Committees: Streets and Walkways Sub Committee *[for decision]* *Projects And Procurement Sub Committee [For Information]*	**Dates:** 19 March 2024 12 February 2024
Subject: **Bevis Marks Sustainable Urban Drainage system (SUDs)** (City Cluster Programme 2- Well-being and Climate Change Resilience programme) City Cluster Programme - 12295	**Gateway 6:** **Outcome Report** Regular
Report of: Interim Executive Director, Environment Department **Report Author:** Maria Herrera, Policy and Projects, City Operations	**For Decision**
PUBLIC	

Summary

1. Status update	**Project Description:** The project delivered an attractive and high-quality space, increasing the provision of greenery by relandscaping two existing planters to enable the introduction of a sustainable urban drainage system (Suds). The objective is to capture rainwater from the surrounding hard paving area and re-direct it to the planters, reducing the amount of rainfall going into the sewers. This is a pilot project and has been developed in response to the Climate Action Strategy and will help to inform future Suds schemes in the City. Resilient planting was selected to reduce maintenance implications and respond to potential extended periods of droughts in the future. Construction works were practically completed in June 2023, with works staggered to accommodate pedestrian and cycling movement in the area and to maintain access to building entrances at all times. **RAG Status:** Green (same at last Gateway)

	Risk Status: Low (same at last Gateway) **Costed Risk Provision Utilised:** None **Funding Source: A total of** £387,000 allocated to this project from the Cool Streets and Greening Programme (Climate Action Strategy) and Section 106 Contribution of 40 Leadenhall Street. **Final Outturn Cost:** £291,159
2. Next steps and requested decisions	**Requested Decisions:** • Approve the content of this outcome report. • Approve the budget adjustment summarised in section 13 and Table 2. • Agree to close this project once the budget adjustment to cover an increase in staff costs has been completed (refer to section 13). • Agree for the unspent funds from this project to be re-allocated to the Climate Action Strategy programme – Phase 3.
3. Key conclusions	The Bevis Marks project was completed on time and on budget, with an underspend of a total of £75,841, which will be re-allocated to the Climate Action Strategy programme – Phase 3. The scheme delivered on its main objectives, which are as follows: o Increase the amount of greenery to help mitigate the impacts of climate change, noise and air pollution and soften the urban environment. o Deliver more accessible and attractive spaces to rest and spend time in. o The creation of 'green corridors' along busy pedestrian routes. o Deliver sustainable urban drainage systems (Suds) in line with the Climate Action strategy. Key learning and recommendations for future projects: • Close co-ordination and engagement with consultants, the term contractor and City project teams enables smooth project delivery. • Early engagement with utilities reduces conflicts when accommodating highways activities. • Flexibility on proposed solution for the SuDs infrastructure is important to accommodate unexpected ground conditions.

	• Early engagement with City Gardens and SuDs specialists helped informed the scope of the project and development of details. **Reasons for underspend:** • Construction works were efficiently managed and coordinated with works in the local area, which provided savings in respect to coordinating delivery of materials and other maintenance works in the vicinity of the site. • Soft landscaping works costs were lower than expected, and one tree was not possible to be planted due to utilities, which is reflected in the cost. • Street furniture was relocated from another site, and therefore cost neutral. • Requirement for additional external consultant's input was minimal, which also generated cost savings.

Main Report

Design & Delivery Review

4. Design into delivery	The project involved the relandscaping of a wide area of footway along Bevis Marks and Creechurch Lane (northern section), with the removal of two existing brick planters to enable the integration of the sustainable urban drainage system. New low-level planters were introduced to allow for surface water to be retained within the planter and avoid or reduce run-off into the sewage system. The scheme also included the repaving of the area to achieve a more efficient flow of surface water into the new planters. Where possible, materials were re-used where possible, and a permeable surfacing was introduced near the planters to allow for the surface water to also permeate into the ground. Three semi mature and multi-stem trees were planted, alongside a range of resilient planting which reduces long term maintenance cost. The scheme also introduced areas of seating and cycle parking. The design of the scheme utilised the City's existing palette of materials in accordance with the Public Realm SPD and the

	Technical Manual (and in line with the recently published Public Realm tool Kit). **Impacts on the Delivery Programme** A two-month delay at the beginning of the project was experienced due to the longer than anticipated procurement of materials. Also, the installation of the Suds infrastructure took longer due to the need to adapt the proposed system following the discovery of archaeological remains on site. However, during this delay other areas of the project were progressed and overall, the archaeological remains delay had a minor impact on the overall delivery of the project.
5. Options appraisal	The scope of the project was agreed in response to the objectives of the Climate Action Strategy and was focused on delivering a sustainable urban drainage in the area. A single option was therefore considered that was adapted within the existing footprint of the brick planters. The design adjusted the profile of the planters in order to maximise the amount of greenery and the area to capture rainwater run-off. Standard materials such as Yorkstone and granite were utilised, with a permeable surfacing introduced in the area between the planters to support the climate resilience design principles. The material selection is line with the recently adopted Public Realm Toolkit which includes a section on permeable surfacing options to be considered in line with the Climate Action Strategy. The location of the trees was adjusted following site excavation works, to ensure sufficient depth was achieved for the long-term establishment of the trees.
6. Procurement route	• The design and construction package were produced by a specialist Sustainable Urban Drainage landscape consultant, with input from City's Highways engineers. • Hard landscaping and civils work on-site were undertaken by the City's term contractor. • All soft landscaping was delivered by City Garden's team.
7. Skills base	• The project team has the skills, knowledge, and experience to manage delivery of this and similar future projects. Input from specialist consultants was required at certain stages of the project. • A communication strategy was developed in the initial stages of the project to include immediate stakeholders and ensure good

	coordination of the construction works and to minimise disruption.
8. Stakeholders	• The main stakeholders of the project were occupiers in the immediate vicinity of the site. • Information letters were issued at the beginning of the project, and throughout the construction process to inform them regarding the extent of the works and timescales for delivery. • Access to building premises was maintained at all times, which ensured disruption was kept to a minimum. • Noisy works were conducted in line with CoL Environmental Health policies. • Engagement with stakeholders is ongoing to gather feedback on the impact of the scheme on the users of the space and occupiers.

Variation Review

9. Assessment of project against key milestones	Gateway 5 – April 2022 | Committee Approval • Expected start as per G5 – December 2022 • Expected end date – March 2023 • Actual start date – January 2023 • Actual end date – June 2023 **Delays to the programme** When the public realm works were due to commence, it was soon realised that nearby utility works were required to be undertaken as a matter of urgency. The emergency works were not connected to the project, but excavations were required near the site. Therefore, access was restricted, and this caused a delay on the start of the works. However, construction was managed efficiently by the term contractor. During the construction process, there was a further delay as a result of the procurement of materials and adjusting the provision for the Suds infrastructure due to the archaeological remains.
10. Assessment of project against Scope	The project's scope of the project was fully met as per the objectives as agreed at the outset and is summarised below: • The relandscaping of the wide area along Bevis Marks and Creechurch Lane (northern section), with the removal of two

	existing brick planters to enable the integration of the sustainable urban drainage system. • Low-level planters were then introduced to allow for surface water to be retained within the planter and avoid run-off into the sewage system. • The repaving of the area along the pedestrian section of Creechurch, to achieve a more efficient flow of surface water management into the new planters. • Introduction of three semi mature or multi-stem trees, and resilient planting to reduce maintenance cost. • Introduction of benches and seats.
11. Risks and issues	During the construction phase the follwoing risks materialised: • Whilst utility and underground surveys had been undertaken prior to works, it is not uncommon to uncover prohibitive infrastructure, in this case the London Roman Wall, which was not captured in the survey work. Therefore, there was a need to review an alternative option for the Suds infrastructure and the location of the trees had to be adjusted. • Also, in relation to underground utilities/structures, the SuDs system, which was originally considered for the retention of surface water, had to be changed in response to the archaeological remains found. An alternative option was then selected which still delivers a rain garden by slowing down surface run off water within the planter. This system provides the flexibility to adjust it in response to underground structures, utilities, and archaeological remains.
12. Transition to BAU	This project used standard design practices with a clear plan for transitioning to business as usual. The project has remained within scope with a commonly agreed maintenance regime that will commence when the project has concluded.

Value Review

13. Budget

The project is complete; however, a budget adjustment is required to cover additional staff costs.

The project required an increase in officer resources to manage the project and navigate challenges as summarised in Section 4 and Section 9. This has meant an increase in staff costs to conduct:

- Adjustments to the design of the scheme to respond to site constraints.
- Manage the project throughout an extended timeframe, with additional communication required and liaison with the Term contractor.
- Risk management and communicate with the local occupiers.

Table 1: Spend to Date - 16100463: City Cluster - Bevis Marks Sustainable Urban Drainage System

Description	Approved Budget (£)	Expenditure (£)	Balance (£)
Env Servs Staff Costs	18,000	19,452	(1,452)
Open Spaces Staff Costs	5,000	1,348	3,652
P&T Staff Costs	20,000	23,031	(3,031)
P&T Fees	8,000	8,000	0
Env Servs Works	266,000	231,827	34,173
Open Spaces Works	30,000	7,501	22,499
Costed Risk Provision	20,000	-	20,000
Total	**367,000**	**291,159**	**75,841**

Table 2: Budget Adjustment Required

Description	Approved Budget (£)	Adjustment Required (£)	Revised Budget (£)
Env Servs Staff Costs	18,000	1,452	19,452
Open Spaces Staff Costs	5,000	-	5,000

P&T Staff Costs	20,000	3,032	23,032
P&T Fees	8,000	0	8,000
Env Servs Works	266,000	(4,484)	261,516
Open Spaces Works	30,000	-	30,000
Costed Risk Provision	20,000	-	20,000
Total	**367,000**	**-**	**367,000**

Please confirm whether or not the Final Account for this project has been verified.

Final account has been verified.
Unspent funds will be reallocated to Phase 3 of the Climate Action Strategy work programme.

14. Investment

This project is funded from the following sources:

- Section 106 from Pinnacle Development - 06/01123/FULEIA - 30/11/2007 – LCEIW.
- Section 106 from 40 Leadenhall Street - 13/01004/FULEIA - LCE
- CAS - Cool Streets and Greening Programme – capital works
- CAS - Cool Streets and Greening Programme (for £20,000 for Maintenance works)

15. Assessment of project against SMART objectives

Objective:

The project has delivered an attractive and high-quality space, increasing the amount of greenery by relandscaping the existing planters to enable the introduction of a sustainable urban drainage system to capture rainwater from the surrounding area.

This project is the first of its kind in the City and has been developed in response to the City's Climate Action Strategy. Resilient planting has been planted to reduce maintenance implications and enhance local biodiversity.

16. Key benefits realised

- Increase the amount of greenery to help mitigate the impacts of climate change, noise and air pollution and soften the urban environment.

	• Deliver more accessible and attractive spaces to rest and spend time in. • The creation of 'green corridors' along busy pedestrian routes. • Deliver sustainable urban drainage systems (Suds) in line with the emerging Climate Action strategy.

Lessons Learned and Recommendations

17. Positive reflections	Efficient, joined up thinking between City officers ensured a co-ordinated clear approach to resolving potential issues. This was further strengthened by officers' regular communication with the term contractor to facilitate the success of the project, resulting in a much-improved environment.
18. Improvement reflections	Where there have clearly been issues, it is important to engage in a post project debrief to ensure lessons are learnt and communicated effectively.
19. Sharing best practice	By engaging in regular meetings to share ideas, disseminate and record best practice, improvements are assured.
20. AOB	NA

Appendices

Appendix 1	Plan
Appendix 2	Site photos
Appendix 3	Cover sheet

Contact

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