



**DURHAM CATHOLIC
DISTRICT SCHOOL BOARD**
Learning and Living in Faith

**T24-02 Kindergarten Outdoor Playground Renovations – Three (3) Schools &
St. Patrick Catholic School – Field and Site Improvements**

ADDENDUM NO. 2

Issued by: Purchasing Services
Durham Catholic District School Board
652 Rossland Road West
Oshawa, Ontario L1J 8M7

This addendum will form a part of the bid documents for the above noted Bid and shall be read in conjunction herewith. This addendum will take precedence over all requirements of the original bid documents and any addenda issued previously.

Bidders shall acknowledge receipt of this addendum with their electronic bid submission on the declaration page in the bidding system.

Please see below for duraSAFE Specifications



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Product Guide Specification

SECTION 02791 (32 18 16.13)

PLAYGROUND SURFACING TILES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Resilient, interlocking, playground safety surfacing tiles.

1.2 RELATED SECTIONS

- A. Section 02_____ (32 ____ ____) – _____ : Asphalt subsurface.
- B. Section 02880 (11 68 13) – Playground Equipment.
- C. Section 03300 (03 30 00) – Cast-in-Place Concrete: Concrete subsurface.



1.3 REFERENCES

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM C 67 – Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
- B. ASTM C 501 – Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abrader.
- C. ASTM D 412 – Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension.
- D. ASTM D 573 – Standard Test Method for Rubber-Deterioration in an Air Oven.
- E. ASTM D 624 – Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
- F. ASTM D 2047 – Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
- G. ASTM D 2859 – Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.
- H. ASTM D 3676 – Standard Specification for Rubber Cellular Cushion Used for Carpet or Rug Underlay.
- I. ASTM E 303 – Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.
- J. ASTM F 1292 – Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.
- K. US Consumer Product Safety Commission (CPSC) Handbook for Playground Safety.

1.4 SUBMITTALS

- A. Comply with Section 01330 (01 33 00) – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation and subsurface instructions.
- C. Samples: Submit manufacturer's sample of 1 full tile.

- D. Test Reports: Submit certified test reports from qualified independent testing agency indicating results of the following tests:
 - 1. Impact Attenuation: ASTM F 1292.
 - 2. Freeze Thaw: ASTM C 67.
 - 3. Rubber Deterioration/Air Oven: ASTM D 573.
 - 4. Slip Resistance: ASTM D 2047 and E 303.
 - 5. Tensile Strength: ASTM D 412.
 - 6. Elongation at Break: ASTM D 412.
 - 7. Tear Strength: ASTM D 624.
 - 8. Peak Load: ASTM D 624.
 - 9. Density :ASTM D 3676.
 - 10. Taber Abrasion: ASTM C 501.
 - 11. Flammability: ASTM D 2859
- E. Certificate of Compliance: Submit manufacturer's certificate of compliance indicating materials comply with specified requirements.
- F. Manufacturer's Project References:
 - 1. Submit list of 15 successfully completed projects.
 - 2. Include project name and location, name of architect, and type and quantity of playground safety surfacing tiles furnished.
- G. Installer's Project References:
 - 1. Submit copy of manufacturer issued installation certification
- H. Maintenance Instructions: Submit manufacturer's maintenance and cleaning instructions.
- I. Warranty: Submit manufacturer's standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer shall meet a minimum of 1 of the following 2 requirements.
 - 1. Continuously engaged in manufacturing of playground safety surfacing tiles of similar type to that specified, with a minimum of 10 years successful experience.
 - 2. Furnished a minimum of 15,000,000 square feet of playground safety surfacing tiles of similar type to that specified.
- B. Installer's Qualifications:
 - 1. Certified by manufacturer for installation of playground safety surfacing tiles.
 - 2. Approved by manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage:



1. Store materials in accordance with manufacturer's instructions.
2. Playground Safety Surfacing Tiles:
 - a. Store tiles in a dry area at a minimum temperature of 50 degrees F (10 degrees C) for a minimum of 72 hours before installation.
 - b. Protect tiles from direct sunlight before installation.
3. Adhesive: Store adhesive in a dry area at a minimum temperature of 50 degrees F (10 degrees C).

C. Handling: Protect materials during handling and installation to prevent damage.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Tile Temperature: Ensure surface temperature of playground safety surfacing tiles is a minimum of 50 degrees F (10 degrees C) at time of installation.
- B. Air Temperature: Ensure air temperature is a minimum of 40 degrees F (4 degrees C) for a minimum of 24 hours before and during installation.
- C. Tile or Air Temperatures: Consult manufacturer's installation instructions for modified installation procedure when tile or air temperatures are above 85 degrees F (29 degrees C).

1.8 WARRANTY

- A. Materials and Workmanship: Playground safety surfacing tiles shall be warranted for defects in materials and workmanship for the lifetime of the playground.
- B. Performance: Playground safety surfacing tiles shall be warranted to meet drop height performance requirements of ASTM F 1292 for the lifetime of the playground.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. SofSURFACES, Inc., 4393 Discovery Line, PO Box 239, Petrolia, Ontario N0N 1R0, Canada. Toll Free (800) 263-2363. Phone (519) 882-8799. Fax (519) 882-2697. Website www.sofsurfaces.com. E-mail nigel@sofsurfaces.com.

2.2 PLAYGROUND SURFACING TILES

- A. Tiles: SofTILE DuraSAFE Series
 1. Series: [Premium].
 2. Description: Resilient, interlocking, playground safety surfacing tiles.
 3. Compliance: Meet and exceed CPSC guidelines for impact attenuation.
 4. Material: Compression-molded, recycled rubber and binding agents.
 5. Tile Locking: U-shaped male and female configuration on all 4 sides to lock tiles to adjacent tiles.
Edge Cut Groove on the vertical edge of all sides that creates a bridge for additional



- Tile to tile adhesion.
- 6. Top Edges: Chamfered.
- 7. Tile Bottom: Hollow core stanchion pattern.
- 8. Wear Layer:
 - a. Premium Series: Virgin EPDM Skins. Minimum 0.0625 inch thick.
- 9. Size: 24 1/8" X 24 1/8" Nominal.
Installed size: 24" X 24"
- 10. Thickness:
 - a. Critical Fall Height 8 Feet: 4.25 inches.
- 11. Minimum Weight Each Tile:
 - a. Premium Series:
 - 1) 2.00-Inch Thickness: 25.00 pounds.
 - 2) 2.25-Inch Thickness: 26.00 pounds.
 - 3) 2.75-inch Thickness: 28.00 pounds.
 - 4) 3.25-Inch Thickness: 30.50 pounds.
 - 5) 3.75-Inch Thickness: 33.00 pounds.
 - 6) 4.25-Inch Thickness: 34.50 pounds.
 - 7) 4.75-Inch Thickness: 38.50 pounds
 - 8) 5.00-Inch Thickness: 40.00 pounds
 - 9) 5.25-Inch Thickness: 40.50 pounds
- 12. Colors:
 - a. Premium Series: [Black] [Green] [Blue] [Light Grey] [Red] [Medium Grey] [Pewter] [Ivory] [Pumpkin Spice] [Sapphire] [Shamrock] [Lava] [Smoke] [Aquamarine] [Forest Green] [Red Rock] [Sedona] [Sierra Brown] [Tuscan Red] [Denim] [Safari] [Denali Grey] [Granite] [Sangria] Emerald Green] [Azure]

B. Test Results:

- 1. Impact Attenuation, ASTM F 1292:
 - a. g-max Score: Less than 125.
 - b. Head Injury Criteria (HIC) Score: Less than 700.
- 2. Freeze Thaw, ASTM C 67: No deterioration.
- 3. Rubber Deterioration/Air Oven, ASTM D 573: No deterioration.
- 4. Slip Resistance:
 - a. ASTM E 303:
 - 1) Dry: 51 minimum.
 - 2) Wet: 44 minimum.
 - b. ASTM D 2047:
 - 1) Plus: 0.533.
 - 2) Premium: 0.601.

5. Tensile Strength, ASTM D 412:
 - a. Premium Series: .636 Mpa.
6. Elongation at Break, ASTM D 412:
 - a. Plus Series 68.5 percent.
 - b. Premium Series 35.3%
7. Tear Strength, ASTM D 624:
 - a. Premium Series: 2.4 kNm.
8. Flammability:
 - a. Burning Pill, ASTM D 2859: Pass.
9. Density, ASTM D 3676:
 - a. Premium Series: 859 kg/m³
10. Taber Abrasion, Wear index, ASTM C 501:
 - a. Premium Series: 77

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive playground safety surfacing tiles. Notify Architect if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

3.2 PREPARATION

- A. Prepare subsurface in accordance with manufacturer's instructions to ensure proper slope, support and drainage for playground safety surfacing tiles.



- E. Asphalt Subsurface:
 1. Asphalt subsurface shall be as specified in Section 02_____ (32 ____).
 2. Ensure asphalt is sound with no loose material or cracks over 1/8 inch wide.
 3. Ensure asphalt is a minimum of 14 days old.
 4. Test asphalt for moisture in accordance with manufacturer's instructions to ensure it has sufficiently cured and is dry.
 5. Scarify existing asphalt in accordance with manufacturer's instructions.
 6. Variations in Elevation: Repair variations in elevation of completed subsurface greater than plus or minus 1/4 inch over 10 feet in any direction.

3.3 INSTALLATION

- A. Install playground safety surfacing tiles in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Ensure prepared subsurface and tiles are dry and clean.



- C. Layout tile surface in accordance with manufacturer's instructions.
- D. Apply adhesive in accordance with manufacturer's instructions for tile-to-tile as well as tile-to-base for all keystone and strategic tile rows.
- E. Installation to be completed by a factory trained and certified installer.

3.4 FIELD QUALITY CONTROL

- A. Installed Surface Performance Test: ASTM F1292
 - 1. Perform impact attenuation testing according to ASTM F1292 in presence of Owner's representative within 30 days of installation.
 - a. Confirm Impact Attenuation Performance of Surfacing Tiles:
 - 1) g-max Score: Less than 125
 - 2) Head Injury Criteria (HIC) Score: Less than 700
 - 2. Test Equipment Operator Qualifications:
 - a. National Recreation and Parks Association/National Playground Safety Institute (NRPA/NPSI) Certified Playground Safety Inspector (CPSI).
 - b. Trained in the proper operation of Triax test equipment by competent agency.
 - 3. Determine compliance with ASTM F 1292, unless otherwise specified in this section.

3.5 CLEANING

- A. Remove adhesive spills from playground safety surfacing tiles in accordance with manufacturer's instructions.
- B. Clean tiles in accordance with manufacturer's instructions.

3.6 PROTECTION

- A. Protect playground safety surfacing tiles from foot traffic for a minimum of 12 hours after installation.
- B. Protect completed tiles from damage during construction.

END OF

SECTION