ADDENDUM
NO. 2

February 1, 2021

Carmel Clay Schools 2021 Renovations – 2nd Bid Event
TSC No. 220100.1
Carmel, IN 46033

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications and the Drawings dated November 30, 2020 and December 7, 2020, by Fanning Howey Associates, Inc. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 2-1 thru ADD 2-2 and Carmel Middle School Tennis Complex Repairs – Site Logistics Plan and Fanning Howey Addendum No. 1 dated February 1, 2021, consisting of 9 items, 2 pages and, Revised Project Manual Section 32 18 24 – Running Track Surfacing, Revised Drawing Sheets – Carmel Clay Middle School Tennis Complex Repairs: GD1.0 and G1.0, Revised Drawing Sheets – Clay Middle School Track Resurfacing: G1.0, Revised Drawing Sheets - Carmel High School Parking Lots: GD1.1, G2.1, SU1.1, and SU2.1, Revised Drawing Sheets – Carmel High School Boiler Replacement: M4.01, M4.02, and M5.01

GENERAL CLARIFICATIONS:

All work outlined in the documents prepared by Fanning-Howey Associates dated November 30, 2020 labeled "CARMEL LIFE AND LEARNING CENTER HVAC EQUIPMENT REPLACEMENT" is deleted from Bid Category No. 2. This bid category contractor is responsible to delete all costs associated and/or referenced by these documents from their bid.

A. SPECIFICATION SECTION 00 20 00 – INFORMATION AVAILABLE TO BIDDERS

L. Carmel Middle School Tennis Complex Repairs – Site Logistics Plan

B. SPECIFICATION SECTION 01 12 00 – MULTIPLE CONTRACT SUMMARY

2. Paragraph 3.03 – Bid Categories

D. BID CATEGORY NO. 04 – CARMEL MIDDLE SCHOOL TENNIS COMPLEX REPAIRS

1. Add the following General Clarifications:

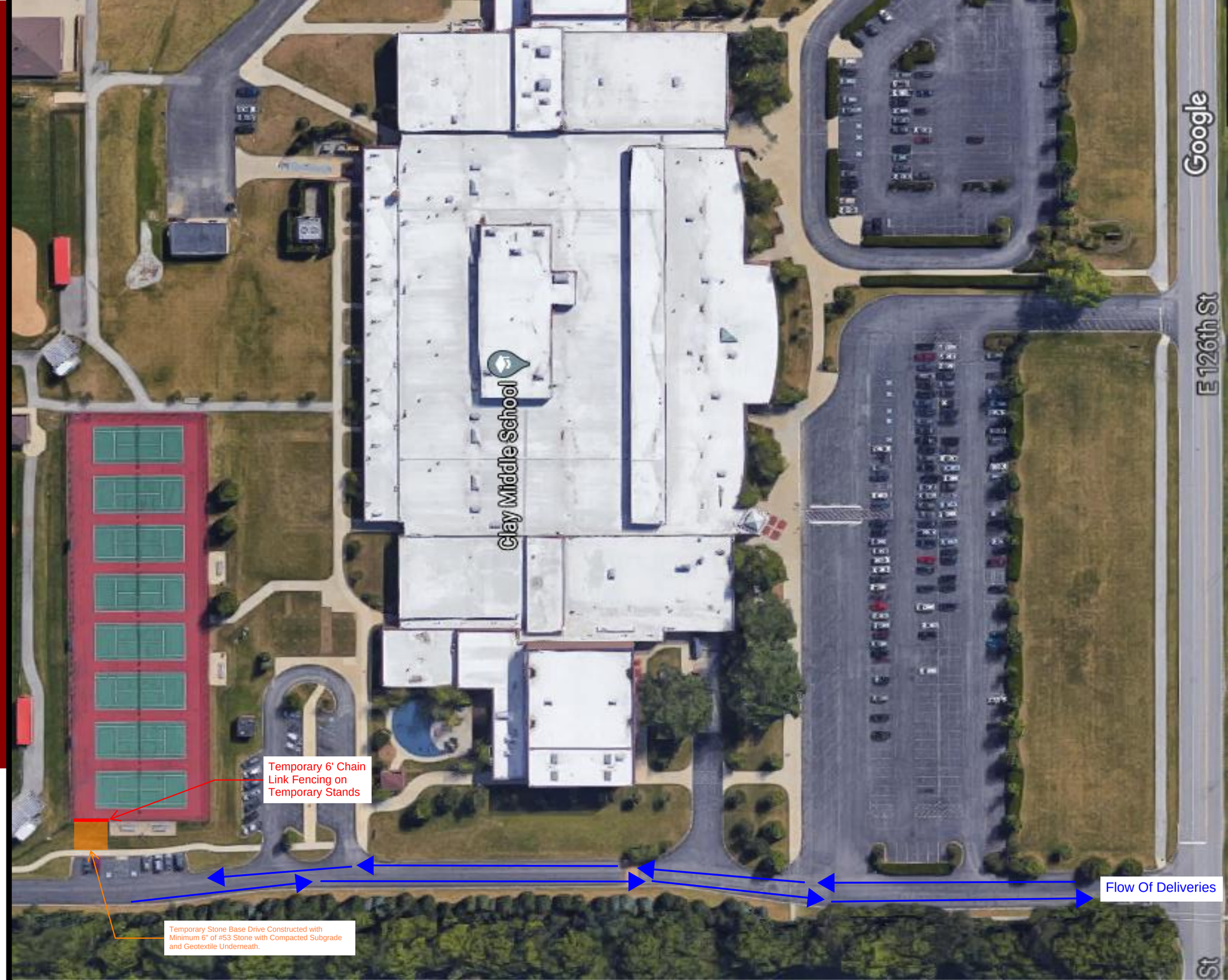
3. This bid category contractor is responsible to provide the temporary 6' chain link fencing on temporary stands shown on the Carmel Middle School Tennis Complex Repairs – Site Logistics Plan. Removal/replacement of temporary fencing by contractor as required to keep the public safe (No less than daily).
4. This bid category contractor is responsible to provide the temporary stone base drive constructed with minimum 6" of #53 stone with compacted subgrade and geotextile underneath as shown on the Carmel Middle School Tennis Complex Repairs – Site Logistics Plan. Contractor to protect all existing concrete sidewalks/pads/curbs and asphalt paving. Contractor to repair/restore all damaged sidewalks, concrete pads, concrete curbs, gates, fences, and grass areas at the end of the project.

CARMEL CLAY SCHOOLS

PROJECT #220100.1

CARMEL MIDDLE SCHOOL TENNIS COMPLEX REPAIRS

SITE LOGISTICS PLAN



The SKILLMAN Corporation
Project Administration
Construction Management

A D D E N D U M N O. 2

Carmel High School Loading Dock Storage Addition – 220121.00
Carmel High School – Boiler Replacement – 220120.00
CLLC HVAC Replacement – 220133.00
Clay Middle School Tennis Court Repairs – 220083.00
Clay Middle School Track Refurbishment – 220130.00
Carmel Middle School Track Refurbishment – 220129.00
Carmel High School Parking Lots – 220125.00

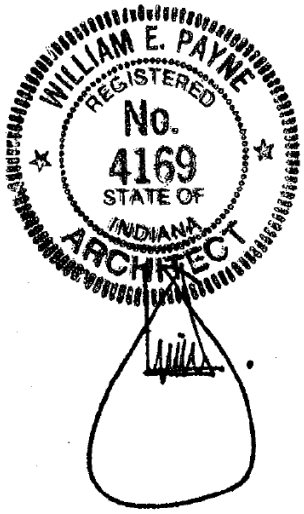
Carmel Clay Schools
Carmel, Indiana

Index of Contents

Addendum No. 2, 9 items, 2 pages
Revised Project Manual Section 32 18 24 – Running Track Surfacing
Revised Drawing Sheets – Carmel Clay Middle School Tennis Complex Repairs: GD1.0 and G1.0
Revised Drawing Sheets – Clay Middle School Track Resurfacing: G1.0
Revised Drawing Sheets - Carmel High School Parking Lots: GD1.1, G2.1, SU1.1, and SU2.1
Revised Drawing Sheets – Carmel High School Boiler Replacement: M4.01, M4.02, and M5.01

Date: February 1, 2021

FANNING/HOWEY ASSOCIATES, INC.
ARCHITECTS/ENGINEERS/CONSULTANTS



William E. Payne, AIA
Indiana Registration No. 4169

TO: ALL BIDDERS OF RECORD

ADDENDUM NO. 2 to Drawings and Project Manual, dated November 30, 2020 and December 7, 2020 for the various projects for Carmel Clay Schools, 5201 East 131st Street, Carmel, Indiana 46033; as prepared by Fanning/Howey Associates, Inc., Indianapolis, Indiana.
This Addendum shall hereby be and become a part of the Contract Documents the same as if originally bound thereto.

The following clarifications, amendments, additions, revisions, changes, and modifications change the original Contract Documents only in the amount and to the extent hereinafter specified in this Addendum.

Each bidder shall acknowledge receipt of this Addendum in his proposal or bid.

NOTE: Bidders are responsible for becoming familiar with every item of this Addendum. (This includes miscellaneous items at the very end of this Addendum.)

RE: ALL BIDDERS

ITEM NO. 1. ADDENDUM NO. 1

A. Delete Item No. 2 in its entirety.

ITEM NO. 2. REVISED PROJECT MANUAL SECTIONS

A. Section 32 18 24 – Running Track Surfacing, dated 2/1/21, has been revised and is included with and hereby made a part of this Addendum.

ITEM NO. 3. PROJECT MANUAL, SECTION 32 12 16 – ASPHALT PAVING

A. Replace 2.6, A., 2., as follows:

"2. Air Void % 3 - 5 %"

B. Add 2.6, A., 2., a., as follows:

"a. Tennis Court Surface Air Void % 3.5 %"

C. Add the following note at end of 2.6, A:

"Note: Running track surface asphalt shall be "virgin" type mix. Running Track binder/base course mix may comply with INDOT specifications included recycled asphalt pavement. New parking lot mix, surface, binder, and base must be per INDOT specifications."

D. Replace 2.7, A., as follows:

"A. Tennis courts and Track mixes: Recycled asphalt pavement may be used in bituminous base only provided the recycled asphalt does not exceed INDOT recommended percentages."

ITEM NO. 4. PROJECT MANUAL, SECTION 32 31 13 – FENCES AND GATES

A. Delete this Section in its entirety.

ITEM NO. 5. ACCEPTABLE MANUFACTURERS

The following manufacturers are to be considered acceptable manufacturers (suppliers and fabricators) for the Sections of the Specifications listed. Listed manufacturers are required to bid on products equal in type and design, size, function, and quality to that originally specified. Final decision as to equality of products specified versus those proposed shall be made by the Architect.

Section 23 64 16 – Centrifugal Chiller
- Carrier

ITEM NO. 6. REVISED DRAWINGS – CARMEL CLAY MIDDLE SCHOOL TENNIS COMPLEX REPAIRS

A. Revised Drawings No's: GD1.0 and G1.0 indicating revisions to the original drawing sheets and dated 2/1/21, are included with and hereby made a part of this Addendum. These Drawings supersedes the original documents.

ITEM NO. 7. REVISED DRAWING SHEETS – CLAY MIDDLE SCHOOL TRACK RESURFACING

A. Revised Drawing Sheet: G1.0 indicating revisions to the original drawing sheets and dated 2/1/21, are included with and hereby made a part of this Addendum. This Drawing supersedes the original documents.

ITEM NO. 8. REVISED DRAWING SHEETS – CARMEL HIGH SCHOOL PARKING LOTS

A. Revised Drawing No's: GD1.1, G2.1, SU1.1, and SU2.1 indicating revisions to the original drawing sheets and dated 2/1/21, are included with and hereby made a part of this Addendum. These Drawings supersede the original documents.

ITEM NO. 9. REVISED DRAWING SHEETS – CARMEL HIGH SCHOOL – BOILER REPLACEMENT

A. Revised Drawing No's: M4.01, M4.02, and M5.01 indicating revisions to the original drawing sheets and dated 2/1/21, are included with and hereby made a part of this Addendum. These Drawings supersede the original documents.

END OF ADDENDUM

SECTION 32 18 24-RUNNING TRACK SURFACING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. The provisions of the General Conditions and the Sections included under Division 1, General Requirements, are included as a part of this Section as though bound herein.

1.02 SUMMARY

A. Related Sections:
   1. Bituminous asphalt surface course for running track and field event areas is included under the Work of Section 321216

B. The synthetic surfacing contractor shall furnish all labor, materials, equipment, supervision and services necessary for the proper completion of the synthetic track surfacing system and related work indicated on the drawings and specified herein.

C. The synthetic surfacing contractor shall refer to the drawings for the required locations of synthetic track surfacing to be installed. All quantities and dimensions shall be field verified by the synthetic surfacing contractor.

1.03 SCOPE OF WORK

A. ***Carmel Middle School -Track Resurfacing: Clean the entire surface of the track, Cut out and patch all deteriorated areas, including areas of delamination, cracks and unraveling. Removing all existing material and disposing off site. Build up worn areas with SBR rubber granules bound with latex binder. Install an approved cushion coating system; consisting of latex based 3 coat system (1 primer, 2 rubberized spray layers) to interface with existing latex track surface. To be installed per manufacturers recommendations and guidelines.***

B. ***Clay Middle School – Removal and Replacement of Existing Track Surface: Remove existing track surface, mill surface of asphalt, new asphalt surface course, Install an NFHS approved latex synthetic surfacing for running track and field event areas.***

C. ***Clay Middle School and Carmel Middle School: Layout and paint all track lines and event markings as required and specified by current NFHS, IAAF and NCAA rules***.

1.04 REFERENCES

A. USA Track and Field (USATF)
B. National Federation of State High School Associations (NFHS)
C. American Sports Builders Association (ASBA)

1.05 ACTION SUBMITTALS

A. Layouts for Running Track (Metric) and Field Events
   1. Submit Drawings to show the tracks and field event layouts, including metric lane markings, passing zones, start and finish lines, and other markings required in accordance with ***NFHS.*** These Drawings shall be reviewed by the Architect; then will be sent to the Owner for his comments and approval.
   2. The layout of the track and field events shall conform with the Drawings. Marking paint colors by ***NFHS*** recommendations.

B. Samples for Initial Selection: Submit one sample, not less than 3 by 3 inch for the surface being provided.

C. Product Data:
1. Product Data: Submit copies of manufacturer's specifications and installation instructions for items required. Include data substantiating that materials comply with specified requirements. Indicate that Installer has received copy of manufacturer's instructions.
2. Qualification Data: For installers, including Authorized Applicator certificate from the surface system manufacturer.
3. Contractor is to provide certified statement in writing from Manufacturer listing the overall quantity of rubber (total pounds of granules or strands) and tack coat/primer; and latex binder (total gallons) to be delivered to the job site and used in this track resurfacing project. At the start of construction the contractor shall submit delivery tickets and a Copy of shipping invoices of all materials shipped to the site and used on the project. These documents will be submitted to the Architect prior to final payment.
4. A certificate from the manufacturer of the binders and coatings stating that the materials have been produced specifically for the use in sports surfacing construction.

1.06 CLOSEOUT SUBMITTALS

A. General: Closeout Submittals are to be submitted with O and M Manuals only. Do not submit with other ACTION and INFORMATIONAL Submittals:
1. Maintenance Manual: Provide Owner with written instructions for track use and maintenance requirements.
2. The layout of the track and field events shall conform with the Drawings. Upon completion of striping and layout work, the Contractor shall submit to the Architect an "As Built Drawing" prepared by a licensed surveyor certifying that all points and layouts shown on the approved shop drawing are located where required. This Drawing shall show the surveyor's name, address, and surveyor's license number. The cost of this Work shall be included in the Contractor's bid.

1.07 QUALITY ASSURANCE

A. Installation of synthetic surfacing must be performed by a Contractor who has minimum of 5 years experience in the field and can demonstrate successful completion of similar projects.

B. A representative of the manufacturer of the synthetic material shall be at the job site during performance of the Work to assist and advise the asphalt plant in establishing the proper mix and to assist and advise the Contractor on all phases of the synthetic surfacing installation.

C. The Contractor shall record batch number of each product used on the site and maintain it throughout the warranty period.

D. The Contractor shall provide the volume of each liquid product and the weight of the rubber granule to be used on site.

E. Installer and Manufacturer shall be a member of the ASBA.

F. Pre-Installation Meeting: Schedule a pre-installation meeting through Construction Manager to review the sub-base material, synthetic surface materials delivered to the project site, testing and quality assurance required by the Specifications and general installation and completion process.

G. Prior to application of the UV protective coatings and line marking, the surface shall be tested for the required depth using SMG FT-3 Floor tester depth gauge. The running track oval shall be tested in no less that 100 locations. The tests shall be performed at the center of both the outer and inner lane, as well as, the center of the oval. If at least 80% of the readings do not meet the required depth, additional layers of rubber and binder will be applied until the proper depth has been achieved.

1.08 WARRANTY

A. The installer and materials manufacturer shall supply a warranty covering labor and materials respectively covering the work of this Section, including delamination, discoloration and material failure.

1. Warranty covers installation and materials supplied as part of this Work. Existing materials and substrate to remain are not covered under the warranty.

2. Warranty Period: Five years from the date of Substantial Completion.

B. Special Project Warranty: Warranty form at the end of this section, signed by installer, covering the work of this section, including delamination, discoloration, and material failure.

PART 2 PRODUCTS

2.01 MANUFACTURES

A. ***Track Resurfacing, Carmel Middle School: Basis of Design Latex Surface Manufacturer: Subject to compliance with requirements:***

1. ***Re-Track 300 system: Dalton Track Systems, 206 Gienow Rd, Rural Retreat, Virginia***
   a. ***Materials are listed as standard of quality.***
   b. ***Confirm the compatibility; Proposed system with existing system.***
2. ***Products from the following providers that meet or exceed the basis of design will be accepted:***
   a. ***Precision Sports Surfaces, Inc., Charlottesville, Virginia.***
   b. ***Leslie Coatings, Inc., Indianapolis, Indiana.***
   c. ***All American Tracks Corporation, Amherst, Ohio.***
   d. ***Current Surfaces, Hanover, Michigan.***
   e. ***Site Technology, Inc., Stow, Ohio.***
   f. ***Reece Seal Coatings, Inc., Indianapolis, Indiana.***
   g. ***California Products Corp.***

B. ***New Track Surface, Clay Middle School: Latex Surface Manufacturers: Subject to compliance with requirements, provide products for Latex surface by one of the following:***

1. ***Maxflex BL; Precision Sports Surfaces, Inc., Charlottesville, Virginia.***
2. ***Reflex-1; Leslie Coatins, Inc., Indianapolis, Indiana***
3. ***Top Trax Surfacing System; All American Tracks Corporation, Amherst, Ohio.***
4. ***Seal Flex; Current Surfaces, Hanover, Michigan.***
5. ***Resilo-Flex; Site Technology, Inc., Stow, Ohio.***
6. ***Speedflex L400; Reece Seal Coatings, Inc., Indianapolis, Indiana.***
7. ***Plexitrac, California Products Corp.***

C. Products of other manufacturers will be considered for acceptance provided they equal or exceed the material requirements and functional qualities of the specified product. Requests for Architect/Engineer's approval must be accompanied by the "Substitution Request Form" and complete technical data for evaluation. All materials for evaluation must be received by the Project Manager and Specification Department at least 10 days prior to bid due date. Additional approved manufacturers will be issued by Addendum.

2.02 MATERIALS

A. General: Shall conform to manufacturer's current specification. The surfacing system shall be complete and consist of components, blended and mixed in the prescribed manner, placed and installed with the recommended equipment to provide the best finished product available from the manufacturer.

B. ***Track Resurfacing, Carmel Middle School: Description, cushion coating system; consisting of latex based 3 coat system (1 primer, 2 rubberized spray layers) to interface with existing latex track surface. To be installed per manufacturers recommendations and guidelines.***

C. ***New Track Surface, Clay Middle School: Description of Latex System***

1. 3/8 inch thick minimum depth.
2. Color: Black.
3. Installation includes:
   a. One tack coat of latex binder or asphalt emulsion.
   b. Minimum 4 layers of SBR rubber granules bound with latex binder.
   c. "Overspray" top layer of latex binder.

D. ***Product Description Latex System***

1. Binder/primer
   a. Latex binder: Provide type of latex binder as recommended by the manufacturer.
   b. System (rates given are minimum - follow manufacturers recommendations if more binder is required.)
      1) Tack coat/primer is to be installed at a minimum rate of .05 gal./sq.yd.
      2) Over first layer of rubber, install one of the following at a rate of .07 gal./lb. of rubber in a sq.yd.
      3) Over remaining layers of rubber granules, install one of the following at a rate of .07 gal./lb. of rubber in a sq.yd.
         a) Provide a U.V. inhibitor in top layer.
      4) "Overspray" layer is to be at a rate of .1 gal. per sq.yd. Provide SBR Latex Binder with U.V. inhibitors or acrylic latex binder.
      5) Overall minimum quantity of binder is to be as follows: (.73 gal./sq.yd.)
   c. Note: The overall quantities listed are to be used for the purpose of setting a minimum acceptable quantity to be used in the Project and noted in the certification statement to be signed by the Contractor. The Contractor is responsible for estimating total quantities of latex binder as required for a complete installation and to provide total encapsulation of rubber particles to provide a **minimum** 3/8 inch depth overall. The total quantity of materials should be based on each manufacturers recommended rates. The rates may exceed the minimum amount listed above to comply with the Manufacturers synthetic surfacing system. The Contractor is responsible to field verify all quantities. The Owner will not be responsible for additional expenses for provision of additional materials beyond the quantities listed above.
2. Rubber
   a. Minimum pounds per sq.yd.: 9.5 pounds overall. Provide one of the following systems or combination of strand and granule to achieve overall minimum 3/8 inch depth and minimum 9.5 lb. rubber/sy.
   b. Size of rubber:
      1) Granules
         a) 1-3 mm on bottom 3 layers
         b) .5-1.5 mm on top layer

Sieve	% Retained
3 Mesh	- 0
1/4"	Trace
8 Mesh	35 – 45
16 Mesh	50 – 95
20 Mesh	75 – 100
30 Mesh	95 – 100

c) Medium (middle 2 layers):

Mesh	Minimum	Maximum	Opening
1/4 inch	-	0	.250
8	5	30	.0937
16	50	90	.0469
20	75	100	.0331
30	98	100	.0234

d) Fine (top layer):

Mesh	Minimum	Maximum	Opening
10	0	5	.0787
16	50	70	.0469
30	70	97	.0234
Pan	0	3	Pan

2) Note: The overall quantities listed are to be used for the purpose of setting a minimum acceptable quantity to be used in the Project and noted in the certification statement to be signed by the Contractor. The Contractor is responsible for estimating total quantities of rubber as required for a complete installation at a 3/8 inch depth. The total quantity of materials should be based on each manufacturers recommended rates. The rates may exceed the minimum amount listed above, to comply with the Manufacturers synthetic surfacing system. The Contractor is responsible to field verify all quantities. The Owner will not be responsible for additional expenses for provision of additional materials beyond the quantities listed above.

E. Line Marking Paint: Shall be 100 percent acrylic latex type, unless different type is recommended by surfacing manufacturer. The use of traffic, oil, alkyd, or solvent-vehicle type paints is prohibited.

F. Long Jump Take-off Boards: Reversible synthetic polyboard, all-white, jumping surface bolted to structural aluminum core. Match dimensions of existing board and verify type and compatibility with existing aluminum tray to remain.

1. Manufacturers:

a. Sportsfield Specialties

b. Aluminum Athletic Equipment

c. Gill Athletics

PART 3 EXECUTION

3.01 ***INSTALLATION OF TRACK RESURFACING, CARMEL MIDDLE SCHOOL***

A. ***Cleaning: The existing track surface to be resurfaced shall be cleaned of all dirt, grease, oil, stains and all other foreign materials and then be allowed to dry prior to the installation of the surface. Mechanical power washing may be required for hard-to-remove substances. Brooms, vacuum and/or blowers will be required to remove soil, dust, etc., from the existing surface.***

B. ***Marking Defective Areas: Porous Surface System: The total area is to be inspected by the Owner and Contractor for all defective areas such as delamination, cuts, cracks, holes, excessive wear, etc. All defective areas are to be outlined / marked with paint. The defective areas to be repaired as outlined under repair.***

C. ***Repair:***

1. ***Areas in the existing surface exhibiting cracks and holes in need of repair shall be filled with material recommended by the surface installer or approved equal selected for its qualities of adhesion. Build up worn areas with SBR rubber granules bound with latex binder. Repairs shall return the surface to a uniform plane.***
2. ***Surface area in need of repair will be previously outlined / marked by paint by the Contractor and approved by the Owner.***
3. ***Existing paint on lane lines, marks, etc. which is raised above the surface must be buffed or ground to level of existing surface.***

D. ***Prepare surface by applying primer.***

E. ***Strictly adhere to manufacturer's written instructions for mixing, transporting, spreading, and compacting resilient material.***

F. ***Utilize only installation equipment and procedures that are recommended by surfacing manufacturer.***

G. ***Do not begin track and field events work before completion of all repairs***

H. ***Construction involving track materials shall not be conducted during a rainfall, and when rainfall is imminent. Both ambient and materials temperatures are to be at least 50 degrees F. (10 degrees C.) and rising.***

I. ***After a rainfall, sufficient time shall be given to allow the surface to dry before resuming work. Surface shall be dry, as well as clean, since moisture on the surface on hot days can turn to steam or vapor. If moisture is trapped under an application of material, blisters may occur.***

3.02 ***INSTALLATION OF NEW SYNTHETIC SURFACING, CLAY MIDDLE SCHOOL.***

A. Before the surfacing is applied, the running track and field events surface shall be cleaned of dirt and debris. Prepare surface by applying primer.

B. Strictly adhere to manufacturer's written instructions for mixing, transporting, spreading, and compacting resilient material.

C. Utilize only installation equipment and procedures that are recommended by surfacing manufacturer.

D. Do not begin track and field events work before completion of final grading and surfacing.

E. Construction involving track materials shall not be conducted during a rainfall, and when rainfall is imminent. Both ambient and materials temperatures are to be at least 50 degrees F. (10 degrees C.) and rising.

F. After a rainfall, sufficient time shall be given to allow the surface to dry before resuming work. Surface shall be dry, as well as clean, since moisture on the surface on hot days can turn to steam or vapor. If moisture is trapped under an application of material, blisters may occur.

3.03 INSTALLATION OF SYNTHETIC SURFACING ON CONCRETE BASE

A. Allow minimum cure time of 28 days or as determined by each manufacturer prior to installation of primer and synthetic surfacing.

B. Power wash concrete surface and allow to dry completely prior to installation of primer.

C. Use primers as acceptable for each manufacturer's product. Do not use asphalt emulsion as binder or primer over concrete base.

D. Apply tack coat, binder, granule layers and additional binder as required by manufacturer's installation instructions to achieve thickness specified.

3.04 INSTALLATION OF SYNTHETIC SURFACING ON ASPHALT PAVEMENT

A. Allow minimum cure time as recommended by manufacturer prior to installation of primer and synthetic surface over new asphalt pavement.

B. Prior to application of resilient surface materials, the entire surface shall be flooded and checked for depressions or irregularities in the asphalt in the presence of the Contractor installing the Asphalt. Any puddle area covering the nickel shall be marked for repair. Asphalt shall not vary more than 1/4 inch in 10 feet, measured in any direction. Any depressions 1/4 inch or greater shall be leveled using appropriate patch materials as recommended by synthetic surface manufacturer.

C. Apply tack coat, binder, EPDM granule layers and additional binder as required by manufacturer's installation instructions to achieve thickness specified.
1. Each layer shall be checked to ensure thickness and density uniformity.
2. Binder shall be applied to fully encapsulate granules.

D. Prior to application of the UV protective coatings and line marking, the surface shall be tested for the required depth using SMG FT-3 Floor tester depth gauge. The running track oval shall be tested in no less that 100 locations. The tests shall be performed at the center of both the outer and inner lane, as well as, the center of the oval. If at least 80% of the readings do not meet the required depth, additional layers of rubber and binder will be applied until the proper depth has been achieved.

E. Apply final UV protective coating in two applications. One application shall be applied clockwise and the other counterclockwise.

3.05 LINE MARKING OF RUNNING TRACK AND FIELD EVENTS

A. Striping shall be carefully completed so lines are uniformly applied, straight, and with even edges. Colors shall be as shown on the Drawings as selected by the Architect.

B. Lines and other markings shall receive 2 coats of paint, amount as recommended by the manufacturer. Paints shall be used directly from original containers and absolutely no thinning shall be allowed.

C. Wait 48 hours after surface competition before applying line marking. The installer shall:
1. Establish and set all necessary control points.
2. Layout all lines and markings to tolerances set forth by governing body requirements.
3. Prepare all necessary drawings..
4. Provide all computations and measurements in organized form.
5. Establish all location on the curves using a transit or theodolite capable of reading direct to 20 seconds.
6. Identify all markings, where appropriate, by painting the identification directly onto the track surface in 4 inch letters below or in front of each mark on the right hand portion of the lane
7. Paint all of the large, 3 foot high, lane numbers in two colors, utilizing shadowed backgrounds.
8. All lines shall receive sufficient paint to assure complete opacity and uniformity of color.
9. Amount of paint used shall be as recommended by the manufacturer.
10. The paint used shall be a 100 percent acrylic latex line paint made especially for the painting of lines on sports surfaces.
11. All measurements shall be made by a competent, experienced, and fully qualified personnel.

12. The markings shall include all events and marks required or recommended by the National Federation of State High Schools, the NCAA, or the IAAF dependent on the end use of the facility.

3.06 PROTECTION

A. During construction, limit access of non-construction personnel to the site.

B. Coordinate other construction with the installation contractor.

C. The installer shall protect curbs, fences, and all other surfaces and structures from overspray.

3.07 CLEAN UP

A. Remove all containers, surplus and debris. And dispose of in accordance with local, state, and federal regulations.

B. Remove all spills and overruns and clean any spray drift from adjacent surfaces or improvements.

C. Leave site in a clean and orderly condition.

3.08 FIELD QUALITY CONTROL

A. The Owner shall reserve the right to request a representative sample of the synthetic track surface be analyzed by an independent testing laboratory prior to final completion. The testing would verify the chemical composition, thickness and compliance with the project and manufacturers specification. The cost of one test for samples indicated below shall be included in the Contractors bid.

B. The finished track surface shall be tested for compliance with the above specifications. The following method shall be employed:
   1. Three 6 by 6 inch test cuts shall be cut out of the finished track surface by the Contractor, in the presence of the Owner.
   2. The location of the test cuts shall be selected by the Owner and shall be located not less than 6 inches from the edge of the surface.
   3. The test cuts shall be examined for thickness and weight by an independent testing laboratory. The finished weight of the base bid Latex system shall be not less than 11.5 pounds per square yard of surface. Thickness shall be 3/8 inch. Thickness for the alternate Polyurethane system shall be ½ inch. In the event that the above minimums are not achieved, the Contractor shall install additional materials until said minimums are achieved. The Contractor shall repair the areas where the test cuts were made to match the surrounding track area to a like new condition.

3.09 INSTALLERS WARRANTY

1 WHEREAS, _____ of _____ _____herein called "Surfacing Installer," has preformed surface coating and associated work ("work") on the following project:

a Owner: _____ _____

b Address: _____ _____

c Building Name: _____ _____

d Address: _____
_____

e Acceptance Date: _____
_____

f Warranty Period:_____
_____

g Expiration Date: _____
_____

2 AND WHEREAS, Surfacing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against delamination, discoloration, material failure, defective materials and workmanship for a designated warranty period of 5 years from date of substantial completion.

3 NOW THEREFORE, Surfacing Installer hereby warrants, subject to terms and conditions herein set forth, that during warranty period he/she will, at his/her own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as necessary to maintain said work in same condition as at “Acceptable Date”.

4 Within Warranty period, Installer or Manufacturer shall make periodic visits after the seasons of use or prior to the season of use to observe the track surface and notify the Owner of any areas needed preventive maintenance. If areas show the affects of poor materials or workmanship they should be corrected as part of this Warranty.

5 This warranty is made subject to the following terms and conditions:

a Specially excluded from this warranty are damages to work cause by:
  1 Acts of vandalism
  2 Failure of substrate, including settlement.

b When work has been damaged by any of foregoing causes, warranty shall be null and void only in affected are until such damage can be repaired and until cost and expense there of have been paid by Owner or by another responsible party so designated.

c Surfacing Installer is responsible for damage to work covered by this warranty but is not liable for consequential damages that may result from faults or defects of work.

d During warranty period, if Owner allows alteration of work by anyone other than Surfacing Installer, including cutting, patching and maintenance in connection to additional penetrations, this warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this warranty. If Owner engages surfacing installer to perform said alterations, warranty shall not become null and void unless Surfacing Installer, before starting work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this warranty.

e During warranty period, if original use of surface is changed and it becomes used for, but was not originally specified for a skateboard area, or other use or service more severe than originally specified, this warranty shall become null and void on date of said change, but only to extent said change affects work covered by this warranty.

f Owner shall notify Surface Installer of observed, defects or deterioration and shall afford reasonable opportunity for Surface Installer to inspect work and to examine evidence of defects and deterioration.

g This warranty is recognized to be the only warranty of Surface Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of surface failure. Specifically, this warranty shall not operate to relieve Surface Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner’s General Contractor.

6 IN WITNESS THEREOF, this instrument has been duly executed this _____ _____ day of _____, _____ _____.

a Authorized Signature: _____ _____

b Name: _____ _____

c Title: _____ _____

END OF SECTION 32 18 24