NOTE TO CONSULTANTS: Edit with Track Changes turned on, any text in this section that appears in bold and italics then turn off the bold and italics for the final approved version. (Remove this Note).

PART 1 - GENERAL

1.01 Description: Furnish all labor, materials and equipment to install the Play Area Synthetic Safety Surfacing as indicated on the drawings and specified herein

1.02 Related Sections:

Section 31 00 00 - Earthwork
Section 32 11 23 - Mineral Aggregates
Section 32 12 43 - Porous Asphalt Paving
Section 32 20 00 - Play Area Equipment

1.03 Quality Assurance:

A. Manufacturer's Instructions: Strictly adhere to the manufacturer's instructions regarding product handling, sub-grade preparation, surfacing system application and all other aspects of the surfacing installation.

B. The contractor who is installing the surfacing shall have at least five (5) recent (within the last three (3) years) installations of Play Area Synthetic Safety Surfacing and shall have personnel, facilities and equipment for the specified work. The contractor shall also submit evidence of the recent installations of the surfacing materials.

C. Special Requirements:

1. The safety surface products shall meet or exceed the current Consumer Products Safety Commission 200-g guideline and ASTM F1292-01. The Contractor shall submit two (2) copies of the Manufacturer's independent test results showing conformance. Reports must be for the exact thickness to be installed.
2. Warranties: Provide manufacturer's three-(3) year material warranty for all safety surface system materials and workmanship.
3. Disabled Accessibility: Products shall meet the requirements of the Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Play Areas, November 2000.

1.04 Submittals:

A. Submit product samples, color charts or samples of available colors. **(Black will not be an acceptable color)**.

B. Not less than thirty (30) days prior to intended use of materials, submit full documentation of specific product literature illustrating its compliance with this Section.

C. Submit list of recent installations of safety surface.

D. The Contractor shall submit to the Engineer for approval, material samples to be used and the proposed method of application and procedures to be followed.

1.05 Manufacturer and Products: All Surfacing Materials shall be delivered to the construction site in its original unopened containers clearly labeled with trade name and name of manufacturer.

PART 2 - PRODUCTS

2.01 General:

A. The safety surfacing shall have fall or shock attenuation for the height required by the plans as per ASTM F1292 and ASTM D3676.

B. The safety surface shall have a smooth, non-slip surface finish.

C. The safety surface shall be free draining.

D. The material shall be rubber or rubber like with maximum utilization of recycled material.

E. The material may be tiles or poured-in-place system, per Drawings.

F. The safety surface shall be securely glued or bonded to the surface.

G. The safety surface tile or poured-in-place system shall be available in permanent colors other than black.

H. All materials shall be non-toxic under all conditions of normal use.

2.02 Base Material: Base Material shall be Type 2 Mineral Aggregate (1-1/4 inch minus crushed rock) per City of Seattle Standard Specifications (most recent edition). Also refer to Section 31 00 00 - Earthwork, Section 32 11 23 - Mineral Aggregates, or ***Section 32 12 43 - Porous Asphalt Paving*** for installation.

2.03 Synthetic Surfacing Materials

A. Polyurethane Primer and Binder: 100% Single Component Polyurethane Binding Agent - Methylene Dephenyl Isocyanate (MDI) based binder.

B. Wear Course: EPDM pigmented synthetic rubber granules 1-3 mm in diameter.

C. Impact Course: SBR or EPDM select rubber. The impact layer is to be a precise combination of black rubber and polyurethane binder.

2.04 Recommended Manufacturers:

A. Poured in place systems:

1. 'Safe Guard' surfacing as manufactured by Safe Guard, available from Playscapes Northwest 1(800) 982-1484.
2. 'Playbound' as manufactured by Surface America, Inc. available from Landscape Structures, 1(888) 574-7377
3. 'GT Impax' as manufactured by GameTime, available from SiteLines 1(800) 235-2440.
4. 'Vitriturf' as manufactured by: Vitricon, Inc., 65 Davids Drive, Hauppauge, New York 11788. Phone: 1-800-777-6596.
5. Or approved equals.

B. Tile systems:

1. "Playguard" as manufactured by: Carlisle Tire & Rubber Company, P.O. Box 99, Carlisle, Pennsylvania 17013. Phone: 1-800-827-1001
2. "Ruff House" as manufactured by: Connor Aga Sports Flooring Corporation, 251 Industrial Park Road, Amasa, Michigan 49903. Phone: 1-800-833-7144. Local supplier: Boorkman Associates, 545 108th Avenue NE, Suite 5, Bellevue, Washington 98004. Phone: (206) 455-1429.
3. "Safety Tiles" as manufactured by: Dinoflex Manufacturing, Ltd., Salmon Arm, British Columbia, Canada. Phone: (604) 832-7780. Local supplier: SiteLines Park and Playground Products, Lynnwood, Washington 98036. Phone: (206)775-6822.
4. "Security Blanket" as manufactured by: Playfield Industries, Inc., Williamsville, New York 14231-1564, Phone: 1-800-263-5750.
5. "Play Bound" as manufactured by: Surface America, Inc., P. O. Box 157, Williamsville, New York 14231. Phone: 1-800-999-0555.
6. Or approved equals.

2.05 Color(s): The color(s) of the synthetic surfacing shall be indicated on plans or provided by the Consultant.

PART 3- EXECUTION

3.01 Preparation:

A. Scheduling: Synthetic poured rubber surfacing shall be installed after the playground equipment is installed and after the subsurface is ready to receive surface. The temperature should be 40 degrees and rising during installation of surface.

B. Cleaning: The entire subsurface shall be clean, dry and free from any foreign and loose material.

C. Inspection: Examine the areas and conditions under which work of this Section will be installed. Do not proceed until conditions detrimental to proper and timely completion of the work have been satisfactorily corrected and thus meet the manufacturer's instructions. Beginning work constitutes approval of conditions as satisfactory.

3.02 Base Installation:

A. Provide ***a minimum 4" compacted lift of specified Base Aggregate or a minimum 3" compacted lift or base aggregate and a minimum 2" lift of Porous Asphalt Paving*** true to the elevations either described or implied in the Contract Drawings or as required to match adjacent existing pavements or as indicated on the Contract Drawings.

B. Bases shall be graded such that upon approval of compaction, the surface of the base is at the correct elevation to receive synthetic safety surfacing to design thickness and finished grade.

C. Compact base material to 95% density per Section 31 00 00 - Earthwork or ***Section 32 12 43 - Porous Asphalt Paving***.

D. Base installation shall conform strictly to manufacturer's instructions using all appropriate accessories, as required.

E. Base shall have the specific minimum slope (2%) and shall vary no more than 1/8" when measured in any direction with a 10' straight edge. Asphalt base shall be allowed to cure a minimum of fourteen (14) days and new concrete shall be allowed to cure a minimum of seven (7) days prior to commencement of surfacing. A compacted stone base will not require cure time but will be subject to slope and tolerance specifications.

3.03 Synthetic Surfacing Installation:

A. Synthetic surfacing installation shall conform strictly to the Manufacturer's instructions using all appropriate accessories as required.

B. Thickness: Total depth of the surface shall be as indicated on plan. Surface thickness will vary in impact course according to fall height. The specified depth of the surface shall be determined by the exact fall height requirements and surface depth requirements.

C. Impact Course: The impact course (thickness as specified) must be composed of rubber and be free of foreign matter. The impact course will be poured in place by means of screeding and hand-trowelled to maintain a seamless application. All

rubber in the impact course will be of a select quality and consistent blend of rubber sizings to achieve maximum porosity and minimum residue.

D. Wear Course: The wear course material shall be composed of EPDM granular rubber only per manufacturer's specification. The wear course will be poured in place by means of screeding and hand trowelled to maintain a seamless application. All rubber shall remain consistent in gradation and size. If graphic designs and color transitions are used, they shall be full wear course depth. Color(s) shall be determined by the Consultant.

E. Edge: Surface edges shall be flush with edge of adjacent area or tapered to provide safe transition. Surface shall be sloped to drain as indicated on plans.

3.04 Protection: Surface shall be protected during the installation process and during the curing period upon completion of the installation and overnight during the installation.

3.05 Warranty: The Contractor shall warranty for a period of **two (2) years** after Physical Completion, that all work performed under this section shall be free from any defects in materials and workmanship. Upon written notice from the Engineer, the Contractor shall, at no cost to the Owner, make all necessary repairs or replacements of the defective work in question. During this period of warranty, the Owner shall perform normal maintenance and cleaning of the play area surfacing.

END OF SECTION