

SuDS for School
Submitted by London Borough Lewisham

Awards category
Regeneration and retrofit – public buildings



Lead or collaborating organisation(s)	London Borough Lewisham (LBL), Trees for Cities (TfC)
Location of SuDS	Rathfern Primary School – SE6 4NL John Stainer Primary School - SE4 2DY Deptford Park Primary School - SE8 5RJ

1. SuDS overview

SuDS components used	<ul style="list-style-type: none"> • Rain gardens • Rainwater planters • Tree pits
Size of the scheme and its local context	<p>The scheme delivered over 150m² new blue-green infrastructure, storing 50m³ and draining over 1,700m² hardstanding surfaces while engaging 1,400 pupils, teachers, and parents at three Lewisham Schools – Rathfern Primary School, John Stainer Primary School and Deptford Park Primary School.</p>
Approximate age of scheme (years)	1 year
Benefits of the scheme	<ol style="list-style-type: none"> 1. Reduce risk of local surface water flooding 2. Increase adaption to climatic changes 3. Biodiversity benefits .g. pollinator-friendly planting and new habitats 4. Awareness and knowledge of climate change, sustainability and trees and nature 5. Deeper connections to nature and motivation to protect and promote nature and trees
Briefly describe the scheme	<p>TfC, LBL and local schools embarked on an exciting new partnership to adapt vulnerable urban school playgrounds to the changing climate; using trees and nature-based solutions to help manage surface flooding and the cooling and shading of hot urban playgrounds.</p> <p>The three primary schools selected Rathfern, Deptford Park and John Stainer, are all exposed to high risk of climate vulnerability and with high socio-economic deprivation. All three schools are at high risk of surface water flooding and rate high on the GLA’s Climate Risk Map.</p> <p>This project took advantage of the vast amounts of rainwater runoff from the hardstanding playgrounds and recycled water to feed trees and large areas of planting. Whilst reducing the urban heat effect of the play area, it created multifunctional and educational and habitat-rich spaces within three Lewisham schools.</p> <p>Pupils and staff took part in 12 onsite sessions at each school; with practical workshops raising awareness of the role of trees, the water cycle and climate change and giving pupils the opportunity to engage in positive climate action through helping to plant and transform their playground. For teachers and maintenance staff, the training and resources are provided to support long term sustainable use of new playgrounds.</p>

2. SuDS details

No	Question	Answer
1	What difference has this scheme made to the local community or area?	<p>The project has transformed the outdoor spaces of three inner-city schools. These schools are classic Victorian primary schools surrounded by a large expanse of hard-standing playground, with little greenery within the school boundaries. Thanks to this initiative, we were able to retrofit rain gardens, rainwater planters and trees within the play spaces, creating areas where pupils can now learn outdoors and interact with biodiversity. The project has been able to instil in the pupils a deeper connection to nature and a better understanding of climate adaptation.</p>
2	What is exceptional about this scheme beyond a standard approach?	<p>Our engagement with the schools was exemplar. We started by meeting with the schools to discuss the project - establishing clear objectives, identifying any expected outcomes. TfC held sessions with the wider school community to understand any ongoing site issues that we could help alleviate, including reducing ponding, addressing overheating in classrooms, and creating more outdoor learning spaces. We provided education support, including SuDS training and workshops for both teachers and students. We co-designed year-round planting and maintenance plans, developed termly tasks and lesson plans, and created a guide for using the newly transformed playground spaces across the National Curriculum.</p>

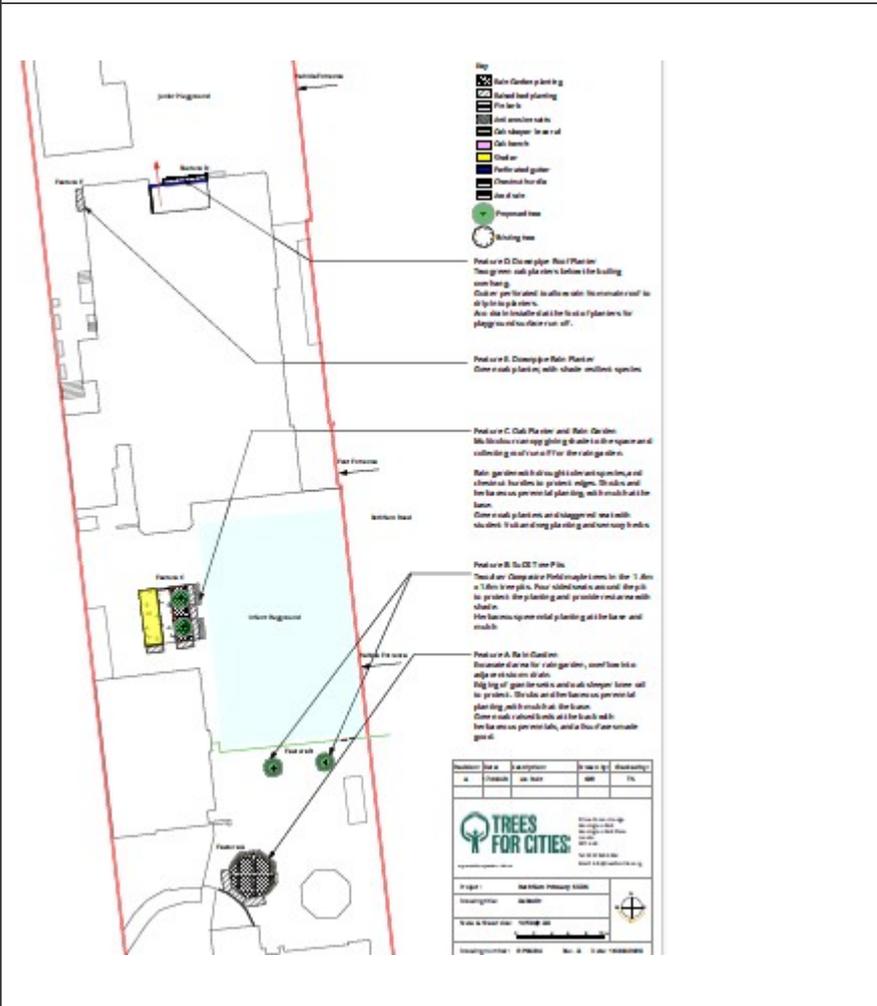
3	How much work went into getting this scheme realised?	<p>LBL and TfC collaborated to develop a work programme aimed at enhancing the quality of the outdoor spaces within primary schools in Lewisham. We created a partnership agreement that outlined the role of each organisation. The partnership then established selection criteria to determine which schools would be eligible to participate in the project. The criteria included factors such as exposure to climatic risks, access to open spaces, and the school's willingness and resources to support the project.</p> <p>Through funding proposals to Thames Water, GLA, DfE, the schools, and TfC cities donor network, the project raised over £240,000.</p>
4	Is this scheme part of a masterplan or integrated into other initiatives?	<p>This project is part of the wider SuDS for Schools programme in Lewisham, which, so far has transformed the outdoor areas in four schools by incorporating blue-green infrastructure, outdoor learning spaces and an engagement program to foster a legacy of planting and SuDS features.</p>
5	What value does this scheme provide to the local area and beyond?	<p>The project has revitalised the outdoor spaces of three underinvested community assets. It has created new outdoor learning spaces where local children can interact with and learn about biodiversity and planting.</p> <p>In addition to improving the useability of existing spaces by alleviating local flood risk in playgrounds, the scheme also helps to manage surface water flooding in Lewisham's most at-risk critical drainage areas. Furthermore, it reduces pressure on Thames Water's combined sewage network.</p>
6	What challenges/problems needed to be addressed to realise this scheme?	<p>To create a successful project, we had to address some key challenges. These included understanding how schools use and want to use their outdoor spaces, ensuring the long-term success of the interventions, and creating a resilient structure to maintain these spaces properly for years to come. We tackled these issues through a dedicated approach to engagement.</p>

7	How does the scheme address related issues such as water scarcity, nutrient neutrality, or biodiversity net gain?	<p>Manages surface water in planting, transform three environment lacking of green space, increase access to biodiversity, provides food growing, teach children about managing water and need for adaptation</p> <p>The scheme aims to address the issue of limited access to greenery and biodiversity by introducing rain gardens and rainwater planters in a large concrete area. Additionally, the problem of overheating and shading is tackled by planting trees in the most exposed areas. The implementation of rain gardens and rainwater planters on hard surfaces facilitates the evaporation and infiltration of rainwater.</p>
8	Is learning from the scheme continually captured and communicated? Please give examples.	<p>The project's learning process is continuously monitored through baseline and follow-up surveys taken at each school. Interviews were also conducted with both teachers and pupils to evaluate the social and educational outcomes. These measurements help determine how much the children feel connected to nature and how the project impacted those feelings.</p> <p>The interviews assess how the outdoor spaces are utilised for educational and play purposes. After each project is completed, the recorded monitoring information is reviewed and the project framework is adapted to include any learnings that can be applied to subsequent projects.</p>

9	<p>What approaches/measures are taken to ensure the scheme is properly managed and maintained?</p>	<p>To ensure that schools can adopt and maintain green infrastructure schemes, TfC and each school created a partnership agreement that clearly outlines their future responsibilities. We conducted 12 engagement sessions with school pupils and teachers to highlight the importance of green infrastructure and provided three specific maintenance training sessions for all staff members.</p> <p>Site-specific management plans were developed in partnership with each school. After planting has taken place, TfC supports the school with management responsibilities for a year to ensure that the planting is successfully established. After that year, full responsibility is handed over to the school.</p>
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<p>10</p>	<p>Have you collected any feedback on your scheme? What do people say about it? Can you provide any quotes?</p>	<p><i>"...It has transformed our concrete playground into a greener space. We now have a rain garden, veg and herb garden, tree pits and rainwater raised beds. This has all helped with combating flooding and reducing heat stress. The most rewarding part of it all is seeing the children enjoy using the space, sitting under the tree pits, engaging with the watering and enjoying spotting all the bees and wildlife that have benefited from this too."</i> Michelle Henderson-Vieira, Global Learning Lead, Rathfern Primary School</p> <p><i>"Our school community returned in September with a new lease of life to our playground. On walking through the playground, children and adults alike were struck by the new plants which had an immediate positive impact of the physical landscape and created a sense of more green space. The children were so eager to learn about the new plants and were highly engaged to learn about how they would impact on the drainage of the area. It sparked much discussion about how we can become even more sustainable as a school community. The teachers also all benefitted from CPD led by the Trees for Cities team on how to use our outdoor environment to promote learning beyond the classroom. As a follow up to the initial summer planting, the TFC team returned and engaged a large number of children across the school in more planting. The children themselves have opted to take responsibility for the care of the plants and feel empowered to know that the school is taking positive steps forward to contribute to a more sustainable society."</i></p> <p>Etienne Gouws, Business Manager, John Stainer School</p> <p>Quotes from pupils at Deptford Park after a planting day:</p> <p>"It was good, I want to do it again- everyday!"</p> <p>"I love planting, it is my favourite thing to do!"</p> <p>"I thought it was really fun, I liked doing it however a lot of dirt went into my shoes"</p> <p>"It was the best Friday afternoon ever"</p>
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3. Supporting materials

Image (low resolution)	Caption	Image credit
	<p>As built plan at John Stainer Primary School</p>	<p>TfC</p>
	<p>As built plan at Rathfern Primary School</p>	<p>TfC</p>

<p>A by Contractor Junior playground tree garden with feature seat</p> <p>B by other Main playground mural, Spring 2024</p> <p>C by Contractor Junior playground rain garden</p> <p>D by other funding Infant playground planter rejuvenation</p> <p>E by Contractor Infant playground rain garden with bridges</p> <p>F by Contractor Infant playground tree pits with seats</p> <p>G by Contractor Field Green oak tree seat around hornbeam</p> <p>Deptford Park Primary</p> <p>Lower floor</p> <p>main entrance</p> <p>Upper floor</p> <p>TREES FOR CITIES Project: Deptford Park Primary 2025 Drawing title: As Built Scale & Sheet size: A3 1482x1050 Drawing number: 1001000 Rev: A Date: 10/11/2023</p>	<p>As built plan at Deptford Park Primary School</p>	
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	<p>Rain garden at Rathfern</p>	<p>Marcus Gayle</p>
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Flooded playground at Rathfern – location where one of the rain gardens was constructed to manage surface water flooding in the playground

Marcus Gayle



Rain garden, food growing and outlearning space at Rathfern Primary

Marcus Gayle





Rain garden
and outdoor
learning space
at Deptford
Park

Marcus
Gayle



Rain garden at
Deptford Park

Marcus
Gayle