

~~7. Responsible for providing the required information of all access requests of the model for BIM 360 Collaborate.~~

~~13. Data Management~~

~~1. Purpose~~

~~13.1.1. The objective of the data management guidelines is to establish the framework for the successful capture and management of normalized facility data in order to ensure an efficient migration into systems used for facilities management (FM).~~

~~13.1.2. As-builts are accurate and available in a file format that can support change management.~~

~~13.1.3. Data is properly normalized (no redundancies) to ensure efficient transition at handover to facility management.~~

~~2. Key Software Applications~~

~~13.2.1. BIM Applications (Revit 2018, BIM 360 Collaborate, Navisworks)~~

~~13.2.2. Construction coordination software (Navisworks, BIM360 Collaborate)~~

~~13.2.3. Project Management software (Procore see section 01-31-80)~~

~~3. A project designated as a “BIM Project” typically includes deliverables produced both in BIM and non-BIM Applications. For example, the architectural model may be produced in Revit, while mechanical and electrical models are produced in CAD-based software. It is critical to set up proper data management procedures before the project is started to enable appropriate data collection and exchange regardless of how many applications are being used by the project delivery team.~~

~~4. The Construction BIM Team (including trades) will perform continuous collecting, entering, validating, updating and exporting design, construction data from/into BIM and other data sources. The BIM Construction Team should focus on how they will apply the following objectives of the data management process to ensure process efficiencies.~~

13.4.1. Capture data as it is created—eliminate redundant data collection efforts where possible;

13.4.2. Implement objective measure for quality control—provide transparent methods to review progress against deliverable requirements

5. The Process Data Management overview starts with the District providing a set of standard naming conventions for equipment, space designation/ zone naming policies, and a minimum set of required attributes for equipment, systems and zones. The BIM Construction Team uses the provided standards from the beginning to avoid renaming BIM objects or searching for missing attributes later in the project. It is required that the BIM Construction Team uses BIM applications for data assignments (not CAD) for all disciplines due to the data-oriented nature of BIM applications.

6. The Contractor sets up one or more milestones during construction to check data for accuracy. The required information to be checked at those milestones will be provided by the BIM Construction Team in advance. The District and Architect of Record reviews the provided models for data accuracy. If there are issues with the data, the model is returned to the BIM Construction Team for corrections.

7. When the Contractor reports that the BIM is ready for construction and the model matches the requirements, it is submitted to the Architect of Record. The Construction BIM Team uses the Construction Model to create shop drawings. The Construction BIM Team can use the design model for reference but does not have to rely on it, except for maintain the naming conventions and space assignments for objects. For example, if there is an object in the BIM with an Instance Name fields value equal to “FSD 25” and its Room Number field is equal to “2311” in the design model, then the construction model should also have an object with an instance Name equal to “FSD 25” and its Room Number equal to “2311”, unless the object is moved or deleted. Construction BIM Team will maintain proper naming conventions in their models.

8. Data Management and integration—Additional data related information

13.8.1. For the purposes of using the model for maintenance management, if there are several MEP spaces in the same room (i.e. above ceiling, below floor), those spaces will be classified as one room, unless there is a plenum.

13.8.2. Plenums are defined as a separate space.

13.8.3. Rooms identified in the model, should have Room objects assigned to it.

13.8.4. Room boundaries should be properly connected. All spaces must be bounded by walls and floors. 13.8.5. The MEP model should have spaces mapped to the architectural model and all lifecycle targeted MEP equipment should be assigned to spaces.

13.8.6. Zones (Revit areas) should be defined and each zone consists of spaces.

13.8.7. Every space has a name and a room number, including the roof if there is rooftop equipment. 13.8.8. All mechanical systems are defined (every element belongs to a system) I.e. chilled water, hot water, etc.

14. Deliverables

1. The 2D conversion takes place after, or during, the process described in this document. The result of the collaborative, 3D-based construction coordination process is one with input and buy-in from many project participants. Each of the deliverables listed below shall have undergone review by each trade foreman and/or project manager for the following

14.1.1. Conformance with Project Drawings and Specifications.

14.1.2. 2D CAD, PDF, and native Revit (.rvt) files are required

1. Revit files will include the information that will be extracted for future facilities management uses.

2. The final products include:

14.2.1. Coordinated P.O.S. (Penetrations, Openings, & Sleeve) drawings which contain locations of any penetrating system through the slab, deck, roof or concrete wall.

14.2.2. Coordinated shaft drawings which contain dimensions of all deck openings as well as locations of all systems and equipment located with a shaft including supports and insulation.

14.2.3. Coordinated insert and point load drawings

14.2.4. Coordinated priority wall drawings

14.2.5. Coordinated equipment pad and layout drawings

14.2.6. Coordinated composite reflected ceiling plan which accurately shows all ceiling mounted devices and equipment.

14.2.7. Coordinated shop drawings

14.2.8. Reviewed and approved by the Architect of Record.

14.2.9. Coordinated native 3D models for construction fabrication and field installation.

14.2.10. Models of the project and set of drawings in PDF format showing locations of all concealed conditions, and the actual dimensions of all architectural, structural, mechanical, electrical, plumbing, security and fire protections elements, components, and systems.

14.2.11 Delivery of a model that locates construction elements to a reasonable proximity. Changes made during construction of more than a few inches from the design should be reflected in the model.

14.2.12 Tolerances of model. Models are to be accurate to +/- 1" of Actual Size and Location for all concealed/hidden components

15. Model Maintenance

1. Each construction model author is responsible for maintaining their models through the construction coordination phase. For example: when RFI's and Change Orders are issued impacting the location of walls and ceilings an updated construction model should be issued. RFI's and changes impacting Finishes would not be issued as a model file. Any RFI's and Change Orders affecting subcontractors require the model authors to update. All as-built changes are also required to be updated.

2. Model maintenance also includes data filing for the Team. The guidelines for uploading files must be followed in order to prevent re-filing and to ensure archiving is preserved.

3. During the coordination periods, all participant of this process should make best efforts to keep their models up to date with all changes. These latest models will be distributed to the MEP/FP, Exterior Envelope, drywall subcontractors on a weekly basis unless more frequent updates are needed.

16. Construction and the Model

1. Through the Construction Coordination phase, the BIM Construction Team has determined the most effective scopes of the project to be modeled and the level of detail therein. All systems are fully coordinated as agreed to by the BIM Construction Team. When this detailed preplanning translates into the physical construction, any arising issues are resolved by using the model in the field. However, when discrepancies exist between the 2D and the model, 2D documents take precedence with consideration of the approved federated model. In physical construction, any arising issues are resolved by using the model in the field.

2. Once an area, floor, or the entire project has been modeled and coordinated, the BIM Leader will publish a Protected Navisworks file (.NWD) and distribute to the BIM Construction Team. Each BIM team member will also plot their drawings for "sign-off" by all trades. By the act of signature and submittal, each subcontractor acknowledges their coordinated portion of the work for installation with all other trades, not limited to

mechanical, electrical, architectural, and structural, fire protection and framing contractors. The Navisworks (protected file) will take precedence over the 2D sign-off drawings when clashes occur and there is a dispute over the accuracy of signed drawings to the 3D Model. Contractor will use these documents to resolve field conflicts that may occur.

3. Contractor shall take responsibility for any and all coordination drawings created by subcontractors for backgrounds, elevations, dimensions, routing paths, sizes, and service access areas

16.4.1. All elements are to be installed per the coordinated BIM. This is typically achieved through the use of point layout, prefabrication, layout drawings, and inserts. It is expected that there may still be deviation from these methods. This will be a maximum tolerance of +/- 2".

16.4.2. For all items that are not able to be installed through the use of these methods, there are specific tolerances required. With reference to a model, those items are categorized below:

1. If an item cannot be installed per the above expectation, they are subject to the following tolerances: A. LOD 500 will be a maximum tolerance of +/- 6" B. LOD 450 will be a maximum tolerance of +/- 12" C. LOD 400 and below will have a maximum tolerance of +/- 24"

2. Concealed items within a wall or chase will have a maximum tolerance of +/- 6". Those systems are:

A. Gas

B. Plumbing

C. Hydronic

3. The Point of Connection to and LOD 500 equipment, would adopt the LOD 500 requirement. This adopted LOD ends at the Point of Connection and does not apply to the entire system. A. Receptacles are not considered a Point of Connection.

16.4.3. The model will be used as a tool to assist in the resolution of any conflict created in the field. All items not modeled are to be coordinated around the model.

17. Conforming vs. Non-Conforming Work:

1. Any work performed or installed that differs from the Construction BIM and/or Construction Documents shall be considered Non-Conforming Work.

2. Any work performed or installed that is not modeled and/or coordinated as previously agreed with the contractor will be considered Non-Conforming Work.

3. No work including work based on Change Orders will be performed without the completed 3D model and signed coordination shop drawings, any such work will be considered Non-Conforming Work.

4. Non-Conforming Work includes any and all seismic and anchorage points not shown on signed coordination drawings.

5. Conforming Work is work that has been modeled and clearly shown on signed shop drawings with proper elevations, dimensions, routing paths, service access areas and has been fully coordinated and signed off by all trades for acceptance.

6. Non-Conforming Work that conflicts with Conforming Work will, therefore, have to be moved by the installing Non-Conforming Work Contractor at no additional cost to the Owner this includes any schedule impacts.

7. In the event that Conforming Work may have to be moved or modified to correct the conflict, the installing contractor with the Non-Conforming Work shall be liable for the cost incurred by those BIM Construction Team members in order to accommodate installation of all Non-Conforming Work.

~~8. Non-Conforming Work will not have precedent over Conforming Work.~~

~~9. In the event that “Conforming Work” conflicts with “Conforming Work”, meaning conflicts missed during the coordination process, trades that are in conflict will have to re-coordinate the conflict either in the field or by 3D modeling and Navisworks. At no time will this re-coordination, re-work installation, or schedule impacts become a cost to the Owner.~~

~~10. Any work shall be considered ‘Non-conforming’ if the trade has not modeled per specific plan details as required even though what is modeled may be clash free as this will show up as potential conflicts or access issues during construction.~~

END OF SECTION 00 54 36

**SECTION 00 55 00
NOTICE TO PROCEED**

Date:

To:

Address:

PROJECT: COMMUNITY STADIUM UPGRADE PROJECT

You are hereby notified to commence work in accordance with the Contract dated _____, 20__, on or before _____, 20__, and you shall complete the work in accordance with Section 00 52 00, Construction Agreement Form. The date of Substantial Completion is xx/xx/202x, and the date for Final Completion is xx/xx/202x..

Redwoods Community College District

By: _____
Authorized District Signature

END OF SECTION 00 55 00

**SECTION 00 61 13
PERFORMANCE BOND
(CALIFORNIA PUBLIC WORK)**

WHEREAS, the Governing Board of the Redwoods Community College District (“District”), at its meeting on _____, 20___, has awarded to _____ (“Principal”), the Contract for performance of the following project (“Project”): COMMUNITY STADIUM UPGRADE PROJECT

WHEREAS, the work to be performed by the Contractor is more particularly set forth in that certain contract for said Public Work dated _____, (hereinafter referred to as the “Contract”), which Contract is incorporated herein by this reference; and

WHEREAS, the Principal is required under the terms of the Contract to furnish a bond to the District as obligee ensuring its full and faithful performance of the Contract Documents, which are fully incorporated herein by this reference,

NOW, THEREFORE, we, the Principal and _____, as Surety, hereby guarantee the Principal’s full, faithful and complete performance of the Contract Document requirements in the penal sum of _____ dollars (\$_____) for the payment of which sum will and truly be made, we bind ourselves, our heirs, executors, administrators and successors, jointly, severally, and firmly by this agreement to perform or have performed all of the work and activities required to complete the Project pursuant to the Contract Documents and to pay to the District all damages the District incurs as a result of the Principal’s failure to fully perform in accordance with the Contract Documents.

THE CONDITION OF THE OBLIGATION IS SUCH THAT if the Principal, its heirs, executors, administrators, successors or assigns shall in all things abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract Documents and any amendment thereof made as therein provided, on its or their parts to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall insure and indemnify and save harmless the District, its officers and agents, as therein stipulated, then this obligation shall become null and void. Otherwise, it shall be and remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that it shall not be exonerated or released from the obligation of this bond (either by total exoneration or pro tanto) by any change, extension of time, alteration in or addition to the terms of the contract or to the work to be performed there under or the specifications accompanying the same, nor by any change or modification to any terms of payment or extension of time for any payment pertaining or relating to any scheme of work of improvement under the contract. Surety also stipulates and agrees that it shall not be exonerated or released from the obligation of this bond (either by total exoneration or pro tanto) by any overpayment or underpayment by the Obligee that is based upon estimates approved by the Architect. The Surety stipulates and agrees that none of the aforementioned changes, modifications, alterations, additions, extension of time or actions shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, modifications, alterations, additions or extension of time to the terms of the contract, or to the work, or the specifications as well notice of any other actions that result in the foregoing.

Whenever Principal shall be, and is declared by the Obligee to be, in default under the Contract, the Surety shall promptly either remedy the default, or shall promptly complete the Contract through its agents or independent contractors, subject to acceptance and approval of such agents or independent contractors by Obligee as hereinafter set forth, in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of liquidated damages; or, at Obligee’s sole discretion and election, Surety shall obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Obligee of the lowest responsible bidder, arrange for a contract between such bidder and the Obligee and make available as Work progresses (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the “balance of the Contract price” (as hereinafter defined), and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of liquidated damages. The term “balance of the Contract price,” as used in this paragraph, shall mean the total amount payable to Principal by the Obligee under the Contract and any modifications thereto, less the amount previously paid by the Obligee to the Principal, less any withholdings by the Obligee allowed under the Contract.

Surety expressly agrees that the Obligee may reject any agent or contractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Principal. Unless otherwise agreed by Obligee, in its sole discretion, Surety shall not utilize Principal in completing the Contract nor shall Surety accept a bid from Principal for completion of the work in the event of default by the Principal.

No final settlement between the Obligee and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

The Contractor and Surety shall remain responsible and liable for all patent and latent defects that arise out of or are related to the Contractor’s failure and/or inability to properly complete the Public Work as required by the Contract and the Contract Documents. The obligation of the Surety hereunder shall continue so long as any obligation of the Contractor remains.

Contractor and Surety agree that if the Obligee is required to engage the services of an attorney in connection with enforcement of the bond, Contractor and Surety shall pay Obligee’s reasonable attorneys’ fees incurred, with or without suit, in addition to the above sum.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including reasonable attorneys’ fees to be fixed by the Court.

In witness whereof, this instrument has been duly executed by the Principal and Surety on the _____ day of _____, 20____.

PRINCIPAL/CONTRACTOR:

By: _____

SURETY:

By: _____

Attorney-in-Fact

The rate of premium on this bond is _____ per thousand.

The total amount of premium charged: \$ _____ (This must be filled in by a corporate surety).

PAYMENT BOND

WHEREAS, the Redwoods Community College District (“District”) and the Contractor, _____ (“Principal”) have entered into a contract (“Contract”) for the furnishing of all materials, labor, services, equipment, tools, supervision and transportation necessary, convenient and proper for the COMMUNITY STADIUM UPGRADE project (“Project”) which Contract dated _____, 2____, and all of the Contract Documents made part thereof are fully Incorporated herein by this reference; and

WHEREAS, Contractor/Principal is required by Division 4, Part 6, Title 3, Chapter 5 (commencing at Section 9550) of the California Civil Code to furnish a bond in connection with the contract;

NOW, THEREFORE, we, the Contractor/Principal and _____ a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California as Surety, are held firmly bound unto Redwoods Community College District (“Owner”) and to any and all persons, companies, or corporations entitled by law to file stop notices under California Civil Code Section 9100, or any person, company, or corporation entitled to make a claim on this bond in the penal sum of \$_____ Dollars (\$_____), said sum being not less than one hundred percent (100%) of the total amount payable by said Obligee under the terms of said Contract, for which payment will and truly to be made, lawful money of the United States of America for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Contractor/Principal, his/her or its heirs, executors, administrators, successors, or assigns, or a subcontractor, shall fail to pay any person or persons named in Civil Code Section 9100 or fail to pay for any materials or other supplies used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to work or labor thereon of any kind, or shall fail to deduct, withhold, and pay over to the Employment Development Department any amounts required to be deducted, withheld, and paid over by Section 13020 of the Unemployment Insurance Code with respect to work and labor thereon of any kind, then said Surety will pay for the same, in or to an amount not exceeding the amount set forth above, and in case suit is brought upon this bond Surety will also pay such reasonable attorney’s fees as shall be fixed by the court, awarded and taxed as provided in Division 4, Part 6, Title 3, Chapter 5 (commencing at Section 9550) of the California Civil Code.

This bond shall inure to the benefit of any of the persons named in Section 9100 of the California Civil Code so as to give a right of action to such person or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety of this bond shall not be exonerated or released from the obligation of the bond by any change, extension of time for performance, addition, alteration, or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement described above or pertaining or relating to the furnishing of labor, materials, or equipment therefor, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement described above, nor by any rescission or attempted rescission of the contract, agreement, or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled

to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond, and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the Owner and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Section 8400 and 8402 of the California Civil Code and has not been paid the full amount of his/her or its claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration, or modification.

In witness whereof, this instrument has been duly executed by the Principal and Surety this _____ day of _____, 20__.

PRINCIPAL/CONTRACTOR:

By: _____

SURETY:

By: _____

Attorney-in-Fact

IMPORTANT: THIS IS A REQUIRED FORM.

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant or loan funds, Surety's name must also appear on the Treasury Department's most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of agent or representative for service for service of process in California)

Telephone: _____

Telephone: _____

STATE OF CALIFORNIA)

) ss.

COUNTY OF HUMBOLDT)

On _____ before me, _____,
(insert name and title of the officer)

a Notary Public in and for said State, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument as the Attorney-in-Fact of the _____ (Surety) and acknowledged to me that he/she/they subscribed the name of the _____ (Surety) thereto and his own name as Attorney-in-Fact on the executed instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public in and for said State (SEAL)

Commission expires: _____

NOTE: A copy of the power-of-attorney to local representatives of the bonding company must be attached hereto.

The above bond is accepted and approved this ____ day of _____, 20__.

By: _____

Authorized District Signature

END SECTION 00 61 13

**Section 00 70 00
CONTRACT**

This Contract ("Contract") is made by and between the Redwoods Community College District ("District"), and _____ ("Contractor").

District and Contractor hereby agree as follows:

1. Description of Work

The Contractor agrees to furnish all labor, materials, equipment, tools, supervision, appurtenances, and services, including transportation and utilities, required to perform and satisfactorily complete all work required for the following project ("Project") in full conformance with the Contract Documents:

2. Contract Documents

The Contract Documents consist of the executed Contract and all Addenda, all approved change orders, the completed Bid Form, the required Bonds and the Insurance forms, the Notice Inviting Bids, the Instructions to Bidders, the Notice of Award, the Notice to Proceed, the General Conditions and any supplemental conditions, the Technical Specifications, the Drawings, the completed Bidder's Questionnaire, and _____

_____.

3. Compensation

As full compensation for the Contractor's complete and satisfactory performance of the work and activities described in the Contract Documents, the District agrees to pay Contractor, and Contractor agrees to accept the sum of _____ Dollars (\$ _____), which shall be paid to the Contractor according to the Contract Documents.

4. Prevailing Wages and Labor Compliance

This Project is subject to prevailing wage requirements and Contractor and its Subcontractors are required to pay all workers employed for the performance of this Contract no less than the applicable prevailing wage rate for each such worker. The project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations. In accordance with SB 854, all bidders, contractors and subcontractors working at the site shall be duly registered with the Department of Industrial Relations at time of bid opening and at all relevant times. Proof of registration shall be provided as to all such contractors prior to the commencement of any work.

5. Time for Completion

The starting date of the Contract shall be the day listed by the District in the Notice to Proceed and the Contractor shall fully complete all the work before the expiration of _____ calendar days from the starting date. Time is of the essence in the performance of this Contract.

6. Liquidated Damages

Liquidated damages for the Contractor's failure to complete the Contract within the time fixed for completion are established in the amount of \$_____ per calendar day.

IN WITNESS WHEREOF, the parties agree to the terms of this Contract on the day and year written below.

District

Contractor

Resolution No. _____

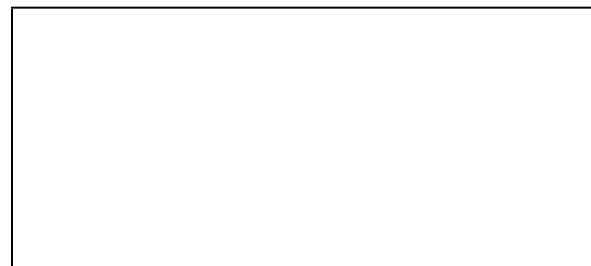
Contractor License No.
and Expiration Date

Date

By: _____
Individual Signature

Title

Date



For: _____
Corporation or Partnership

If Corporation, Affix Seal.

GENERAL CONDITIONS

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1. DEFINITIONS

Addendum: A written change or revision to the Contract Documents issued to the prospective bidders prior to the time of receiving bids.

Alternate: The sum to be added to or deducted from the base Bid if the change in scope of work as described in Alternates is accepted by the District.

Approved: Approved by the District or the District's authorized representative unless otherwise indicated in the Contract Documents.

Architect: The person or firm holding a valid license to practice architecture or engineering which has been designated (if any designated) to provide architectural or engineering design services on this Project. When Architect is referred to within the Contract Documents and no architect or engineer has in fact been designated, then the matter shall be referred to the District Superintendent or designee.

As Directed: As directed by the District or its Architect, unless otherwise indicated in the Contract Documents.

As Selected: As selected by the District or its Architect, unless otherwise indicated in the Contract Documents.

Bid: The properly completed and signed proposal to perform the construction work for the Project as described in the Contract Documents.

Construction Manager: The individual or entity named as such by the District. If no Construction Manager is designated for the Project, all references to the Construction Manager in these Contract Documents shall mean the District and/or its designee.

Contract: The legally binding agreement between the District and the Contractor wherein the Contractor agrees to furnish the labor, materials, equipment, and appurtenances required to perform the work described in the Contract Documents and the District agrees to pay the Contractor for such work.

Contract Documents: The Contract Documents are described in the Contract for this Project.

Contractor: The person or entity holding a valid license in the State of California required for performing this Project and who has contracted with the District to perform the construction work described in the Contract Documents. The term Contractor shall be construed to mean all of the officers, employees, Subcontractors, suppliers, or other persons engaged by the Contractor for the work of this Project.

District and/or Owner: The District, its Governing Board, authorized officers and employees, and authorized representatives.

DSA: The State of California Division of the State Architect which has the authority to review, approve and inspect the design, alteration and construction of school buildings.

Final Completion: Final Completion is achieved when the Contractor has fully completed all Contract Document requirements, including, but not limited to, all final punch list items, to the District's satisfaction.

Inspector: The person engaged by the District to conduct the inspections required by the Education Code and Title 24.

Furnish: Purchase and deliver to the site of installation.

Governing Board: The Governing Board of the District.

Indicated or As Shown: Shown on drawings and/or as specified.

Install: Fix in place, for materials; and fix in place and connect, for equipment.

Modification: An authorized change to the Contract Documents which may or may not include a change in contract price and/or time.

Project: The total construction work and activities described in these Contract Documents.

Secure: Obtain.

Subcontractor: A person, firm, or corporation, duly licensed by the State of California, who has a contract with the Contractor to furnish labor, materials and equipment, and/or to install materials and equipment for work in this Contract.

2. ARCHITECT

The Architect is responsible for the overall design of the Project. The working drawings, technical Specifications, sketches and other information necessary to define the work covered by these Contract Documents have been prepared by the Architect. The Architect shall visit, inspect and observe the construction to determine general compliance with the Contract Documents, and interpret the drawings and Specifications consistent with their intent. The Architect shall evaluate the samples and other submittals required in the technical Specifications, and maintain an up-to-date log of all such items processed. The Architect will consult with the District, Contractor, and any state, county or city agency having jurisdiction over the work whenever necessary to further the best interests of the Project.

3. CONTRACT DOCUMENTS

a. Contents and Precedence

The Contract Documents consist of the executed Contract and all Addenda, all approved change orders, the completed Bid Form, the required Bonds and the Insurance forms, the Notice Inviting Bids, the Instructions to Bidders, the Notice of Award, the Notice to Proceed, the General Conditions, any supplemental Conditions, the Technical Specifications, the Drawings and the completed Bidder's Questionnaire. The Contract Documents are complementary and anything required by one shall be as binding as if required by all. In case of conflicts within the Contract Documents, the order of precedence of interpretation shall be as listed above, with the executed Contract and any change order thereto having priority, and subsequent Addenda having priority over prior Addenda only to the extent modified by the subsequent Addenda. In case of conflict within the drawings, larger scale drawings shall govern smaller scale drawings, and written dimensions shall govern over scaled dimensions.

b. Ambiguities, Errors, and Inconsistencies

If, in the opinion of the Contractor, the construction details indicated on the drawings or otherwise specified are in conflict with accepted industry standards for quality construction and therefore might interfere with its full guarantee of the work involved, the Contractor shall promptly bring this information to the attention of the Architect for appropriate action before submittal of the bid. Contractor's failure to request clarification or interpretation of an apparent ambiguity, error or inconsistency waives that Contractor's right to thereafter claim any entitlement to additional compensation based upon an ambiguity, inconsistency, or error, which should have been discovered by a reasonably prudent Contractor, subject to the limitations of Public Contract Code §1104. During the Project, should any discrepancy appear or any misunderstanding arise as to the import of anything contained in the Contract Documents, the matter shall be promptly referred to the Architect, who will issue instructions or corrections.

c. Lines and Planes

All lines and planes appearing on Contract drawings to be horizontal or vertical and not explicitly indicated otherwise shall be constructed true and plumb. All lines and planes appearing on Contract drawings to intersect at right angles and not explicitly indicated otherwise shall be constructed at true right angles. Where details are indicated covering specific conditions, such details also apply to all similar conditions not specifically indicated.

d. Standards

The specification standards of the various sections of the Specifications shall be the procedural, performance, and material standards of the applicable association publications identified and shall be the required level of installation, materials, workmanship, and performance for the applicable work. Except where a specific date of issue is mentioned hereinafter, references to specification standards shall mean the edition, including amendments and supplements, in effect on the date of the Notice Inviting Bids. Where no standard is identified and a manufacturer is specified, the manufacturer's specifications are

the standards. All standards shall be subordinate to the requirements of the applicable codes and regulations.

e. Reference to the Singular

Wherever in the Specifications an article, device or piece of equipment is referred to in the singular number, such reference shall include as many such items as are shown on drawings or required to complete the installation.

4. INTENT OF DRAWINGS AND SPECIFICATIONS

- a. Drawings and Specifications are to be read as an integrated document. The Contractor shall promptly report to the Architect any ambiguities, discrepancies, or errors which come to the Contractor's attention.
- b. Figured dimensions shall be followed in preference to scaled dimensions, and the Contractor shall make all additional measurements necessary for the work and shall be responsible for their accuracy. Before ordering any material or doing any work, the Contractor shall verify all measurements at the Project site and shall be responsible for the correctness of same.
- c. It is the intent of the drawings and Specifications to show and describe complete installations. Items shown but not specified, or specified but not shown, shall be included unless specifically omitted.
 - 1) The Specifications shall be deemed to include and require everything necessary and reasonably incidental to the completion of all work described and indicated on the drawings, whether particularly mentioned or shown, or not.

5. TRADE DIVISIONS

Segregation of the Specifications into the designated trade divisions is only for the purpose of facilitating descriptions and shall not be considered as limiting the work of any subcontract or trade. Subject to other necessary provisions set forth in the Specifications, the terms and conditions of such limitations or inclusions shall lie solely between the Contractor and its Subcontractors. "Scope" as indicated in each section of the Specifications shall serve only as a general guide to what is included in that section. Neither the stated description nor the division of the plans and Specifications to various sections, which is done solely for convenience, shall be deemed to limit the work required, divide or indicate it by labor jurisdiction or trade practice, or set up any bidding barriers to the various sub-contractors or suppliers.

- a. The Contractor shall be responsible for the proper execution of all work required by the Contract Documents and for allocating such portions as the Contractor sees fit to the various Subcontractors, subject to applicable law. The Contractor is cautioned that the various individual sections may not contain all work that the Contractor may wish to allocate to a particular Subcontractor or everything bearing on the work of a particular trade, some of which may appear in other portions of the plans or Specifications.

- b. If the Contractor elects to enter into any subcontract for any section of the work the Contractor assumes all responsibility for ascertaining that the Subcontractor for the work is competent, licensed, solvent, thoroughly acquainted with all conditions and legal requirements of the work, has included all materials and appurtenances in connection therewith in the subcontract, and has performed its work in strict compliance with the Contract Documents.
- c. It shall be the responsibility of the Contractor to notify each prospective Subcontractor at the time of request for bids of all portions of the Contract Documents, including the General Conditions, Supplementary Conditions and any parts of sections of Specifications or plans that the Contractor intends to include as part of the subcontract.

6. MASTER MANDATORY PROVISIONS

- a. Any material, item, or piece of equipment mentioned, listed or indicated without definition of quality, shall be consistent with the quality of adjacent or related materials, items, or pieces of equipment on the Project.
- b. Any method of installation, finish, or workmanship of an operation called for, without definition of standard of workmanship, shall be followed or performed and finished in accordance with best practices and consistent with adjacent or related installations on the Project.
- c. Any necessary material, item, piece of equipment or operation not called for but reasonably implied as necessary for proper completion of the work shall be furnished, installed or performed and finished; and shall be consistent with adjacent or related materials, items, or pieces of equipment on the Project, and in accordance with best practices.
- d. Names or numbered products are to be used according to the manufacturers' directions or recommendations unless otherwise specified.

7. CONTRACTOR

- a. The Contractor shall perform all the work and activities required by the Contract Documents and furnish all labor, materials, equipment, tools and appurtenances necessary to perform the work and complete it to the District's satisfaction within the time specified. The Contractor shall at all times perform the work of this Contract in a competent and workmanlike manner and, if not specifically stated, accomplish the work according to the best standards of construction practice. The Contractor in no way is relieved of any responsibility by the activities of the architect, engineer, inspector or DSA in the performance of such duties.
- b. The Contractor shall employ a full-time competent superintendent and necessary assistants who shall have complete authority to act for the Contractor on all matters pertaining to the work. The superintendent shall be satisfactory to the District and, if not satisfactory, shall

be replaced by the Contractor with one that is acceptable. Also, the superintendent shall not be changed without the written consent of the District unless the superintendent ceases to be employed by the Contractor.

- c. Contractor shall make the layout of lines and elevations and shall be responsible for the accuracy of both the Contractor's and the Subcontractors' work resulting therefrom. All dimensions affecting proper fabrication and installation of all Contract work must be verified by the Contractor prior to fabrication and installation by taking field measurements of the true conditions. The Contractor shall take, and assist Subcontractors in taking, all field dimensions required in performance of the work, and shall verify all dimensions and conditions on the site. If there are any discrepancies between dimensions in drawings and existing conditions which will affect the work, the Contractor shall promptly bring such discrepancies to the attention of the Architect for adjustment before proceeding with the work. Contractor shall be responsible for the proper fitting of all work and for the coordination of all trades, Subcontractors and persons engaged upon this Contract.
- d. Contractor shall do all cutting, fitting, or patching of Contractor's work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors as shown, or reasonably implied by, the drawings and Specifications for the completed work. Any cost incurred by the District due to defective or ill-timed work shall be borne by the Contractor.

8. RESPONSIBILITY OF CONTRACTOR

- a. Contractor shall be held strictly responsible for the proper performance of all work covered by the Contract Documents, including all work performed by Subcontractors. All work performed under this Contract shall comply in every respect to the rules and regulations of all agencies having jurisdiction over the Project or any part thereof.
- b. Contractor shall submit Verified Reports as defined in §§4-336 and 4-343 (c), Group 1, Chapter 4, Part I, Title 24, California Code of Regulations ("CCR"). The duties of the Contractor are as defined in §4-343, Group 1, Chapter 4, Part I, Title 24, of the CCR. Contractor shall keep and make available a copy of Title 24 of the CCR at the job site at all times.
- c. Where, because of short supply, any item of fabricated materials and/or equipment, indicated on drawings or specified is unobtainable and it becomes necessary, with the consent of the Architect, to substitute equivalent items differing in details or design, the Contractor shall promptly submit complete drawings and details indicating the necessary modifications of the work. This provision shall be governed by the terms of the General Conditions regarding Submittals: Shop Drawings, Cuts and Samples.
- d. With respect to work performed at and near a school site, Contractor shall at all times take all appropriate measures to ensure the security and safety of students and staff, including, but not limited to, ensuring that all of Contractor's employees, Subcontractors,

and suppliers entering school property strictly adhere to all applicable District policies and procedures, e.g., sign-in requirements, visitor badges, and access limitations.

9. SUBCONTRACTORS

- a. Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the District. The District shall be deemed to be the third party beneficiary of the contract between the Contractor and each Subcontractor. If the Contractor does not specify a Subcontractor for any portion of the work to be performed under this Contract, as required by law, Contractor shall perform that portion of the work with its own forces. The Contractor shall not substitute any other person or firm as a Subcontractor for those listed in the bid submitted by the Contractor, without the written approval of the District and in conformance with the requirements of the Public Contract Code. The District reserves the right of approval of all Subcontractors proposed for use on this Project, and to this end, may require financial, performance, and such additional information as is needed to secure this approval. If a Subcontractor is not approved, the Contractor shall promptly submit another firm of the same trade for approval.
- b. The Contractor shall insert appropriate provisions in all subcontracts pertaining to work on this Project requiring the Subcontractors to be bound by all applicable terms of the Contract Documents. The Contractor shall be as fully responsible for the acts and omissions of the Subcontractors, and of persons either directly or indirectly employed by them, as the Contractor is for the acts and omissions of persons directly employed by the Contractor.

10. PERFORMANCE AND PAYMENT BONDS

- a. As directed in the Notice of Award, the Contractor shall file with the District the following bonds, using the bond forms provided with these Contract Documents:
 - 1) A corporate surety bond, in a sum not less than 100 percent of the amount of the Contract, to guarantee the faithful performance of the Contract.
 - 2) A corporate surety bond, in a sum not less than 100 percent of the amount of the Contract, to guarantee the payment of wages for services engaged and of bills contracted for materials, supplies, and equipment used in the performance of the Contract.
- b. Corporate sureties on these bonds and on bonds accompanying bids must be admitted sureties as defined by law, legally authorized to engage in the business of furnishing surety bonds in the State of California. All sureties and bond forms must be satisfactory to the District. Failure to submit the required bonds within the time specified by the Notice of Award, using the forms provided by the District, may result in cancellation of the award of Contract and forfeiture of the Bid Bond.
- c. The amount of the Contract, as used to determine the amounts of the bonds, shall be the total amount fixed in the Contractor's proposal for the performance of the required work.

- d. During the period covered by the Contract, if any of the sureties upon the bonds shall become insolvent or unable, in the opinion of the District, to pay promptly the amount of such bonds to the extent to which surety might be liable, the Contractor, within thirty (30) days after notice given by the District to the Contractor, shall provide supplemental bonds or otherwise substitute another and sufficient surety approved by the District in place of the surety becoming insolvent or unable to pay. If the Contractor fails within such thirty (30) day period to substitute another and sufficient surety, the Contractor shall, if the District so elects, be deemed to be in default in the performance of its obligations hereunder and upon the bid bond, and the District, in addition to any and all other remedies, may terminate the Contract or bring any proper suit or other proceedings against the Contractor and the sureties or any of them, or may deduct from any monies then due or which thereafter may become due to the Contractor under the Contract, the amount for which the surety, insolvent or unable to pay, shall have been liable on the bonds, and the monies so deducted shall be held by the District as collateral security for the performance of the conditions of the bonds.

11. INSURANCE

- a. Contractor shall obtain insurance from a company or companies acceptable to District. All required insurance must be written by an admitted company licensed to do business in the State of California at the time the policy is issued. All required insurance shall be equal to or exceed an A VIII rating as listed in Best's Insurance Guide's latest edition. Required documentation of such insurance shall be furnished to the District at the time Contractor returns the executed Contract. Contractor shall not commence work nor shall it allow its employees or Subcontractors or anyone to commence work until all insurance required hereunder has been submitted and approved by the District and a notice to proceed has been issued.
- b. Contractor shall take out and maintain at all times during the life of this Contract, up to the date of acceptance of the work by the District, the following policies of insurance:
 - 1) General Liability Insurance: Personal injury and replacement value property damage insurance for all activities of the Contractor and its Subcontractors arising out of or in connection with this Contract, written on a comprehensive general liability form including contractor's protected coverage, blanket contractual, completed operations, vehicle coverage and employer's non-ownership liability coverage, in an amount no less than either:
 - a. \$__,000,000.00 combined single limit personal injury and property damage for each occurrence and \$__,000,000.00 annual aggregate with a \$___ umbrella/excess; or
 - b. \$__,000,000.00 annual combined single limit.
 - 2) Builders Risk Insurance:

___ Contractor is not required to procure and maintain builders' risk insurance (all-risk coverage).

___ Contractor shall procure and maintain builders' risk insurance (all-risk coverage) on a one hundred percent completed value basis on the insurable portion of the project for the benefit of the District, and the Contractor and subcontractor as their interest may appear.

3) Automobile Liability Insurance: Covering bodily injury and property damage in an amount no less than \$___,000,000 combined single limit for each occurrence. Such insurance shall include coverage for owned, hired, and non-owned vehicles and be included on the umbrella/excess policy.

c. The certificate(s) for the _____ both the General Liability Policy(ies) and the Automobile Liability Policy specified above must state that the insurance is under an occurrence based, and not claims made, policy(ies) and shall be endorsed with the following specific language:

“The _____ District is named as additional insured for all liability arising out of the operations by or on behalf of the named insured, and this policy protects the additional insured, its officers, agents and employees against liability for bodily injuries, deaths or property damage or destruction arising in any respect directly or indirectly in the performance of the Contract.”

d. The certificate(s) for the both the General Liability Policy and the Automobile Liability Policy, as well the Builders' Risk Policy if required above, shall be endorsed with the following specific language:

- 1) The inclusion of more than one insured shall not operate to impair the rights of one insured against another insured and the coverages afforded shall apply as though separate policies have been issued to each insured.
- 2) The insurance provided herein is primary and no insurance held or owned by the District shall be called upon to contribute to a loss.
- 3) Coverage provided by this policy shall not be reduced or canceled without thirty (30) days written notice given to the Owner by certified mail.
- 4) This policy does not exclude explosion, collapse, underground excavation hazard, or removal of lateral support.
- 5) The certificates must state that the insurance is under an occurrence based, and not a claims-made, or "modified occurrence," policy (policies).

e. Within ten (10) days following issuance of the Notice of Award of the Contract, the following documentation of insurance shall be submitted to District for approval prior to

issuance of the Notice to Proceed: Certificates of insurance showing the limits of insurance provided, certified copies of all policies, and signed copies of the specified endorsements for each policy. At the time of making application for an extension of time, the Contractor shall submit evidence that the insurance policies will be in effect during the requested additional period of time.

f. If the Contractor fails to maintain such insurance, the District may take out such insurance to cover any damages of the above mentioned classes for which the District might be held liable on account of the Contractor's failure to pay such damages, and deduct and retain the amount of the premiums from any sums due the Contractor under the Contract.

g. Workers' Compensation Insurance:

- 1) Within ten (10) calendar days following issuance of the Notice of Award of the Contract, the Contractor shall furnish to the District satisfactory proof that the Contractor and all Subcontractors it intends to employ have procured, for the period covered by the Contract, full Workers' Compensation insurance and employer's liability with limits of at least \$1,000,000 with an insurance carrier satisfactory to the District for all persons whom the Contractor may employ in carrying out the work contemplated under this Contract in accordance with the Workers' Compensation Insurance and Safety Act, approved May 26, 1913, and all acts amendatory or supplemental thereto (the "Act"). Such insurance shall be maintained in full force and effect during the period covered by the Contract. In the event the Contractor is self-insured, Contractor shall furnish a Certificate of Permission to Self-Insure, signed by the Department of Industrial Relations Administration of Self-Insurance, Sacramento, California.
- 2) If the Contractor fails to maintain such insurance, the District may take out worker's compensation insurance to cover any compensation which the District might be liable to pay under the provisions of the Act, by reason of any employee of the Contractor being injured or killed, and deduct and retain the amount of the premiums for such insurance from any sums due the Contractor under the Contract, or otherwise recover that amount from the Contractor or the Surety.
- 3) If an injury occurs to any employee of the Contractor for which the employee, or the employee's dependents in the event of the employee's death, is entitled to compensation under the provisions of the Act, or for which compensation is claimed from the District, the District may retain from the sums due the Contractor under this Contract an amount sufficient to cover such compensation, as fixed by the Act, until such compensation is paid, or until it is determined that no compensation is due, and if the District is compelled to pay such compensation, it will deduct and retain from such sums the amount so paid, or otherwise recover this sum from the Contractor or its Surety.
- 4) The policies represented by the certificates shall be endorsed with a Waiver of Subrogation and must contain the provision (and the certificates must so state) that

the insurance cannot be canceled until thirty (30) days after written notice of intended cancellation has been given to the District by certified mail.

12. CODES AND REGULATIONS

- a. The Contractor shall be knowledgeable regarding and shall comply with applicable portions of California Code of Regulations Title 24, the applicable Building Code, and all other codes, ordinances, regulations or orders of properly constituted authority having jurisdiction over the work of this Project. The Contractor shall examine the Contract Documents for compliance with these codes and regulations and shall promptly notify the Architect of any discrepancies.
- b. All work and materials shall be in full accordance with the latest rules and regulations of the Safety Orders of the Division of Industrial Safety and the applicable State laws and/or regulations. Nothing in the Project plans or Specifications is to be construed to permit work not conforming to the applicable Codes. Buildings and/or all other construction covered by this Contract shall meet all the regulations for access by the physically handicapped as administered by the Division of the State Architect and as may be required by federal or state law.
- c. If the work under this Contract is for the construction of a school building as defined by the Education Code, then the following provisions shall apply to the Contract:
 - 1) All work shall be executed in accordance with the current requirements of the Education Code and California Code of Regulations: Title 24 and Title 19. No deviations from the DSA approved plans and Specifications will be permitted except upon a Change Order or Addenda, signed by the District and Architect and approved by the Division of the State Architect and the State Fire Marshal, if applicable.
 - 2) The Division of the State Architect shall be notified 48 hours in advance of the first pour of concrete.

13. PERMITS AND TAXES

- a. The Contractor shall obtain and pay for all permits, fees and licenses that are required in order to perform the work under this Contract. The District shall pay connection charges and meter costs for new permanent utilities required by these Contract Documents. The Contractor shall notify the District sufficiently in advance to submit requests for service to the appropriate utility companies so as to insure connections or installation of utility services in accordance with the Project schedule.
- b. The Contractor shall pay for all taxes on materials and equipment. The District is exempt from Federal Excise Tax. Contractor shall not pay Federal Excise Tax on any item in this Contract.

14. PATENTS AND ROYALTIES

All fees or claims for patents, royalties or licenses on materials, equipment or processes used in the performance of work on this Project shall be included in the amount of the Bid. The Contractor shall indemnify, defend, and hold harmless the District, its Governing Board, the Architect, and their officers and employees, from all claims or liability, including costs and expenses, which may arise from the use on this Project of any patented or copyrighted materials, equipment, or processes.

15. SAFETY AND FIRE PREVENTION

- a. The Contractor, Subcontractors and all of their agents and employees shall fully comply with all of the provisions and requirements of CAL/OSHA, Title 8, California Code of Regulations and all other safety codes applicable to the Project. The Contractor shall take thorough precautions at all times for the protection of persons and property, and shall be liable for all damages to persons or property, either on or off the site, which occur as a result of Contractor's prosecution of the work. The Contractor shall obtain permits for, install and maintain in safe condition barricades, walkways, fences, railings, and whatever other safeguards that may be necessary to protect persons and property from damage as a result of the construction under this Contract.
- b. Contractor is required to ensure Material Safety Data Sheets ("MSDS") are available in a readily accessible place at the work site for any material requiring a MSDS pursuant to the federal "Hazard Communication" standard or employee "right to know" laws. Contractor is also required to ensure proper labeling on materials brought on the job site such that any person working with the material or within the general area of the material is informed of the hazards of the material and follows proper handling and protection procedures. A copy of the MSDS shall also be promptly submitted directly to the District.
- c. Contractor shall not endanger any work by cutting, excavating, or otherwise altering the work and shall not cut or alter the work of any other contractor except with the written consent of the Architect, nor overload any new or existing structures by the placing or storage of materials, equipment, or other items thereon, and, if necessary, shall provide calculations proving the safety in so doing.
- d. If it is necessary to work at night, or where daylight is obscured, the Contractor shall provide and maintain lighting of an adequate level to properly prosecute the work, to permit the thorough inspection of same, and to ensure the safety to workers and others.
- e. Contractor shall take extraordinary care to prevent fires and keep all flammable materials and oily rags in tightly closed metal containers. Contractor shall exercise particular care when welding or cutting, and with regard to the disposition of waste materials, the nature and quantity of which might create or increase a fire hazard.

16. HAZARDOUS MATERIALS

Unless otherwise specified, this Contract does not include the removal, handling, or disturbance of any hazardous substances or materials encountered in the new construction or on the Project

grounds. If such substances or materials are encountered, work shall cease in that area and the District shall be promptly notified to take appropriate action for removal or otherwise abating the condition in accordance with current regulations applicable to the District.

a. General

- 1) No asbestos, asbestos-containing products or other hazardous materials shall be used in this construction or in any tools, devices, clothing or equipment used to further this construction.
- 2) Asbestos and/or asbestos containing products shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremo-lite or actinolite.
- 3) Any or all material containing greater than one tenth of one percent (>.1%) asbestos shall be defined as asbestos-containing material.
- 4) Any disputes involving the question of whether or not material contains asbestos shall be settled by electron microscopy; the cost of any such tests shall be paid by the Contractor.
- 5) All work or materials found to contain asbestos or work or material installed with asbestos containing equipment will be immediately rejected and this work shall be removed by the Contractor at no additional cost to the District.

b. Decontamination and Removal of hazardous material from prior work

- 1) Decontamination and removal of work found to contain asbestos or work installed with asbestos containing equipment shall be done only under the supervision of a qualified consultant, knowledgeable in the field of asbestos abatement and accredited by the Environmental Protection Agency (“EPA”).
- 2) The asbestos removal contractor shall be an EPA-accredited contractor qualified in the removal of asbestos subject to the approval of the District.
- 3) The asbestos consultant shall be chosen and approved by the District which shall have sole discretion and final determination in this matter.
- 4) The work will not be accepted until asbestos contamination is reduced to levels deemed acceptable by the asbestos consultant.

c. Hold Harmless

- 1) Interface of work under this Contract with work containing asbestos shall be executed by the Contractor at Contractor’s risk and at Contractor’s discretion with full knowledge of the currently accepted standards, hazards, risks and liabilities

associated with asbestos work and asbestos containing products. By execution of this Contract the Contractor acknowledges the above and agrees to hold harmless, as set forth in the indemnity provisions of this Contract, the Owner, its employees, agents and assigns for all asbestos liability which may be associated with this work and agrees to instruct Contractor's employees and agents with respect to the above-mentioned standards, hazards, risks and liabilities.

- 2) The Contractor shall, prior to commencement of this work, provide a duly signed and notarized affidavit that Contractor has instructed Contractor's employees and agents with respect to the above mentioned standards, hazards, risks and liabilities and the contents and requirements of this portion of the Contract Documents.

d. Certification

The Contractor agrees that materials containing asbestos or other hazardous materials as defined in Federal and State law shall not be used in construction.

17. TEMPORARY FACILITIES

- a. The Contractor shall obtain permits for, install and maintain in safe condition all scaffolds, hoisting equipment, barricades, walkways, or other temporary structures that may be required to accomplish the work. Such structures shall be adequate for the intended use and capable of safely accepting all loads that may be imposed upon them. They shall be installed and maintained in accordance with all applicable codes and regulations.
- b. The Contractor shall provide and maintain temporary heat from an approved source whenever in the course of the work it may become necessary for curing, drying or warming spaces as may be required for the proper installation of materials or finishes. The Contractor shall provide and maintain any and all facilities that may be required for dewatering in order that work may proceed on the Project. If it is necessary for dewatering to occur continually, the Contractor shall have on hand whatever spare parts or equipment that may be required to avoid interruption of service or work.
- c. The Contractor shall promptly remove all such temporary facilities when they are no longer needed for the work or on completion of the Project. The Contractor shall repair any damage to premises or property which resulted from the construction, use, or removal of temporary facilities and shall restore the premises and property to their original condition.
- d. See the Supplemental General Conditions and/or specifications for requirements concerning temporary sanitary facilities and utilities.

18. SIGNS

No signs may be displayed on or about the District's property (except those which may be required by law) without the District's prior written approval of size, content and location. Any signs required by the District will be designated in the Supplemental General Conditions.

19. TIME

- a. The Contractor shall commence the work on the date indicated in the Notice to Proceed. Time is of the essence regarding the Contract work, and the Contractor shall prosecute the work diligently and regularly at such a rate of progress as to ensure completion of this Project within, or sooner than, the time specified.
- b. The Contractors and Subcontractors shall investigate and become aware of the amount of time required for the delivery of all equipment and materials required to perform the work under this Contract, and no extension of time shall be granted due to failure to order the equipment and materials sufficiently before their incorporation into the work so as to avoid delay to the Project.
- c. The Contractor and Subcontractors shall provide and maintain enough manpower, materials and equipment to ensure a rate of construction progress that will complete the Project within or sooner than the time specified and according to the schedule of work. If, in the District's opinion, the Contractor and/or Subcontractors are not prosecuting the work at a sufficient rate of progress to meet the Project schedule, the District may direct the Contractor to provide additional manpower, materials or equipment, or to work additional hours, holidays or weekends without additional cost to the District until the work is progressing in a manner satisfactory to the District. Failure to prosecute the work in a timely manner according to the Project schedule is considered a breach of Contract and shall be cause for termination of the Contract.

20. CONSTRUCTION SCHEDULE

- a. Within fifteen (15) calendar days after the award of the Contract, the Contractor shall prepare and submit to the Architect and District an as-planned construction schedule showing in detail how the Contractor plans to prosecute the work within the time set for Final Completion. The schedule shall include the work of all trades necessary for construction of the Project, and shall be sufficiently complete and comprehensive to enable progress to be monitored on a day-by-day basis. The information for each activity shall include at a minimum the activity description, duration, start date and completion date.
- b. The Contractor shall take care in the preparation of the schedule to ensure that it represents an accurate and efficient plan for accomplishing the work. If the Project is more than one week behind schedule, it must be promptly revised showing how the Contractor plans to complete the work, but in no case shall it show a completion date later than that required by the Contract, unless a time extension has been granted. The current schedule shall be kept posted in the Contractor's project office on site.
- c. The Contractor shall be responsible for the coordination of all work necessary and pertaining to the construction whether actually a part of this Contract or attendant thereto. The Contractor shall notify the District and various utility companies, as far as possible in advance of their required work, in order that work schedules may be developed for all

concerned, which will permit the most effective and timely accomplishment of the entire Project.

21. DELAYS AND TIME EXTENSIONS

- a. The Contractor may be granted a time extension if the Contractor encounters an unavoidable delay of the work due to causes completely beyond the Contractor's control and which the Contractor could not have avoided by the exercise of reasonable care, prudence, foresight and diligence. Causes for which a claim for extension of time may be made include: acts of the public enemy, acts of another contractor in the performance of another contract with the District, priority of a governmental agency for materials or equipment, fire, flood, violent wind storm, epidemic, quarantine restriction, strike, freight embargo, or weather of an unusually severe nature. The Contractor will not be granted time extensions for weather conditions which are normal for the location of the Project, according to the U. S. Weather Bureau Records.
- b. A request for extension of time and compensation related thereto shall be made in writing to the Architect and District within ten (10) calendar days of the date the delay is encountered, or shall be deemed waived. The request shall include a detailed description of the reasons for the delay and corrective measures by the Contractor. The request shall be accompanied by evidence that the insurance policies required by the Contract shall be in effect during the requested additional period of time. In order for the Architect to consider a request for time extension, the Contractor must prove that the reasons stated for the delay actually caused a delay in portions of the work which will result in completion beyond the date specified in the Contract. The Contractor may also be granted a time extension for a significant change in the scope of work which request for extension of time shall be included in a Contract modification proposal.
- c. No damages or compensation or any kind shall be paid to a Contractor because of delays in the progress of work, whether such delays be avoidable or unavoidable, that are not the responsibility of District. District's liability to Contractor for delays for which District is responsible shall be limited to an extension of time unless such delays were unreasonable under the circumstances involved and were not within the contemplation of the parties when the Contract was awarded. The Contractor shall provide to the District the actual, substantiated costs to Contractor for which the Contractor may claim damages from District. Such costs, if any, shall be directly related to the Project, and shall not include costs that would be borne by the Contractor in the regular course of business, including, but not limited to, office overhead and ongoing insurance costs. Delay damages shall not include Contractor or Subcontractor markup for overhead and profit, but only actual, documented, and direct actual costs. The District shall not be liable for any damages which the Contractor could have avoided by any reasonable means including, but not limited to, the more judicious handling of forces or equipment.
- d. The granting of an extension of time because of unavoidable delays shall in no way operate as a waiver on the part of the District of the right to collect liquidated damages for other delays or of any other rights to which the District is entitled.

22. LIQUIDATED DAMAGES

- a. The parties understand and agree that the goodwill, educational process, and other business of District will be damaged if the Project is not completed within the time limits required. The parties have further agreed that the exact amount of damages for failure to complete the Work within the time specified is, in some cases, extremely difficult, impractical, or impossible to determine. As to those damages that are difficult, impractical, or impossible to determine, Should the Contractor fail to achieve Final Completion of this Contract within the time fixed for Final Completion, together with extensions granted by the District for unavoidable delays, Contractor shall become liable to the District in the amount specified in the Contract per calendar day for each day the Contract remains incomplete beyond the time for Final Completion, as liquidated damages and not as a penalty. Contractor shall not be charged with liquidated damages when the delay in completion of the work beyond the time for Final Completion is due to acts of the District.
- b. Any money due or to become due the Contractor may be retained to cover liquidated and other delay damages. Should such money not be sufficient to cover those damages, the District shall have the right to recover the balance from the Contractor or Contractor's sureties.
- c. Should the District authorize suspension of the work for any cause, the time work is suspended will be added to the time for completion. Suspension of the work by the District shall not be a waiver of the right to claim liquidated or other delay damages as set forth in this section.

23. DISTRICT'S RIGHT TO STOP WORK; TERMINATION OR SUSPENSION OF THE CONTRACT

a. District's Right to Stop Work:

In addition to or as an alternative to any and all other remedies available to the District, if the Contractor fails to correct work which is not performed in accordance with the Contract Documents, or if the Contractor persistently fails to perform the work in accordance with the Contract Documents, the District may by written order direct the Contractor to stop the work, or any portion thereof, until the cause for such order has been eliminated to the satisfaction of the District. However, the right of the District to stop the work shall not give rise to a duty on the part of the District to exercise this right for the benefit of the Contractor or any other person or entity, and the failure of the District to do so shall not be raised as a defense to the Contractor's failure to perform the work in accordance with the Contract Documents.

b. Termination for Cause:

- 1) If the Contractor refuses or fails to furnish sufficient materials, work force, equipment, and appurtenances to properly prosecute the work in a timely manner, or if Contractor refuses or fails to comply with any provisions of the Contract

Documents, or if Contractor should file a bankruptcy petition or make a general assignment for the benefit of Contractor's creditors or if a receiver should be appointed on account of Contractor's insolvency, then the District may give the Contractor and Contractor's Surety written notice of intention to terminate the Contract. Unless within seven (7) calendar days after the serving of such notice upon the Contractor and Contractor's Surety such violation shall cease and arrangements for correction of such conditions shall be made satisfactory to the District, the Contract shall cease and terminate. In the event of such termination, the District shall immediately serve written notice thereof upon the Contractor and Contractor's Surety.

- 2) In the event of termination for cause, in addition to all remedies available to the District, the Contractor's Surety shall have the right to take over and perform the Contract; provided, however, that if the Surety does not commence performance within five (5) calendar days from the date of the issuance of such notice of termination, the District may take over the work and prosecute the same to completion by letting another Contract, or by any other method that the District deems advisable. The Contractor and Contractor's Surety shall be liable for any excess cost incurred by the District thereby, and in any such event the District may take possession of such materials, equipment, and other property belonging to the Contractor as may be on the site and use same in completing the work.

c. Termination or Suspension for Convenience:

The District reserves the right, in its sole discretion, to terminate or suspend all or part of the Contract for convenience following three (3) days written notice to the Contractor. In the event of termination or suspension for convenience, Contractor shall have no claims against the District, except:

- 1) The actual cost of labor, materials and services provided pursuant to the Contract, and which have not yet been paid for, as documented by timesheets, invoices, receipts and the like; and
- 2) Five percent (5%) of the total cost of the work performed as of the date of notice of termination or suspension or five percent (5%) of the value of the work yet to be completed, whichever is less. The parties agree that this amount shall constitute full and fair compensation for all Contractors lost profits and other damages resulting from the termination or suspension for convenience.

24. ASSIGNMENT OF CONTRACT

The Contractor may not assign or delegate all or any portion of this Contract without the written consent of the District and no such consent shall be given which would relieve the Contractor or its Surety of their responsibilities under the Contract. The Contractor may assign, without liability to the District, monies due the Contractor under the Contract to banks, trust companies or other financial institutions provided written notice thereof is promptly delivered to the District.

Assignment of monies earned by the Contractor shall be subject to the same retention as other payments made to Contractor, and shall also be subject to setoffs and back charges as provided by this Contract.

25. COORDINATION WITH OTHER CONTRACTS

- a. The District reserves the right to do other work or award other contracts in connection with this Project. By entering into this Contract, Contractor acknowledges that there may be other contractors on or adjacent to the Project site whose work must be coordinated with that of its own. Contractor expressly warrants and agrees that it will cooperate with other contractors and will do nothing to delay, hinder, or interfere with the work of other contractors, or that of the District, its Architect and Construction Manager. Contractor also expressly agrees that in the event its work is hindered, delayed, interfered with, or otherwise affected by a separate contractor, its sole remedy will be a direct action against the separate contractor. To the extent allowed by law, the Contractor expressly waives any remedy against the District, its Architect and Construction Manager on account of delay, hindrance, interference or other such events caused by a separate contractor.
- b. If any part of Contractor's work depends upon the work of a separate contractor, Contractor shall inspect such other work and promptly report in writing to the District and Architect any defects in such other work that render it unsuitable to receive the work of Contractor. Failure of the Contractor to so inspect and report shall constitute an acceptance of the other contractor's work, except as to defects which the Contractor could not have detected through the reasonable inspection of the other contractor's work prior to the execution of Contractor's work.
- c. If Contractor is aware of a current or potential conflict between Contractor's work and the work of another contractor on the site, and is unable to informally resolve the conflict directly with the other contractor, Contractor shall promptly provide written notice to the District, with a copy to the Architect and the other contractor, specifying the nature of the conflict, the date upon which the conflict arose, and the steps taken to attempt to resolve the conflict. The District may issue written instructions to address the conflict.
- d. If, through Contractor's negligence, any other contractor or subcontractor shall suffer loss or damage to the work, Contractor shall make a reasonable effort to settle with such other contractor and subcontractor by agreement or arbitration. If such other contractor or subcontractor shall assert any claim against the District or Architect, on account of any damage alleged to have been so sustained, the District or Architect shall notify the Contractor, who shall defend such proceedings at Contractor's own expense and save harmless and indemnify the District and the Architect from any such claim.

26. SUBMITTALS: SHOP DRAWINGS, CUTS AND SAMPLES

- a. Five (5) copies of shop drawings, brochures and cuts and samples in quantities specified by the Architect shall be submitted to the Architect for all items for which they are required by the plans and Specifications. Prior to transmittal, the Contractor shall examine all submittals

for accuracy and completeness in order to verify their suitability for the work and compliance with the Contract Documents and shall sign and date each submittal. Submittals shall be made sufficiently before the items are required for the work so as to cause no delay and shall be in accordance with the Project construction schedule.

- b. In addition to information furnished as common practice, submittals shall contain the Project name and location, Contractor's name and address, Subcontractor's or supplier's name and address, date of submittal and any revisions, and reference to appropriate specification section, and/or drawing and detail numbers. The Contractor and/or the Subcontractors shall verify in the field all dimensions and relationships to adjacent work necessary to ensure the proper fit of the items submitted. If necessary, the Contractor shall make any corrections required and resubmit with all due haste in the same number as initially required.
- c. Review of submittals, shop drawings, cuts or samples by the District or Architect shall not relieve the Contractor from complying with the requirements of the Contract Documents.
- d. Any materials or equipment installed without approval shall be at the Contractor's own risk, and Contractor may be required to remove any such materials or equipment and install the specified items at Contractor's own cost, including repairs to adjacent work.

27. PAYMENTS

a. Cost Breakdown:

Prior to submitting Contractor's first request for payment, the Contractor shall prepare and submit to the Architect and District a cost breakdown (schedule of values) showing the major work items for each trade or operation required in construction of the Project. The work items shall be sufficiently detailed to enable the Architect to accurately evaluate the completion percentages requested by the Contractor. The cost for each work item shall include overhead and profit. The total of all work item costs shall equal the amount of the Contract.

b. Scope of Payment:

Payment to the Contractor at the unit price or other price fixed in the Contract for performing the work required under any item or at the lump sum price fixed in the Contract for performing all the work required under the Contract shall be full compensation for furnishing all labor, materials, equipment and tools necessary to the work, and for performing and completing, in accordance with the Specifications, all work required under the item or under the Contract, and for all expense incurred by the Contractor for any purpose in connection with the performance and completion of the work.

c. Progress Payments:

The Contractor will, on or about the last day of each month, make an estimate of the value of the work completed by Contractor in the performance of the Contract. These estimates

shall be subject to the review and approval of the Architect. The first such estimate will be of the value of the work completed after the Contractor commenced the performance of the Contract, and every subsequent estimate, except the final estimate, will be of the value of the work completed since the immediately preceding estimate. Such estimates will be based on labor, materials and equipment incorporated into the work, and items of materials and equipment delivered to the Project. The Contractor shall be responsible for the security and protection of such materials and equipment delivered to the Project and not incorporated in the work. Within thirty (30) calendar days after the approval of each estimate for progress payment, the District will pay to the Contractor an amount equal to ninety five (95) percent of the approved estimate, unless a different retention percentage is stated in the Notice Inviting Bids, in which case that percentage applies. Payments may at any time be withheld if in the judgment of the District the work is not proceeding in accordance with the Contract Documents, the Contractor is not complying with the requirements of the Contract, stop notices have been timely filed, the estimate contains an error, or the District has incurred costs or requests reasonable financial assurances regarding defective work by the Contractor.

d. Final Payment:

Within thirty (30) days after all required work is fully completed in accordance with the Contract Documents, the Contractor shall submit a final invoice for the total value of the work completed in accordance with the Contract, which shall be subject to review and approval by the District. As required by law, District shall pay Contractor the unpaid balance of the Contract price of the work, or the whole Contract price of the work if no progress payment has been made, determined in accordance with the terms of the Contract, less such sums as may be lawfully retained under any provision of the Contract, including, but not limited to, amounts retained as liquidated damages, for stop notices, for third-party claims for which the Contractor is required to indemnify the District, for defective work and costs incurred by the District in connection therewith, or for other such claims and damages attributable to the Contractor (“Final Payment”). Prior progress estimates and payments are subject to correction in the Final Payment. Tender of the Final Payment shall constitute denial by the District of any unresolved claim. Contractor’s acceptance of the Final Payment shall operate as a full and final release to the District and its agents from any and all unasserted claims Contractor has, or may have, related to this Contract.

e. Payments Do Not Imply Acceptance of Work:

The granting of any progress payment or payments by the District or the receipt thereof by the Contractor shall not constitute acceptance of the work or of any portion thereof, and shall in no way lessen the liability of the Contractor to replace unsatisfactory work or material, whether or not the unsatisfactory character of such work or material was apparent or detected at the time such payment was made.

f. Retention of Sums Charged Against Contractor:

It is mutually understood and agreed that when under any provision of this Contract the District shall charge any sums of money against the Contractor, the amount of such charge

shall be deducted and retained by the District from the amount of the next succeeding progress estimate, or from any other monies due or that may become due the Contractor on account of the Contract. If on completion or termination of the Contract such monies due the Contractor are found insufficient to cover the District's charges against the Contractor, the District shall have the right to recover the balance from the Contractor or the Contractor's Sureties.

g. Release:

The Contractor and each assignee under an assignment in effect at the time of Final Payment shall, if required by the District, execute and deliver at the time of Final Payment and as a condition precedent to Final Payment, a release in form and substance satisfactory to and containing such exemptions as may be found appropriate by the District, discharging the District, its officers, agents and employees of and from liabilities, obligations and claims arising under this Contract.

h. Payment to Subcontractors and Suppliers:

The Contractor shall pay each Subcontractor and supplier promptly on receipt of each progress payment from the District for the materials, labor and equipment delivered to the site or incorporated in the work by each Subcontractor during the period for which the progress payment is made, less any retention as provided above.

i. Stop Notice Costs:

The District reserves the right to charge the Contractor or Surety, or to withhold from release of retention, all costs incurred by the District, including attorney's fees, for processing and defending stop notice claims.

28. MODIFICATIONS OF CONTRACT

a. Changes In The Work:

- 1) The District, before the date of acceptance of the work, may, without notice to the Sureties, order changes in the work ("Modifications"), may order extra materials and extra work in connection with the performance of the Contract, and the Contractor shall promptly comply with such orders. All Modifications must be approved by DSA and the State Fire Marshall, if applicable, as required by law.
- 2) If changes ordered in design, workmanship or materials are of such a nature as to increase or decrease the cost of any part of the work, the price fixed in the Contract shall be increased or decreased by such amount as represents the reasonable and proper allowance for the increase or decrease in the cost of the work in accordance with the provisions of this Article, and any other applicable terms of the Contract, including, but not limited to, the Contractor's schedule of values and the price for

allowances, if any. Except as provided by law, the total cost of all Modifications shall not exceed ten (10) percent of the original Contract price.

- 3) In the case of a disputed work item, the District may direct the Contractor to perform the disputed work at no additional cost to the District on the grounds that the work is adequately indicated in the Contract Documents, and therefore already included in the Contract price. If the Contractor maintains that the disputed work represents a modification to the Contract, Contractor may submit a claim in accordance with Article 50, Resolution of Construction Claims. Notwithstanding any dispute regarding the requirements of the Contract Documents, Contractor shall promptly and fully comply with the District’s directive. Contractor’s failure to do so shall be deemed a material breach of this Contract, and in addition to all other remedies, District may, at its sole discretion, hire another contractor and/or use its own forces to complete the disputed work at Contractor’s sole expense, and may deduct the cost of such work from the Contract price.

b. Cost Breakdown:

When the Modification is proposed, the Contractor shall furnish a complete breakdown of actual costs of both credits and extras, itemizing materials, labor, taxes, overhead and profit. Subcontract work shall be so indicated. All costs must be fully documented. The following limitations shall apply:

1) Limitations Where Contract Price Changes are Involved:

- (a) Overhead and Profit for the Contractor. The Contractor's overhead and profit on the cost of subcontracts shall be a sum not exceeding ten percent (10%) of such costs. The Contractor's overhead and profit on the costs of work performed by the Contractor shall be a sum not exceeding fifteen percent (15%) of such costs. Overhead and profit shall not be applied to the cost of taxes and insurance by Contractor or Subcontractors or to credits. No processing or similar fees may be charged by the Contractor in connection with the Modification. “Overhead and profit” shall include all plant, equipment rental and repair, project management, field coordination, job site project supervision and indirect labor and materials.
- (b) Bond Premiums. The actual rate of bond premiums as paid on the total cost (including taxes) will be allowed, but with no markup for profit and overhead.
- (c) Taxes. State and city sales taxes should be indicated. Federal excise tax shall not be included. (District will issue an exemption on request.)

2) Change Order Certification:

All change orders and requests for proposed change orders shall be deemed to include the following certification by the Contractor:

"The undersigned Contractor approves the foregoing as to the changes in work, if any, and as to the Contract price specified for each item and as to the extension of time allowed, if any, for completion of the Project as stated herein, and agrees to furnish all labor, materials, and service and to perform all work necessary to complete any additional work specified for the consideration stated herein. Submission of claims which have no basis in fact or which Contractor knows are false are made at the sole risk of the Contractor and may be a violation of the False Claims Act, as set forth in Government Code §§12650 *et seq.* It is understood that the changes to the Contract Documents set forth herein shall only be effective upon approval by the Governing Board of the District.

"It is expressly understood that the value of the extra work or changes expressly includes any and all of the Contractor's costs and expenses, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included herein are deemed waived."

c. Unit Prices, Schedule of Values, or Allowances:

Where Unit Prices, a Schedule of Values, and/or Allowances are required by the Contract Documents, that pricing shall govern in computing any additions to or deductions from the Contract price on account of any added or omitted work. Unit Prices listed in the original bid include all costs and no addition of any description will be allowed.

d. Time and Materials:

If it is impractical, because of the nature of the work, or for any other reason, to fix an increase in price in advance, the Change Order may fix a maximum price which shall not under any circumstances be exceeded, and subject to such limitation, such alteration, modification or extra shall be paid for at the actual necessary cost as determined by the sum of the following items (1) to (5) inclusive:

- 1) Labor, including premium on compensation insurance and charge for Social Security taxes, and other taxes pertaining to labor.
- 2) Material, including sales taxes and other taxes pertaining to materials.
- 3) Plant and equipment rental, to be agreed upon in writing before the work is begun. No charge for the cost of repairs to plant or equipment will be allowed.
- 4) Overhead and profit computed at fifteen percent (15%) of the total of Items (1) to (3) inclusive.

- 5) The proportionate cost of premiums on bonds computed at one and one-half percent (1-1/2%) of the total of items (1) to (4) inclusive.

If the Time and Materials work is done by a Subcontractor, the amount shall be determined as set forth above under items (1) to (5) inclusive. The Contractor's overhead and profit on the costs of subcontracts (exclusive of taxes and insurance) shall not exceed ten percent (10%) of such costs.

The District reserves the right to furnish such materials as it may deem expedient, and no allowance will be made for profit thereon. The above-described methods of determining the payment for work and materials shall not apply to the performance of any work or the furnishing of any material which, in the judgment of the District, may properly be classified under items for which prices are established in the Contract.

e. Oral Modifications:

No oral statements of any person shall in any manner or degree modify or otherwise affect the terms of the Contract.

29. INDEMNITY

Contractor shall defend with counsel acceptable to the District, indemnify and hold harmless to the full extent permitted by law, the District and its Board of Trustees, officers, agents, Architect, construction manager, employees and volunteers from and against any and all liability, loss, damage, claims, expenses, fines, judgments and costs (including, without limitation, attorney's fees and costs and fees of litigation) (collectively, "Liability") of every nature arising out of or in connection with Contractor's performance of the Project or its failure to comply with any of its obligations contained in these Contract Documents, except such Liability caused by the active negligence, sole negligence or willful misconduct of the District. Such indemnification shall extend to all claims, demands, or liabilities occurring after completion of the project as well as during the progress of the work. Pursuant to Public Contract Code §9201, District shall timely notify Contractor of receipt of any third-party claim relating to this Project.

30. WARRANTY OF TITLE

Contractor warrants that title to all work, materials or equipment included in a request for payment shall pass and transfer to the District whether or not they are installed or incorporated in the Project, free from any claims, liens or encumbrances, when such payment is made to the Contractor. Contractor further warrants that no such work, materials or equipment have been purchased for work under the Contract subject to an agreement by which an interest therein or an encumbrance thereon is retained by the seller or supplier.

31. USE OF COMPLETED PARTS OF THE WORK BEFORE ACCEPTANCE

Whenever the work or any part thereof is in a condition suitable for use, and the best interest of the District requires such use, as determined by the District, the District may take possession of, connect

to, open for public use, or use the work or a part thereof. When so used, maintenance and repairs due to ordinary wear and tear or vandalism will be made at District's expense. The use by the District of the work or part thereof as contemplated in this section shall in no case be construed as constituting acceptance of the work or any part thereof, including, but not limited to, the right to assess liquidated damages. Such use shall neither relieve the Contractor of any of Contractor's responsibilities under the Contract nor act as a waiver by the District of any of the conditions thereof. Contractor shall continue to maintain all insurance, including Builder's Risk insurance, on the entire Project, and diligently pursue full completion of the work.

32. GUARANTEE AND WARRANTY

- a. By signing this Contract, Contractor agrees to the following guarantee and warranty:

Guarantee & Warranty

Contractor hereby guarantees and warrants its work on the Project for a period of two (2) years from the date of the filing of the Notice of Completion as follows.

Contractor shall promptly repair or replace to the satisfaction of the District any or all work that appears defective in workmanship, equipment and/or materials for whatever reason, ordinary wear and tear and unusual abuse or neglect excepted, together with any other work which may be damaged or displaced in so doing.

Contractor agrees to promptly correct and remedy any failure by the Contractor to conform its work, activities and services to the requirements of the Contract Documents.

In the event of the Contractor's failure to comply with the above-mentioned obligations within the ten (10) calendar days of notice, or sooner if required by an emergency, Contractor hereby authorizes the District to have the defects or deficiencies repaired, remedied, corrected and made good at Contractor's expense, and Contractor shall pay the costs and charges therefore upon demand. The Surety agrees to be responsible for these costs and charges as well.

33. PROTECTION OF WORK AND PROPERTY

- a. The Contractor shall be responsible for each operation and all work on the Project, both permanent and temporary. The Contractor shall protect the work and materials from damage due to negligence, the action of the elements, the carelessness of third parties, vandalism, or any other cause whatsoever, until the final completion and acceptance of the Project. Should improper work by the Contractor be covered by another contractor and damage or defects result, the whole work affected shall be made good by the Contractor to the satisfaction of the Architect and District without expense to the District. The Contractor shall take

reasonable care to avoid damage to existing facilities or utilities, whether on the Project or adjacent to it, and Contractor shall be liable for any damage thereto or interruption of service due to Contractor's operations. If the Contractor encounters any facilities or utilities not shown on the drawings or not reasonably inferable therefrom, Contractor shall promptly notify the Architect about them, and shall do no further work which may cause damage to same. If it is determined that some action needs to be taken regarding facilities not shown, the Contractor will be given directives on what action to take, and any additional cost to the Contractor incurred thereby will be handled by Change Order.

- b. The property limits of the area of the Project are indicated on the drawings. Except for work specifically shown or noted, Contractor shall confine Contractor's operations within the indicated property limits. The Contractor shall provide, install, and maintain all shoring, bracing and underpinning necessary to support adjacent property, streets, buildings and structures, that may be affected by building operations for this work; shall serve or cause to be served all legal notices to adjoining property owners that may be necessary for their protection; and shall protect from damage all adjacent buildings, fences, landscaping, and repair or replace any such property damaged in the course of work under the Contract.

34. USE OF ROADWAYS AND WALKWAYS

The Contractor shall not unnecessarily interfere with use of any roadway, walkway or other facility for vehicular or pedestrian traffic by any party entitled to use it. Wherever such interference becomes necessary for the proper and convenient performance of the work and no satisfactory detour route exists, the Contractor shall, before beginning the interference, provide a satisfactory detour, temporary bridge, or other proper facility for traffic to pass around or over the interference and shall maintain it in satisfactory condition as long as the interference continues, all without extra payment unless otherwise expressly stipulated in the Contract Documents.

35. MATERIALS

- a. Unless explicitly stated otherwise, all specified equipment and material comprising the work of this Contract, as being provided or furnished or installed, shall imply the inclusion of all components, hardware and accessories, required for complete installation and satisfactory operation as intended by the manufacturer. Wherever the method of installation of any material is not explicitly specified, the installation shall be as recommended by manufacturer.
- b. Wherever in the Contract Documents it is provided that the Contractor shall furnish materials or equipment for which no detailed specifications are set forth, such materials or equipment shall be new and of the best grade for the purpose for which they will be used when incorporated in the work. Materials specified by reference to a number or symbol of a specific standard, such as A.S.M., Federal Specification, State Standard, Trade Association, or similar standards, shall comply with requirements in the latest revision thereof and any amendment or supplement in effect on the date of the notice inviting bids.

- c. None of the materials to be provided furnished or installed on this project shall contain asbestos or any other "hazardous substance" as that term is defined by federal or state law.

36. SUBSTITUTIONS

- a. Wherever in the drawings or Specifications a material or product is called for by trade or brand names or manufacturer and model number, alternative items of equal quality and purpose may be proposed for use by the Contractor. The burden of proof of equality is on the Contractor, and Contractor shall furnish all information and supplies necessary for the Architect to make a thorough evaluation of the proposed substitution. The Architect's decision about the equality of the proposed substitution is final, and if the proposed substitution is not approved, the Contractor shall install the item called for. Proposed substitutions and any changes in adjacent work caused by them shall be made by the Contractor at no additional cost to the District.
- b. Proposed substitutions shall be submitted sufficiently before actual need to allow time for thorough evaluation. Substitutions shall not be proposed for the reason that submittals were not made early enough to avoid delay. Architect's review of substitutions shall not relieve the Contractor from complying with the requirements of the drawings and Specifications.
- b. In the event Contractor makes substitutions in materials, equipment, or designs, with or without the District's approval, other than those authorized herein, the Contractor shall then assume full responsibility for the effects of such substitutions on the entire Project, including the design, and shall reimburse the District for any charges resulting from such substitutions, including any charges for modifications in the work of other trades, and including any charges for additional design and review, plus reasonable and customary mark-ups.

37. TESTING

- a. Materials, equipment, or other work requiring tests may be specified in the Contract Documents, and they shall be adequately identified and delivered to the site in ample time before intended use to allow for testing. If such materials, equipment or other work should be covered without required testing and approval, they shall be uncovered at the Contractor's expense, including any repairs or replacement resulting therefrom. The Contractor shall notify the District and Architect when and where such materials, equipment or other work are ready for testing, and Contractor shall bear the cost of making them available for testing. The Contractor shall notify the District and Architect sufficiently before the need for testing so as to cause no delay in the work and, in any case, at least forty-eight (48) hours prior to the need for testing.
- b. The cost of initial tests called for will be paid by the District and will be performed by independent testing consultants retained by the District, but if so specified by the District, the amount paid or a portion thereof may be collected from the Contractor. All other tests and inspections specified or otherwise required to substantiate compliance with specified requirements for quality of material or performance of operation shall be paid for by the District, but if so specified by the District, the amount paid may be collected from the Contractor.

Contractor. If retesting or additional testing is necessary because of substandard initial test results, the costs thereof shall be paid by the District, but if so specified by the District, the amount paid may be collected from the Contractor, including any repairs or replacement resulting therefrom.

38. INSPECTION

- a. All materials, equipment and workmanship used in the work of the Project shall be subject to inspection or testing at all times and locations during construction and/or manufacture. The District's and Architect's authorized representatives and representatives of other agencies having authority over the work shall have access to the work for the above purposes at all reasonable times and locations. Any material or work found to be unsatisfactory or not according to the Contract Documents shall be replaced with the correct material or work and the defective items promptly removed, all at the Contractor's expense, when directed to do so by any of the above-named persons having authority over the work. The cost of review time and analysis by the Architect or other District consultants necessitated by incomplete or defective work by the Contractor shall be charged to the Contractor.
- b. Inspection and testing by the District or its representatives shall not relieve the Contractor from complying with the requirements of the Contract Documents. The Contractor is responsible for its own quality control.
- c. Whenever required by the District or Architect, the Contractor shall furnish all tools, labor and materials necessary to make an examination of work in place by uncovering the same. Should such work be found unsatisfactory, the cost of examination and reconstruction shall be paid by the Contractor. Should such work be found satisfactory, the cost of examination and reconstruction of the work shall be paid by Change Order unless the Contractor improperly covered the work before it could be inspected or tested. If the Contractor considers it necessary or desirable to work on Saturday, Sunday or a holiday, Contractor shall seek written approval from the District at least forty-eight (48) hours before the commencement of such work.

39. CLEANUP

- a. The Contractor shall maintain the premises and area of the work in a neat and clean condition. No burning of rubbish on site shall be allowed. The Contractor shall control dust on the site by sprinkling at whatever intervals are necessary to keep it laid down and shall take measures to prevent dust and debris from being accidentally transported outside the area of the work.
- b. Final cleaning, such as sweeping, dusting, vacuuming, dry and wet mopping, polishing, sealing, waxing and other finish operations normally required on newly installed work shall be taken to indicate the finished conditions of the various new and existing surfaces at the time of acceptance. Prior to the time of acceptance, all marks, stains, fingerprints, dust, dirt, splattered paint and blemishes resulting from the various operations shall be removed throughout the Project. Stair treads and risers shall be wet-mopped. Glass shall be left clean

and polished both inside and outside. Plumbing fixtures and light fixtures shall be washed clean. Hardware and other unpainted metals shall be cleaned and all building papers and other temporary protections shall be removed throughout the building, or portion of the building where Contractor was involved, all to the satisfaction of the Architect and District. The exterior of the buildings, playfields, exterior improvements, and planting spaces and other work areas shall be similarly clean and in good order.

40. CONSTRUCTION WASTE MANAGEMENT REQUIREMENTS

a. Scope

- 1) This Article includes requirements for the diversion by the Contractor of construction and demolition debris from landfills. The Contractor shall develop and implement a Waste Management Plan as specified herein. The Contractor shall take a pro-active, responsible role in the management of construction and demolition waste and require all subcontractors, vendors, and suppliers to participate in the effort.
- 2) The District has established that this Project shall generate the least amount of waste practicable and that processes shall be utilized that ensure the generation of as little waste as possible due to over-packaging, error, poor planning, breakage, mishandling, contamination or other factors.
- 3) As much of the waste materials as economically feasible shall be reused, salvaged or recycled. Waste disposal in landfills shall be minimized.
- 4) The Contractor is encouraged to use waste hauling companies that separate recyclable materials. The Contractor shall work with its waste haulers in providing other recycling methods as appropriate.
- 5) The Contractor is responsible for implementation of any special programs involving rebates or similar incentives related to the recycling of waste. Revenues or other savings obtained for salvage or recycling accrue to the Contractor.

b. References

- 1) "Builders' Guide to Reuse and Recycling, A Directory for Construction and Demolition Materials."
- 2) "Construction Site Recycling, a Guide for Building Contractors ". For a copy of the guide call 1-888-442-2666 or go to www.recycleworks.org.
- 3) "Where to Recycle Construction and Demolition Debris." For a copy of the guide call 1-888-442-2666 or go to www.recycleworks.org.

c. Definitions

- 1) General: Construction and demolition waste includes products of demolition or removal, excess or unusable construction materials, packaging materials for construction products, and other materials generated during the construction process but not incorporated into the work.
- 2) Divert" means to use material for any lawful purpose other than disposal in a landfill or transfer facility for disposal
- 3) "Recycling Service" means an off-site service that provides processing of material and diversion from a landfill.
- 4) "Hauler" means the entity that transports construction and demolition debris to either a landfill or a recycling service.

d. Compliance with regulatory requirements:

- 1) The Contractor shall perform all handling, storage, transportation and disposal of construction debris in compliance with all applicable Federal, State, regional, and local statutes, laws, regulations, rules, ordinance, codes and standards.
- 2) Nothing stated on the drawings, in this Article 40 or in any other provision of the Contract Documents shall be construed as allowing work that is not in strict compliance with all applicable Federal, State, regional, and local statutes, laws, regulations, rules, ordinances, codes and standards.

e. Performance Requirement

- 1) The Contractor shall divert a minimum of 50 percent (50%) of the total Project construction and demolition waste from landfills, for concrete, steel or wood specifically.

f. Quality Control

- 1) General:
 - i) The Contractor shall not permit materials designated for diversion to become contaminated or to contaminate the site or surrounding areas.
- 2) Training and Coordination:
 - i) The Contractor shall designate an on-site party [or parties] who will be responsible for instructing workers and subcontractors, and overseeing and documenting the results of the Waste Management Plan for the Project.
 - ii) The Contractor shall furnish copies of the Waste Management Plan to all

on-site supervisors, each subcontractor, and the District's representative.

- iii) The Contractor shall include construction waste management as an item on the agenda of all progress meetings.

3) The Waste Management Plan:

- i) The Contractor shall prepare a Waste Management Plan for diverting the specified percentage of construction debris from landfills, including written and graphic information indicating how the waste will be diverted.
- ii) Include in the plan both on-site recycling of construction debris and off-site diversion from landfills.
- iii) Identify the means and methods for collecting and separating each type of debris deemed reusable or recyclable.
- iv) List the off-site recycling service and hauler of each designated debris item who has agreed to accept and divert that item from the landfill in the proposed quantities anticipated. List the service and hauler company name, address, telephone number, and persons contacted.
- v) List the name of individuals on the Contractor's staff responsible for waste prevention and management.
- vi) List the actions that will be taken to reduce solid waste generation, including coordination with subcontractors to ensure awareness and participation.
- vii) Describe the specific approaches to be used in recycling/reuse of the various materials generated, including the areas on site and equipment to be used for processing, sorting, and temporary storage of wastes.
- viii) Characterize the waste to be generated, including estimated types and quantities. Name the landfills and/or incinerator to be used.
- ix) List the specific waste materials that will be salvaged for resale, salvaged and reused on the Project, salvaged and stored for reuse on a future project, or recycled. Recycling facilities that will be used shall be identified by name, location, and phone number.
- x) Identify the materials that cannot be recycled or reused with an explanation or justification, to be approved by the Architect.

The Contractor shall submit the Plan to the Architect within 10 calendar days after receipt of the Notice to Proceed, or prior to any waste removal, whichever occurs first. The Contractor shall promptly revise and resubmit the Plan as required by the Architect. Review of the Contractor's

Waste Management Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations or meeting Project diversion requirements.

g. Plan Implementation

- 1) The Contractor shall implement the approved Waste Management Plan.
- 2) The Contractor shall maintain a log of each load and of each category of waste that is diverted from the landfill. The Contractor shall separately log the debris sent to a Class III landfill and materials sent to recycling facilities.
- 3) The Contractor shall include in the log the type of load, load weight, name of the hauling service, recycling service or landfill, and the date accepted by the recycling service or by the landfill.
- 4) The Contractor shall retain and make available all weight tickets and copies of receipts and invoices relating to the implementation of the Plan.
- 5) The District reserves the right to audit the log at any time.

h. Material Handling

- 1) Designate a specific area or areas on site to facilitate the separation of materials for potential reuse, salvage, recycling, and return. Clearly mark bins for each category of waste.
- 2) Keep waste bins and pile areas neat and clean. Do not contaminate non-recyclable waste with materials designated for reuse or recycling.

i. Contractor's Responsibilities

- 1) Provide on-site instruction of the appropriate separation, handling, recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the Project.
- 2) Separate, store, protect, and handle at the site identified recyclable and salvageable waste products in a manner that maximizes recyclability and salvagability of identified materials. Provide the necessary containers, bins and storage areas to facilitate effective waste management. Provide barriers and enclosures around recyclable material storage areas which are non hazardous and recyclable or reusable and which shall be located away from construction traffic. Provide adequate space for pick-up and delivery. Use cleaning materials that are non hazardous and biodegradable.

41. INSTRUCTIONS AND MANUALS

Three copies of the maintenance instructions, application/installation instructions and service manuals called for in the Specifications shall be provided by the Contractor. These shall be complete as to drawings, details, parts lists, performance data and other information that may be required for the District to easily maintain and service the materials and equipment installed under this Contract. All manufacturer's application/installation instructions shall be given to the Architect at least ten (10) days prior to first material application or installation of the item. The maintenance instructions and manuals, along with any specified guarantees, shall be delivered to the Architect for review prior to submitting to District, and the Contractor or appropriate Subcontractors shall instruct District's personnel in the operation and maintenance of the equipment prior to final acceptance of the Project.

42. AS-BUILT DRAWINGS

The Contractor and all Subcontractors shall maintain on the work site a separate complete set of contract drawings which will be used solely for the purpose of recording changes made in any portion of the work during the course of construction, regardless of the reason for the change. As changes occur, there will be included or marked on this record set on a daily basis if necessary to keep them up to date at all times. Actual locations to scale shall be identified on the drawings for all runs of mechanical and electrical work, including all site utilities installed underground, in walls, floors, and furred spaces, or otherwise concealed. Deviations from the drawings shall be shown in detail. All main runs, whether piping, conduit, duct work, drain lines, etc., shall be located in addition by dimension and elevation. Progress payments may be delayed or withheld until such time as the record set is brought up to date to the satisfaction of the Architect. The Contractor shall verify that all changes in the work are included in the "AS-BUILT" drawings and deliver the complete set thereof to the Architect for review and approval within thirty (30) calendar days after District's notice of completion. District's acceptance and approval of the "AS-BUILT" drawings are a necessary condition precedent to the release of the final retention.

43. SUBSTITUTION OF SECURITIES

- a. Pursuant to Public Contract Code §22300, Contractor may request in writing that it be allowed at its own expense to substitute securities for moneys withheld by District to ensure performance under this Contract. Only securities listed in Government Code §16430 and bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by Contractor and District shall qualify under this Article. Securities equivalent to the amount withheld shall be deposited with the District or with a state or federally chartered bank in California as the escrow agent. Upon satisfactory completion of the Contract and on written authorization by the District, the securities shall be returned to Contractor. Contractor shall be the beneficial owner of the securities and shall receive any interest thereon. The Contractor may alternatively request District to make payment of retentions earned directly to the escrow agent at the expense of the Contractor.
- b. At the expense of the Contractor, the Contractor may direct the investment of the payments into securities and the Contractor shall receive the interest earned on the investments upon the same terms provided for above for securities deposited by Contractor. Upon satisfactory

completion of the Contract, Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from the District. The Contractor shall pay to each Subcontractor, not later than 20 days of receipt of payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount of retention.

- c. Any escrow agreement entered into pursuant to this Article shall comply with Public Contract Code §22300 and shall be subject to approval by District's counsel.

44. NO DISCRIMINATION

It is the policy of the District that, in connection with all work performed under this public works contract, there shall be no discrimination against any prospective or active employee or any other person engaged in the work because of actual or perceived race, color, ancestry, national origin, ethnic group identification, religion, sex, gender, sexual orientation, age, physical or mental disability, or marital status. The Contractor agrees to comply with applicable Federal and California laws including, but not limited to, the California Fair Employment Practice Act, beginning with Government Code §12900, Government Code §11135, and Labor Code §§ 1735, 1777.5, 1777.6 and 3077.5. In addition, the Contractor agrees to require like compliance by all Subcontractors and suppliers.

45. LABOR STANDARDS

- a. Work Hours:

In accordance with Labor Code §1810, eight (8) hours of labor shall constitute a legal day's work under this Contract. Contractor and any Subcontractor shall pay workers overtime pay as required by Labor Code §1815. The Contractor shall pay each worker, laborer, mechanic or persons performing work under this Contract at a rate not less than the prevailing wage for each craft or classification covering the work actually performed.

- b. Penalty:

Contractor shall forfeit to District as a penalty the sum of twenty-five dollars (\$25.00) for each worker employed in the execution of this Contract by Contractor or any Subcontractor for each calendar day during which the worker is required or permitted to work more than eight (8) hours in any one (1) calendar day or more than forty (40) hours per calendar week in violation of Article 3, Division 2, Part 7, Chapter 1 of the California Labor Code.

- c. Employment of Apprentices:

Contractor shall comply with Labor Code §§1773.3, 1777.5 and 1777.6, and 3077 *et. seq.*, each of which is incorporated by reference into this Contract. These sections require that contractors and subcontractors employ apprentices in apprenticeable occupations in a ratio of not less than one (1) hour of apprentice work for every five (5) hours of labor performed by a journeyman, unless an exception is granted and that Contractors and Subcontractors

shall not discriminate against otherwise qualified employees as apprentices on any public works solely on the ground of actual or perceived race, religion, color, national origin, ethnic group identification, sex, gender, sexual orientation, age, or physical or mental disability. Only apprentices who are in training under written apprenticeship occupations shall be employed. The responsibility for compliance with these provisions for all apprenticeable occupations rests with Contractor.

- d. The Contractor shall be knowledgeable of and comply with Labor Code §§1727, 1773.5, 1775, 1777, 1777.5, 1810, 1813, 1860, including all amendments thereto; each of these sections is incorporated by reference into this Contract.

46. GENERAL RATE OF PER DIEM WAGES

- a. On File:

As required by Labor Code §1773.2, the District has available copies of the general prevailing rate of per diem wages for workers employed on public work as determined by the Director of the Department of Industrial Relations, which shall be available to any interested party on request. Contractor shall post a copy of the document at each job site.

- b. Prevailing Wage Rate:

The Contractor and each Subcontractor shall pay each worker performing work under this Contract at a rate not less than the prevailing wage as defined in Labor Code §1771 and 1774 and §16000(a) of Title 8, California Code of Regulations.

- c. Penalty:

In accordance with §1775 of the Labor Code, the Contractor shall forfeit to the District as penalty, the sum of \$200 for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates, as determined by the Director of the California Department of Industrial Relations, for any work done under this Contract by Contractor or by any Subcontractor. Contractor shall also pay each worker the difference between the stipulated prevailing wages rates and the amount actually paid to such worker.

47. RECORD KEEPING

- a. The Contractor agrees to comply with the provisions of §§1776 and 1812 of the Labor Code. The Contractor and each Subcontractor shall keep or cause to be kept an accurate record showing the names, addresses, social security numbers, work classifications, straight time and overtime hours worked each day and week of all workers employed by Contractor in connection with the execution of this Contract or any subcontract thereunder and showing the actual per diem wages paid to each of such workers. These records shall be certified and shall be open at all reasonable hours to the inspection of the District awarding the Contract, its officers and agents, and to the Chief of the Division of Labor Statistics and Law

Enforcement of the State Department of Industrial Law Enforcement of the State Department of Industrial Relations, and his or her other deputies and agents.

- b. In addition, copies of the above records shall be available as follows:
- 1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request;
 - 2) A certified copy of all payroll records shall be made available for inspection or furnished upon request to the District, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations;
 - 3) A certified copy of all payroll records shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the District, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been previously provided, the requesting party shall, prior to being provided the records, reimburse the costs of the Contractor, Subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of the Contractor.
- c. The Contractor shall file a certified copy of the records with the entity requesting the records within ten days after receipt of a written request. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the District, shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of the Contractor awarded the Contract or performing the Contract shall not be marked or obliterated.
- d. The Contractor shall inform the Owner of the location of the records, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.
- e. In the event of noncompliance with the requirements of this section, the Contractor shall have ten days in which to comply subsequent to receipt of written notice specifying in what respects the Contractor must comply with this section. Should noncompliance still be evident after the ten day period, the Contractor shall, as a penalty to the District, forfeit \$100 for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.
- f. Responsibility for compliance with this provision shall be with the Contractor.

48. PROJECT COMPLETION

- a. When all of the work to be performed under this Contract has been fully completed, the Contractor shall notify the Architect and District, in writing, setting a date for inspection. The Contractor and Subcontractor representatives shall attend the inspection. As a result of this inspection, the Architect will prepare a list of items ("punch list") that are incomplete or not installed according to the Contract Documents. Failure to include items on this list does not relieve the Contractor from fulfilling all requirements of the Contract Documents.
- b. The Architect will promptly deliver the punch list to the Contractor and it will include a period of time by which the Contractor shall complete all items listed thereon. On completion of all items on the punch list, verified by a final inspection, and all other Contract requirements, so that Final Completion has been achieved to the District's satisfaction, the District will file a Notice of Completion with the County Recorder. Payment of retention from the Contract, less any sums withheld pursuant to the terms of this Contract or applicable law, shall not be made sooner than thirty-five (35) calendar days after the date of filing of Notice of Completion.
- c. The District reserves the right to occupy buildings and/or portions of the site at any time before Completion, and occupancy shall not constitute final acceptance of any part of the Work covered by the Contract Documents, nor shall such occupancy extend the date specified for completion of the Work. Beneficial occupancy of building(s) does not commence any warranty period or entitle Contractor to any additional compensation due to such occupancy, or affect in any way or amount Contractor's obligation to pay liquidated damages for failure to complete the Project on time.

49. TRENCHING OR OTHER EXCAVATIONS

- a. Excavations or Trenches Deeper than Four Feet:

If the Project involves digging trenches or other excavations that extend deeper than four feet, the following provisions shall be a part of this Contract:

- 1) The Contractor shall promptly, and before the following conditions are disturbed, provide written notice to the District if the Contractor finds any of the following conditions:
 - (a) Material that the Contractor believes may be a hazardous waste, as defined in §25117 of the Health and Safety Code, which is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law.
 - (b) Subsurface or latent physical conditions at the site which are different from those indicated or expected.

(c) Unknown physical conditions at the site of any unusual nature or which are materially different from those ordinarily encountered and generally recognized as inherent in work which the Contractor generally performs.

- 2) In the event that the Contractor notifies the District that Contractor has found any of the conditions specified in subparagraphs (a), (b) or (c), above, the District shall promptly investigate the condition(s). If the District finds that the conditions are materially different or that a hazardous waste is present at the site which will affect the Contractor's cost of, or the time required for, performance of the Contract, the District shall issue a change order in accordance with the procedures set forth in this Contract.
- 3) In the event that a dispute arises between the District and the Contractor regarding any of the matters specified in Paragraph (2), above, the Contractor shall proceed with all work to be performed under the Contract and the Contractor shall not be excused from completing the Project as provided in the Contract. In performing the work pursuant to this Paragraph, the Contractor retains all rights provided by Article 50 which pertains to the resolution of disputes between the contracting parties.

b. Regional Notification Center:

The Contractor, except in an emergency, shall contact the appropriate regional notification center at least two (2) days prior to commencing any excavation if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the District, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and/or carried out by the Contractor unless an inquiry identification number has been assigned to the Contractor or any Subcontractor and the Contractor has given the District the identification number. Any damages or delays arising from Contractor's failure to make appropriate notification shall be at the sole risk and expense of the Contractor and shall not be considered for an extension of the Contract time.

c. Existing Utility Lines:

- 1) Pursuant to Government Code §4215, the District assumes the responsibility for removal, relocation, and protection of main or trunk utility lines and facilities located on the construction site at the time of commencement of construction under this Contract with respect to any such utility facilities that are not identified in the plans and Specifications. Contractor shall not be assessed liquidated damages for delay in completion of the Project caused by the failure of the District or the owner of a utility to provide for removal or relocation of such utility facilities.
- 2) Locations of existing utilities provided by the District shall not be considered exact, but approximate within reasonable margin and shall not relieve Contractor of responsibilities to exercise reasonable care nor costs of repair due to Contractor's failure to do so. The District shall compensate Contractor for the costs of locating

and repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and Specifications with reasonable accuracy.

- 3) No provision herein shall be construed to preclude assessment against Contractor for any other delays in completion of the Project. Nothing in this section shall be deemed to require the District to indicate the presence of existing service laterals, appurtenances, or other utility lines, with the exception of main or trunklines, whenever the presence of such utilities on the site of the construction Project can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the construction.
- 4) If Contractor, while performing work under this Contract, discovers utility facilities not identified by the District in the Project plans and Specifications, Contractor shall immediately notify the District and the utility in writing. The cost of repair for damage to above-mentioned visible facilities without prior written notification to the District shall be borne by the Contractor.

d. Prompt Notification:

Contractor understands, acknowledges and agrees that the purpose for prompt notification to the District pursuant to these provisions is to allow the District to investigate the condition(s) so that the District shall have the opportunity to decide how the District desires to proceed as a result of the conditions. Accordingly, failure of Contractor to promptly notify the District in writing, pursuant to these provisions, shall constitute Contractor's waiver of any claim for damages incurred as a result of the conditions.

e. Trenches Five Feet and Deeper:

Pursuant to Labor Code §6705, if the Contract price exceeds \$25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, promptly submit to the District and/or a registered civil or structural engineer employed by the District or Architect, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

50. RESOLUTION OF CONSTRUCTION CLAIMS

- a. Public work claims of \$375,000 or less between the Contractor and the District are subject to the provisions of Article 1.5 (commencing with §20104) of Chapter 1 of Part 2 of the Public Contract Code ("Article 1.5 claim"). For purposes of Article 1.5, "public work" has the same meaning as set forth in §§3100 and 3106 of the Civil Code; "claims" means a separate demand by Contractor for a time extension or payment of money or damages arising from work done by or on behalf of Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to or the amount of the payment which is disputed by the District.

- b. All claims shall be submitted on or before the date of the Final Payment and shall include all documents necessary to substantiate the claim. District shall respond in writing within 45 days of receipt of claim if the claim is less than or equal to \$50,000 ("\$50,000 claim") or within 60 days if the claim is over \$50,000 but less than or equal to \$375,000 ("50,000 - \$375,000 claim"). In either case, District may request in writing within 30 days of receipt of claim any additional documentation supporting the claim or relating to any defenses to the claim which the District may have against the Contractor. Any additional information shall be requested and provided upon mutual agreement of the District and the Contractor. District's written response to the claim shall be submitted to Contractor within 15 days after receipt of the further documentation for \$50,000 claims or within 30 days after receipt of the further documentation for \$50,000 - \$375,000 claims or within a period of time no greater than that taken by the Contractor in producing the additional information, whichever is greater.
- c. Within 15 days of receipt of the District's response, if Contractor disputes the District's written response, or within 15 days of the District's failure to respond within the time prescribed, the Contractor shall provide written notification to District demanding an informal conference to meet and confer ("conference") to be scheduled by District within 30 days. Following the conference, if any claim or portion remains in dispute, the Contractor may file a claim as provided in Chapter 1 (commencing with §900) and Chapter 2 (commencing with §910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the period of time within which a claim must be filed is tolled from the time the claimant submits a written claim pursuant to this section until the time that claim is denied as a result of the conference process, including any period of time utilized by the meet and confer process.
- d. Pursuant to Public Contract Code §20104.2(f), this section does not apply to tort claims and does not change the period for filing claims or actions specified by Chapter 1 (commencing with §900) and Chapter 2 (commencing with §910) of Part 3 of Division 3.6 of Title 1 of the Government Code.
- e. If a civil action is filed, within 60 days, but no earlier than 30 days, following the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide that both parties select a disinterested third person mediator within 15 days, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days of the commencement of the mediation unless time is extended upon a good cause showing to the court or by stipulation of the parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.
- f. If the matter remains in dispute, the case shall be submitted to judicial arbitration as set forth in Public Contract Code §§20104.4 (b)(1) through (b)(3).
- g. For any claim in excess of \$375,000, the Contractor and the District shall follow the same process as for an Article 1.5 claim. The District will forward a response within 60 days of

submittal of any such claim. Judicial arbitration is not required for claims in excess of \$375,000.

Claims shall also be processed consistent with Public Contract Code section 9204, which provides processing timelines and procedures, and requires that undisputed claims be promptly paid in accordance with this code provision.

- h. In addition, for all unresolved claims that the Contractor wishes to pursue, the Contractor shall file a timely claim pursuant to the Government Claims Act and shall otherwise comply with the procedures set forth in that Act prior to commencing any litigation against the District. The accrual date for any such claim is the date the dispute or controversy first arose regarding the issues raised in the claim.
- i. "The date of Final Payment," as used in this Article 50, means the date the public entity is required to release retention proceeds in accordance with Public Contract Code §7107 regardless of whether any payment is made to the Contractor at that time.
- j. The claims required by this Article are jurisdictional and conditions precedent to the commencement of any further legal proceedings. Strict compliance with all filing deadlines is mandatory.

51. LABOR COMPLIANCE

If this Contract is for a public works project over \$25,000 or for a maintenance project over \$15,000, Contractor acknowledges that the project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations. In accordance with SB 854 (California Labor Code sections 1725.5 and 1770 *et seq.*), all bidders, contractors and subcontractors working at the site shall be duly registered with the Department of Industrial Relations at time of bid opening and at all relevant times. Proof of registration shall be provided as to all such contractors prior to the commencement of any work. Contractor shall coordinate with the Architect to ensure that DIR is advised of the award of the construction contract in a timely manner by filing form PWC-100 with DIR within thirty days of award of the contract, but no later than the first day in which the Contractor has workers employed upon the project..

52. Blank.

53. DRUG-FREE WORKPLACE CERTIFICATION

Contractor certifies all of the following:

- 1) Contractor is aware of the provisions and requirements of California Government Code §§ 8350 *et seq.*, the Drug Free Workplace Act of 1990.
- 2) Contractor is authorized to certify, and does certify, that a drug free workplace will be provided by doing all of the following:

- a) Publishing a statement notifying all employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in Contractor's workplace and specifying actions which will be taken against employees for a violation of the prohibition;
 - b) Establishing a drug-free awareness program to inform employees about all of the following:
 - (i) The dangers of drug abuse in the workplace;
 - (ii) Contractor's policy of maintaining a drug-free workplace;
 - (iii) The availability of drug counseling, rehabilitation and employee-assistance programs; and
 - (iv) The penalties that may be imposed upon employees for drug abuse violations;
 - c) Requiring that each employee engaged in the performance of Work on the Project be given a copy of the statement required by subdivision (a), above, and that as a condition of employment by Contractor in connection with the Work on the Project, the employee agrees to abide by the terms of the statement.
- 3) Contractor understands that if the District determines that Contractor has either: (a) made a false certification herein, or (b) violated this certification by failing to carry out and to implement the requirements of Government Code §§ 8350 et seq., the Contract is subject to termination, suspension of payments, or both. Contractor further understands that, should Contractor violate the terms of the Drug-Free Workplace Act of 1990, Contractor may be subject to debarment in accordance with the provisions of Government Code §§ 8350, et seq.

54. PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted, and this Contract shall be read and enforced as though it were included, and if through mistake or otherwise any provision is not inserted or is not correctly inserted, upon application of either party the Contract shall be amended to make the insertion or correction. All references to statutes and regulations shall include all amendments, replacements, and enactments on the subject which are in effect as of the date of this Contract.

55. GENERAL PROVISIONS

a. Assignment and Successors:

Neither party may transfer or assign its rights or obligations under the Contract Documents, in part or in whole, without the other party's prior written consent. The Contract Documents are binding on the heirs, successors, and permitted assigns of the parties hereto.

b. Third Party Beneficiaries:

There are no intended third party beneficiaries to the Contract.

c. Choice of Law and Venue

The Contract Documents shall be governed by California law, and venue shall be in the Superior Court of the county in which the project is located, and no other place.

d. Severability

If any provision of the Contract Documents is determined to be illegal, invalid, or unenforceable, in part or in whole, the remaining provisions, or portions of the Contract Documents shall remain in full force and effect.

e. Entire Agreement

The Contract Documents constitute the final, complete, and exclusive statement of the terms of the agreement between the parties regarding the subject matter of the Contract Documents and supersedes all prior written or oral understandings or agreements of the parties.

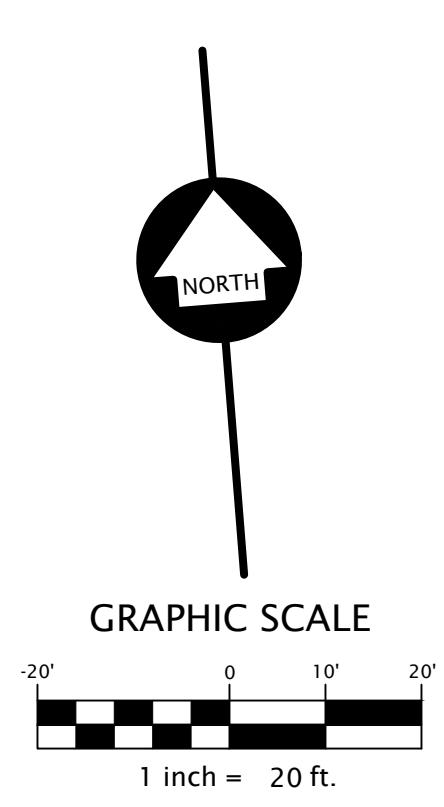
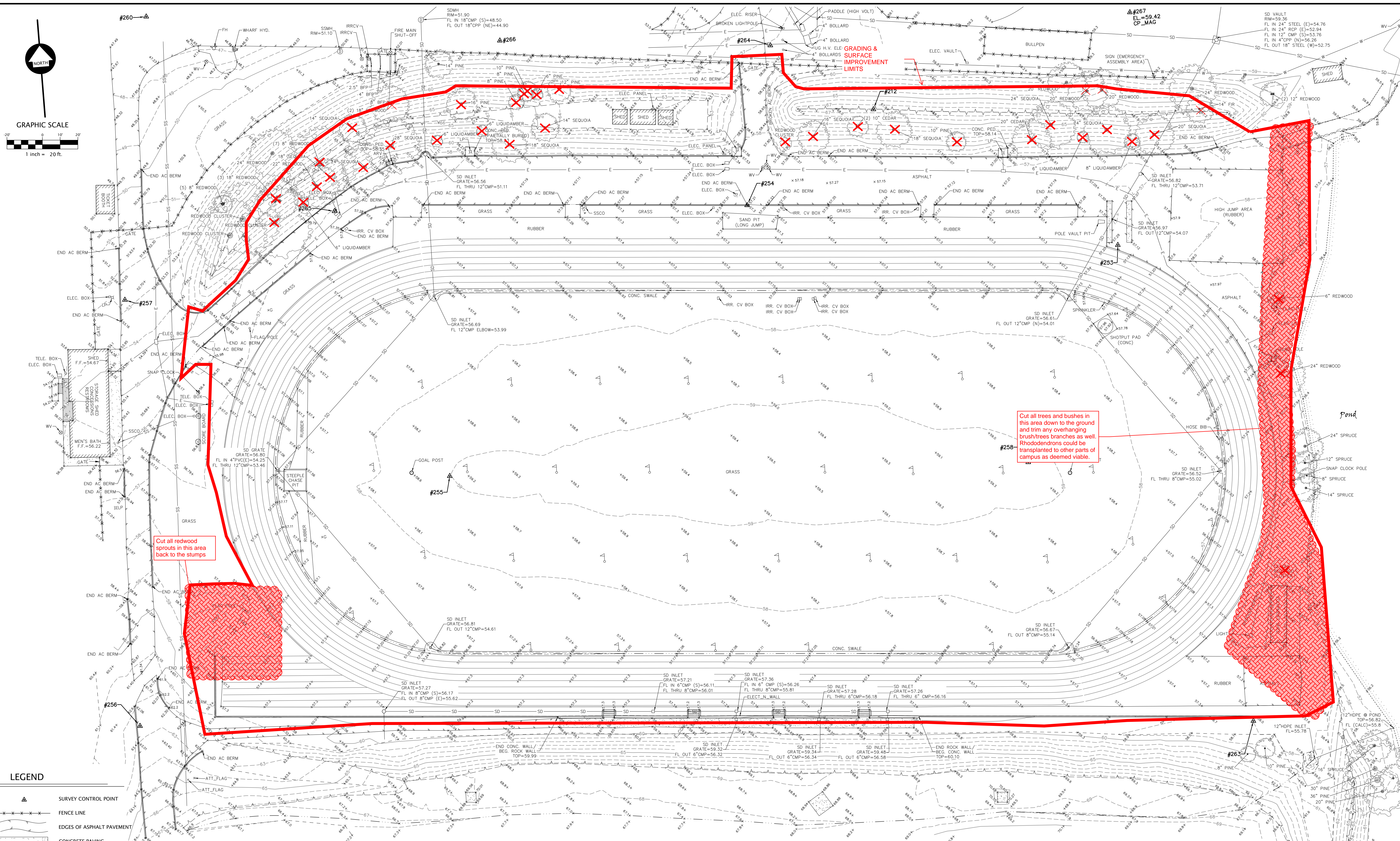
f. Waiver

No waiver of a breach, failure of any condition, or any right or remedy contained in or granted by the provisions of the Contract Documents shall be effective unless it is in writing and signed by the party waiving the breach, failure, right, or remedy. No waiver of any breach, failure, right, or remedy shall be deemed a waiver of any other breach, failure, right, or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

g. Headings

The headings in the Contract Documents are included for convenience only and shall neither affect the construction or interpretation of any provision in the Contract Documents nor affect any of the rights or obligations of the parties to the Contract.

--END OF SECTION 00 70 00--



LEGEND

	SURVEY CONTROL POINT
	FENCE LINE
	EDGES OF ASPHALT PAVEMENT
	CONCRETE PAVING
	EDGE OF GRAVEL PATH / DIRT ROAD
	EXISTING GROUND CONTOURS (TWO FOOT INTERVALS)
	TOP OF SLOPE
	TOE OF SLOPE / GRADE BREAK
	DRAINAGE FLOW LINE
	EDGE OF DENSE VEGETATION
	UNDERGROUND ELECTRIC LINE
	WATER LINE
	LIGHT POLE
	WATER VALVE
	IRRIGATION CONTROL VALVE
	FIRE HYDRANT
	RED FLAG IRRIGATION MARKER
	SANITARY SEWER CLEANOUT

SURVEY NOTES

- 1) The purpose of this survey is to determine topography on the existing football field and track at the College of the Redwoods Eureka campus. Field surveys were performed in April and October 2023.
- 2) Horizontal and Vertical control for this project is based on control established by LACO Associates in March 2018 per data provided to Points West Surveying (PWS). This control was provided for use by PWS in August 2020 as part of a topographic survey verification project for GHD. Horizontal datum is CCS83, State Plane, Zone 1, 2010 Epoch. Combined scale factor provided per the LACO survey is 0.99990172. The file contains grid distances. Elevations shown hereon are NAVD88 elevations based on the same LACO control survey.
- 3) Track striping is approximate and was not located by survey. Striping shown hereon is based on 3.5' lane width measured in field. Track has 8 lanes as shown hereon.

- 4) Flags shown within the football field are location of existing sprinklers per conversation with Sean Patton, Head Gardener. Routing of sprinkler system piping is unknown.
- 5) Existing football field does not have any underdrain or subdrain system per Sean Patton. Drainage is based on crowned field shape as shown by contours hereon which then drains into concrete trench drains on sides of field.
- 6) Utility routing shown hereon is based on a combination of visible appurtenances located in the field, utility mapping and plans found during research at the Campus Plan Room, and a site walkthrough with Sean Patton, Head Gardener. Routing shown hereon is the best interpretation by PWS and should be verified prior to ground disturbance or construction. See Underground Utility Note hereon.
- 7) Storm drain routing is based on field investigation. Research at Campus Plan Room found a Storm Drainage Master Plan by LACO Associates. This survey found differences with information shown on that plan, specifically

the routing of the pond overflow into the storm drainage system and the routing of the storm drain shown under the Child Development Center. No information could be found for the storm drainage system along the north side of the concrete/rock wall on the south side of the project site.

- 8) Electric routing is approximate and is based on several schematic plans found in Campus Plan Room. Surveyor believes that dual boxes along north side of track are probably electric and communication in parallel trenches. These systems should be investigated prior to any work.
- 9) Trees shown hereon were located at and diameters given at approximate breast height. Only coniferous trees were located along the pond edge on the eastern portion of the site. The deciduous trees in this area, especially the alders, grow in multiple directions horizontal and vertical. This survey does not show these trees. Deciduous trees were located along the drainage channel shown on Sheet 2.

Cut all trees and bushes in this area down to the ground and trim any overhanging brush/trees branches as well. Rhododendrons could be transplanted to other parts of campus as deemed viable.

Cut all redwood sprouts in this area back to the stumps

FOR REFERENCE ONLY

UNDERGROUND UTILITY NOTE

Underground utilities are shown based on a combination of visible physical evidence and records made available to the surveyor.

The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities are in the exact locations indicated. The surveyor has not physically located the underground utilities.

Call Underground Service Alert (USA) 1-800-642-2444 a minimum of 48 hours prior to any excavations.

TOPOGRAPHIC SURVEY

Football Field & Track
Eureka Campus
 SW/4 SECTION 28, T4N, R1W,
 HUMBOLDT MERIDIAN
 IN THE UNINCORPORATED AREA OF
 HUMBOLDT COUNTY, STATE OF CALIFORNIA
 Date: April 2023, Revised October 2023

SCALE: 1" = 20' SHEET 1 OF 2

POINTS WEST SURVEYING CO.
 5201 Carlson Park Dr., Suite 3 - Arcata, CA 95521
 707-840-9510 - Phone 707-840-9542 - Fax