ADDENDUM 001

Bear River High School Modernization Phase One
Nevada Joint Union High School District

April 6, 2020

Revision # 1

The District has elected not to open the campus to students for the remainder of the 2019-2020 school year.

Reference is made to the phasing diagrams shown on sheet A0.1a. Areas noted as "summer construction" will now be available for the contractor’s use and control at the “start of construction” (as soon as the contracts are awarded) even if that date is before the previously scheduled end of the school year (June 5, 2020).

The additional days will be provided at no penalty to the contract or contractor. Completion dates and milestones related to students returning to school August 12th 2020 and other project completion dates will remain in place per contract documents.

Revision #2

To comply with social distancing protocols, NJUHSD encourages and will accept electronic bid submittals in a PDF form for all projects. Submit all bids To: jkohler@njuhsd.com and hquiggle@njuhsd.com and CC: ajp@sitelinearch.com

You will receive an acknowledgment of receipt. If you do not, you are responsible to contact hquiggle@njuhsd.com

Bids will be opened approximately 10 minutes after the previously advertised opening time to allow for electronic transmission and receipt acknowledgment by The District.

Bid openings will take place via Google meets. The link to this event will be posted on the district website at the location of other published materials related to the project:

https://www.njuhsd.com/Measure-B--/Upcoming-Projects-to-Bid/index.html

Bid results will be posted at the same location.
Revision #3

See attached revised Specification Section 09 67 00, FLUID APPLIED FLOORING, which replaces Section 09 67 00 contained in the initial distribution of the Project Manual. This information relates to “FA-1” in the Finish Schedule shown on Sheet A8.1 of the plans.

Revision #4

Refer to sheet A8.1, Accessory Schedule, item #5 Hand Dryer: specification is changed from 0199-1-92 to 01-1-93 (satin stainless steel finish).

Revision #5

Refer to Specification Section 1021 13.19 SOLID PLASTIC TOILET PARTITIONS. Section 2.03-A, color is revised to “Paisley # 227”.

Revision #6

Refer to sheets including but not limited to C3.1, A0.2, and FP2. Fire Sprinkler riser and related enclosure shall be located at the southwest column, rather than the southeast column as shown on the drawings.
SECTION 09 67 00 FLUID APPLIED FLOORING

GENERAL

1.01  GENERAL REQUIREMENTS
A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02  WORK INCLUDED
A. Work of this Section includes all labor, materials, equipment and services necessary to complete the slope for drainage underlayment, 10-lb vapor control primer, Antimicrobial/antibacterial epoxy mosaic composition flooring and integral base as scheduled on the drawings and/or specified herein.

1.03  RELATED WORK
A. Concrete - Section 03300.
   Concrete should be either water cured or cured using sodium silicate curing compounds only. Other types of curing compounds are not acceptable. Concrete should be cured for a minimum of 28 days.

B. Floor drains - Division 22.
   Floor drains, clean-outs, etc. should be of the "floor-flange" type as manufactured for use with composition floors.

1.04  SUBMITTALS
A. General: Submit the following in accordance with Conditions of the Contract and Division 1 Specification Sections.

B. Product Data: Submit manufacturer's technical data, application instructions and general recommendations for the epoxy mosaic composition flooring specified herein.

C. Submit written letter from Manufacturer offering joint applicator/manufacturer labor/material warranty for this specific project and with this particular subcontractor-installer.

D. Reference jobs: Provide names and contact information for at least 3 projects similar to this project and using the specified system or the proposed equivalent system that are over 5 years old and were installed by this Installing Contracting Company with the crew who will install this project. Reference installations must be within 100 miles of this project.

E. Submit Manufacturer’s technical data for vapor control system. System must be manufactured by the manufacturer of the epoxy mosaic composition flooring product (NO EXCEPTIONS) and be engineered to prevent debonding resulting from vapor emissions up to 10 lbs when tested in accordance with ASTM F-1869 or Alkalinity levels up to 14.

F. Submit Manufacturer’s technical data for semirigid polymeric joint/crack striping and antifracture material that that is to be used in conjunction with vapor control system. Rigid or fiberglass-reinforced materials are not acceptable.
G. Submit Base Manufacturer’s EPA licensing documentation and permitting for Antimicrobial/Antibacterial System as well as base manufacturer’s documentation showing the Antimicrobial/Antibacterial has long-term service life in the cured epoxy is not simply an “in-can preservative” and is effective against bacteria, microbes, fungi and mildew.

H. Samples for initial selection purposes in form of manufacturer's color charts showing full range of colors and finishes available.
   1. Submit 2-1/2” x 4” samples of color chips from color chart selection designated by the Architect.
   2. Submit finish texture samples for the owner’s review and approval. Owner to sign the reverse side of one pair of submitted samples—one is retained by the Architect, the other is returned to installer. Minimum slip coefficient of 0.60 is required for the finish.

I. Material certificates signed by manufacturer certifying that the epoxy mosaic composition flooring complies with requirements specified herein.

I. Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices.

1.05 QUALITY ASSURANCE
A. Installer Qualifications: Engage an experienced contracting company who has specialized in installing the specified resinous flooring system required for this Project and who offers reference projects as per part 1.04 D of this specification and who offers a joint labor and material warranty with manufacturer of primary materials.

   Installers who have submitted and obtained approval for alternate equivalents to the basis of design product in accordance with item 1.05C of this section shall have installed the approved alternate for over 5 years and shall provide references and manufacturer’s joint warranty letter in compliance with items 1.04 C and D.

B. Single-Source Responsibility: Obtain epoxy mosaic composition flooring materials, including underlayments, vapor dissipation systems, primers, resins, hardening agents, colored aggregates and finish or sealing coats, from a single manufacturer—NO EXCEPTIONS.

C. Qualified Materials: Request for material approvals for any products other than the specified products must be submitted to the architect with a bid, including complete application specification, physical characteristics, and chemical resistance data. Any request after this date will not be accepted. Failure of performance requires immediate removal and replacement of unapproved substituted material with those originally specified at no cost to the owner, architect, construction manager, or general contractor.

D. Manufacturer: Manufacturer shall have a minimum 10 years experience producing the products submitted as equivalents to the basis of design and its accessories listed in part 2.01.

1.06 DELIVERY, STORAGE AND HANDLING
A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name and directions for storage and mixing with other components.

B. Store materials to comply with manufacturer's directions to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

1.07 PROJECT CONDITIONS
A. Environmental Conditions: NOTICE: Comply with epoxy mosaic composition flooring manufacturer's directions for maintenance of ambient and substrate temperature, moisture, humidity, ventilation, and other conditions required to execute and protect Work. Defects in the epoxy flooring work resulting from the General Contractor’s failure to comply with manufacturer’s directions and these specifications may result in corrective measures or replacement of the flooring at the GENERAL CONTRACTOR’S EXPENSE.

B. Lighting: Permanent lighting will be in place and working before and during installing resinous flooring.

C. General Contractor is responsible for controlling odors, fumes, dust or other environmental and ventilation requirements associated with the installation of the flooring.

D. HVAC is to be fully functioning before, during and 7 days after the installation of the epoxy mosaic composition flooring.

E. SUBSTRATE temperature (NOT air temperature) is to be raised to a minimum of 60°F before installation begins and is to be maintained at a minimum of 60°F during and 7 days after installation—NO EXCEPTIONS! If necessary, heating must remain in operation overnight, on weekends and holidays.

F. NO installation of resinous flooring may take place when temperatures fall—or are anticipated to fall within 5 degrees of the dew point.

G. The resinous flooring is NOT TO BE EXPOSED to moisture, spills or cleaning for 7 days after installation. White stains or other defects in the flooring resulting from failure to observe this restriction shall be cause for removal and replacement of the floor at the General Contractor’s expense.

PART 2.00 - PRODUCTS

2.01 MATERIALS
A. Basis of Design: Troweled ¼” Antimicrobial/Antibacterial epoxy mosaic composition flooring shall be Dex-O-Tex Cheminert Terracolor with Cheminert Clearseal finish and EPA-Licensed Dexcide Antimicrobial/Antibacterial System as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey. Only clear silica aggregate troweled floors with mosaic highlights shall be acceptable. Colored quartz, limestone varieties, dolomite and other aggregates with moh hardness less than 7 are not acceptable. Broadcast or “quartz floors” (including “ceramic” floors) or any other form of color-coated sand aggregates will not be accepted.

2. Alternate products meeting the requirements of this specification may be accepted per section 1.05C.

B. Vapor Control System shall be Dex O Tex Vapor Control Primer 200 as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey. The requirement to furnish vapor control primer shall not be waived under any circumstances.

C. Antifracture membrane and sealant complementing Vapor Control System for striping cracks and joints shall be Dex O Tex Cheminert SC Membrane as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey.

D. Underlayment (if required in the finish schedule) to create slope for drainage shall be Dex O Tex A-81 Underlayment as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey.

1. Fills over ½” deep may use Dex O Tex Contex Underlayment as an alternate.

E. Nonslip aggregate shall be Dex O Tex Synthetic Aggregate as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey.

F. Topcoat shall be Dex O Tex Decorfloor as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey.
G. Antimicrobial/Antibacterial shall be Dex O Tex Dexcide as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey. This system has long-term service life in the cured epoxy, is not simply an “in-can preservative” and is effective against bacteria, microbes, fungi and mildew.

H. Waterproofing membrane (if specifically shown on the plans and finish schedule) shall be Dex O Tex Cheminert SC Membrane semi-rigid urethane modified epoxy @ 40 mils as manufactured by Crossfield Products Corp, Rancho Dominguez, California and Roselle Park, New Jersey.

2.02 PROPERTIES

A. Colors: As indicated, or if not otherwise indicated, as selected by Architect from manufacturer's standard colors.

B. Physical Properties:

Provide flooring system that meet or exceed the listed minimum physical property requirements when tested according to the referenced standard test method in parentheses.

EPOXY MOSAIC COMPOSITION FLOORING:

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>Compressive Strength (ASTM C 579):</td>
<td>10,000 psi</td>
</tr>
<tr>
<td>Tensile Strength (ASTM C 307):</td>
<td>1400 psi</td>
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<tr>
<td>Flexural Strength (ASTM C 580):</td>
<td>4,000 psi</td>
</tr>
<tr>
<td>Surface Hardness (ASTM D-2240):</td>
<td>Durometer &quot;D&quot; 80-85</td>
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<tr>
<td>Aggregate Hardness (Moh scale):</td>
<td>7 (minimum)</td>
</tr>
<tr>
<td>Abrasion Resistance (ASTM D4060):</td>
<td>0.04 gr. loss</td>
</tr>
<tr>
<td>Indentation (MIL-D-3134):</td>
<td>&gt;1.0 %</td>
</tr>
<tr>
<td>Impact Resistance (Gardner Impact Test 160 lbs):</td>
<td>No chipping, cracking, or delamination and not more than 0.014&quot; indentation</td>
</tr>
<tr>
<td>Adhesion (A.C.I. Comm. No. 503.1):</td>
<td>&gt;400 psi (100% failure in concrete)</td>
</tr>
<tr>
<td>Electrical Conductivity (NFPA 56A):</td>
<td>Di-electric</td>
</tr>
<tr>
<td>Flammability (ASTM E-648/NFPA 253/FTMS 372)</td>
<td>Greater than 1.03 watts/cm²</td>
</tr>
<tr>
<td>NBSIR 75-950 Critical Radiant Heat Flux)</td>
<td>Self Extinguishing</td>
</tr>
<tr>
<td>Flammability (ASTM D635):</td>
<td>D&lt;sub&gt;1.5&lt;/sub&gt;=0.00,D&lt;sub&gt;4.0&lt;/sub&gt;=0.89</td>
</tr>
<tr>
<td>Optical Smoke Density (ASTM E662)</td>
<td></td>
</tr>
</tbody>
</table>

FLEXIBILIZED URETHANE EPOXY ANTIFRACTURE/SEALANT/WATERPROOF MEMBRANE:

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength (ASTM D 638):</td>
<td>1,500 psi</td>
</tr>
<tr>
<td>Tensile Elongation (ASTM D 412)</td>
<td>120% elongation to break</td>
</tr>
<tr>
<td>Tear Strength (ASTM D 638):</td>
<td>120 lb./in.</td>
</tr>
<tr>
<td>Hardness (ASTM D2240, shore D):</td>
<td>35-40</td>
</tr>
<tr>
<td>Compressive (ASTM ASTM D695):</td>
<td>4,000 psi</td>
</tr>
<tr>
<td>Water Absorption (ASTM D570):</td>
<td>&lt;0.2%</td>
</tr>
<tr>
<td>Flammability (ASTM D635):</td>
<td>Self-extinguishing over concrete</td>
</tr>
<tr>
<td>Microbial Resistance (ASTM G21):</td>
<td>Passes</td>
</tr>
</tbody>
</table>

VAPOR CONTROL PRIMER:

Provide negative side vapor emissions system that meets or exceeds the listed minimum physical property requirements when tested according to the referenced standard test method.
Adhesion ASTM D4541 >650 psi (100% failure in concrete, with Moisture Vapor Emission Rate at 10 lbs/1000 sf/24 hours per ASTM F1869 or rh of 84% per ASTM F2170)
Compressive Strength ASTM D695 12,000 psi
Tensile Strength ASTM D638 4200 psi
Tensile Elongation ASTM D638 2.7%
Permeability Rating ASTM E96 Dry <0.18…Wet <0.80
Microbial Resistance ASTM G21 Passes
Alkali Resistance ASTM D1308 Resistant

TROWELED POLYACRYLATE RESIN COMPOSITION UNDERLAYERMENT:
A. Compressive Strength ASTM C109 ………….4140 psi
B. Tensile Strength ASTM C307 …………………800 psi
C. Flexural Strength ASTM C580………………..1,200 psi
D. Weight ………………………………………...130 pounds/ft³
E. Hardness ASTM D2240, Shore D……………70-75
F. Adhesion ASTM D4541 ……………………>400 psi (100% failure in concrete)
G. Indention MIL-D-3134, Para 4.7.4.2.1 ……..2.26% (Steadily Applied Load, 2,000 lbs. On 1” steel ram imposed for 30 min.)
H. Water Absorption MIL-D-3134………………3.14%
I. Flammability ……………………………….Non-combustible
J. Impact Resistance (Gardner Impact Tester)…… No chipping, cracking, or delamination more than 0.014”.

PART 3.00 - EXECUTION

3.01 INSPECTION
A. Examine the areas and conditions where the epoxy mosaic composition flooring is to be installed and notify the Architect of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Architect.

A. Test for moisture vapor transmission per ASTM F1869. If emissions exceed 10 lbs notify Architect for instructions to install Vapor Control Primer 100 vapor control system. Testing is not required for installations over new concrete at least 10 days old.

B. Permanent lighting and HVAC are to be installed and operating at the time of installation of the Epoxy Mosaic Floor. CONFIRM THAT the General Contractor will maintain the substrate temperature (NOT the air temperature) 24 hours a day at a minimum 60°F during and 7 days after installation of the epoxy flooring.

C. General Contractor to provide dust control and ventilate area where flooring is being installed.

D. General Contractor to Restrict traffic from area where flooring is being installed or is curing

E. General Contractor to prevent exposure to moisture, spills or cleaning for 7 days after installation of the epoxy flooring is complete.
3.02  PREPARATION  
A. Substrate: Perform preparation and cleaning procedures according to flooring manufacturer's instructions for particular substrate conditions involved, and as specified. Provide clean, dry, and neutral substrate for flooring application.

B. Concrete Surfaces: Shot-blast, acid etch or power scarify as required to obtain optimum bond of flooring to concrete. Remove sufficient material to provide a sound surface free of laitance, glaze, efflorescence, and any bond-inhibiting curing compounds or form release agents. Remove grease, oil, and other penetrating contaminants. Repair damaged and deteriorated concrete to acceptable condition. Leave surface free of dust, dirt, laitance, and efflorescence. Rout out all cracks and joints over 1/16” wide to ¼” wide by 3/8” deep for striping 6” wide with antifracture/joint sealant material.

C. Materials: Mix resin hardener and aggregate when required, and prepare materials according to flooring system manufacturer's instructions.

3.03  APPLICATION  
A. General: Apply each component of the vapor control primer and epoxy mosaic composition flooring system according to manufacturer's directions to produce a uniform monolithic flooring surface of thickness indicated.

B. Bond Coat: Apply vapor control primer over prepared substrate at manufacturer's recommended spreading rate. Stripe all cracks and joints 6” wide with manufacturer’s antifracture joint sealer.

C. Underlayment for fill and/or slope for drainage: Install underlayment for fill and to create slope for drainage as required by the Owner and specifically shown on the plans or finish schedule.

D. If specifically shown on plans or finish schedule, install waterproofing membrane over the underlayment before installing the epoxy flooring (waterproofing used only on wood substrates, in upper floors and over occupied space).

E. Body Coat: Over primer, trowel apply epoxy mortar mix at nominal 1/4-inch thickness; hand or power trowel. Allow to cure before proceeding.

F. Grout Coats: Apply two coats of grout. Sand and inspect the surface for consistency.

G. Finish or Sealing Coats: After grout coats have cured sufficiently, apply finish coats of type recommended by flooring manufacturer to produce finish matching approved sample and in number of coats and spreading rates recommended by manufacturer.
   1. Final finish coat shall be in color and skid retardant profile as approved by the Architect.
   2. Finished floor shall be 1/4” thick, uniform in color and free of trowel marks.

H. Cove Base: Apply cove base mix to wall surfaces at locations shown to form cove base height of 4 inches unless otherwise indicated. Follow manufacturer's instructions and details including taping, mixing, priming, troweling, sanding, and top-coating of cove base. Finish the top of the cove base directly against the bottom of ceramic tile or other finishes with NO metal strips…add a 1.5” tall additional tapered finish to the top of the cove base where FRP or metal wall panels occur…or radius the top of the cove base where paint finishes are used.

3.04  CURING, PROTECTION AND CLEANING  
A. Cure epoxy mosaic composition flooring materials according to manufacturer's directions, taking care to prevent contamination during application stages and before completing curing process. Close application area for a minimum of 24 hours. Note full chemical/stain resistance of epoxies is not achieved for 7 days. Protect from moisture, cleaning and spills for 7 days.

B. General Contractor to maintain substrate temperature at a minimum of 60°F 24 hours per day for 7 days after installation of the epoxy floor.

C. Protect finished floor with rosin paper. Additionally, use masonite, if rolling load traffic exists.

D. Clean with manufacturer recommended cleaner.