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# Memo

**To** Board of Education

**From** Facilities Committee  
Jody London, Chairperson  
Roseann Torres  
Gary Yee

Staff

Kyla Johnson Trammell  
Timothy White

**Board Meeting Date** November 18. 2019

**Subject** Adoption of Safety Matting Master Plan

## Action

Approval by the Board of Education, upon recommendation of the Facilities Committee, of a District-wide Safety Matting Master Plan for play structures.

## **Background/Discussion**

This Safety Matting Master Plan provides an important input to the Facilities Master Plan and resulting Capital Building Programs. The selection, design, and installation of the Safety Matting throughout the District also have a direct relationship to maintenance and repair loads and the capacity of Buildings & Grounds to support safe facilities Districtwide.

The Safety Matting Master Plan presents important elements to maintaining safe play structures across the District and limit injuries. Impact attenuation is achieved through various matting or loose fill options which can reduce the impact of a fall or jump from a play structure. Loose fill requires regular maintenance to clean up the material and need sufficient staff resources to inspect the fill on a daily basis. OUSD does not have the resources to support this daily work and in order to ensure safety and document the maintenance of safe conditions, loose fill cannot be permitted.

The Safety Matting Master Plan proposes utilizing our current standard matting material DuraSafe which has been in use at OUSD for over 7 years.

**Fiscal Impact**

Based on this report we will need to budget \$271,560/year to routine repair and maintenance of safety matting at all play structures and \$617,092/year as a budget for replacement. We propose to split this between the bond program and the deferred maintenance program.

**Recommendation**

Approval by the Board of Education, upon recommendation of the Facilities Committee, of a District-wide Safety Matting Master Plan for play structures

**Attachment**

District-wide Safety Matting Master Plan

**OAKLAND UNIFIED SCHOOL DISTRICT  
DEPARTMENT OF FACILITIES PLANNING & MANAGEMENT**

Safety Matting Master Plan  
October 18, 2019

This Safety Matting Master Plan provides a primary input to the Facilities Master Plan and resulting Capital Building Programs. The selection, design, and installation of the Safety Matting throughout the District also have a direct relationship to maintenance and repair loads and the capacity of Buildings & Grounds to support safe facilities Districtwide.

## BACKGROUND

Fall safety is an important element to maintaining safe play structures across the District and limit injuries.

Impact attenuation is achieved through various matting or loose fill options to reduce the impact intensity of a fall or jump from a play structure.

Loose fill is sand, bark, or wood chips at sufficient depth to soften impact. Loose fill is very economical and is significantly lower in first cost than all other options. Loose fill is subject to spreading and tracking outside of the play area. Loose fill requires regular maintenance to clean up the spread material, redistribute the material to ensure proper depth and protection, and clean the material of contaminants and sharp objects left as litter or vandalism. Loose fill is only suitable in situations where vermin or domestic animals can be excluded and where there is sufficient staff resources to inspect the fill on a daily basis for contaminants, even out any low spots and clean up the spread or tracked material.

Since OUSD does not have the resources to support this daily work, OUSD does not permit loose fill as there is no practical way to ensure safety or document the maintenance of safe conditions

There are two major safety matting product types on our playstructures:

1. Poured in place shredded rubber troweled in place
2. Compression formed granular rubber tiles

Both of these products are significantly more expensive than loose fill.

The poured in place/troweled in place product was our standard until 2013 and does offer good initial fall safety. We do have to perform fall safety tests on all troweled in place products since it is a field installed product. We have found that wear is excessive. Areas under slides and

swings usually require replacement in one or two years. Replaced areas must be retested after each replacement or repair. Maintenance on each poured in place mat averages \$3,200/year

## CURRENT

Our current standard for safety matting is compression formed granular rubber tiles. Our current standard matting material is DuraSAFE playground matting. This is currently a sole source procurement as there is no known equal. There is at least one competitor coming to market, but they have not passed all the required safety tests. We have standardized on this product for the following reasons:

1. Durability: DuraSAFE has been in use at OUSD for over 7 years. During that time we have not replaced any product due to damage or vandalism. Previous products also degraded through UV exposure or age. Other products must be replaced or extensively repaired and retested on 3 to 7 year cycles.
2. Safety: DuraSAFE is pretested and documented to meet safety standards over time. All other products need regular testing as product degrades and regular repairs or replacement as matting wears away under swings and slides.
3. Life-cycle costs: DuraSAFE costs 50% more than other matting materials. The long term durability and safety result in savings over time of two to three times the installed cost.
4. Yearly maintenance costs are limited to power washing (we included a cost for tile replacement, but we have not had to replace any tile to date). Maintenance on each DuraSAFE mat averages \$1,250/year.

We did replace a small amount of edge tile on early installations to improve access compliance.

## FUTURE

The appended report summarizes our 111 safety mats and includes the type of safety matting, the expected replacement date, and yearly maintenance costs. We plan on replacing all poured in place matting with DuraSAFE as the poured in place reaches its end of life. We will continue to monitor the market to utilize a competitive product when it meets all standards and safety tests.

Based on this report we will need to budget \$271,560/year for routine repair and maintenance of all safety matting. Once we have fully transitioned to DuraSAFE we expect this yearly cost will be reduced resulting in a year over year benefit to the District and allow B&G to better focus on other high priority needs. We also need to budget \$617,092/year in capital and/or deferred maintenance fund for replacement of end of life safety matting. This amount will enable us to replace the poured in place product at end of life and then continue to replace the DuraSAFE or comparable product on a much less frequent (but more expensive unit cost) basis.

Attached is the Summary of all Safety Matting in OUSD

SAFETY MATTING MASTER PLAN

School Site	Number of Playmatting at Location	Type of playmatting	Year Install	Predicted Date of Replacement	Replacement cost of playmatting	Proposed yearly budget for RRMA needed for repair and maintenance
Acorn CDC	1	PIP	2006	2022/23	\$60,000.00	\$3,200.00
Acorn Woodland	1	PIP	2006	Bidding October 2019	\$82,000.00	\$3,200.00
Allendale	1	PIP	2010	2021	\$85,000.00	\$3,200.00
Allendale	1	PIP	2010	2021	\$85,000.00	\$3,200.00
Arroyo Viejo CDC	1	PIP	2011	2022	\$70,000.00	\$3,200.00
Bella Vista	1	PIP	2010	2021	\$75,000.00	\$3,200.00
Bella Vista CDC	1	PIP	2006	2022/23	\$80,000.00	\$3,200.00
Bella Vista (2)	2	Softile	2016	2031	\$180,000.00	\$2,500.00
Bridges CDC	1	PIP	2010	2022/23	\$70,000.00	\$3,200.00
Bridges CDC	1	Softile	2016	2031	\$110,000.00	\$1,250.00
Brookfield-CDC	1	PIP	2006	2020	\$55,000.00	\$3,200.00
Brookfield (2)	2	PIP	2010	2022/23	\$180,000.00	\$6,400.00
Burbank	1	tiles	2008	2021	\$90,000.00	\$3,200.00
Burckhalter	1	PIP	2010	2022/23	\$90,000.00	\$3,200.00
Central Infantil CDC	1	Softile	2015	2030	\$70,000.00	\$1,250.00
Chabot	1	PIP	2010	2021	\$95,000.00	\$3,200.00
Chabot	1	tiles	2010	2021	\$85,000.00	\$3,200.00
Chabot	1	Softile	2018	2034	\$110,000.00	\$1,250.00
Chavez	1	PIP	2006	2021	\$60,000.00	\$3,200.00
Chavez (2)	2	PIP	2006	2021	\$180,000.00	\$6,400.00
Chavez CDC	1	PIP	2006	2021	\$70,000.00	\$3,200.00
Cleveland	1	PIP	2010	Bidding October 2019	\$50,000.00	\$3,200.00
Crocker	1	Softile	2017	2032	\$150,000.00	\$1,250.00
Emerson CDC	1	Softile	1997	Bidding October 2019	\$45,000.00	\$3,200.00
Emerson (2)	2	PIP	2010	2021	\$180,000.00	\$6,400.00
Franklin (2)	2	PIP	1998	2020- Kaboom Project		
Fruitvale (2)	2	Softile	2013	2028	\$180,000.00	\$2,500.00

SAFETY MATTING MASTER PLAN

School Site	Number of Playmatting at Location	Type of playmatting	Year Install	Predicted Date of Replacement	Replacement cost of playmatting	Proposed yearly budget for RRMA needed for repair and maintenance
Fruitvale CDC	1	PIP	2010	2021	\$85,000.00	\$3,200.00
Garfield	1	PIP	2010	2021	\$70,000.00	\$3,200.00
Garfield (2)	2	Softile	2016	2031	\$190,000.00	\$2,500.00
Glenview	1	PIP	2006	2020	\$90,000.00	\$3,200.00
Global Family	1	PIP	2008	Bidding October 2019	\$80,000.00	\$3,200.00
Golden Gate Charter	1	PIP	2008	charter replaced themselves		\$3,200.00
Grass Valley	1	Softile	2016	2031	\$130,000.00	\$1,250.00
Hawthorne Charter (2)	2	PIP	2007	2020	\$150,000.00	\$6,400.00
Highland (2)	2	PIP	2010	2021	\$180,000.00	\$6,400.00
Highland CDC	1	PIP	2008	2021	\$110,000.00	\$3,200.00
Hillcrest (2)	2	PIP and wood chips	2010	2022/23	\$150,000.00	\$6,400.00
Hintl CDC (2)	2	Softile	2019	2034	\$180,000.00	\$1,250.00
Hoover	1	PIP	2010	2022/23	\$90,000.00	\$3,200.00
Hoover	1	PIP	2010	2022/23	\$60,000.00	\$3,200.00
Horace Mann	1	PIP	2010	Bidding October 2019	\$83,382.00	\$3,200.00
Howard	1	PIP	2010	Bidding October 2019	\$80,000.00	\$3,200.00
J. Miller (2)	2	Softile	2015	2030	\$150,000.00	\$1,250.00
J. Miller (2)	2	PIP	2004	2021	\$150,000.00	\$6,400.00
Jefferson	1	PIP	2010	2021	\$90,000.00	\$3,200.00
Jefferson CDC (2)	2	Softile	2017	2028	\$150,000.00	\$2,500.00
Kaiser (2)	2	Softile	2013	2028	\$180,000.00	\$2,500.00
Laurel	1	PIP	2010	2020	\$85,000.00	\$3,200.00
Laurel	1	Softile	2014	2029	\$85,000.00	\$1,250.00
Laurel CDC	1	Softile	2019	2034	\$70,000.00	\$1,250.00
Lazear Charter	1	PIP	2011	2020	\$85,000.00	\$3,200.00

SAFETY MATTING MASTER PLAN

School Site	Number of Playmatting at Location	Type of playmatting	Year Install	Predicted Date of Replacement	Replacement cost of playmatting	Proposed yearly budget for RRMA needed for repair and maintenance
Learning w/o Limits	1	PIP	2010	2021	\$90,000.00	\$3,200.00
Lincoln	1	Softile	2016	2031	\$70,000.00	\$1,250.00
Lockwood	1	Softile	2018	2033	\$60,000.00	\$1,250.00
Lockwood (2)	2	PIP	2007	202	\$120,000.00	\$6,400.00
Lockwood CDC	1	PIP	2002	2020	\$85,000.00	\$3,200.00
Manzanita CDC	1	Softile	2016	2031	\$85,000.00	\$1,250.00
Manzanita/ Seed	1	PIP	2010	Bidding October 2019	\$50,000.00	\$3,200.00
Markham	1	Softile	2014	2029	\$80,000.00	\$1,250.00
Marshall Charter	1	PIP	2010	2021	\$90,000.00	\$3,200.00
MLK (2)	2	PIP	2010	2022/23	\$180,000.00	\$6,400.00
MLK-CDC	1	PIP	1999	2020	\$85,000.00	\$3,200.00
Montclair (2)	2	Softile	2016	2031	\$180,000.00	\$1,250.00
Munck	1	Softile	2016	2031	\$100,000.00	\$1,250.00
Parker	1	Softile	2016	2031	\$85,000.00	\$1,250.00
Peralta (2)	2	Softile	2019	2034	\$180,000.00	\$2,500.00
Piedmont	1	PIP	2010	2022/23	\$90,000.00	\$3,200.00
Prescott	1	PIP	2010	2022/23	\$90,000.00	\$3,200.00
Reach/cox	1	PIP	2010	2021	\$100,000.00	\$3,200.00
Reach/cox	1	PIP	2010	2021	\$60,000.00	\$3,200.00
Reach/cox CDC	1	PIP	2010	2021	\$60,000.00	\$3,200.00
Sankofa	1	PIP	2010	2022/23	\$85,000.00	\$3,200.00
Sankofa	1	Softile	2017	2032	\$90,000.00	\$1,250.00
Santa Fe	1	PIP	2010	2021	\$80,000.00	\$3,200.00
Sequoia	1	PIP	2006	Bidding October 2019	\$70,000.00	\$3,200.00
Sequoia	1	PIP	2006	Bidding October 2019	\$70,000.00	\$3,200.00
Sobrante	1	PIP	2010	2022/23	\$110,000.00	\$3,200.00
Sobrante	1	Softile	2016	2031	\$95,000.00	\$1,250.00

SAFETY MATTING MASTER PLAN

School Site	Number of Playmatting at Location	Type of playmatting	Year Install	Predicted Date of Replacement	Replacement cost of playmatting	Proposed yearly budget for RRMA needed for repair and maintenance
Stonehurst	1	tiles	1997	2020	\$80,000.00	\$3,200.00
Stonehurst	1	PIP	2010	2022/23	\$90,000.00	\$3,200.00
Stonehurst CDC	1	PIP	2015	2023	\$80,000.00	\$3,200.00
Thornhill	1	PIP	2008	2021	\$120,000.00	\$3,200.00
Tubman CDC	1	PIP	2008	2021	\$110,000.00	\$3,200.00
United Nations CDC	1	PIP	2016	2024	\$86,000.00	\$3,200.00
Webster (2)	2	PIP	2010	2022/23	\$180,000.00	\$6,400.00
Whittier	1	Softile	2017	2032	\$180,000.00	\$1,250.00
Whittier	1	Softile	2015	2023	\$180,000.00	\$1,250.00
Yuk Yau CDC	1	Softile	2018	2033	\$160,000.00	\$1,250.00
	<b>111</b>				<b>\$9,256,382.00</b>	<b>\$271,650.00</b>

*Aimee Eng*

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 Aimee Eng  
 President, Board of Education

11/14/19

*Kyla Johnson-Trammell*

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 Kyla Johnson-Trammell  
 Secretary, Board of Education

11/14/19