



Operational Property and Projects Sub Committee INFORMATION PACK

N.B: These matters are for information and have been marked * and circulated separately. These will be taken without discussion, unless the Committee Clerk has been informed that a Member has questions or comments prior to the start of the meeting.

Date: WEDNESDAY, 20 JULY 2022
Time: 1.45 pm
Venue: COMMITTEE ROOMS, WEST WING, GUILDHALL

13. **'INTERIM' POLICE CAPITAL LOAN-FUNDING REQUIREMENT, 22/23***
Report of the Commissioner of the City of London Police

For Information
(Pages 3 - 6)

14. **GATEWAY 3 PROGRESS - WEST SMITHFIELD AREA PUBLIC REALM AND TRANSPORTATION PROJECT***
Report of the Executive Director of Environment

For Information
(Pages 7 - 190)

15. **CITY SURVEYOR'S DEPARTMENTAL RISK REGISTER - JUNE 2022 UPDATE***
Report of the City Surveyor

For Information
(Pages 191 - 220)

16. **CITY SURVEYOR'S BUSINESS PLAN 2021-26 QUARTER 4 2021/22 UPDATE***
Report of the City Surveyor

For Information
(Pages 221 - 234)

17. **2021/22 ENERGY & DECARBONISATION PERFORMANCE Q4 UPDATE FOR THE OPERATIONAL PORTFOLIO***
Report of the City Surveyor
- For Information**
(Pages 235 - 246)
18. **CAS NZ1, NZ3 AND RS3 WORKSTREAM UPDATE FOR THE OPERATIONAL PORTFOLIO***
Report of the City Surveyor
- For Information**
(Pages 247 - 254)
19. **MEES COMPLIANCE STRATEGY FOR OPERATIONAL BUILDINGS***
Report of the City Surveyor
- For Information**
(Pages 255 - 260)
41. **CITY'S ESTATE & CITY FUND 21/22 CYCLICAL WORKS REVENUE OUTTURN REPORT***
Report of the City Surveyor
- For Information**
(Pages 261 - 270)
42. **GATEWAY 5 PROGRESS - BARKING REACH POWER STATION - SITE REMEDIATION PROJECT***
Report of the City Surveyor
- For Information**
(Pages 271 - 292)

Committee(s): Police Authority Board (PAB) – For decision Resource Allocation Sub-Committee (RASC)– For decision Operational Property & Projects Sub-Committee – For information	Dated: 30/06/2022 15/07/2022 20/07/2022
Subject: ‘Interim’ Police Capital Loan-Funding Requirement, 22/23	Public
Which outcomes in the City Corporation’s Corporate Plan does this proposal aim to impact directly?	1
Does this proposal require extra revenue and/or capital spending?	It seeks approval for interim capital requirement for 22/23
If so, how much?	£3.936m
What is the source of Funding?	Corporation loan facility
Has this Funding Source been agreed with the Chamberlain’s Department?	Y
Report of: Commissioner of Police Pol 48-22	For Information
Report author: Chief Finance Officer, City of London Police	

Summary

City of London Police (CoLP) is undertaking a review of its capital portfolio against the change roadmap set out in the 22/23 Policing Plan. This process will set future priorities, clear interlinkages between projects and robust project and resource plans, which should mitigate against the significant project slippage and capital underspends experienced in the last few years (some of which has been outside of CoLP’s control).

The objective is to revert to PAB and RASC in Autumn 2022 with a finalised requirement for the 22/23 capital budget and loan facility. In the meantime, this paper asks for PAB and RASC approval of an ‘interim’ capital loan funding requirement of £3.936m to progress work on the Fraud & Cyber Crime Reporting & Analysis Service (FCCRAS) programme, fleet replacement and other near-term priorities.

The Police MTFP is assessed as having sufficient provision for future ‘capital financing’ revenue costs arising from prior and current year requirements.

Recommendations

Members are asked to:

- i. Note the requirement to undertake a CoLP portfolio review
- ii. Approve the ‘interim’ capital requirement for 22/23 of £3.936m to be funded through the Corporation loan facility.
- iii. Agree that although the release of central funding is normally subject to further RASC approval at Gateway 4(a), the Committee delegates authority for the release of police loan funding to the Chamberlain in consultation with the CoLP.

Main Report

Background

1. New police capital priorities have, since April 2020, been funded by means of a Corporation loan facility up to a normal, annual limit of £5m.
2. There has been a history of slippage and consequent capital underspend on CoLP projects, as Table 1 shows for last two years. While some slippage has been outside of CoLP's control (e.g where due to slippage in National Policing Programmes), it does highlight the need for robust (project and resource) planning disciplines to be put in place as part of the Portfolio Review. Hence the requirement for an 'interim' capital budget and funding requirement to be set pending this Review.

Table 1 – CoLP capital spend against Corporation loan facility, 20/21 & 21/22

	Capital Budget £m	Draw down £m	Outturn Spend £m	Comments
20/21 Capital Priorities	4.5	1.5	0.7	
21/22 Capital Priorities (excl. Action Fraud)	8.4	2.9	0.9	Budget includes carry forward from prior year underspend
21/22 Action Fraud		2.0	2.0	Budget reallocated to this spend (RASC February 2022)

Note – additionally £4m was spent on Fraud & Cyber Crime Reporting & Analysis Service (FCCRAS) programme in 21/22, fully funded by Home Office

3. The Policy and Resources Committee has agreed the principle of the Police Loan facility on condition that the projects fulfil the established prioritisation criteria against which capital projects will be assessed:
 - i. Must be an essential scheme - Health and Safety Compliance, or Statutory Compliance, or Fully/substantially reimbursable, or Major Renewal of Income Generating Asset, or Spend to Save with a payback period within 5 years.
 - ii. Must address a risk on the Corporate Risk register; or the following items that would otherwise be escalated to the corporate risk register:
 - a. Replacement of critical end of life components for core services;
 - b. Schemes required to deliver high priority policies; and
 - c. Schemes with a high reputational impact
 - iii. Must have a sound business case (clearly demonstrating the negative impact of the scheme not going ahead, i.e., penalty costs or loss of income, where these are material.

Current Position

4. The areas of capital spend requiring approval to be progressed pending and prior to the Portfolio review outcomes, all of which fulfil the P&R funding criteria, are:

- Fraud & Cyber Crime Reporting & Analysis Service (FCCRAS) programme – to replace and enhance the current Action Fraud service. It is one of Government's Major Programmes, jointly led by City and Home Office and approved through the Home Office's Finance & Investment Committee and delegated Corporation governance. The Outline Business Case (March 2021) provided for £30m total capital / programme spend (including 50% optimism bias) of which £20m (2/3) will be funded by Home Office and £10m (1/3) by City. The capital requirement in 22/23 is £5.2m of which £3m is funded by Home Office, leaving a £2.2m funding requirement for CoLP via the Corporation loan facility.
 - Fleet replacement – to provide priority replacement requirements, which constituted part of the year 2 (22/23) spend profile in the paper submitted to RASC in March 2021 on CoLP's loan-funded capital programme (which also presented the justification against the Corporation's criteria for capital prioritisation). This comprises: (a) annual car replacement programme of £0.25m (b) Horsebox replacement to meet ULEZ requirements and mitigate against future penalty charges, of £400k and (c) VIP escort motorbike replacements of £0.236m. The cost estimate of the Horsebox has increased since 2021 due to manufacturing cost inflation, however £0.4m is expected to be a worst case. Also, while approval of these fleet capital requirements is needed in order to make contractual commitments, delays in the fleet supply chain increases the risk of non-delivery during 22/23.
 - Body Worn Video – near-term requirement to effect new contractual commitment to replace cameras that are end of life, out of warranty and unsupported, with officer uplift also being an important driver. Project represented one of the priorities set out in the March 2021 RASC paper and was justified against the Corporation's criteria. £0.3m estimated capital spend requirement in 22/23.
 - Armoury Improvements – to rectify accreditation failures following inspection. Project represented one of the priorities set out in the March 2021 RASC paper and was justified against the Corporation's criteria. Subsequently a lower cost solution has been identified at £0.1m.
 - Forensics Storage & Network – to digitise the service and provide scalable storage (utilising CoLP's existing Azure capability). Also necessary for compliance with National Police Chief's Council (NPCC) requirement for removal of tape storage. Linked projects which were among the priorities set out in the March 2021 RASC paper and was justified against the Corporation's criteria. £0.45m estimated capital spend requirement in 22/23.
5. Table 2 summarises the 'interim' loan-funding requirement for 22/23, totalling £3.936m.

Table 2

	22/23 Budget £m	22/23 Loan- Funding Bid £m	Home Office funding £m
FCCRAS	5.2	2.2	3.0
Car fleet replacement	0.25	0.25	
Horsebox	0.4	0.4	
Motorbike fleet replacement	0.236	0.236	
Body Worn Video	0.3	0.3	
Armoury Improvements	0.1	0.1	
Forensics Network & Storage	0.45	0.45	
Total	6.936	3.936	3.0

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Agenda Item 14

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Committees: Streets & Walkway Committee [for information] Operational Property and Projects Sub Committee [for information]	Dates: 5th July 2022 20 th July 2022
Subject: West Smithfield Area Public Realm and Transportation project. Unique Project Identifier: PV Project ID: 11956	Complex Progress Report (last report Gateway 3 Issue Report)
Report of: Director of the Built Environment Report Author: Stefania Pizzato	For Information
PUBLIC	

1. Status update	<p>Project Description: To provide new public spaces and improved environment in West Smithfield in line with the planned implementation of Culture Mile, the City Transport Strategy, the opening of Crossrail stations in Farringdon and Farringdon East and the anticipated major increased number of visitors in the area due to relocated visitor attractions. This project incorporates the development of the Smithfield Healthy Streets Plan.</p> <p>RAG Status: Amber (last report: amber)</p> <p>Risk Status: Low (last report: low)</p> <p>Total Estimated Cost of Project (excluding risk): £12m</p> <p>Spend to Date: £ 1,015,048.00</p> <p>Costed Risk Provision Utilised: 0</p> <p>Funding Source: OSPR</p>
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<p>2. Key points to note</p>	<p>Next Gateway: Gateway 4 - Detailed Options Appraisal (Complex)</p> <p>Progress to date</p> <ol style="list-style-type: none"> 1. A Gateway 3 Issue report was approved in December 2021. It provided an update on the progress made to date, outlined the programme change, requested additional budget to salvage existing paving materials, and set out the project's next steps. 2. <u>Public realm design</u>: The project has been phased to align with key dependency projects as follow (see Phasing Plan in Appendix 2): <ul style="list-style-type: none"> - Stage 3.1: Overarching strategies and approaches to develop elements of the Concept Design and to test feasibility - Stage 3.2: Completed Developed Designs for Area 1 (area around the future Museum of London site) - Stage 3.3: Completed Developed Designs for Area 2 (area around the future Meat Market site) 3. Stage 3.1 is now mostly complete and includes the following pieces of work (see further details on the works progressed to date in Section 4 of the report): <ul style="list-style-type: none"> - <u>Circular economy, Climate Action and materials approach</u> To support the City of London's Climate Action Strategy, the team has worked on environmentally sustainable measures such as circular economy, climate action and material review. This work includes: the salvage of some existing granite setts and stones to be reused in the implementation of the final public realm design; the completion of a piece of research on sustainable development for the public realm of cultural districts (Appendix 3) and the finalisation of a material review strategy (Appendix 4) - <u>Historic and Heritage</u> The development of a Statement of Significance (Appendix 5) for the public realm has been completed. This document identifies historical features and materials in the public realm and provides a methodology for their reuse. - <u>Transportation work</u> The transportation work of this project is an important workstream that will enable the delivery of the Healthy Street approach for the area, as highlighted in the City Transportation Strategy. This work has progressed since December 2021, with the development of feasibility studies to understand the impact of a potential street
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	<p>closure of part of West Smithfield. This work was paused in April 2022 and will recommence under Stage 3.2. once the Museum programme has progressed and the implications for traffic and pedestrian movement are better understood through the evaluation and design stage of the Section 278 agreement which will determine the functional change required to the highway to facilitate the development and meet the needs of stakeholders. The work will look at servicing and access, public spaces and traffic reassignment to deliver a world class public realm around the new Museum</p> <ul style="list-style-type: none"> - <u>Lighting Feasibility work</u> Further lighting design work and feasibility studies were developed and discussed at a lighting workshop in January 2022. The outcome will inform next design stage 3.2. - <u>Stakeholder Engagement:</u> The team has continued to engage with local stakeholders and neighbouring communities. This work includes liaison on transport proposals for the area, a collaboration with East Bank on diversity and inclusion through temporary or meanwhile activation work and the legacy work from the Artist in Residence codesign process. A summary of the Artist in Residence process can be seen in Appendix 6, while the broader list of stakeholder engagement for this stage of the project can be found in Appendix 7. <p>4. The project programme (See Appendix 8) has remained unchanged since the latest Issue report was submitted in December 2021, and continues to align with key project dependencies:</p> <ul style="list-style-type: none"> - The Museum of London development in West Smithfield is planning to resubmit its application in Summer 2022. The New Museum of London intends to host opening events in late 2025, with the General Market and West Poultry Avenue open to the public in mid-2026. <p>It is anticipated that Stage 3.2 of the public realm project design for Area 1 will commence when the broad scope of the Museum of London S106 agreement (and within this document the outline scope of its associated S278 agreement) is understood.</p> <ul style="list-style-type: none"> - Markets Co-location Programme: subject to the approval of Policy & Resources Committee and the Court of Common Council later this year, a three-market bill will be deposited to Parliament in November 2022. The bill will seek Parliamentary approval to move Billingsgate, New Spitalfields and Smithfield to a new co-located market in Dagenham Dock in the LB of
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	<p>Barking & Dagenham. The bill will contain details of possible concept designs for the Grade II* listed East and West Market buildings and associated Grade II Rotunda. Public realm design around the East and West Market buildings and Rotunda (project Area 2) will commence at a later date, once the potential future functions of the meat market are better understood, although the overall masterplan design for the public realm in the wider Smithfield area will ensure that the space feels holistic when more detailed designs for this specific area are developed.</p> <p>5. The project scope and programme remains the same. Continuous stakeholder engagement is required in the next six months, before Stage 3.2 is expected to start. Further information is in Section 4.5 below and a comprehensive list of engagement required for the project at this stage is listed in Appendix 8. This includes inclusivity and diversity collaboration work with Foundation for Future London starting in June 2022 (further information section 4.6 below).</p>																																																
3. Budget	<p><i>Finance table</i></p> <table><tr><th colspan="4">Table 1: Spend to Date - West Smithfield Area Public Realm & Transportation Project - 16800391</th></tr><tr><th>Description</th><th>Approved Budget (£)</th><th>Expenditure (£)</th><th>Balance (£)</th></tr><tr><td>Env Servs Staff Costs</td><td>40,000</td><td>11,388</td><td>28,612</td></tr><tr><td>Legal Staff Costs</td><td>20</td><td>20</td><td>-</td></tr><tr><td>Open Spaces Staff Costs</td><td>18,600</td><td>8,039</td><td>10,561</td></tr><tr><td>P&T Staff Costs</td><td>418,797</td><td>396,423</td><td>22,374</td></tr><tr><td>P&T Fees</td><td>817,597</td><td>599,178</td><td>218,419</td></tr><tr><td>Env Servs Works</td><td>60,000</td><td>-</td><td>60,000</td></tr><tr><td>TOTAL</td><td>1,355,014</td><td>1,015,048</td><td>339,966</td></tr></table> <table><tr><th colspan="2">Table 3: Funding Strategy</th></tr><tr><th>Funding Source</th><th>Amount (£)</th></tr><tr><td>TC Central Risk Budget</td><td>90,000</td></tr><tr><td>MCP Recharge</td><td>80,000</td></tr><tr><td>OSPR</td><td>1,185,014</td></tr><tr><td>TOTAL</td><td>1,355,014</td></tr></table> <p>Costed Risk Provision requested for this Gateway: N/A</p>	Table 1: Spend to Date - West Smithfield Area Public Realm & Transportation Project - 16800391				Description	Approved Budget (£)	Expenditure (£)	Balance (£)	Env Servs Staff Costs	40,000	11,388	28,612	Legal Staff Costs	20	20	-	Open Spaces Staff Costs	18,600	8,039	10,561	P&T Staff Costs	418,797	396,423	22,374	P&T Fees	817,597	599,178	218,419	Env Servs Works	60,000	-	60,000	TOTAL	1,355,014	1,015,048	339,966	Table 3: Funding Strategy		Funding Source	Amount (£)	TC Central Risk Budget	90,000	MCP Recharge	80,000	OSPR	1,185,014	TOTAL	1,355,014
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<p>4. Progress to date</p>	<p>Since the last issue report approved in December 2021, works on Stage 3.1 have continued and are mostly complete, as follows:</p> <ol style="list-style-type: none"> 1. <u>Circular economy, Climate Action and materials approach:</u> <ul style="list-style-type: none"> - Research work to develop a materials strategy and associated carbon impact has been developed and will provide an evidence-based approach to inform final decision on materials (Appendix 4). - During excavation works in the project area related to the tunnel strengthening works, historical setts were found. To align with the Materials Review Strategy and support the circular economy and environmental objectives of the project, the project team has planned to salvage the granite stones and setts so they can be reused as part of the final public realm design. A space in Smithfield Car Park was secured, where the setts and stones can be stored until the works commence on site. The upfront cost approved by Members in December 2021, will be deducted from the cost of new materials required as part of the construction phase, and therefore does not increase the total cost of the project. These works will be completed in Autumn 2022 when the setts will be recovered during the Museum of London works on West Smithfield. - The research work 'Sustainable Cultural District: A public realm perspective' is finalised (Appendix 3). This report aims to understand best practice and innovative new ideas that are being undertaken by cultural districts around the world to develop sustainably and to embed climate resilience into cultural districts' practice. The research includes a particular focus on public realm projects and it will be used to inform the next design stage of the project. 2. <u>Historic Work:</u> A Statement of Significance was completed for the public realm of Smithfield Area. It identifies key historical features and materials in the public realm and provides a methodology for their reuse. To the team's knowledge, this is the first time such a document was developed for the public realm (it is usually used for buildings) and it could set positive precedent for future projects with historical interest (Appendix 5) . 3. <u>Transportation work:</u> The Transportation element of the project has focussed on the proposed closure to motor vehicles of the section of West Smithfield between Snow Hill and West Poultry Avenue. Initial modelling work has taken place to assess the impact of this closure on the surrounding highway network. However, any further work to test feasibility of any proposed traffic management changes has been paused since April 2022. Further clarity is
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	<p>required in relation to the servicing of the new museum, and this is not expected until after the revised planning application is submitted and the Section 106 Agreement and the scope of the Section 278 is understood. This work will be continued under Stage 3.2.</p> <p>4. <u>Lighting Feasibility work</u> A lighting workshop was organised by the project team with the area's stakeholders in January '22, to review feasibility findings around different lighting approaches for the public realm in the whole project area. Some issues and suggestions were raised which will be incorporated in the next design stage 3.2.</p> <p>5. <u>Stakeholders Engagement</u>: The team has continued to do essential engagement with local stakeholders, focussing on key aspects of the project as part of Stage 3.1. This includes engagement related to the transport proposals with internal and external stakeholders, such as the Museum of London and Transport for London and engagement with Culture Mile partners and key dependency projects. A list of stakeholders engagements required for this stage of the project is presented in Appendix 7.</p> <p>6. <u>Work on diversity and inclusion through temporary or meanwhile activation work.</u> A design competition has been launched as part of the London Festival of Architecture in June 2022. This project has been developed in collaboration with Culture Mile and Foundation for Future London. The winning team will deliver a temporary installation(s) in the Smithfield area and East London to develop deeper understanding on how people feel when they are in the area's streets and public spaces, and how to make public spaces more inclusive and encourage diversity. The process will include a series of engagement events that supports commitment to equity, inclusion and diversity including outreach with new audiences (arts and non-arts) and participants.</p> <p>7. <u>Artist in Residence</u> – Following the involvement of an Artist in residence within the design process of the project, the lead designer consultant has provided a summary of the approach with recommendations on how its outcomes can inform the next design stage of the project (Appendix 6). The approach developed by the Artist in Residence was included in the 'Creatives for London' report and supports the Culture and Commerce Taskforce objectives.</p>
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2. Next steps	<p>Next steps</p> <p>8. The key next steps for the project in the next 12 months are:</p> <ul style="list-style-type: none"> - <u>Public realm design</u>: Stage 3.2 will commence when the broad scope of the Museum of London S106 agreement (and within this document the outline scope of its associated S278 agreement) is understood. This is likely to be in late 2022. - <u>Circular economy/salvage materials</u>: historical granite setts will be recovered during construction works in West Smithfield scheduled for Autumn 2022. - <u>Stakeholders Engagement</u>: essential engagement with stakeholders will continue in Summer and Autumn 2022 to ensure programmes are aligned with key dependency projects and that the project team is supporting the scoping of S106 and associated S278. The team will also continue to engage with the work on diversity and inclusion with London Festival of Architecture and Foundation for Future London, to be completed in Summer 2023. See Appendix 7 for a comprehensive list of stakeholders engagements required for this stage of the project. <p>9. Progress on works as described above are due to be reported to Members in the next issue report planned to be submitted by end of 2022, when design stage 3.2 is also forecasted to be initiated.</p> <p>10. Stage 3.3 works will not commence until there is more certainty around the future of the Meat Market site.</p>
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Appendices

Appendix 1	Project Coversheet
Appendix 2	Location and Phasing Plan
Appendix 3	Sustainable Development in Cultural District: A public realm perspective
Appendix 4	Materials Review Strategy
Appendix 5	Statement of Significance
Appendix 6	Artist in Residence Summary
Appendix 7	Stakeholders Engagement Plan Stage 3.1
Appendix 8	Smithfield Area PR Programme
Appendix 9	Risk Register

Contact

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v. April 2019

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Appendix 1: Project Coversheet

Project Coversheet

[1] Ownership

Unique Project Identifier: 11956 **Report Date:** 05/07/2022

Core Project Name: West Smithfield Public Realm

Programme Affiliation: Culture Mile

Project Manager: Stefania Pizzato

Next Gateway to be passed: 4

[2] Project Brief

Project Mission statement:

To provide new public spaces and improved environment in West Smithfield in line with the planned implementation of Culture Mile and the Healthy Streets Plan. The project will aim to achieve the following outcomes:

1. The character of the area is revealed, celebrated and protected
2. People feel safe as a result of high-quality, human-centred, integrated security design
3. There is a well-functioning and accessible public realm which delivers aims within the City Transport Strategy and which makes significant improvements to the Healthy Streets Indicators for the area
4. The proposed museum and re-purposed market buildings have the best possible journey, arrival, and welcome for all visitors, residents and workers
5. The urban spaces around Smithfield are engaging and allow for cultural activity to take place within them
6. The public realm is flexible and future-proofed, with delivery of change in the area phased to align with the needs of the proposed new Museum and Central Markets developments
7. The different building uses within the area of study are understood and complement each other, with the public realm successfully knitting these buildings together
8. The public realm is designed to be a leading exemplar for sustainable design
9. The public realm supports communities and businesses in the local area by providing an environment that supports well-being and economic development

Culture Mile objectives that will be achieved through the project include:

- Create a Culture Spine
- Take the Inside Out
- Discover and Explore

The project will fulfil the following aims in the City's Corporate Plan:

1c, 3b, 9d, 10c, 11a

Definition of need:

The project respond to several major transformations in the area as follows:

- The City's Transport Strategy has set out the Barbican and Smithfield Area as a site for a 'Healthy Streets Plan'. This plan will identify functional changes to the street/road network to accommodate the anticipated transformation of the area.
- The project is also a crucial part of the development of Culture Mile and will deliver large parts of the Look and Feel Strategy implementation.
- The project is within the emerging Smithfield & Barbican Key Area of Change (Policy S23) in the emerging City Plan 2036.
- It is proposed that the Museum of London will move into a new site in Smithfield, which currently has poor public realm, a propensity of hard landscape, traffic-dominated streets and provides little in the way of welcome to the area. The project is needed to transform the area into one that is fitting for a major new museum. The whole public realm around the full market site – including the buildings being developed by the Museum and those considered by the Markets Co-location Programme – will necessarily need to change to reflect the new uses of the buildings. By aiming to deliver designs for the public realm in the West Smithfield area, this project will provide the framework for these future changes.
- The City has also established a programme to consider the future of Smithfield Market in a new consolidated site along with the City's other wholesale markets. A Markets Co-location Programme (MCP) has been initiated to develop suitable options. The relocation of the Wholesale Meat and Poultry Market to a different site would create the opportunity to redevelop the current market site for a different use, and any relocation would have a huge impact on the area of Smithfield, including its public realm.
- The City has approved a Climate Action Strategy. The Smithfield public realm project an opportunity for local climate action and has as a project objective: 'The public realm is designed to be a leading exemplar for sustainable design'. This will be undertaken through additional new greening and planting; use of circular economy principles; and introduction where possible of Sustainable Urban Drainage (SUDs).

Risk

The relevant references in the Corporate Risk Register that relate to this project are:

CR21 Air Quality, CR20 Road Safety

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Key measures of success:

NB - KPIs will be finalised on receipt of the appropriate Baseline information. Research to provide this information is ongoing.

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| 1) Increased high-quality Public realm – materials, space, accessibility, historic interpretation elements |
| 2) Increased quantity of greenery in the area; improved flood risk mitigation measures |
| 3) Improved air quality |
| 4) Reduction in vehicle movement in line with aims of the transport strategy; improved road safety |
| 5) Number of visitors increases |

[3] Highlights

Finance:

Total anticipated cost to deliver [£]: £12m

Total potential project liability (cost) [£]: n/a

Total anticipated on-going commitment post-delivery [£]: Maintenance costs tbc.

Programme Affiliation [£]: Culture Mile Programme

Headline Financial changes:

Since 'Project Proposal' (G2) report:



£90,000 approved at Gateway 1/2. A further £625,000 was requested via an Issue Report to progress to Gateway 3.

Since 'Options Appraisal and Design' (G3-4) report:

£75,000 was requested to progress some works on salvaging surface material via an Issue Report in December 2021.

Since 'Authority to start Work' (G5) report:

n/a

Project Status:

Overall RAG rating: Amber

Previous RAG rating: n/a

[4] Member Decisions and Delegated Authority

[5] Narrative and change

Date and type of last report:

Issue Report in December 2021

Key headline updates and change since last report.

- A Gateway 3 Issue report was approved in December 2021 and provided an update on the progress made to date, outlined the programme change, and set out the project next steps
- The project has been phased to align with key dependencies projects as follow (see Phasing Plan in Appendix 3):
 - Stage 3.1: Overarching strategies and approaches to develop elements of the Concept Design and to test feasibility
 - Stage 3.2: Completed Developed Designs for Area 1 (area around the future Museum of London site)

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- Stage 3.3: Completed Developed Designs for Area 2 (area around the future Meat Market site)
- Stage 3.1 is now mostly complete
- The Museum of London development in West Smithfield is planning to resubmit its application in Summer 2022. The New Museum of London intends to host opening events in late 2025, with the General Market and West Poultry Avenue open to the public in mid-2026.
- It is anticipated that Stage 3.2 of the public realm project design for Area 1 will commence when the broad scope of the Museum of London S106 agreement (and within this document the outline scope of its associated S278 agreement) is understood.
- Markets Co-location programme: a Bill to Parliament is due to be submitted in November 2022. The first private bill will seek approval to move Billingsgate to Dagenham Dock, with the intention to submit a further private bill/s next year to move Smithfield (detailing the proposed new uses of the Grade II* East and West Market buildings) and New Spitalfields to Dagenham Dock. The impact on the public realm is that project design around the East and West Market Buildings and Rotunda (project Area 2) will commence at a later date, once the potential future functions of the meat market are better understood.

Headline Scope/Design changes, reasons why, impact of change:

Since 'Project Proposal' (G2) report:

Extension of scope to include the full West Smithfield area for concept design.

Since 'Options Appraisal and Design' (G3-4 report):

n/a

Since 'Authority to Start Work' (G5) report:

n/a

Timetable and Milestones:

Expected timeframe for the project delivery: Area 1 complete by 2025; Area 2 complete by 2028

Milestones:

- 1) Governance set up and agreed (May 2019)
- 2) Project objectives and scope agreed through initial stakeholder engagement (May 2019)
- 3) Relevant surveys undertaken to inform setting KPIs (September 2019)
- 4) Research and Baseline report completed, including traffic surveys (September 2019)
- 5) Procurement of consultants for concept design and developed design stages for the public realm (June – December 2019)
- 6) Procurement of consultants/ services for transportation surveys to support the Healthy Streets (HSP) work (June – July 2019)
- 7) Completion of the concept design (October 2020)
- 8) Gateway 3 report and stakeholder engagement (December 2020)
- 9) Developed design for the public realm for Area 1 and subsequent Gateway 4 approval (Summer 2023)
- 10) Technical Design (construction package) for Area 1 and Gateway 5 approval (Autumn 2022)

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11) Construction begins (start of 2024)		
12) Post construction, Gateway 6 report, and monitoring (through 2025)		
<p>Are we on track for this stage of the project against the plan/major milestones? yes</p> <p>Are we on track for completing the project against the expected timeframe for project delivery? yes</p>		
<p><u>Risks and Issues</u></p> <p>Top 3 risks:</p>		
Risk 1: Funding	Description	The sources of project funding and the release of funds is not agreed in time to progress the project
	Mitigation	Project funding confirmed via committee reports in good time.
Risk 2: Partnership/ Timing	Description	There are many different project dependencies and elements to be phased. There is a risk that these elements may not be complete in a time that is appropriate for the dependencies e.g. the Museum of London opening. There is a risk that the public realm project may have to be updated if the dependency projects are cancelled
	Mitigation	Commission key work, e.g. transportation studies and concept design, in a timely manner Close working with dependency project teams to understand programmes and risks relating to their work
Risk 3: Complexity/ Partnerships	Description	Decision-making processes delayed due to the complexity of the project
	Mitigation	Set up robust governance for the project and a clear communications strategy
Risk 4: Reputation/ Objections	Description	The project may recommend changes which may create some opposition from groups (i.e. measures to reduce traffic that include road closures).
	Mitigation	Stakeholder engagement will be thorough to understand where this risk may occur and plan accordingly; and key messages setting out the rationale for change will be drafted.
Risk 5: Scope (Environmental)	Description	The scope of the project is scaled back, which would mean that the project does not deliver the impact required to meet the goals in the Transport Strategy and the Climate Action Strategy, nor the ambitions of Culture Mile.
	Mitigation	Public Realm consultants are preparing design options that meet the ambitious scope of the project

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See 'risk register template' for full explanation.

Top 3 issues realised

<i>Issue Description</i>	<i>Impact and action taken</i>	<i>Realised Cost</i>
n/a		

Has this project generated public or media impact and response which the City of London has needed to manage or is managing?

Yes- the wider Museum of London project, the MCP, and Culture Mile initiatives are generating public interest and have media/ comms strategies in place.

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Appendix 2: Plans of the area

A: Project Area

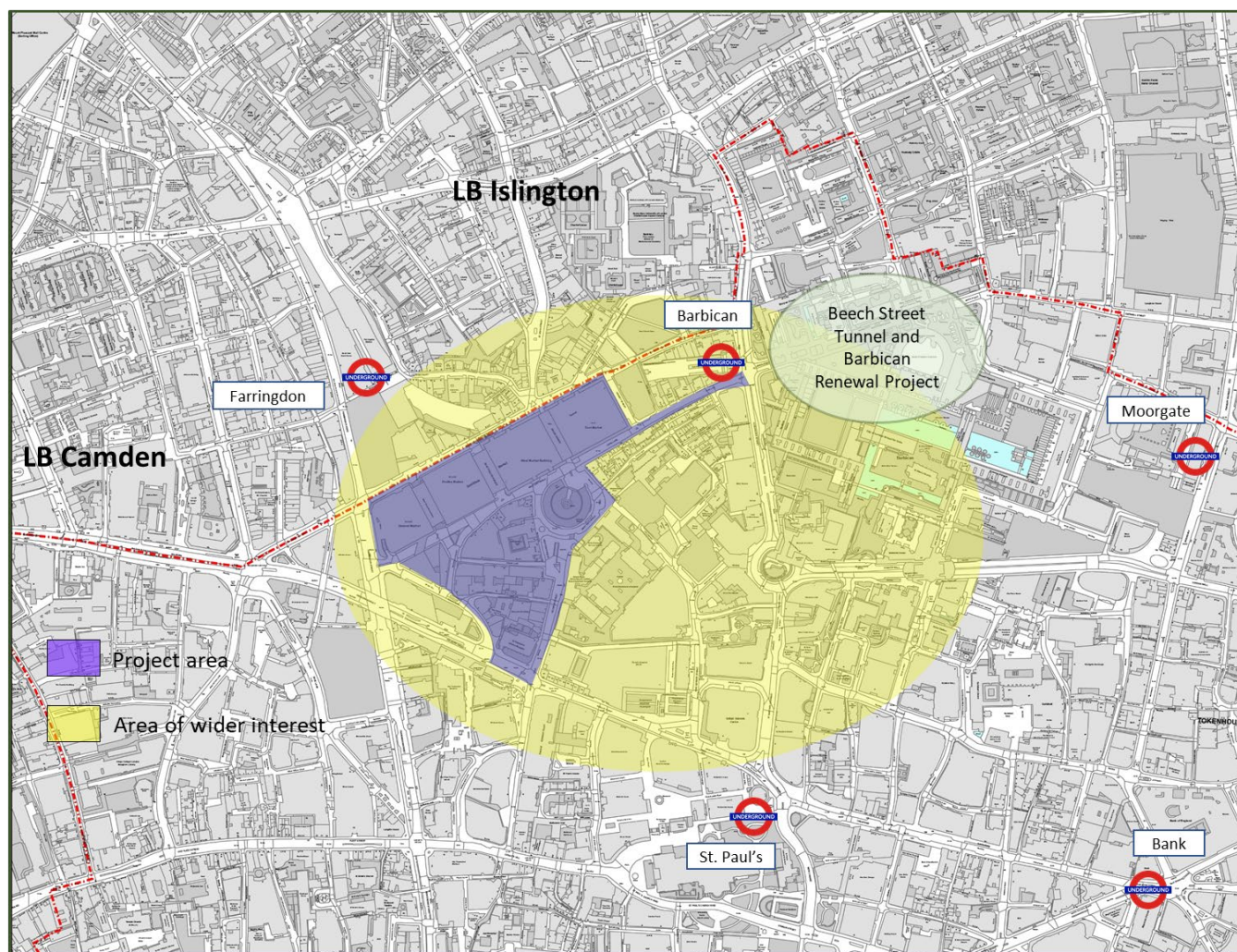
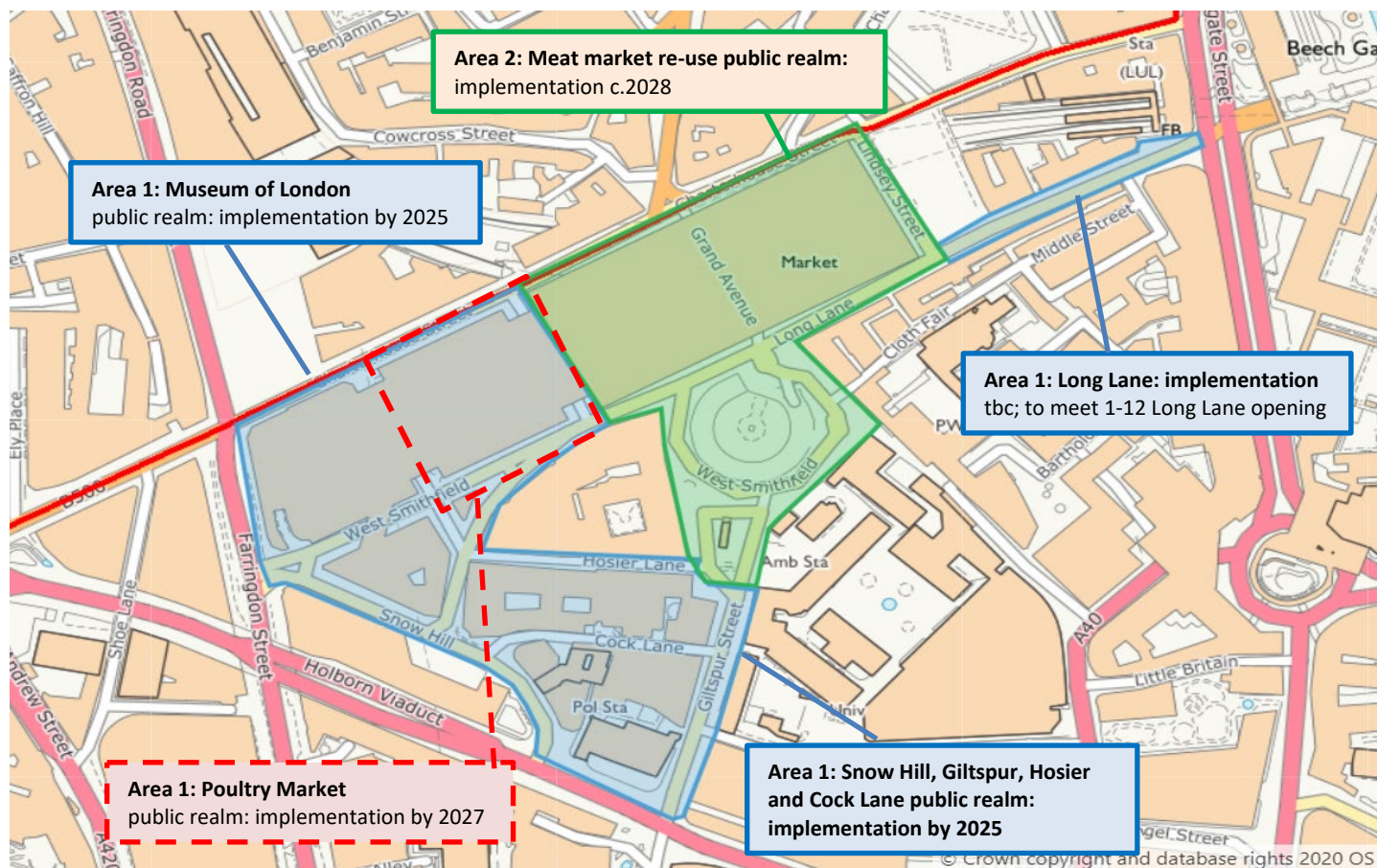


Fig 1. Public Realm Project Area

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B: Implementation Phasing by Area:

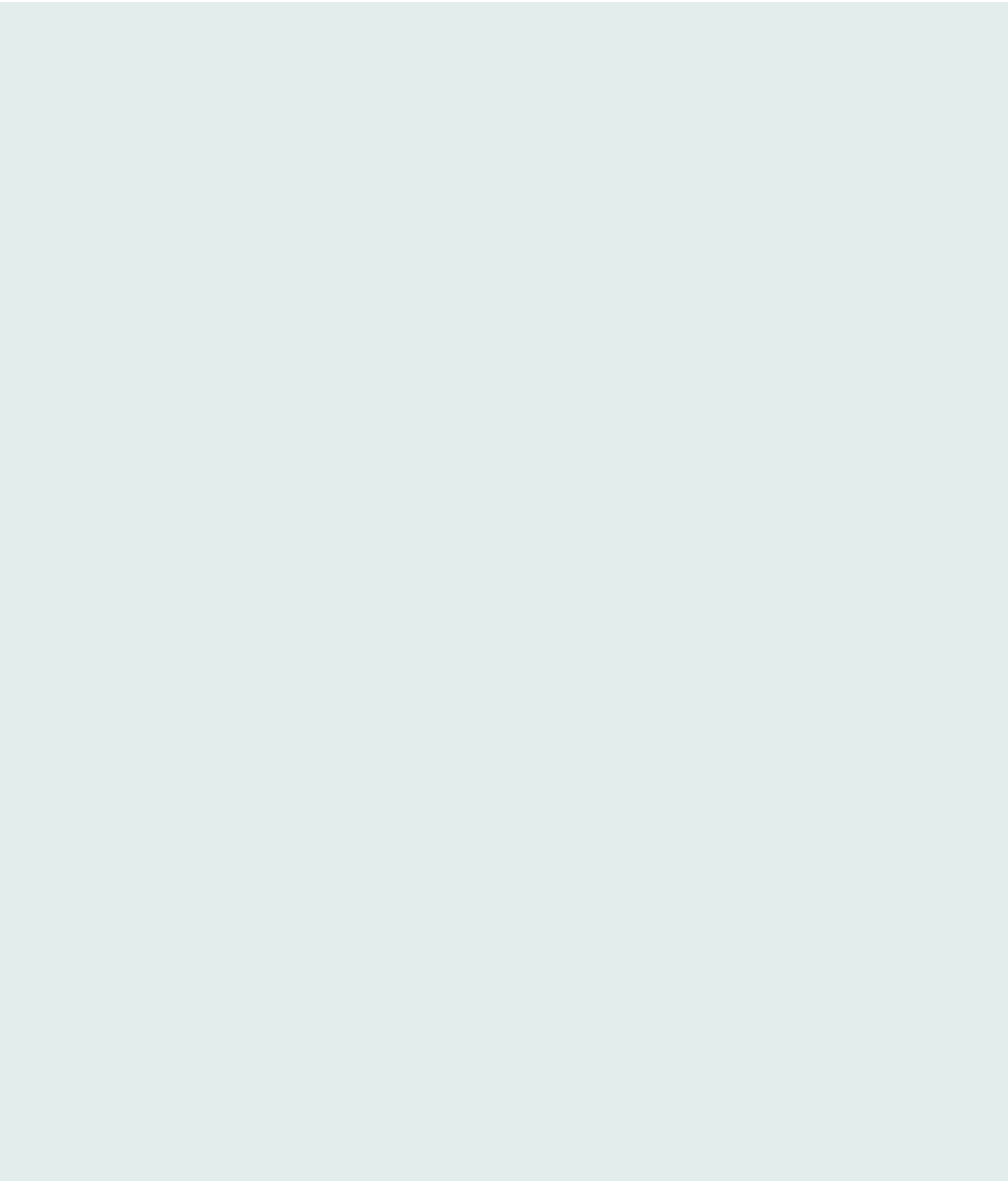




SUSTAINABLE DEVELOPMENT IN CULTURAL DISTRICTS: A Public Realm Perspective

A CULTURE MILE REPORT

Fig. 1



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PART 1 EXECUTIVE SUMMARY



Fig. 2

INTRODUCTION



Fig. 3

This report is a summary of research undertaken in 2021/22 about sustainability practices in cultural districts across the world. It was commissioned by the City of London Public Realm team, working as one of the key partners in the Culture Mile initiative. The research was undertaken in a context of a renewed focus on sustainability by the City of London Corporation and the Public Realm team, exemplified by the City's new Climate Action Plan alongside the implementation of projects in the City that look to foreground sustainable practices.

The City Climate Action Plan

In 2020 the City's Climate Action Plan was approved, giving the City's officers a clear remit to include sustainability measures in their practice. The Action Plan has clear targets related to:

- Actions to support the achievement of net zero
- Actions to champion sustainable growth
- Actions to build climate resilience

Public Realm in the City of London + Smithfield

The City's Public Realm team work to design new public space and are looking for best practice in sustainable public realm design for cultural activity. This work has involved initiating new projects such as materials salvage and reuse; reducing vehicle traffic and increasing planting. It also considers how to balance the land use challenges of cultural institutions (with a need for spaces suitable for cultural activity, such as concerts and outdoor artwork) alongside a need to build in climate change mitigation and resilience.

One major project that is currently being undertaken by the Public Realm team is the transformation of the Smithfield area into a new cultural district. The Smithfield project includes a Strategic Outcome relating specifically to sustainability practices, as follows:

"The public realm is designed to be a leading exemplar for sustainable design, including:

- Applying circular economy principles and minimising whole life environmental impacts, the public realm is sustainable and integrated seamlessly with the local buildings
- Incorporating integrated water management and with urban greening maximised
- Hard and soft landscaping is climate resilient"

Fig. 4

Purpose of the research

With the publishing of the Climate Action Plan, alongside the work in Smithfield to design public spaces for cultural activity that are exemplars for sustainable design, there is a need to better understand what 'exemplar' looks like. The City's Public Realm team have collaborated with the Global Cultural Districts Network (GCDN) to undertake this research into the issue, looking at examples of cultural districts around the world to understand what is current practice; and what might be best practice.

The research aims were to understand best practice and innovative new ideas that are being undertaken by cultural districts around the world to develop sustainably and to embed climate resilience into cultural districts' practice. The research was also to include a particular focus on public realm projects. Through understanding what are the current practices in this field, we can see how to develop best practice and how to overcome common challenges. The purpose of the research ultimately is practical, to feed into the development of future projects.

During the time of the research, Covid changed the landscape. Now, all districts understand the importance of public space as it came to the fore during lockdowns and as a means for reintroducing people to the city again. As one of the interviewees said – the focus has shifted from having a cultural building as an 'anchor tenant', to having public space itself as an anchor tenant.

This research report provides:

Part I:

An Executive Summary of research findings, including: the framework of the research which is the UN's Sustainable Development Goals; the research methodology; the Key Learnings; Challenges; and a summary of Case Study findings

Part II:

Detailed case study findings, giving an overview of each Cultural District involved in the research, their climate change risk context, and their sustainability practices, with more detailed information covering the context of each District, key learnings, an overview of initiatives undertaken, highlights of interesting projects; and the challenges faced by each District.

Key Learnings

The report is structured into four Key Learnings that have been used to group the findings of the research. These Learnings are derived from the experiences of the Cultural Districts that were part of the research. They are:

- Public Realm and the Environment
- Planning and Target Setting
- Initiatives and Practices
- Connecting with Wider Society

How can cultural districts promote sustainable development in our cities?

Cultural institutions play an important role as an 'anchor' in their local places – not just in terms of artistic activity and cultural production and consumption, but also for placemaking, community gathering, and economic development.

But can they also be 'anchors' in their areas for environmental sustainability and climate resilience? And are cultural districts able to harness creativity to bring innovation that supports sustainable development?



Fig. 5

INTRODUCTION CONTINUED

The answers to these questions are complex and depend on limitless factors that are not necessarily in the control of the cultural sector. But one part of the answer is understanding: to understand the problems better; to explore constraints and challenges to positive action; to discover new ways being used to counter the problems; and to learn more about how our peers are tackling the same issues. This report sets out research that aims to understand the approaches that cultural districts take around the world in the field of sustainable development. The research will then, hopefully, feed into peer-to-peer learning and promote the development of sustainable practices. We hope that this enables cultural districts to learn from each other, and provides inspiration and advice.

In order to create real change that supports the conservation of the environment and sustainable development, the challenges facing cultural districts are numerous. They are both inherent – for example in the practices of touring, or the energy use requirements of staging a performance, or the materials consumed in creating artworks or stage sets; and they are contextual, with cultural districts subject to the same political malaise that effects all sectors.

There are some very positive signs of change within the field. In the UK, the work of Julie's Bicycle has been a real beacon in leading the way in helping cultural organisations face the challenge and alter their practices. New building regulations and planning frameworks have also started to be implemented to push designers, architects and developers to build more sustainable buildings.

But what about the role of public space?

Within the field of cultural activity and cultural districts, the research project is particularly interested in the part that the public realm – our open spaces, streets, and parks – can play in this process.

This research uses the definition of 'Sustainable Development' from the United Nations, with reference to the report 'Our Common Future: Towards Sustainable Development':

'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs'

(Brundtland Commission, 1987)



Fig. 6

The 'Sustainable Development Goals'

In 2015 the UN General Assembly adopted a resolution that set out a strategy for sustainable development, working towards a set of goals for 2030. These were the 'Sustainable Development Goals' (SDGs): 17 goals, accompanied by 169 specific indicators, that have been agreed by the member states. Many governments, intergovernmental organisations, charities, NGOs, and more now use the SDGs as the basis for setting targets and defining programmes of work.

Also in 2015 the Paris Agreement was signed. The Agreement is an international treaty whose goal is to limit global warming with a target to limit global warming to 2°C at most, and preferably 1.5°C. Recent reports from the International Panel on Climate Change (IPCC) have set out startling data that emphasises how important the 1.5°C limit goal is, and how far we are from achieving it.

Sustainable development is a crucial part of the picture in ensuring that cities can contribute to the targets of reducing emissions and limiting global warming. Given the dire predictions of climate change and its impact, the built environment in our cities has needed to respond.

The 'Three Pillars' of Sustainability

Sustainable Development is often referred to as having 'three 'pillars'', which are:

- Environmental sustainability
- Social sustainability
- Economic sustainability

A UN Resolution in 2015 explained that, 'The [SDGs] are integrated and indivisible and balance the three dimensions of sustainable development' (UN, 2015). For development to be truly sustainable, it must balance the requirements of all three of the pillars.



Methodology

The Research Lead is Culture Mile, in collaboration with the GCDN, with guidance from the University of Westminster. The participant case study cultural districts are:

- Navy Pier, Chicago, USA
- Quartier des Spectacle, Montreal, Canada
- Downtown Brooklyn Partnership, New York, USA
- Better Bankside, London, England
- Culture Mile, London, England
- 7 Square Endeavour, Rotterdam, Netherlands
- Onassis Stegi, Athens, Greece
- West Kowloon Cultural District, Hong Kong
- Melbourne Arts Precinct, Melbourne, Australia
- Home of the Arts (HOTA), Gold Coast, Australia

The initial research involved a desktop study to give an overview of the field by reviewing online sources for over 50 cultural districts. This provided an insight into the current types of sustainability practices and ambitions, which was compiled into a database. It also gave a sense of the ways that cultural districts were communicating about sustainability and publicising their climate- related initiatives.

A consultation was then undertaken with Westminster University, to refine the list and consider approach, outcomes and potential questions. A draft survey for districts was subsequently created based on this discussion. Through consultation with the GCDN, we compiled a shortlist of cultural districts that represented a range of geographies, approaches, governance structures, and climates, for our case studies. We undertook an approach of semi-structured interviews, with representatives from ten cultural districts for approximately one hour sessions in order to understand best practice in the field.

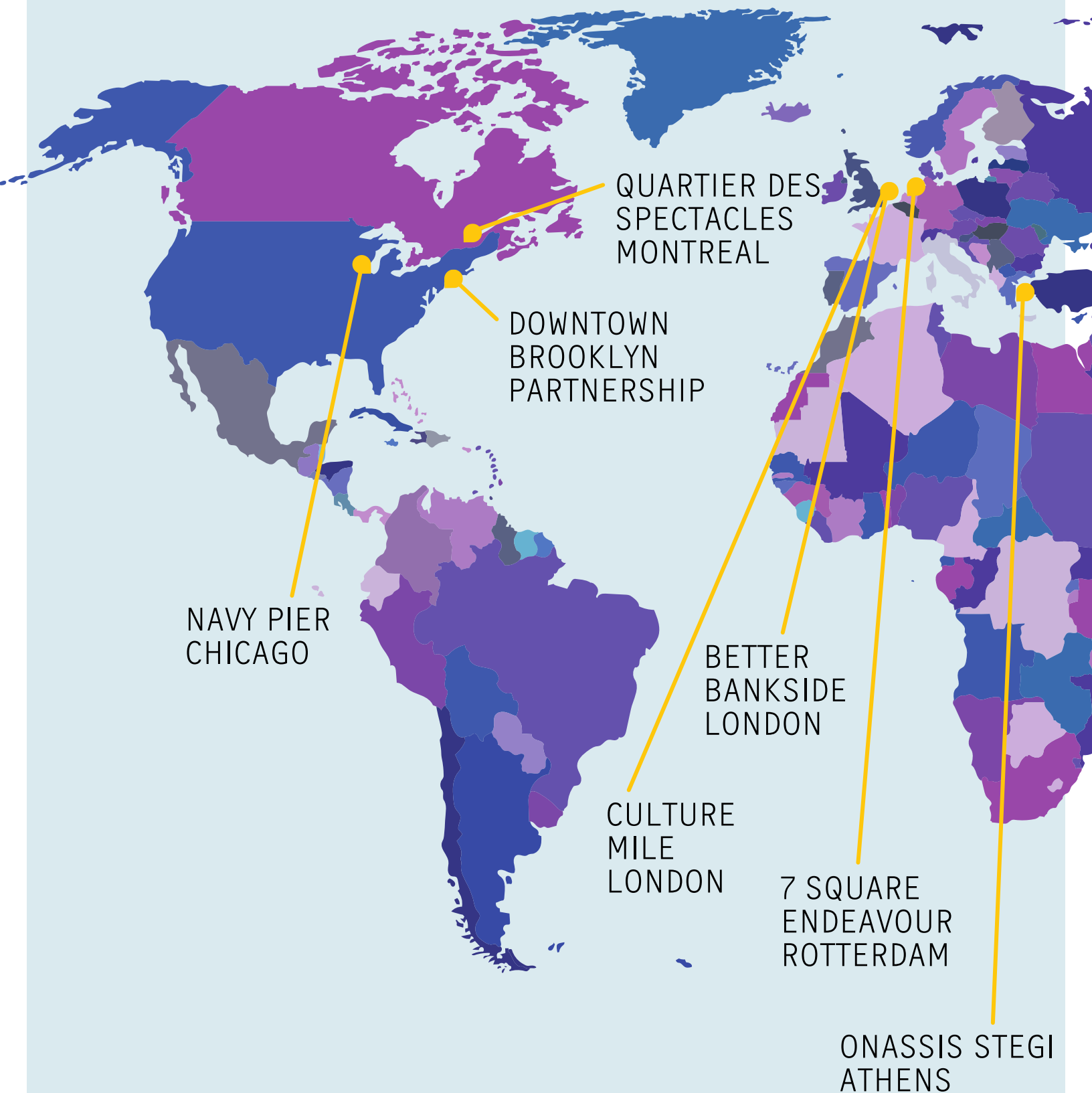
The semi-structured interviews covered topics that ranged from: strategic planning and target setting, risks and vulnerabilities, internal and external motivations for sustainability measures, governance, decision-making and agency, initiatives, funding and costs, partnerships, constraints and challenges, target setting and plans for the future.

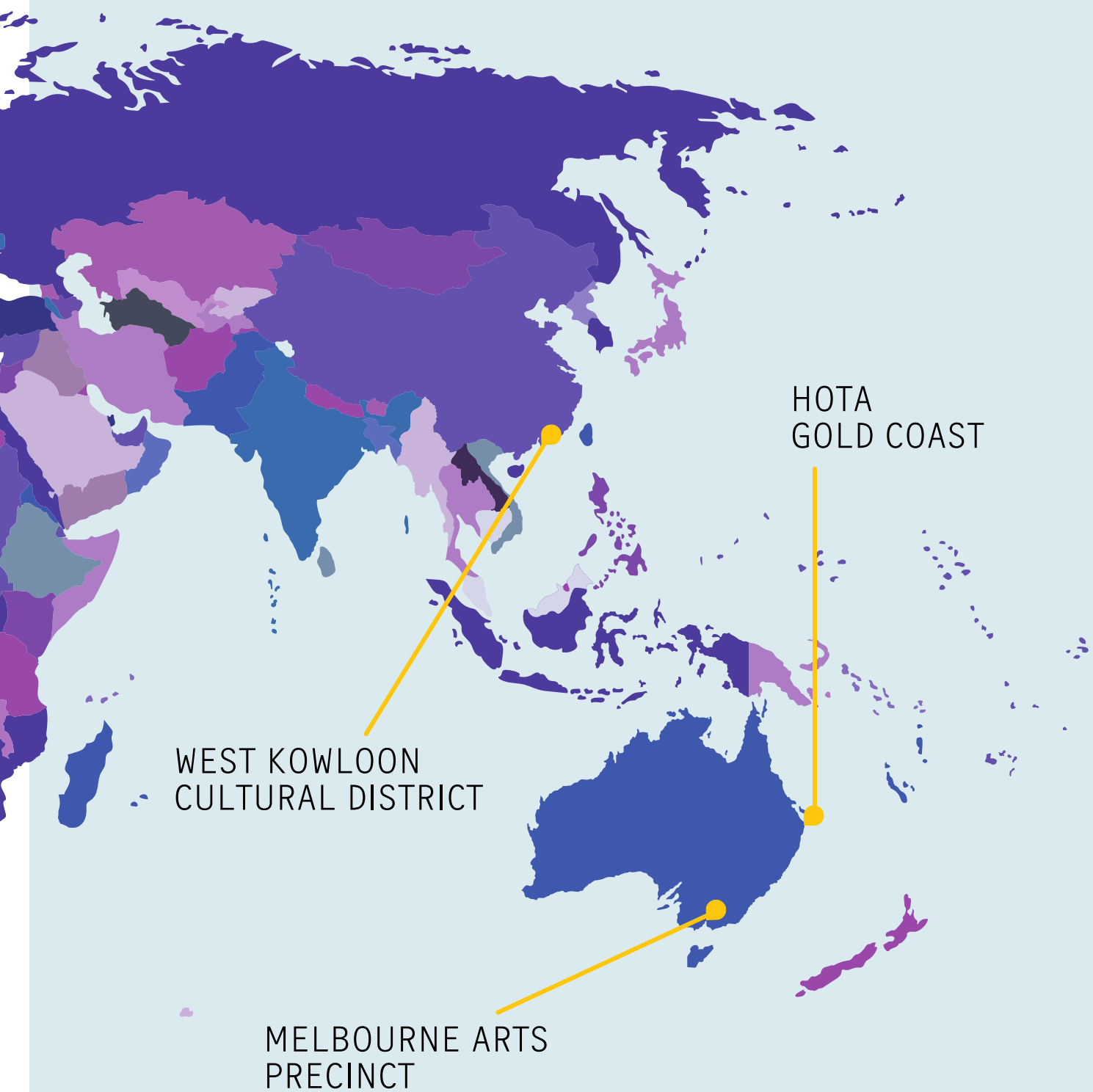
The data collected was anecdotal and qualitative in the main. We then analysed the responses and present them in this report, along with some key learnings coming from the research that may be used for future sustainable development practices.



Fig. 7

CULTURAL DISTRICT LOCATIONS





CASE STUDY SUMMARY

The cultural districts that are part of this research all have very different social, political and geographic contexts, and are facing different threats from climate change. They are also all on different stages in the journey towards a more sustainable existence. The key points that were raised by each Case Study area are given in the summary below, with full details of each area in the 'Part II: Case Studies' section of this report.

Navy Pier Chicago

Key areas of discussion with Navy Pier, Chicago included:

- The importance of taking a long-term approach
- Sustainability as part of the mission to provide service to the community
- The importance of finance and costs, including as a challenges and constraint
- Looking to the future, and the importance of local leadership
- Measures put in place in the public realm, including climate change mitigation

Better Bankside

Key areas of discussion with Better Bankside, London included:

- Relationships with local stakeholders and partnerships
- A focus on streets and outdoor spaces
- The 'Urban Forest' initiative for greening the local area
- The political, economic and contextual challenges faced by the district
- The 'Business Climate Challenge' that engaged local businesses in improving their sustainability practices

Quartier des Spectacles, Montreal

Key areas of discussion with Quartier des Spectacles, Montreal included:

- Building new public space and outdoor activities that engage people on environmental issues
- The importance of communications and storytelling, and the role the cultural sector has in this
- Projects that include elements of research and monitoring
- The role of programming

Downtown Brooklyn Partnership

Key areas of discussion with the Downtown Brooklyn Partnership, New York included:

- Activities in the public realm
- Advocacy for active travel
- Transitioning to clean energy use
- The importance of governance and strategy
- Detail relating to key challenges and constraints to transitioning to sustainable practices
- Covid measures that support sustainability outcomes



Fig. 8

Home of the Arts (HOTA) , Gold Coast

Key areas of discussion with Home of the Arts, Gold Coast included:

- A focus on the limits, constraints and challenges to transitioning to sustainable practices
- Natural environment, lifestyle and geographic context
- Grassroots approaches to sustainability
- The role of Strategic Planning and hopes for the future
- The impact of Covid on use of public space

7 Square Endeavour, Rotterdam

Key areas of discussion with 7 Square Endeavour, Rotterdam included:

- The story of how the district made the commitment to sustainability over ten years ago, and the work that has taken place over this time
- Adopting a Radical Mindset and Approach
- The importance of leadership
- How to integrate buildings, public space, systems and infrastructure

West Kowloon Cultural District

Key areas of discussion with West Kowloon Cultural District, Hong Kong, included:

- Sustainability in a context of masterplanning and major projects
- The role of Certification
- Public Realm measures
- Use of data and monitoring
- Benchmarking against other areas and practices, including outside of the cultural sector

Onassis Stegi, Athens

Key areas of discussion with Onassis Stegi, Athens included:

- The importance of target setting and reporting
- Partnership work in the local public realm
- Challenges to moving towards sustainable outcomes
- Looking to the future and what is required over the coming years

Culture Mile, London

Key areas of discussion with Culture Mile, London included:

- Retrofitting and Reuse as a sustainability strategy
- Collaborations with non-Cultural Partners such as business partners
- Strategic support throughout the organisation
- Programming & Communities that foregrounds sustainability
- Using a 3 Pillars Approach to activity

Arts Centre Melbourne

Key areas of discussion with the Arts Centre, Melbourne included:

- The need for a fundamental shift in practices to transition to sustainability
- Local empowerment
- Working with an aging building and engineering challenges
- Public realm in the context of local partnership working (through the 'MAPCO' partnership initiative)

CASE STUDY SUMMARY CONTINUED

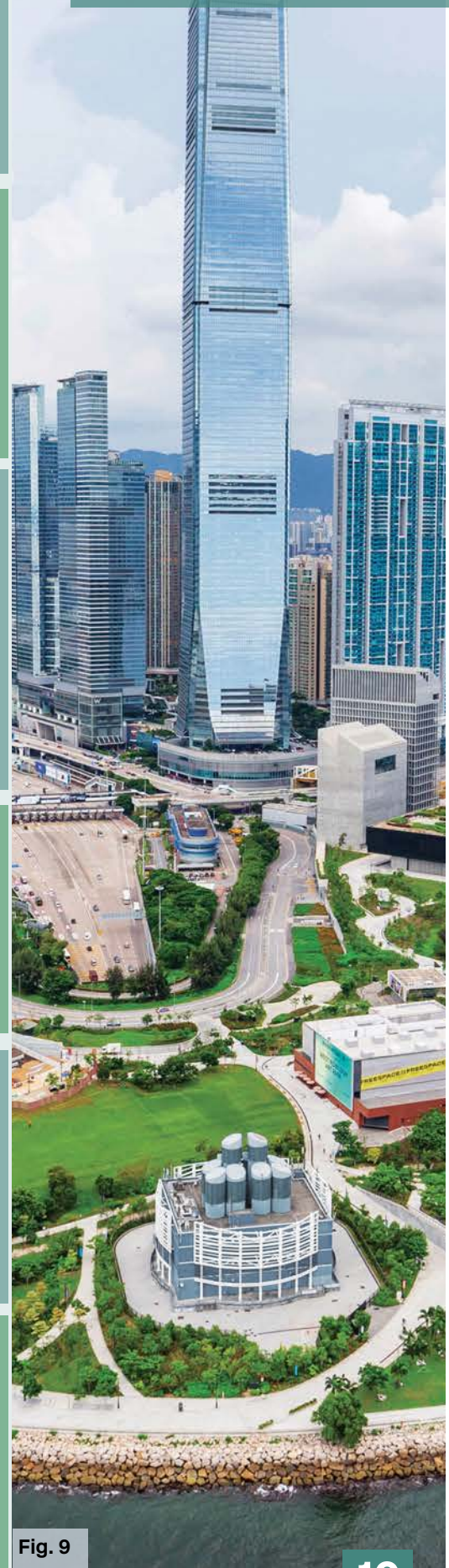


Fig. 9

KEY LEARNINGS



Fig. 10

The majority of the districts identified a sense of responsibility to enact measures for climate change mitigation; with the different districts at varying points along the journey. Most of the districts were well underway in operational changes, often driven by staff initiative; and retrofitting of the buildings in the district to reduce energy use. Some of the districts also had strategic targets for sustainability or climate actions plans in place, which guided their work.

A common theme with many of the districts was the desire to move further and faster on the journey towards a more sustainable existence, through a fundamental shift in practices. Real action is required that moves beyond the 'low hanging fruit' – the initiatives that have largely been enacted to date – to a truly sustainable existence that plans for the future in a responsible and holistic manner and that tackles the challenges head on. This would include measures that meet a net zero target, for example.



Of all the areas researched, the case study furthest along this journey, is 7 Square Endeavour (below).



Fig. 11

The following pages summarise the data gathered from the Case Study areas, categorised into four 'Learnings', as well as the Key Challenges to shifting to a more sustainable existence that were highlighted by the respondents.

Planning + Target Setting

A number of Case Study cultural districts spoke of the importance of planning and setting ambitious targets for their organisations, along with transparent and accountable reporting and monitoring of progress.

Connecting with Wider Society

Cultural Districts have a unique opportunity through storytelling to connect with society in a way that confronts the challenges of climate change and advocates for ambitious sustainability practices.

01.

02.

03.

04.

Public Realm + Environment

Case Study respondents spoke of the importance of public realm which had come even more to the fore during Covid. Public realm, planting and outdoor programming have a role to play in providing space for people outdoors, but also in providing environmental sustainability benefits such as increased biodiversity and water management.

Initiatives + Practices

A wide range of initiatives are being introduced across the different Case Study areas. These range from major construction projects to empowering staff green teams to recycling initiatives and programming that highlights climate change.



Public Realm + Environment

Key Data

8 districts
advocated mass
transit and active
travel

8 districts stressed
the importance of
public realm

7 districts stressed
the role public
space played
during Covid

5 districts
discussed
landscape design
e.g. native,
indigenous,
appropriate

Findings

Public realm must be valued and put to use. It is an open forum where people can socialise and exchange. All the districts interviewed emphasised the value of public space and they stressed the part it plays in the sustainability of a place. In particular:

- The total amount of green space and planting should be increased
- Integration of services and shared infrastructure between public realm and buildings allowing for shared services and greater efficiencies
- Active travel should be advocated and a freight and deliveries strategy should be in place. Partnership with the local municipality is to be pursued. Once vehicles are reduced, there should be a strategy for opportunities to transform areas that once were vehicle-dominated into green open space
- A balancing act needs to be performed between spaces for activity and programming, and quiet open space
- Collecting of data and monitoring of the spaces, e.g. on air quality, wind, water, biodiversity should be undertaken
- Design spaces in an appropriate manner for their own environment, understanding (for example) the need for appropriate planting schemes, levels of shade, and how water moves through the site
- Resilience planning should be linked closely with the design of the public realm. Ensure a resilience plan is in place that responds to key risks and vulnerabilities – including social and economic risks as well as environmental ones. Ensure new spaces and related buildings are designed with climate change and increased risks in mind
- For capital works it is essential that sustainability measures are integrated at all stages and that 'value engineering' processes do not take away sustainability measures



Fig. 12



Planning + Target Setting

Key Data

6 districts spoke of building regulations as important in adopting green measures

6 districts use data for planning and monitoring public space and environment

5 districts stated that greater leadership is needed

4 districts have strategic targets in place; 3 are currently putting targets together and for 1 it is a future aspiration

3 districts stressed the importance of measurable targets

2 use SDGs or a 3 pillars approach

Findings

Bold strategic planning should be put into place, backed up by specific targets and monitoring of data related to these targets. Sustainability needs to be fundamental to organisational leadership. Strategic planning on sustainability matters should be embedded holistically across the organisation and reflected in practices and staff responsibilities. In particular:

- A Sustainability Strategy should be approved, or sustainability should be a major part of the organisation's overall strategic plan
- Targets for the organisation to be set that are ambitious; and the reporting to them must be: accountable, transparent, accurate
- Monitor progression towards net zero through assessment
- Transparency in general should be a principle, and used as a tool. For example, if you can't get a green supplier, make that known and advocate for change.
- Embed local, green, and sustainable principles into procurement strategies. Where possible, be smart about joining up with others to make purchases more energy efficient
- Ensure programming is sustainable, considering touring practices and materials usage and reuse, especially for new installations
- Measure value and show this to people, publicise achievements

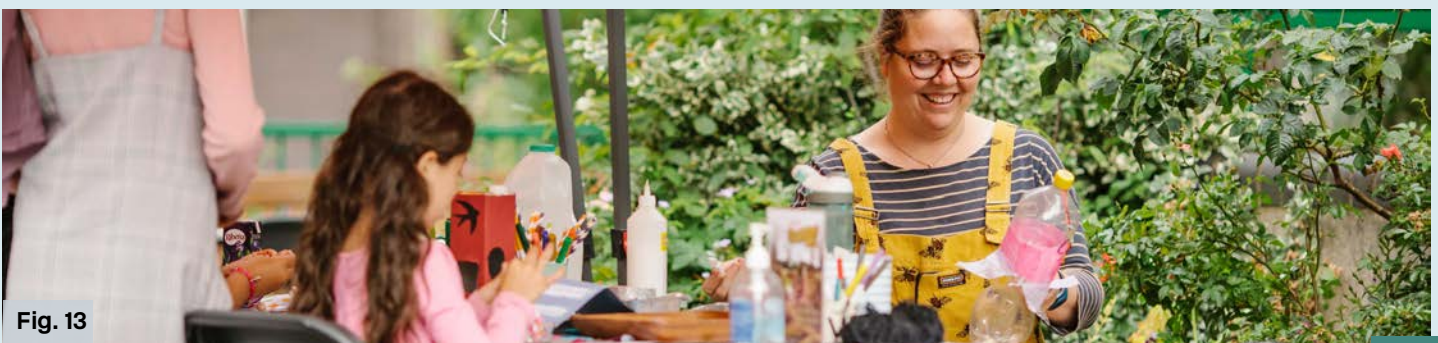


Fig. 13



Initiatives + Practices

Key Data

2 districts spoke about measures that are spearheaded and owned by staff

3 districts discussed implementing 'quick wins'

3 districts gave using local suppliers as a sustainability measure

1 district cited difficulty with finding green suppliers

Findings

Each of the districts spoke of the efforts of their staff, and how staff led the way in promoting sustainability initiatives. This grassroots activity is crucial to move to more sustainable practices. Similarly, so is learning from each other and being inspired by the places that are more advanced on the journey. 7 Square Endeavour in Rotterdam has a different approach, tone and spirit – this can act as an aspiration for the rest. To foster this spirit, harnessing the goodwill of proactive staff is essential, as is:

- Communication, peer to peer learning, and support for learning activity
- Embedding values into the organisation at all levels, so that when good staff leave the emphasis that they brought does not go too. Sustainability should be filtered into the organisation in a way that strategic, organisational, systemic, not based on goodwill of individuals alone
- Training for staff is essential and can be accompanied by sustainability KPIs that relate to staff roles
- Empowering staff to act in a more sustainable way ensuring there is space for staff to bring new ideas to management
- Create a forum for staff, such as a sustainability working group



Fig. 14



Connecting with Wider Society

Key Data

5 districts are working on local green projects with partners

3 districts see it as their role to engage with partners on climate change

6 noted that the local government has green targets

6 districts gave expectations of stakeholders as important

2 districts said more support from the municipality is needed

2 districts have good support from their city

1 cited problems resulting from short political cycles

3 of the districts have climate change related programming

Findings

Many districts expressed a need for change to be grounded in the local community, and to be enacted via partnerships across many different levels, including with suppliers, local governments, and artistic partners. A number of districts spoke about both their frustrations about wider context, but also understood their own role as an advocate for change within society. The cultural sector has a role to play here:

- As an advocate for sustainability in a context wider than themselves, by understanding the impact that culture can have on society, and by actively pushing for change in the fields of politics and the private sector and more
- As a place for bringing together ideas and exchange within the community to develop thinking about climate change solutions
- As a leader in the field, to show by example how to create change, how to influence and how to change hearts and minds
- As a means for creating a voice and a tool for wider society
- As a facilitator for the local community, who need to be a part of operations as local guardians of the environment, and people who can best ensure that work is socially sustainable
- Through partnerships, including with local organisations and community groups, politics, businesses, suppliers, as well as artists and practitioners.



Fig. 15

Key challenges

Despite the differences in context between the Case Studies, there were a number of challenges and constraints in common (cited by 2 or more Districts) that were identified in reaching the goal of a fundamental shift in activity. They are summarised on this page.

Funding

Lack of funding was the most commonly cited challenge, including for climate-related artistic programming, for ongoing maintenance works, and for major capital works when sustainability measures are 'value engineered' out.

Lack of wider support

There was a common theme of a need for ambition, leadership and big decisions. Political context is a major challenge as it is often short-termist.

Lack of agency

There are difficulties outside of the districts' control, where they are not the decision-maker. These include: a lack of green suppliers; problems of decarbonising transport; clashes of local priorities with national strategies; land use problems that result in no space in cities for cycle storage, freight consolidation and waste recycling. There is also limited local infrastructure, with often very few options available for energy, transport, waste management.

Lack of targets

There are limits on achievements if there are not strong targets in place, and that measures need to be more compulsory. National policies are not yet stringent enough. The real challenge is the substantial step-change required, not just an update or two. Districts need to be better at stating expectations with partners, suppliers, contractors.

Spatial + engineering challenges

4 districts stated there is limited space for green infrastructure; in addition challenges of utilities below ground, and structural challenges of old buildings were cited.



Fig. 16

How to meet the challenges

It is clear that the huge step-change would require significant funding, with a large investment over time. Districts stated the following possible means for overcoming the challenges:

- Having ambition, leadership, a big vision, courage
- Target setting
- Using all levels of governance
- Local partnerships, working at a local scale not as individuals
- Procurement strategies that target renewables
- Storytelling about transition, connecting people to the challenges
- Giving incentives
- Having patience
- Working in a holistic way, joining buildings with public space
- Putting sustainability KPIs into staff job descriptions

PART 2

CASE STUDIES



Fig. 17

NAVY PIER CHICAGO

Introduction

Navy Pier, Chicago USA, is a visitor attraction hosting arts activity, entertainment, expos, food and drink on a waterfront location. It is a non-profit organisation whose remit is to maintain and redevelop the pier, with 40-50 FTE staff and from 50-300 seasonal workers. The pier comprises a movie theatre, stage, convention space, museum, and many different retail, hospitality and leisure offers. It receives around 9m visitors per year and puts on a programme of over 250 public events.

Navy Pier celebrated its centenary 10 years ago, and having celebrated the first 100 years of the site, the organisation then defined the priorities for the next 100 years. In this process, sustainability was absolutely fundamental. The main aim for Navy Pier is to serve its community, and to engage with them, to make their experience fun. This is how the sustainability approach should work too, as it allows the pier to have a life long into the future. The Pier's tenants are independent and a future programme for the Pier may be to form a committee of tenants to consider energy initiatives across the whole site.

Sustainability, Climate Change and Resilience Planning

The Pier has a lakeside location, and a number of waterfront-related climate risks were identified, such as water level rises in the lake and risks to the beaches. Extreme heat and extremely cold temperatures are also risks for the area, with the city's vulnerability demonstrated when extreme cold effectively closed the city for a period of days in 2019. The representative from the Pier also recognised Covid as a climate-related event. Similar to the conversation with Rotterdam, the representative from Chicago clearly understood the challenges presented by climate change, was realistic, and acknowledged that there is more to be done.

In terms of sustainability measures, the Pier's efforts are focused on the areas of: water and waste management; energy use; transportation; and the experience of visitors of the local environment. One aim was to consider how to use resources more efficiently. It was stated that the organisation was at a relatively early stage along the journey. Despite this, the organisation has made a number of positive steps, such as appointing a sustainability manager in the Fall of 2018, and works closely with tenants on the issue.



Fig. 18

Motivations to act sustainably derive largely from internal considerations, coming from a sense of duty to meet the local community's needs. There are some requirements that come from the city government for energy reporting and benchmarking, and the city has stated it is prioritising sustainability. There is no external funding to be had, however financial considerations are important because some sustainability measures can be cost-saving and drive efficiencies. Global frameworks for sustainability are important reference points, but the organisation does not formally report on these.

When it comes to public realm, the Pier is active in improving the sustainability of the site where it can (the roads in the area are managed by the city rather than the Pier). There is green space on site that is managed by the Pier, and artistic programming in the public spaces. Whilst there has been outdoor programming onsite for many years, Covid saw a shift in that people became more consistently to see the outdoor space as a destination in itself, including for activities like outdoor movies or yoga in the park. The team use data to manage and monitor water on the site to understand the effect that planting native trees had on water. Projects related to public spaces that aim to improve sustainability outcomes include:

- Development projects and strategies to improve storm water management and biodiversity
- Permeable pavers installed on sidewalks
- Redesigned outdoor space to bring in more trees and greening
- Development of empty spaces with increased planting
- Encouraging active travel and reduction in vehicles through: better signage for walkers and cyclists; bikesharing programmes; Rideshare and drop-off areas; live information about parking to reduce idling and emissions
- Stormwater management systems and stormwater used for irrigation
- Use of recycled concrete and locally sourced aggregate
- Tree tubs with local trees and native planting
- Social seating areas made from reclaimed wood and recycled steel



Fig. 19

Key themes and learnings

Taking a long-term approach

It was clear that climate change is seen as a crucial issue when planning for the longevity of the site. The approach of Navy Pier placed the current situation in historical and temporal context, celebrating the past 100 years of the site, whilst considering this longevity as a reason for working towards the next 100 years.

Service to the community

The district aims to orientate itself towards its communities, and providing service to the community is a priority with sustainability is a way of meeting the needs of the community. Sustainability is also linked to visitors' experience of the site, and engaging with those visitors should be done in a fun and engaging way. Programming is a key part of this, and it can be effective in changing people's perceptions on these topics. It is the organisations' role to bring the tenants on board and engage with the public, in a way that feels uplifting.

Challenges and constraints: finance

Funding was cited as the key constraint to undertaking more sustainability activity. For example, solar energy was a greater (immediate) cost to non-renewable energy, as it required a capital outlay and there is no funding for this – nor is there currently the space required. One of the achievements cited by the Pier representative was that they have managed to do a lot without spending too much. Whilst cost can be a constraint, sustainability was able to bring in cost saving, for example when it led to reduced energy costs.

The future: importance of local leadership

The Pier is not politically a major figure in the city and has not got a great deal of additional capacity, but nonetheless it feels it has a role to play as a leader in the field of sustainability and climate change measures. Bringing tenants on board will be a crucial next step, as will more consistent communications with the public.



FUNDING IS ALWAYS THE PROBLEM. WE'VE BEEN ABLE TO DO A LOT WITH VERY LITTLE SO FAR, BUT THAT ONLY LASTS FOR SO LONG. AT SOME POINT YOU NEED TO REALLY MAKE AN INVESTMENT IN ORDER TO MAKE A BIG CHANGE.



Green Initiatives

Examples of the sustainability initiatives Navy Pier Chicago is undertaking include:

- Energy use audits and reductions, including through retrofitting (e.g. LEDs)
- Improved recycling rates
- Changing procurement practices
- Communication with staffing, e.g. during Earth Month challenge
- Installation of beehives and green roofs, and communications around this
- Partnership with the One Earth Film Festival
- Has a 30 year sustainable masterplan, with target areas being: energy, water, waste, transportation and community.
- Sustainability advisory group and sustainability working group comprised of civic leaders, sustainability experts, environmental professionals, non profit board members and staff.

For construction projects:

- LEED where possible, or implementation of LEED standards
- Looking at energy efficiency
- Recycling of construction materials and waste
- The sustainable SITES initiative- achieved a gold rating on this new accreditation system.
- Receives incentives from DCEO's ENERGY NOW initiative to retrofit and install new equipment

QUARTIER DES SPECTACLES MONTREAL

Introduction

The Quartier des Spectacles (QdS), Montreal Canada, is a 1k sq. area in the downtown which programmes 40 festivals across the year including 31 exhibition spaces, bars, 24 performance halls, 2 universities, 3 art schools, a cinema and a projection wall. The QdS team manage 9 public spaces in the area and have 30 full-time staff and up to 70 casual or seasonal staff. The organisation is funded by City administration to provide artistic activity for the district, and receives other income from service contracts from events organisations and from in-house productions.

The Board is the decision-making authority for the organisation and has the responsibility for sustainability. The organisation is also implementing a number of measures due to decisions made at the operational level. There is some central government funding available for sustainability measures, and some funding related to Covid and the push to return to the downtown area post-lockdown; this included funding for greening projects. It was noted that funding is more forthcoming for capital projects than maintenance; and shorter-term measures more than longer-term, scaled up measures.

Sustainability, Climate Change and Resilience Planning

The city of Montreal faces a number of climate change-related risks, including rises in temperatures and increased rain. It is vulnerable to extreme heat in the summer and the urban heat island effect, as well as warmer, wetter days in both the summer and the winter. These changes affect the plans for programming in outdoor spaces in the district.



Fig. 20

Climate change risk and sustainability measures are now a priority for the district, and feature in the next Strategic Plan for 2022-26 as one of the top priorities. The motivations for this are both internal – from staff and partners in the district; and related to external expectations, from the city and government, stakeholders, and the general public. The City of Montreal have a Climate Plan with specific goals, and there are national requirements for construction projects on issues such as water recovery, geothermal energy, heating and cooling systems. These have been included in the new building that has been designed for the latest public space to open in the district.

QdS recognises the professional responsibilities it has to make changes that meet the challenges of climate change, although it was acknowledged that the organisation is at the beginning of this journey. There were a number of challenges to be overcome that were identified. At the minute sustainability initiatives lie largely with the operations teams and projects; in future there should be a shift to Board-level engagement and ambitious goals. The main challenge is vision and goals, with a need to set ambitious goals and to have a clear, strong, statement about sustainability. Another challenge is active travel, with a specific local issue being a closure of a local subway station.

Despite this context of challenges, QdS has many ideas for future activities. There was a stress on the potential for partnerships, networking, and peer-to-peer learning with cultural districts on this point, such as: sharing goals, workshops and events about sustainability; and creating strong strategic partnerships. Partnerships should also be a method for working closely with local residents on green issues. It was stated that projects and initiatives needed to be more data-driven in the future, with evaluation and measuring combining with clear planning. Training was needed for the team. To make a real impact, sustainability should be included in all actions.



Fig. 21

Key themes and learnings

Public space

The organisation manage and maintain publicly-owned spaces on behalf of the city, along with one private space. In the summer some roads are closed and programming takes place on those sites. QdS also build new public spaces, leading on the design of these spaces. The team work with greening programming partners for activity and design in the public spaces. The last public space to be built in the area has recently been launched. One space, Emilie-Gamelin, hosts urban greening and agriculture workshops, and has an installation for butterflies. Covid meant that the city tasked QdS with the remit of animating public spaces and using public realm to bring people back to the centre of town.

There is also a network of green roofs in the area, and new buildings are integrated into this network of green spaces. Engagement is a key part of programming relating to environmentalism in the spaces, with workshops and education activities about planting, identifying species, tips on plant care, and information on the benefits of trees.

Communications + storytelling

The communication of sustainability projects and their purpose is an important part of the puzzle for Montreal. Targets should be transparent and visible to partners and to the public. Clear incentives to act are also important, as is behavioural research, to start to change habits. There is a real need for a narrative to change behaviour and habits, and storytelling about that transition is crucial. Environmental information should be made fun and informative.

Programming

As a major part of the QdS role is artistic programming, this is crucial to thinking about the environment in the area. Key considerations include climate change, and the fact that outdoor programming is starting to be affected by the changes in weather, especially in winter. It was also noted that programming should be considered in the context of the changing demographic of the area which increasingly has more residents who need green open spaces for quiet as well as activity: there must be a good balance which may challenge the current mixed use narrative of the area. The means for this is to work much more closely with local residents in partnership.

Research

QdS undertakes research in partnership with Higher Education to innovate and to understand the benefits of measures. Two such research projects are:

- A partnership with the non-profit organisation 'Urban Agricultural Lab' to investigate the network of green roofs and spaces to monitor urban agriculture, to understand what the vegetables need to grow in a downtown context, via collection of live data
- Research into the benefits of the 'Urban Forest' potted trees project in a partnership with a university, exploring the impact that the trees are having on heat levels, health and wellbeing, sound, and air quality. Data was collected both before and after the implementation to properly understand impact. The research work is to understand how greening adds to resilience, and which trees are most appropriate for this task.

Green Initiatives

Examples of the sustainability initiatives QdS Montreal is undertaking include:

- Trees planted in pots - 84 in total. These are additional greening and also Hostile Vehicle Mitigation (HVM) measures to improve safety
- Green procurement and competitions for contractors, designers, suppliers which include requirements on issues such as recycling, sustainable materials, use of local suppliers
- Work with an Events Organiser partner to run workshops for organisations in the district about working in a sustainable manner
- Drinking water stations
- Recycling bins
- Plans to have composting facilities onsite
- Centre for sustainable development looking at new construction methods - the centre is the first LEED platinum certified building in Quebec. The first venue in Montreal to bring together art and sustainability.
- Focus on environmental crafts in arts programming
- Organising environmentally friendly festivals and events
- Created a platform for people to be able to share environmental tips for the home.

DOWNTOWN BROOKLYN PARTNERSHIP

Introduction

The Downtown Brooklyn Partnership is a business advocacy group that is an umbrella organisation of three Business Improvement Districts (BIDs) in downtown Brooklyn. The area includes organisation such as the Brooklyn Academy of Music (BAM), Mark Morris Dance Group, and the Museum of Contemporary African Diasporan Art (MoCADA).

The Partnership does not have agency in terms of owning or managing cultural buildings or organisations in the area; instead these organisations are members of the BIDs. The Partnership is responsible for managing the outdoor public space around the cultural buildings and it runs the outdoor programming in these spaces, including a calendar of community events. Its remit includes the management of four public plazas and streets, and cleansing in the area, and it is a leading voice on improving streetscape.

The Partnership is motivated to act in a sustainable manner due to the existential point of acknowledging the importance of climate change and its threats. The Partnership does not set its own specific sustainability targets, rather it has a sense of commitment within the organisation. The issue of costs was not a factor in terms of motivation, and it was noted that sustainability measures are often not cheaper to implement.

Sustainability, Climate Change and Resilience Planning

The experience of Hurricane Sandy and the effect this had on New Yorkers loomed large when discussing risk management and climate resilience. After Sandy the city of New York has agreed a plan with sustainability a significant part. Risks that were identified by the Partnership tended to be disaster risks, such as flooding, extreme weather, storms ("nor-easters" in local parlance), and the effects of extreme weather events on transit systems in the city. The Partnership made it clear that the local community is well aware of the real risks of climate change and other environmental concerns and local support and awareness was forthcoming. A further challenge – and a focus for activity – was air quality in the area.



Fig. 22

Three areas of focus were identified by the Partnership, which were:

Public realm

This was identified as a huge priority. Measures have been put in place that include additional green landscaping for the purpose of both public enjoyment and to provide facility for storm-water runoff. The Partnership operates a block-by-block approach, making incremental improvements. An example initiative is the planting of 1,000 new trees. With additional greening measures comes a focus on increased biodiversity. There is ambition to increase the green tree canopy and green infrastructure in the area, which is achieved through a programme of planting, redesigning underperforming parks and open space, resulting in adding four miles of green infrastructure. A large study on public realm is currently underway which will include recommendations for further improvements.

Active travel

The second key area of focus is to promote a shift from car usage to mass transit and active travel. The Partnership takes on responsibility of promoting the use of mass transit, cycling, and walking over car use. The knock-on effect of these measures is to reduce the numbers of cars on the road and parking in the area, which means that space previously taken by vehicles can be transformed into new public plazas and new open spaces are created. On this issue the Partnership is also advocating for cycle routes, cycle parking, and new busways with the City government, and the reduction in lax regulations on placard parking in the area.

Clean energy

Thirdly, the Partnership highlighted the work they are doing as strong advocates of clean energy with building owners in the BIDs, and there were some successes in this work with all-electric buildings recently built.



Fig. 23

DOWNTOWN BROOKLYN PARTNERSHIP CONTINUED

Key themes and learnings

Governance + strategy

Downtown Brooklyn is a partnership-led organisation with this community the basis for governance and decision-making. The Partnership clearly expressed a sense of responsibility over climate change and related issues, understanding that this is a collective sense from the membership, who were highly aware of the issues and had signed up to the mitigation measures that are being implemented across the district. Alongside the community of members, a relationship with the City government is also crucial.

Public realm in Brooklyn

Downtown Brooklyn focused heavily on public realm, and has within its remit the responsibility for managing the streets and cleansing in the areas around the cultural venues. One of the key achievements cited by the Partnership was its success in making the streets cleaner and greener, and getting great feedback from the public and the membership for this work.

Although the responsibility for managing the streets lies with the Partnership, improvements must be undertaken through collaborative working, with local organisations, the City government, and the Parks and Recreation Department. Other partnerships that provide value are those with contractors and suppliers, such as the suppliers of solar-panel bins that have been installed in the area. The district also uses data in relation to planning public realm measures, including: traffic and pedestrian data; air quality data; and an inventory of trees and planting.

Challenges + constraints

No urban environment is without its challenges and Brooklyn identified a number of physical challenges such as the presence of underground utilities and lack of space that mean greening and planting is difficult. This has been seen with the installation of bioswales, which was not as extensive as originally intended due to the presence of infrastructure below ground.

There were also political challenges identified where it was felt that greater political and practical support from the City was required. This is a common theme that was noted across the interviewed districts. Lastly, a sense of frustration was expressed about effectiveness, and whether the measures that are being undertaken now are going to have a big enough impact to really mitigate the true impacts of climate change. Again, this was a theme expressed regularly in the research project across many of the districts.

Covid Measures

The Downtown Brooklyn Partnership had undertaken a number of initiatives to respond quickly to the context of Covid. These included:

- Changing car park space into parks; which in turn expanded the public realm
- Installing new parklets
- Reducing car use
- An 'Open Restaurant' programme which expanded dining and hospitality space out into roads and parking spaces
- Closing streets to create more walking spaces

Green Initiatives

Examples of the sustainability initiatives the Partnership is undertaking include:

- Programming relating to sustainability is a focus. Examples include Earth Day celebrations, Bike New York programme, cycle awareness training, and artists work on environment issues.
- Recycling is promoted within district and in the office
- A push for pedestrian-focused streets and active travel
- Cleansing
- Regular community events relating to sustainability
- Increasing green spaces, planting, and redesign of parks
- Streetscape practices focus on increased greening and biodiversity
- Partnership with the department of sanitation on composting outreach

BETTER BANKSIDE

Introduction

Located on the river in South London, Better Bankside is a Business Improvement District (BID), established originally in 2000 and with BID status since 2005. The BID is a non-profit company and its membership includes 1000 businesses in the local area who pay the annual BID levy. The site of Bankside is a mixed area with businesses and arts organisation, around 7,000 residents and c.17,000 workers as well as millions of visitors. Governance of the BID is a board of members and local stakeholders that sets the strategy for the organisation. In addition there are themed groups comprising of members which set the programme of activities. The organisation's activities are highly collaborative with many projects being partnership-based.



Fig. 24

Sustainability, Climate Change and Resilience Planning

The main climate change risk in the area was identified as flood risk, due to the riverside location and rainfall. The BID has winter weather plans in place and has hosted events around flood risk for the business community, which aim to promote resilience and business continuity for members.

Sustainability has been an issue on the agenda for many years, and BIDs have long been advocates for measures such as reducing traffic, increasing active travel and improving streetscape. The 'co-benefits' of sustainability initiatives for high street environments are well established. There is a 5 Year Climate Action Plan in place, and in 2019 members approved, via a ballot, to adopt a '3 Pillars' approach to sustainability practices. The impetus for this focus comes from the members, who emphasise sustainability as an issue. In this, reputation is a key factor. The member businesses have aspirations and the vision they articulate goes into the planning process for the BID, for example the Tate Gallery has targets to achieve zero carbon. In addition there is motivation provided by external bodies, in the form of the Greater London Authority (GLA), the transport authority (Transport for London, TfL) and the local council (Southwark) who all have sustainability-related targets. These bodies also have funding available related to these targets that the BID can draw on, for example the GLA 'Good Growth' grant funded works for the development of railway arch space to house facilities for an active travel hub and low emissions street cleansing, and there was TFL funding for green logistics and freight consolidation pilot scheme.

Green Initiatives

Examples of the sustainability initiatives Bankside is undertaking include:

- Street design and street cleaning take the climate change agenda into account
- Procurement strategy for low emission waste facilities introduced; resulted in a contractor who exceeded compliance with the 'Ultra Low Emissions Zone'
- Use of local supply chains
- Make choices to not partner with, or accept resources from, organisations that do not share the same values on this issue
- Climate Action Plan approved, which includes measures on efficient energy usage, waste, composting
- The GLA business climate challenge (see box)
- Programming including walking and cycling initiatives, e.g. Dr Bike services for people in the area
- Subsidies for cargo bikes for members
- An arts project in partnership with the Tate where young people curate an exhibition in the railway arches about climate change, to start conversations in the lead up to the COP26 summit
- Street clean up events
- Tree planting
- Use of pilot scheme approaches that have gone well
- Cycle parking and cycle lanes installed
- SUDs in the public realm

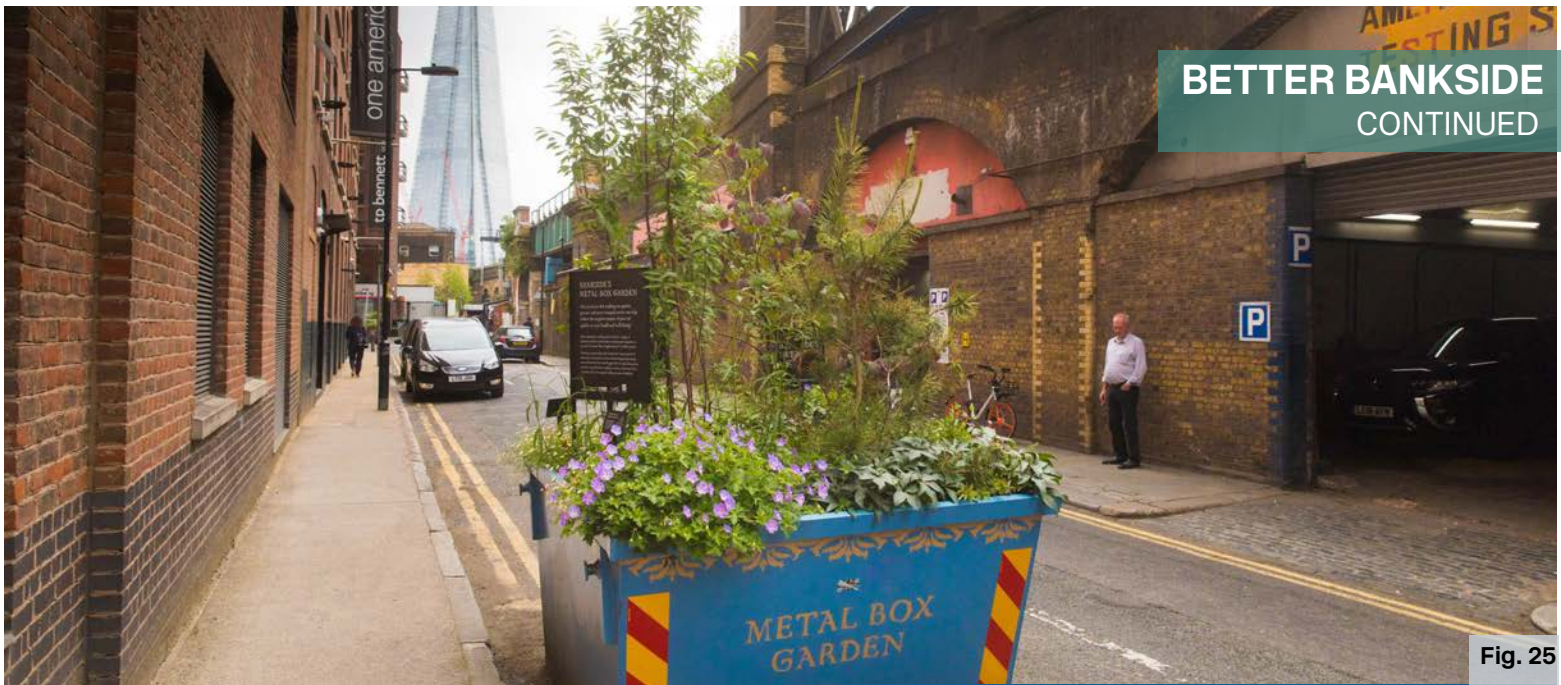


Fig. 25

Key themes and learnings

Stakeholders + partnerships

As a BID, Bankside operates in a manner that places partnerships at the forefront, and many of the projects are collective efforts. Incentives and leadership comes from the members, and the BID staff are good at marshalling support. There is a high level of stakeholder buy-in for the work. The BID also stated that learning from others is key, for example learning from the TfL partnership. There is also an aspiration for partnerships between different sectors, with the cultural sector teaming up with the technical on matters of sustainability (for example). Grassroots projects include engagement, for example during street tidy-up sessions.

Streets + spaces

The BID focuses a great deal of energy on public realm and streets in its area. The organisation sees Bankside as a campus of buildings and spaces, and sees those public spaces as collaborative areas. As such there is a large focus on schemes to reduce vehicular traffic, such as promotion of active travel, cycling facilities, a freight strategy, waste schemes, and more. This has meant the introduction of progressive transport schemes such as the Low Traffic Neighbourhood scheme (LTN) which reduces through traffic significantly, which the BID campaigned directly for and assisted in resolving issues related to its implementation. It has also meant low traffic focuses on street design too, with a 'Healthy Streets' approach to design implemented that focuses on more space for pedestrians and more facilities, better air quality and increased planting and activity. It was also noted that public space was key to getting people back into the city during and after Covid, to the extent that the representative we spoke to declared that, "Public Space is the new Anchor Tenant".

Urban forest

A significant means for working towards a sustainable future is the 'Urban Forest' initiative, which is the strategy for the improvement of the public realm in the area. Once the transport schemes are implemented, there is more space on the ground that can be given back over to people. The Urban Forest scheme includes increasing the level of space for people and for planting in the area, and an improvement of air quality, making the area better to walk in better connected.

GLA Business Climate Challenge

This was a pilot scheme in collaboration with the GLA. The 19 participant businesses committed to a 10% energy savings obligation. A consultant was appointed to provide businesses with an energy data review, looking at issues such as energy expenditure, temperature, HVAC system, efficiency. A sizeable report was given to each, with a Display Energy Certificate (DEC) rating, along with clear guidance on getting better ratings and the payback periods for each measure outlined. Being part of the scheme meant a public recognition of efforts and contributions, which enhances the businesses' reputations, indeed other businesses saw what was going on and wanted to take part.

Challenges faced

The BID has a Climate Action Plan, and a net zero aim. There was a sense that a number constraints existed which presented real challenges to meeting these goals. Like a number of other districts, a key constraint was the gap between local ambitions and national policy, whereby national policy on many areas was not allowing for radical change. An example of this is the way that transport policies are set by national government in a country that is wedded to car ownership, and this clearly works against a local policy that aims to massively reduce car journeys and to decarbonise transport. Waste was another challenge, in particular the land use policies around waste consolidation and the deregulation of the waste industry which does not allow for proper integrated, local and sustainable services. Short-term occupancy in the area was also described as an issue in a context where there is no incentive for landlords to upgrade buildings to meet better sustainability targets.

CULTURE MILE LONDON

Introduction

Culture Mile is a partnership project between the City of London Corporation, Barbican Centre, Museum of London, Guildhall School of Music and Drama, and the London Symphony Orchestra. The district which houses these partners covers roughly one sq kilometre in the City of London.

There are only a small number of FTE staff for Culture Mile, but the team can draw on expertise of the partners on a project-by-project basis. The decision-making structure involves a Culture Mile manager, with decisions approved by a board, and policies and major projects approved through the established governance processes of the partners. Development of the initiative has been phased: the first phase saw the founding partners establish the area and activity; a second phase is now underway as Culture Mile is supporting the emergence of a new BID in the area in 2023. Strands of activity such as the learning programme, the public realm work will remain with the partnership after the BID formation.

Sustainability, Climate Change and Resilience Planning

Culture Mile is located in an area of flood risk, and the City has identified flooding, higher rainfall, and the risks of the Urban Heat Island effect as key environmental risks related to climate change. In addition, the City takes a 3 Pillars approach to risk, being concerned with economic and social sustainability as well as environmental.

Sustainability measures are a priority, and the City has a Climate Action Strategy that is targeting Net Zero, sustainable growth, and climate resilience, and there are procurement guidelines that include sustainability considerations, e.g. on local suppliers and reuse of materials. There is Member-level political support for net zero, and initiatives are also driven by staff, for example the waste team looks at implementing recycling drives and circular economy measures. There is a procurement strategy in place that includes sustainability measures for suppliers. Within projects, the creation of KPIs for sustainability are tools to ensure decision making is based on realistic and measurable objectives; although there are not any sustainability related KPIs currently for Culture Mile.

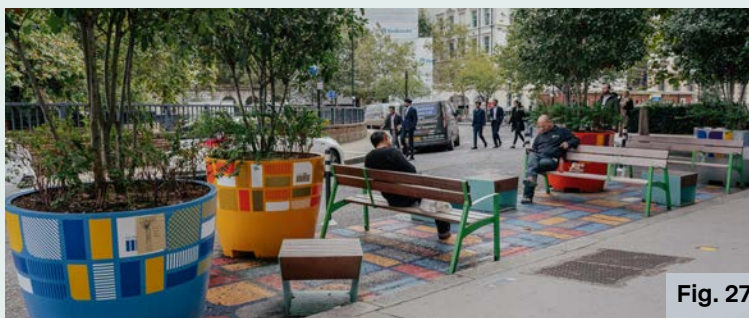


Fig. 27

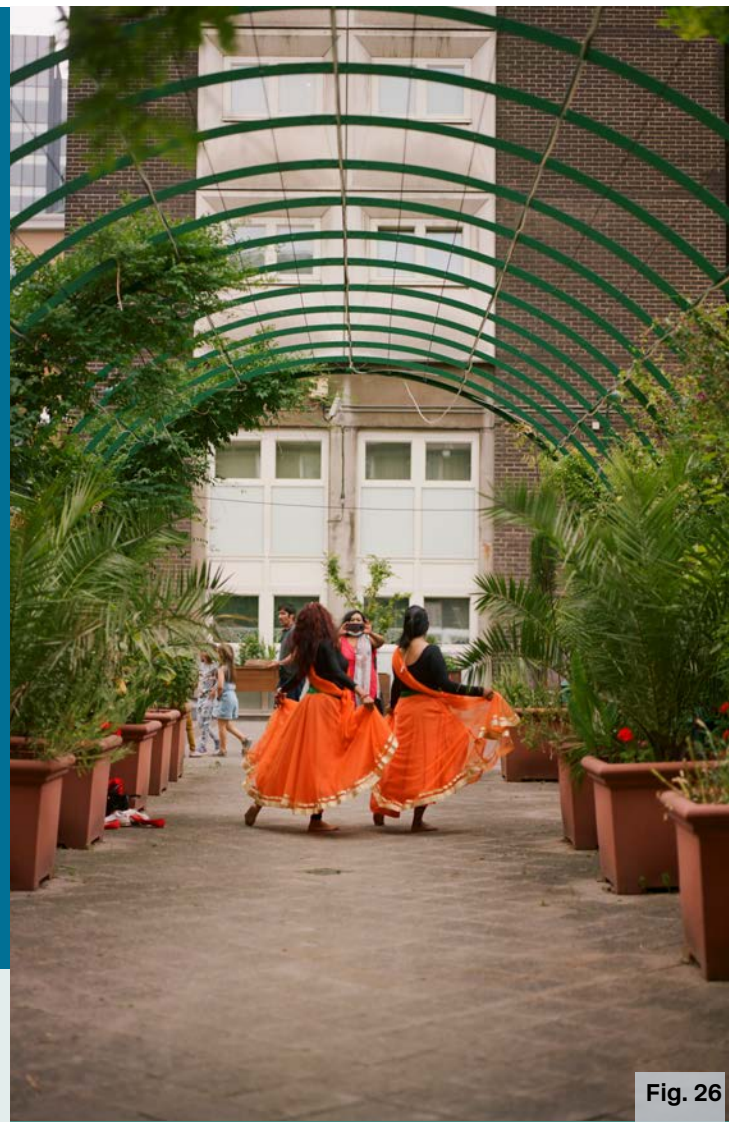


Fig. 26

Green Initiatives

Examples of the sustainability initiatives Culture Mile is undertaking include:

- A major capital works project for the renewal of the Barbican Centre has begun which includes aims to improve the sustainability of the Centre.
- An experimental scheme that saw London's first 'Zero Emissions Street' in Beech Street
- Repairs and replacement measures to city buildings over a number of years that include measures to improve energy efficiency
- CHP heating and cooling systems
- The Smithfield Public Realm project has workstreams related to environmental sustainability, including: encouraging active travel; materials recycle; street closures and reduction of traffic pollution
- Partners are looking at the carbon footprint of touring
- A key area of programming, such as through running a weekly artist-led learning & craft project in a local café called Carbon Smart City & will be bringing green family workshops to a sustainability themed May Day event
- Local residents work as part of community-led 'Friends' group to improve the green spaces.
- The public realm team works with University partners to monitor projects including 'before' and 'after' data for water management

Retrofitting and Reuse

A number of major projects in Culture Mile are using a circular economy approach, and aiming to reuse materials and retrofit old buildings. The Museum of London is moving to a new location that is a currently existing building, rather than demolish and build new. The Smithfield project includes objectives for being an 'exemplar' in sustainable design including circular economy principles. This includes an initiative to reuse granite setts in the building of new public realm. The Barbican Renewal project will see the listed building given a new lease of life with improved sustainability outcomes and the City has a stated ambition to redevelop the East and West Market buildings at Smithfield into a site of creative industries and food production.

Collaborations with Non-Cultural Partners

An aim of Culture Mile is to connect culture with business. There is a 'thread of concern' about the sustainability agenda through the work of the partners, which includes businesses in the area. Sustainable Environment will feature as part of the BID to enable local businesses to prioritise planetary health and take collective action in response to the climate emergency. There are funds available via the Culture Mile business partnership for demonstration projects and events which include projects with sustainability as a concern. 'Sustainability Sessions' were facilitated workshops for the business community to identify innovative collective actions and long-term goals for the future BID's climate action plan. The 'Gaia's Garden' project (see feature box) was an externally-funded initiative that was a partnership of a local developer with creative programmers, brokered by Culture Mile.

Strategic support

The City has a series of high-level, strategic statements and policies around sustainability that support the work of Culture Mile. These include a Transport Strategy that targets active travel and a reduction in vehicles, the Climate Action Strategy, and a new Circular Economy Strategy is being drafted. In addition a number of fundamental approaches have been taken, such as a shift to renewable energy sources and the use of a Central Heat and Power (CHP) system in the area.

Programming & Communities

Culture Mile understands that there is a bold story to be told around culture and sustainability, with the cultural sector as the storyteller. Programming within the partners has included artistic and project-based responses to climate change. The Culture Mile communities team prioritise respecting limits of the planet, communities, ourselves, and aim to work with care and integrity, at appropriate scale and considering long-term consequences of actions. 'Sustainability' as a theme for work comes directly from the communities Culture Mile works with, and the programme aims to set up infrastructures which allow the ideas and interests of local people to be explored and developed. There is also a collaboration between the City and the Foundation for Future London at East Bank that is concerned with diversity and inclusivity in outdoor spaces, looking at the social sustainability of public spaces as democratic and welcoming sites.

The 3 Pillars Approach

As well as the environmental and socially sustainable measures outlined above, the City, as a global financial hub, is concerned with economic sustainability. This permeates through the work of Culture Mile, which looks to connect closely with local businesses and focuses on bringing investment to the area, and brokering partnerships that allow for creative activity to take place and to be long-lasting.

Gaia's Garden

Gaia's Garden was a meanwhile community urban garden that opened to the public in July 2021, situated on Holborn Viaduct. The garden was built and programmed by creatives and volunteers, creating a new vibrant, inclusive, grassroots space that enabled communities to engage with sustainable practices and re-connect after lockdown. Culture Mile brokered the relationship between the creatives and the real estate company who provided the derelict space to transform.

Gaia's Garden is a good example of cross-sector collaboration to reach wider audiences and develop sustainable spaces. The dynamic sustainability focussed programming enabled meaningful community engagement and greater awareness of climate issues in addition to providing much needed green space during Covid restrictions.



Fig. 28

7 SQUARE ENDEAVOUR

Introduction

7 Square Endeavour in Rotterdam, Netherlands is unique in the districts that took part in this report in a number of ways. Firstly, it is not one but two organisations working together, one of which is entirely devoted to sustainability; and secondly, it is much further along the journey towards a sustainable existence than the others, having been working for 12 years on the sustainability programme. The first organisation is an association for programming a public square in Rotterdam with cultural organisations around the square and other members such as the city and the market. The square itself is the roof of an underground car park and the organisations around it include a theatre, church, cinema, café, concert hall, school of the arts, and film festival offices. The second organisations is a group of the same organisations that manage the sustainability aspects of the square.

In terms of governance and decision-making, the municipality owns the buildings and the square, and the decision-making group is a Steering Group of partners that act as a board and have a mandate from their organisations. The partners were described as a 'Coalition of the willing', and they have an agreed statement of intent. The Chairman is a partner from the energy sector. A programme team manage the projects, which are implemented by the partner organisations. The motivations of the organisations are ultimately social, as they wanted to create better spaces for people. A key part of the activity is to ensure that sustainability measures are not simply 'greenwashing', but instead are holistic, integrated and fundamentally embedded into everything the organisation does.

Green Initiatives

Examples of the sustainability initiatives 7 Square Endeavour is undertaking include:

- A cyclic/ circular economy approach to rainwater; so rainwater is collected drained into a tank, and is used to water the green rooftops. Water from the tank can be used in times of drought. It then can go back into the ground or to the river without needing to use the city's drainage system
- There is increased biodiversity through a green rooftops scheme
- Redevelopment of the square: added greenery; bicycle parking in the car park; pedestrianised the square; added trees
- Received a subsidy for an energy programme from the city on the basis that we make a blueprint for our experience elsewhere
- Partners in the major project to redevelop the square in conjunction with the city's project to mend the leaking roof of the car park
- Series of green rooftops on local buildings
- Executing the energy plan



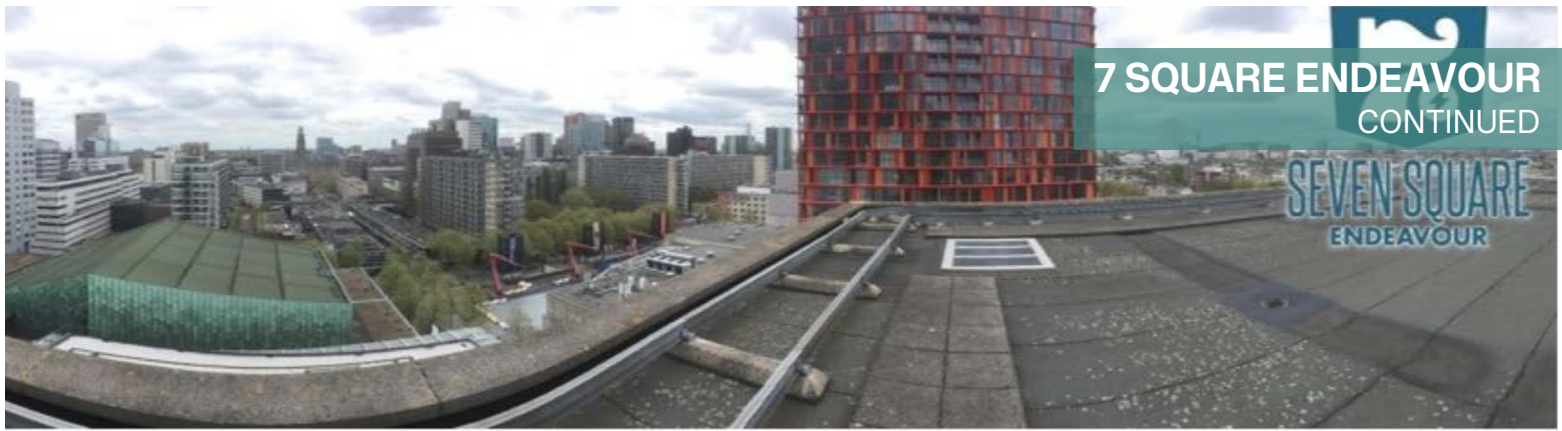
Fig. 29

Sustainability, Climate Change and Resilience Planning

The key risks identified by the organisation relate to flooding and rain. The risk of extreme rainwater was demonstrated in 2014 when a level of rain fell that had previously been predicted for 2040. Risk of flooding is further exacerbated by the fact that drainage is at capacity and there is a lot of hard landscaping in the area. An additional related risk is the effects of warming of the climate.

The key driver in sustainability measures is that the cultural organisation wants to contribute to the local community, and sustainability is a key way to do this. It was noted that international targets such as the Paris Agreement are less of a factor: although they have been translated into national goals by the Dutch government, they target reductions in emissions by 2030 which is seen as too late by 7 Square Endeavour. The representatives from Rotterdam instead said that their approach is more grassroots from the partners, and that cultural districts have a different role to play as they are not motivated by profit ('they have not got skin in the game'). They can also reach out and engage with others. Once this first set of partners was established, commercial partners joined later; they saw the commercial and reputational value of the programme. Constraints to the programme include shifting public opinions, and politics, as well as the physical constraints of space itself.

The public space is the heart of the district and of the environmental programme. When the team started it was a mess, and the organisations got tougher to attempt to improve it. The city agreed to fund the project once they saw that the organisations were serious and would also put resources in. As the programme grew, bigger issues were tackled. Opportunities are taken when they come along to scale-up projects and make them more sustainable. The redevelopment of the square now will include measures such as adding greenery; bicycle parking in the car park; pedestrianisation of the square; and planting new trees. In addition new energy infrastructure was built in to 'future-proof' the site, so that digging up the street is avoided when access is needed to the utilities.



Key themes and learnings

Adopting a radical mindset + approach

It was clear that 7 Square Endeavour had completely embedded sustainability into all thinking, in a holistic manner. The mindset was to prioritise sustainability across all activity. The team stated that they were able to do this because they were not profit-driven, and worked in a grassroots manner. They felt they are able to be the 'conscience' of the programme.

The district is at a very different point in the 'step-change' from making small initiatives to a fundamental shift in thinking; indeed this idea of a 'step-change' is almost irrelevant as the district has been doing things differently altogether from its origins. They estimated that small measures could only reach 20% reduction in CO₂, so ambition had to be comprehensive. They have had a sustainability approach embedded from the outset, with an entire organisation just for sustainability matters. In this work a key motivation is to maintain interest among members over time, and engage with people as old members leave and new ones come in.

Leadership

The team stressed that leadership involved gaining stakeholder buy-in, and creating partnerships with key players in academia, industry, and government so that the initiative has partners with agency and profile. These included TU Delft and the national waterboard. Importance was placed on being able to act – and lead – on matters when windows of opportunity were seen, for example when the roof was leaking a project was initiated to repair it, and the team saw the opportunity. They undertook research about how to make this sustainable, and how to integrate that into the wider project. After canvassing local opinion the initiative became city-driven, and was taken on as a part of the repair works.

The Rotterdam Story

Given that the square has an embedded approach to sustainability, a short summary of that story is given here:

- The organisation realised in 2009 that if you want to make a building 100% green it is impossible without the including the area around the building. It needed a local scale.
- They were inspired by Imagine 2020, a programme at London, and the work of Julie's Bicycle.
- They instigated the second organisation, which they could do because the first existed already – they already had the association of different organisations
- The first year of the process was all planning, the team did not start implementation until the second year. This planning phase was crucial: all projects later came from this strategic, holistic, approach.
- In the second year, three strategies were set out, all with their own projects attached, covering the fields of water, energy and spatial planning.
- All principles and projects for the first 5 years were defined and partners to own them set out
- Being a theatre, they were able to inspire people. Big steps were taken up front and there were high stakes at the beginning. This meant that later, significant companies and organisations got in touch with us to ask us to join as it served their reputations to be involved with a front-runner project

Integration of buildings, public space, systems, infrastructure

The concept of integration is fundamental to the project, which takes a holistic approach to the site. The origins of the programme were in realising that buildings could not be sustainable on their own and that the public space needed to be integrated into thinking. It developed to include a network of green roofs and a circular approach to water. This includes making sure that infrastructure is future-proofed, for example in the way that utilities channels were provided to avoid future digging up of the site.

ONASSIS STEGI ATHENS

Introduction

Onassis Stegi is an arts centre in Athens, Greece, comprising theatre auditoria and workspaces, exhibition hall and open space. It is a non-profit division of the Onassis Foundation, and has c.130 FTE and around 30 seasonal employees. The mission of the organisation is to provide cultural content and to improve quality of life in their local community. The programming is contemporary and reflects locally relevant issues, and aims to be accessible through pricing policy, education activity, and outdoor programming. Governance is formed by a Board and management, who are pushing for greater involvement of sustainability measures in practices at Stegi.



Fig. 31

Green Initiatives

Examples of the sustainability initiatives Onassis Stegi is undertaking include:

- Programming including collaborations, e.g. with Julie's Bicycle (an organisation that promotes sustainable practices in the cultural sector)
- Implementing a green procurement policy
- Switching energy supplier
- Working through technical requirements with artists, e.g. waste, energy consumption
- Looking to gradually reduce overseas touring, so to reduce emissions for flights
- During Covid, a digital programming "climate culture" talks series online
- Sustainability symposium, which examines the role the culture sector can play for environmental sustainability
- A cross-departmental team has been set up of volunteers to implement the sustainability programme



Fig. 32

Sustainability, Climate Change and Resilience Planning

Like other cultural organisations we spoke to, a key risk that was identified was reputational risk. As in Greece in general, it was stated that the environmental risks of climate change are now becoming well understood. Although summers were hot in Greece this had not been considered a risk to this date.

The motivations are largely internal, as there are no specific targets set by the government or guidance for the cultural sector. Stegi does see the climate crisis as the key issue facing society today and so set out actions to achieve around waste, emissions, and communicating issues to stakeholders and audiences. This was largely a management decision. Cost efficiencies were not a factor, and it was noted that sustainability measures can be expensive.

Sustainability had been at the forefront since a sustainability programme was agreed 4 years ago, with guidance from Julie's Bicycle. The types of measures that are being put in place include sustainability roles within job descriptions for staff, and establishing green KPIs and monitoring for these. The representative we talked to spoke about the importance of reporting data related to green measures. The framing of measures was taken from the UN SDGs and therefore integrated social and economic sustainability with environmental sustainability. It was acknowledged that there is much more still to be done in terms of achieving a sustainable approach.



YOU HAVE TO START BY BUILDING A MOVEMENT INTERNALLY IF THERE IS TO BE ANY CHANCE OF GETTING ANYWHERE BECAUSE THINGS DEPEND ON PEOPLE, OUTPUTS DEPEND ON PEOPLE AND THEY HAVE TO REALLY FEEL THAT IT IS AN ISSUE





Fig. 33

Key themes and learnings

Target setting + reporting

The issue of setting targets, reporting and accountability for meeting the targets was discussed throughout the interview. The organisation was entering into a period of setting a full sustainability strategy, framed by a '3 pillars' approach. Internal target setting was seen as being the crucial next step and highly important for responsible governance. Clear KPIs are due to be established to assist the organisation with meeting targets. The organisation is receiving external guidance to build the KPIs (including global datasets) and establishing ways of accurately collating the correct datasets for these purposes. Targets should be measurable and quantifiable data should be feasible to be collected for monitoring purposes. The concepts of accountability, accuracy, and transparency were all raised and seen as crucial to this process. There was a sense that this moment now of target setting was a moment of progress and of a push towards a greater goal on sustainability measures for the organisation.

Challenges

As with the majority of the districts in this study, Onassis Stegi described a number of challenges; although it was noted that further challenges would no doubt become apparent as tougher targets are imposed. A political point was made, that sustainability not as highly valued as economic prosperity – something that is clearly a challenge for most places. A more specific challenge to Greece and Athens is the limits to green infrastructure and green suppliers that have been experienced by the organisation. There was, until very recently, very few green suppliers and limited choice in terms of waste disposal, energy, and there are also limits to the extent of public transport available.

Public Realm

Onassis Stegi was an interesting example for public realm, as it does not own public spaces, and so its work to improve its local area is done in partnership exclusively. The initiatives it is working on for the public realm include:

- A project to improve a local freeway area that is being undertaken by a network of local organisations. The freeway is key space locally that is 4k long and dissects the city
- Greening and planting projects including a green roofs initiative
- Undertake programming such as exhibitions in local green spaces
- Taking an active role in local public spaces, and making improvements to them such as local basketball courts
- Works in partnership with municipality on projects

Looking to the future

Moving forward the organisation is looking to progress a sustainability agenda that includes a programme of refurbishment of the spaces within the building to be greener and more efficient, and an effort to undertake more collaborations with external organisations on this matter. Questions were asked about touring practices such as use of airlines and trucks and how these might be adapted to become greener in a context where public transport is not necessarily a viable alternative.

The City of Athens have appointed a 'heat' officer to look at climate change, and this is seen as a good catalyst for improvement within the local context. The EU green deal was also cited as relevant context for the organisation. Overall, there was optimism about the organisation's ability to adapt.

WEST KOWLOON CULTURAL DISTRICT

Introduction

The West Kowloon Cultural District is a 40 hectare reclamation site in Hong Kong. The site includes performance arts venues, theatres, tea house, the M+ Gallery, Hong Kong Palace Museum, cinemas, food and beverage, and accessible open spaces including the Art Park with an outdoor arts pavilion. The district is unique in the case studies included in this report as it is an entirely new site, indeed as reclaimed land the area was part of the harbour in the 1990s. The buildings for the cultural district are being constructed simultaneously to the infrastructure to the area, with railways, plant, vehicle access and more underneath the site being built. In some cases the rooftops of the railway tunnels are directly below the building work for the cultural district. This context is a highly complex major project that in itself presents a risk to the programme as a whole.

The site was designed first via a masterplan that was created in 2012, which set out a vision for the district including the waterfront, city, and park. The cultural district and public spaces are the above ground focus, with vehicles and deliveries underground. This geographical context of a local railway station and ferry landing means the district has good accessibility via public transport.

In terms of governance, the district is run by an authority set up by the government with a high degree of autonomy. The capital works to develop the district are fully funded by the government, and for the ongoing costs the district needs to be self-sustaining financially, with a business model of commercial development being used to fund cultural activity.



Fig. 34

Sustainability, Climate Change and Resilience Planning

There were a number of environmental risks identified for the site, largely relating to the geography of a coastal site in a context of climate change. The risks include rising sea water levels, surges, and flooding. The cultural site is built above sea level, but the infrastructure is built below this so may be more vulnerable to water-based natural events. In response a number of risk mitigation measures have been included such as seawalls and studies looking into flood protection. Capital building related risks, such as delays, construction issues, site complexities, and capital finances were also highlighted. The district representatives also highlighted a risk of lack of funding – common to most of the districts we spoke to.

The district prioritised sustainability in a number of ways, for example through working towards buildings standards for sustainable design, such as gold awards in the Hong Kong system 'BEAM plus'. It is a member of a Green Building Council, whereby the project is registered with the society's building department and measured by them. There is a major incentive in Hong Kong to receive BEAM certification because the city awards Gross Floor Area (GFA) concessions based on this, which means the commercial side becomes much more attractive to developers. In turn this means that sustainability measures are highly incentivised in Hong Kong.

Alongside these targets and measures that are being met, it was also noted that the Hong Kong government had set target of carbon neutral by 2050. There is also a high level of public expectation to act sustainably. Internally, there is a working group on sustainability that considers these matters. The site benefits from extremely good connectivity, so can be accessed by rail or boat to facilitate a mass transit rather than car use.

Constraints to meeting sustainability goals included specific conditions required by cultural districts, such as the need for the M+ gallery to be a climate-controlled space, so requiring the use of air conditioning, which makes energy standards difficult to meet. Funding is a huge challenge, and there is a gap in terms of the funding available and that required for sustainability measures. It was noted that value engineering is an issue, whereby sustainability projects can be scaled back or taken out when cost savings are required.



Fig. 35

Key themes and learnings

Certification

West Kowloon district is being built in an era when sustainability is a key watchword for capital projects. A key focus of the conversation was about certification and ensuring that building work meets recognised standards for sustainability which ensure that internationally-recognised targets are being met and monitored. Hong Kong has a certification system called BEAM Plus that includes measures such as water, energy, facilities management and has a community element; and the West Kowloon development is targeting gold awards in all the buildings. Interestingly, the district is also part of a pilot scheme for a Neighbourhood-wide BEAM certification, which is now being expanded across Hong Kong. Examples of the types of design measures put in place include: creating shading to improve microclimates; greening; solar panels and solar thermal water; building in the use of rainwater for irrigation; district cooling system.

Public realm

Public realm is absolutely key to the district, not least through the Art Park, which programmes work that brings the park to life. The open spaces in the district amount to 23 hectares of open space, and they welcome 16,000 people per day. This type of outdoor space had not existed in Hong Kong before so it is a new facility for residents. Notably, the Park was the only venue open for people during Covid, which really emphasises just how valuable these spaces are for social ends. The technical details of the design of the park and its planting were discussed, including the use of different grasses, planting, and species and the effects of these (e.g. to provide habitats and biodiversity) and their relative successes. The original turf that had been laid needed to be re-laid after high footfall meant it became degraded; now there is a balance of hard and soft landscaping and the grassed areas are being more actively cultivated, including choosing different species and closing certain areas at certain times. This balance between hard landscaping required for large volumes of foot traffic and the desirability of grass and planting is a challenge for many cultural districts. Over 3,000 trees have been planted, although it was noted that it is early to comment on their success. The park is also used for water retention and is part of the city's drainage system.

Data + monitoring

Alongside energy standards, West Kowloon was also interested in other forms of data monitoring, and is working with the city to set up an onsite observatory for data collection which can be useful for the whole city. Data that is collected includes the indoor temperatures, outdoor wind conditions, humidity levels and more, with climatic conditions of particular importance given the site's coastal location. The site uses BEMS technology to monitor and control conditions. It was also noted that further work on KPIs specifically looking at sustainability in a comprehensive way are required for the future, such as targets around waste, water and utilities. Some additional sustainable infrastructure is being retro-fitted into the site, such as solar panels. A contract for ESG reporting was about to be awarded.

Benchmarking

The representatives from West Kowloon recommended in particular that benchmarking should be undertaken against other districts and plans that are the best in terms of sustainability across the world generally- not just against other cultural districts. Other sectors where there have been excellent examples of well-designed spaces, parks, and masterplans, such as the tech sector, are the places that the district is keen to measure itself against to learn from the best from a range of sectors. It is also important to benchmark against campus environments or neighbourhoods, understanding that the task is not just to run a cultural building or set of buildings, but a whole area.

Green Initiatives

Examples of the sustainability initiatives West Kowloon is undertaking include:

- Bike hire scheme
- Water bottle fountain
- Energy savings
- Use of solar energy
- Use of raw materials
- BEMS tracking energy use and waste data
- Awarding a contract specifically for Environmental, Social and Governance (ESG)
- Have an internal working group on sustainability
- Programming about sustainability includes performing arts and community activities, an educational programme and a commercial programme

ARTS CENTRE MELBOURNE

Introduction

Arts Centre Melbourne is a campus of three venues, in a 40 year old building on the banks of the Yarra River. The Theatres building has three auditoria, along with the music hall (the Hamer Hall) and the Music Bowl, an outdoor music venue in the botanic gardens. The arts centre includes four resident companies, and a range of arts are performed including theatre, opera, dance, ballet. The purpose of the performing arts centre is to make arts accessible for the people of the State of Victoria. This is established in an Act. The architecture of the centre presents a challenge as it is built 2/3 underground, in a bed of ground near a river and so is not particularly stable; any large capital works therefore need to be enacted in this complex environment.

The National Gallery of Victoria is next door, which shares plant and electricity with the arts centre governed by an MoU. Alongside the governance of the individual institutions, there is a governance layer for the wider the Arts Centre Melbourne area, called 'MAPCO'. Outside of the precinct there is a number of smaller other theatre and arts spaces nearby in a secondary 'outer ring' of arts venues, although there is not a formal governance arrangement with these, but rather a set of partners to engage with.

Sustainability, Climate Change and Resilience Planning

Under its transformational 'Reimagining Arts Centre Melbourne' project the organisation has set a target of reaching net zero. Climate change and environmental sustainability form an important part of the operations at Melbourne. The 'Reimagining Project' – a major capital works programme is looking at changes across the campus that incorporates the precinct's sustainability goals and will bring significant benefits. The centre has also implemented energy and resource saving measures with short- and medium-term payback periods. These include an energy audit, refitting plant and equipment, and the comprehensive use of LED lighting. It was noted that these measures are now largely completed and a move to more significant measures is the next step.

Motivations to act sustainably come from both internal and external sources. The use of targets is an important motivating factor for the centre, which is actively targeting zero in emissions, i.e. carbon neutral operations. There is state-wide impetus for sustainability as well, with a 'Creative State' strategy and the Whole of Victorian Government emissions reduction pledge.



Fig. 36

The State government provides funding that can be channelled to sustainability projects. Decision-making on sustainability issues comes through channels such as the decisions on procurement guidance, and a new energy contract is due for procurement soon with proportion of energy from renewables a key part. The Arts Centre Melbourne is also experiencing an increased awareness and demand from promoters, hirers and performing partners to achieve environmentally sustainable performances.

“ WHAT WE ARE MOVING TO IS A SUBSTANTIAL STEP-CHANGE, SO WE’RE NOT JUST TALKING ABOUT AN UPGRADE OR TWO, WE’RE TALKING ABOUT A VISION THAT WILL DELIVER A COHESIVE ARTS PRECINCT

”



Fig. 37

Key themes and learnings

Fundamental shift in practices

A number of the districts we spoke to were considering a shift from a phase of sustainability measures that are easier to achieve, to a fundamental rethinking of priorities. Melbourne is a particularly good example of this, in that it is at exactly that point of the step-change moment with its new 'Reimagining Project' of capital works with targets/ KPIs attached. It was stated that ambitious targets in particular are required for this type of move. The capital works include sizeable civil engineering that are being funded by the Victorian State Government.

Essential to the masterplan for the precinct is the vision that extends beyond the term of political cycles, recognising that the ambitions for the precinct will be delivered over the next decade. Leadership at all levels is critical to this path, along with collaborative partnership between the arts agencies, State Government and ultimately the relationship with the people of Victoria and the many visitors the precinct attracts.

Local empowerment

An essential ingredient to the delivery of sustainable outcomes is local empowerment, and grassroots efforts of a more sustainable cultural district. Melbourne acknowledges the importance of First Nations ownership, of engagement by staff and local people, and the use of local suppliers as all being important in the community-led dimension of sustainability practices.

Public Realm & MAPCO

The Melbourne Arts Centre had joined up with local cultural organisations to create the Melbourne Arts Precinct (MAPCO), so sustainable measures can be implemented on a larger scale, taking in the local context. The MAPCO redevelopment is based on bringing the whole local area together, knitting the buildings together through public space across a 18,500sq m area. This will have natural areas with indigenous landscape. The masterplan includes measures like joint central plant services for the different buildings across the area which will deliver efficiencies and reduce consumption. It means a development of increased public realm, which will stress increased greening and planting and a change of use developing roads into public spaces.

Green Initiatives

Examples of the sustainability initiatives Melbourne Arts Precinct is undertaking include:

- Sustainable KPIs part of the 'Reimagining' capital project
- Targeting 5* in Green building star ratings
- A precinct-wide plan for the public realm. Currently the area is part roads, part public space, and the overall aim is to consolidate and knit together these buildings
- Masterplan shows these knitted together with an indigenous landscape
- Lots of public open space, areas to be activated. Working with an architect on the masterplan currently.
- Have a 'green team' of volunteers in the organisation who enact initiatives, e.g. on biodegradable packaging, removal of single use plastic, maximising recycling, some water initiatives
- Work with a First Nations business to supply recycling paper
- Other initiatives run via the facilities team, e.g. more efficient building services through use of BEMS

HOTA GOLD COAST

Introduction

Home of the Arts (HOTA) is a cultural precinct of 17 hectares in the city of Gold Coast, Australia. It comprises an arts centre, gallery and outdoor stage within parkland, surrounded by the Nerang River. Built originally in the 1970s and 80s, there is now a masterplan for the building of the wider precinct area, a process which began in 2012 and now is in the capital works phase. The outdoor stage was opened in 2018 and a new pedestrian bridge development followed that was in place in 2020, along with a new HOTA Gallery in 2021.

The organisation HOTA is a local government-controlled and funded entity, owned by the City of Gold Coast, and the regional government buildings are on a site next door. The organisation has a board that is autonomous, appointed by the city and a management team, and these three layers form the governance structure and are the decision-makers for sustainability and climate related matters. The representative we interviewed also described a need for there to be greater ability to empower staff when it comes to sustainability measures.

HOTA sees sustainability as a key part of their responsibility, particularly because one of the organisation's five core values is that of 'citizenship', and ultimately climate change measures are enacted to contribute to the community. There are passionate team members who are driving the agenda, for example a hospitality staff member being a keen advocate for recycling, and team members championing the end of single use plastics. In a wider context, the City of Gold Coast has a good Ocean Beaches Strategy which demonstrates the emphasis the city is placing on its environment. However, it was also clear that HOTA is relatively at the start of the journey towards a sustainable existence.



Fig. 38

“THE THINGS THAT WE HAVE MANAGED TO IMPLEMENT AS AN INSTITUTION [...] HAVE REALLY BEEN A CONSEQUENCE OF SOME PASSIONATE TEAM MEMBERS WHO HAVE REALLY DRIVEN THE AGENDA”

Sustainability, Climate Change and Resilience Planning

The risks identified for this area were environmental, in that the site is coastal so susceptible to coastal-related environmental risks, and built within parkland; and also reputational, with a key issue being that audiences and communities want a focus on sustainability and failure to do this would constitute a threat. The city as a whole is reliant on the natural beauty of its environment, and lifestyle, tourism and hospitality are the focus of the city's economy. The site of HOTA is in parkland and has views of the lake, beaches and rainforest. Climate change therefore poses a risk to this entire economy if it threatens the natural environment in Gold Coast. An emphasis was placed on HOTA being at the start of the journey in terms of large-scale thinking and action on sustainable development. A new Strategic Plan for 2021- 2024 has been approved and focuses on sustainability, demonstrating awareness of the issue and a commitment to it for the future.

Green Initiatives

Examples of the sustainability initiatives HOTA is undertaking include:

- With the City there is a focus on active travel
- Creation of a green bridge to create a pedestrian link with the local mass transit system for easy non-car access
- Bike storage facilities
- Sustainability professional development days for teachers
- Programming related to climate change is limited, but there are some examples such as an Environmental impact doctest



Fig. 39



Fig. 40

Key themes and learnings

Limits, constraints + challenges

There was a realism to the conversation with HOTA, an understanding of the challenges that were being faced and the constraints that limit large-scale action on sustainability, which is something that was echoed by a number of the organisations we spoke to. Challenges include a lack of resources, a lack of staffing, and a lack of space. It was stressed that staff are already working to capacity – a common theme in arts organisations. The organisation does not receive funding from any external sources for sustainability initiatives. There was also a conversation about lack of autonomy and lack of agency (with the site and buildings being city-owned) that could lead to frustrations and a limit to how ambitions could be realised.

Another challenge is a disconnect between policies and aims of the organisation, and those of suppliers or contractors who might work to different standards, for example the waste contractor whose practices are not as pro-recycling as the team at HOTA are advocating for. Design had also been highlighted as an area for improvement, for example in the design of the public realm which had a planting scheme that was not successful and needed replanting; or design of the gallery that has not included solar power and is heavily reliant on air conditioning, which in turn creates a financial burden due to energy costs. Decision-making processes are crucial in these contexts; but so are more structural issues like better, stronger legislation that is serious about climate change. It was acknowledged that systemic change was really needed to meet the challenges of climate change, but that policies and processes in place: in HOTA; Gold Coast; and wider, may not yet be in place to facilitate this.

Natural environment, lifestyle + geographic context

For Gold Coast the city's USP is about natural beauty and a good lifestyle. The city's strategy and its competitiveness relate to this. For example, the city has an Ocean Beach Strategy. HOTA is not just a collection of buildings but open spaces too, and the importance of these was demonstrated during Covid when the public used these spaces as recreational areas. The organisation recognises the importance of conservation and in particular the fact that the land has Traditional Custodians from the indigenous communities in the area, so works with indigenous communities on land conservation approaches and design. There was concern expressed about extreme heat in the open spaces, with areas of shade being rare and this may have a negative impact on audiences during outdoor concerts and events.

'Grassroots' approaches

At HOTA, sustainability measures had largely been bottom-up so far, coming from the staff who are enthusiastic and drive the agenda. Staff members like the café manager have enacted steps like recycling and reduction in single use plastics. A next step is to create a step-change that also brings in strategic top-down leadership too; and empower staff to be able to bring in further measures.

Strategic plan + the future

Despite the various challenges and constraints, it is clear that there is a movement now to focus more specifically on sustainability at HOTA. There is a much greater sense of understanding the challenges ahead now. There have been lessons learned on public space, design, building design, and planting schemes. A new Strategic Plan is coming in and is the focus.

Design of the new performing arts centre is key, this will move to design phase soon. HOTA must work with indigenous communities and go back to the land to conserve it, understand it and learn how to live on it sustainably. In the future, more support from the city is needed for sustainability measures, and stronger legislation is required with clear targets and clear rules about issues such as design and construction.

Covid

Covid had a huge impact on HOTA, not least in the use of the open spaces in the district:

- The site has an outdoor stage, so this could be used and it meant HOTA was one of the first venues to reopen
- Socially distanced events were held outdoors
- Recreational use of the site for other means grew in this time, meaning new visitors as people used the spaces for outdoor exercise
- However, Covid did slow some progress, for example reusable cups are no longer used and the pandemic saw the return of single use plastics

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Fig.21: Esplanade Tranquille © Les Architectes FABG

Fig.22: image credit Argenis Apolinario

Fig.23: image credit Downtown Brooklyn Partnership

Fig.24: image credit Better Bankside

Fig.25: image credit Better Bankside

Fig.26: © Francis Augusto - Culture Mile

Fig.27: © Odera Okoye - Culture Mile

Fig.28: © Francis Augusto - Play Nice

Fig.29: image credit 7 Square Endeavour, with kind regards to Arcadis

Fig.30: image credit 7 Square Endeavour, with kind regards to Arcadis

Fig.31: Circular Cultures © PanosKefalos

Fig.32: Geometries © Kiki Papadopoulou

Fig.33: Recycle lab © Vasilis Bibas

Fig.34: image credit West Kowloon Cultural District Authority

Fig.35: image credit West Kowloon Cultural District Authority

Fig.36: image credit Arts Centre Melbourne

Fig.37: Arts Centre Melbourne, image credit Mark Gambino

Fig.38: image credit City of Gold Coast

Fig.39: image credit John Gollings

Fig.40: image credit John Gollings

24/02/2022

Smithfield Public Realm

Approach to materials

City of London Historic motifs

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to be developed further in Stage 3.1
24/02/2022

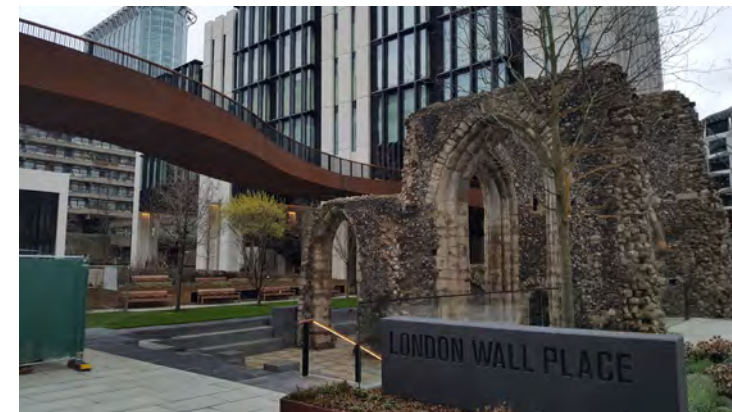
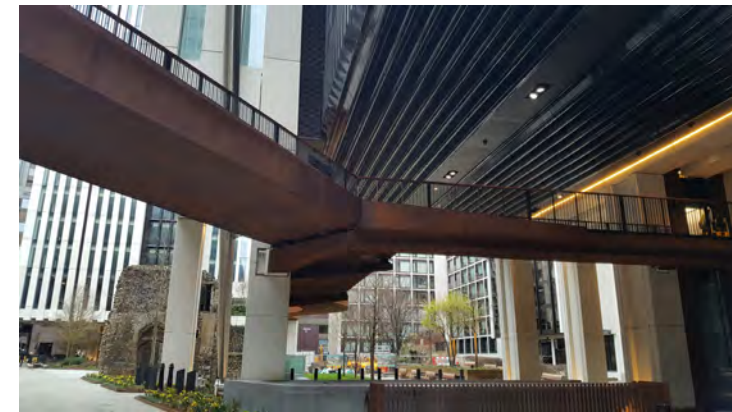


Postman's Square

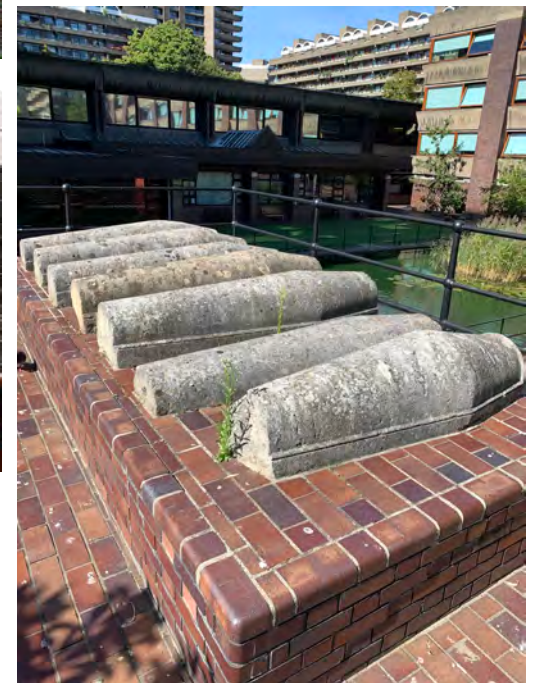
The use of historic motifs is consistent with the approach across many of City of London's distinct public spaces. In cases like the London Wall, these landmarks are retained in their original locations and juxtaposed with new interventions. However, these landmarks are often not tied to their found locations, and can be moved around to better reflect the use and character of the public space - to better allow these landmarks to stand out and be part of the narrative of the space (e.g. The memorial text at Postman's Square, or the tombs in the Barbican). In some case new motifs are created to reflect a narrative attached to the space, but where no physical landmark remains - e.g. St Pancras Church Garden.



St Pancras Church Garden



London Wall



Barbican

Create a unified field where Smithfield's multiple histories and contemporary cultures intermingle.

Smithfield will be a place for all Londoners.



Create // A new chapter in Smithfield's continuing legacy through careful excavation, repair and design

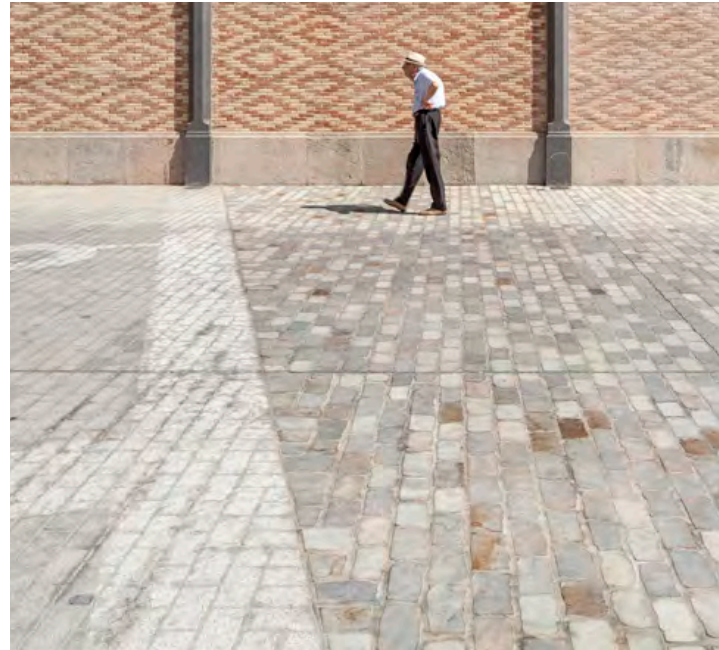
Unified field // A federated, but not homogenised, field of distinct and complementary characters and functions

Multiple histories // A demonstration of Smithfield's sometimes conflicting, brutal and intangible narratives in the public realm

Contemporary cultures // A platform for new and progressive mediums of formal and informal culture, built on the agency of local communities

Design Objectives (Stage 2 - Concept Design)

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to be developed further in Stage 3.1
24/02/2022



A celebration of Smithfield's historic layering in its urban fabric

- Surface treatments should reflect the historic narrative through:
 1. reflect the rhythm of building façades
 2. emphasise the meeting of Victorian and Medieval urban fabrics
 3. highlight substructure conditions in the surface treatment
 4. unearth hidden materials to be exhibited as part of the public realm



A circular economy approach that amplifies Smithfield's distinct characters

- As a top priority, retain surface treatment, trees, greening and other features already successful in contributing to a functional, sustainable and pleasant public realm
- Reuse existing slabs and pavers (particularly where they may have heritage value), as well as identifying opportunities to embed waste materials from building redevelopment at nearby sites.
- Recycle existing slabs, pavers and waste materials from building redevelopment as aggregates within new materials where possible. This will require identifying and working with new suppliers that may not currently sit within the City's existing networks.
- Where new materials need to be sourced, ensure responsible procurement of materials, products and components, sourced locally as a default, which eliminate waste and support reuse and end of life recovery.



Clear, legible and comfortable public realm

- Prioritise pedestrian movement and comfort, ensuring equity of access for all users across the public realm
- Clearly define the hierarchy of movement and dwell spaces
- Provide a coherent palette that ties together the district, while enhancing changes in character across sub-spaces
- Maintain simplicity through a limited palette that celebrates the buildings and structures in the area



An integrated public realm as part of City of London's wider network

- Implement a palette of surface materials that ensures continuity with the surroundings and better enables the reuse of existing materials
- Emphasise the exceptional character of Smithfield as a cultural district within the City through innovative use of traditional materials in line with the City Public Realm SPD

City of London

Approach to 'special' spaces

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to be developed further in Stage 3.1
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subtle / integrated

carpet / overlay



Charterhouse Square

Paternoster Square

Guildhall

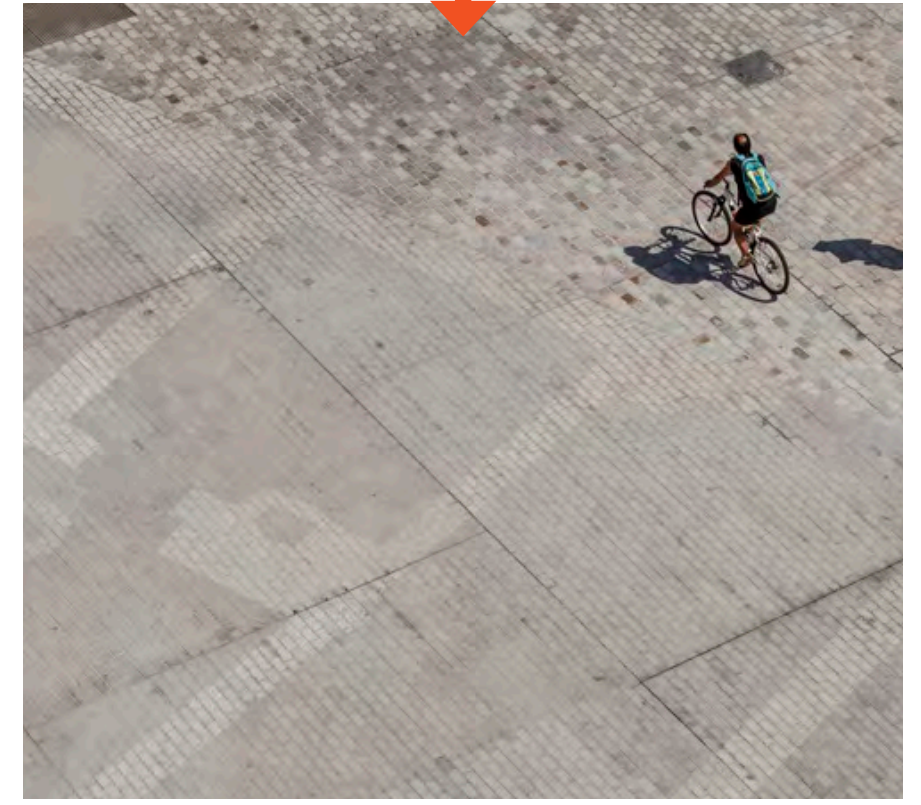
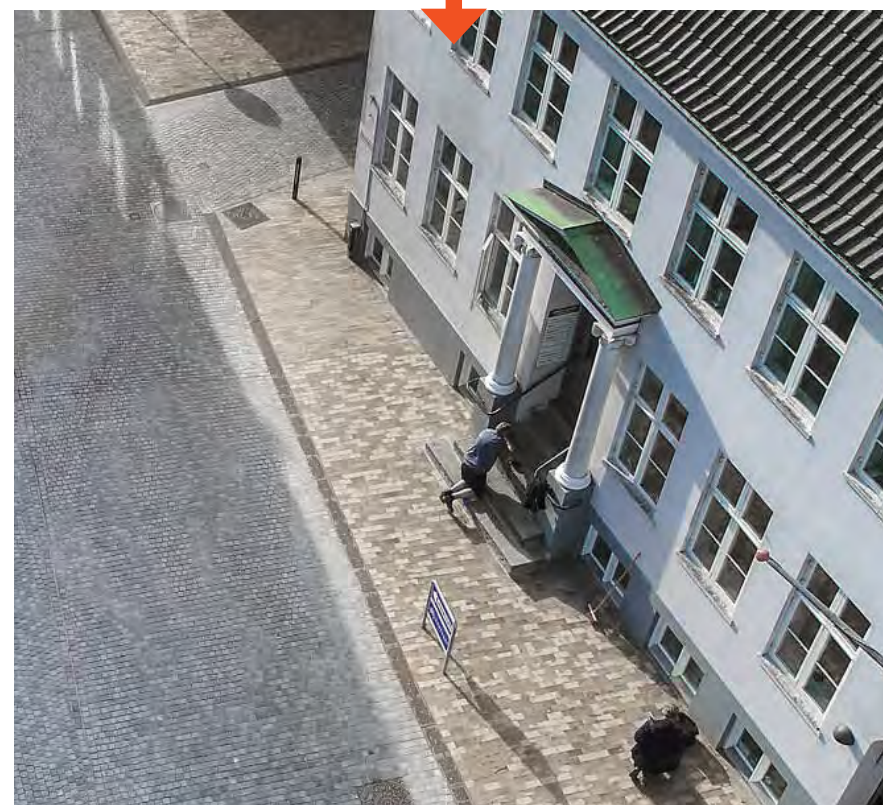
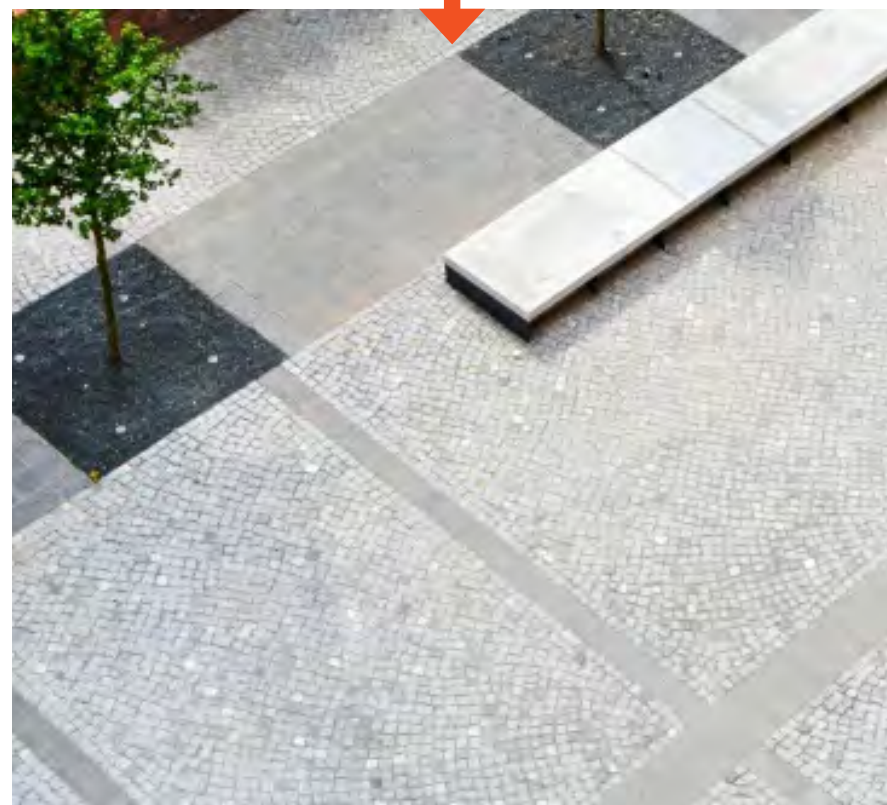
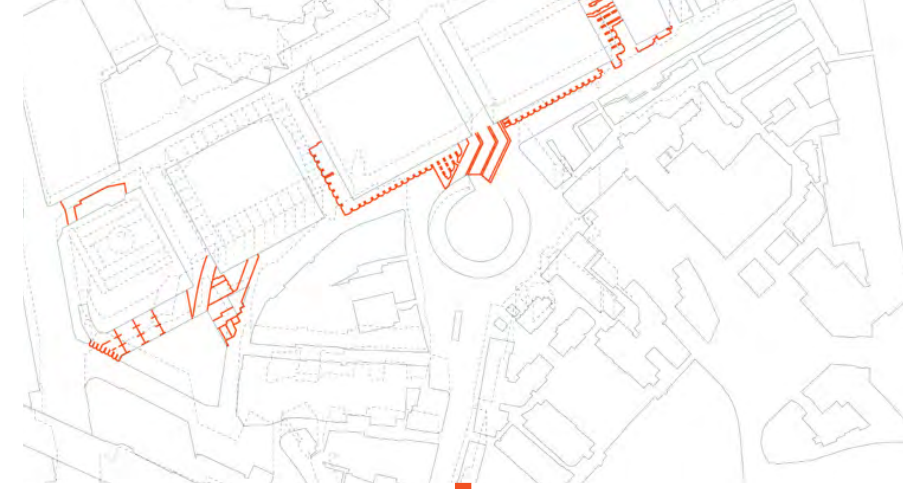
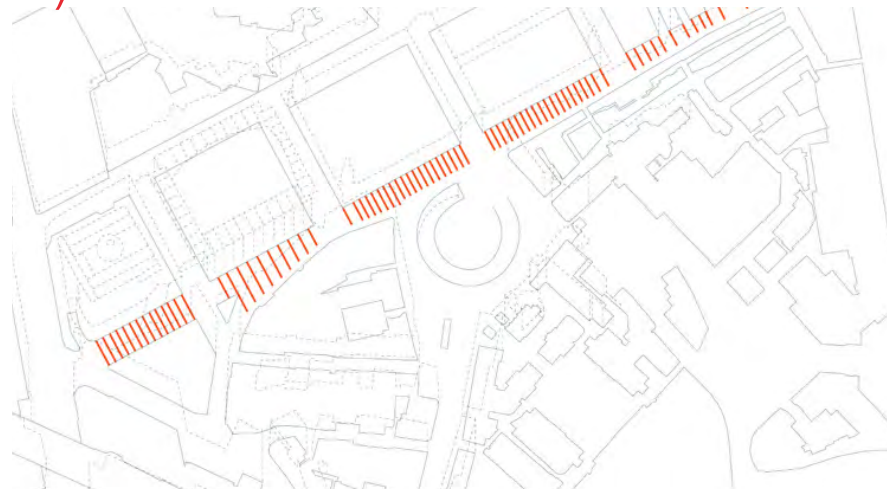
SMITHFIELD

The character of landmark public spaces within the City of London varies in its subtlety - often reflective of it's time and style in the way that public spaces are approached. Spaces like Paternoster Square and Guildhall, overlay a 'carpet' or pattern across the whole space - creating a focal point and rhythm of it's own. On the other end of the spectrum, spaces like

Charterhouse Square implement a more a nuanced approach to creating interest and interventions within the public realm - this encourages that public realm to be experienced as a whole with the buildings first, with the details becoming more evident over time. This is closer to the approach appropriate for Smithfield, but with a level of consistency that unifies the large district akin to Paternoster Square or Guildhall.

Creating a rhythm and hierarchy (Stage 1)

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



1. Facade composition into the Stave
The Stave echoes the composition of the Victorian facades
The Stave as a common language, providing structure and rhythm to the public realm

2. Medieval edge highlighted
The medieval fabric is reflected in the paving details through a featured linear channel, shaping the footway to the South of the Stave

4. Resurgence of the underground world
The rich underground structures of vaults, columns, walls and tunnels resonate into the public realm through paving pattern and details

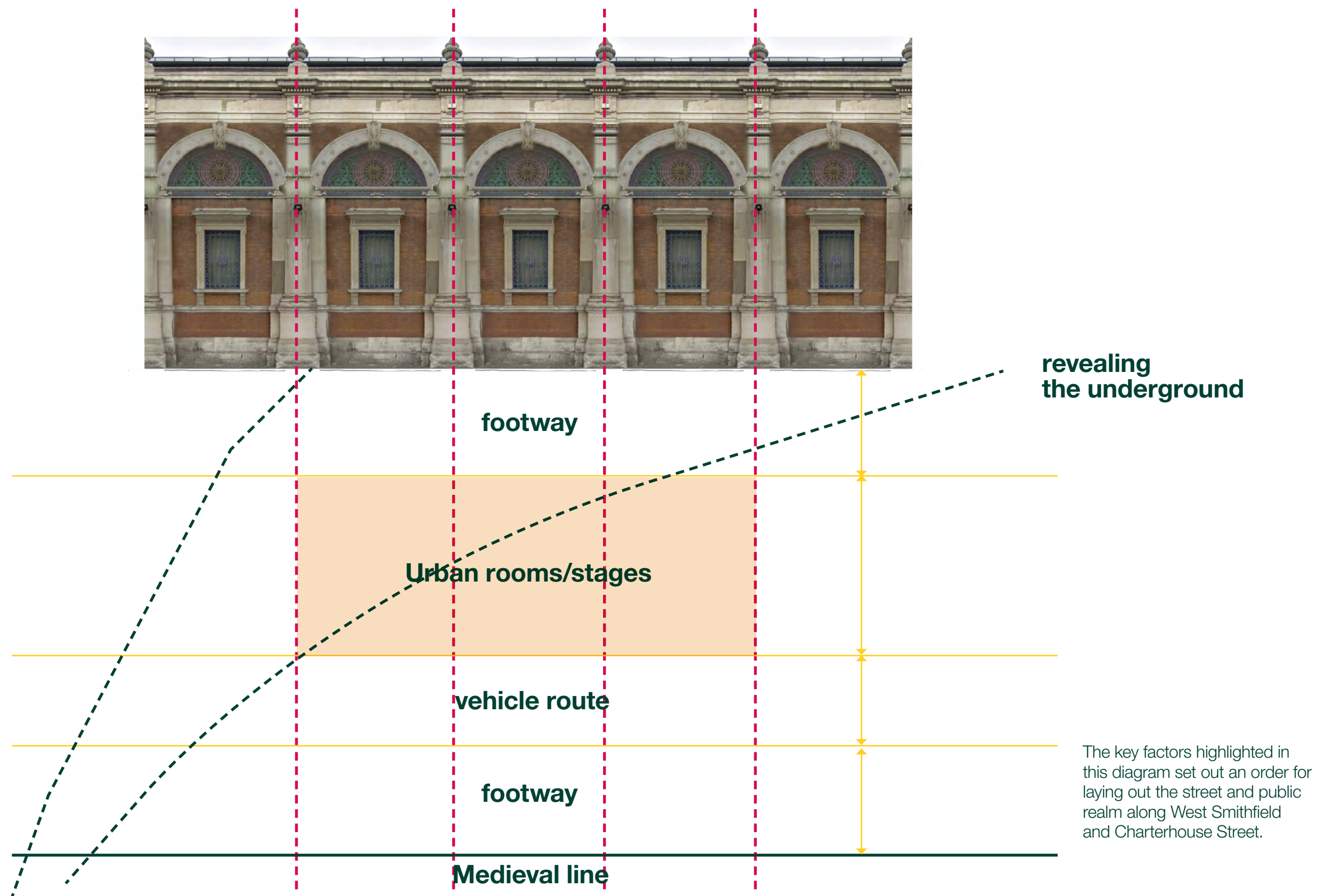
These overarching principles set out a hierarchy for creating a rhythm and structure for the length of West Smithfield and Charterhouse Street. While conceptually this applies along the length of the Stave and across the district, these principles will need to be balance against conflicting priorities for highlighting historical narrative and features, accessibility (both physical and visual), environmental comfort, sustainability, maintenance, legibility and continuity with the wider CoL Palette.

Creating a rhythm and hierarchy

Responding to architecture

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022

stave/grid - rhythm of market buildings



Creating a rhythm and hierarchy

Visible vs. invisible use of the Stave

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to be developed further in Stage 3.1
24/02/2022



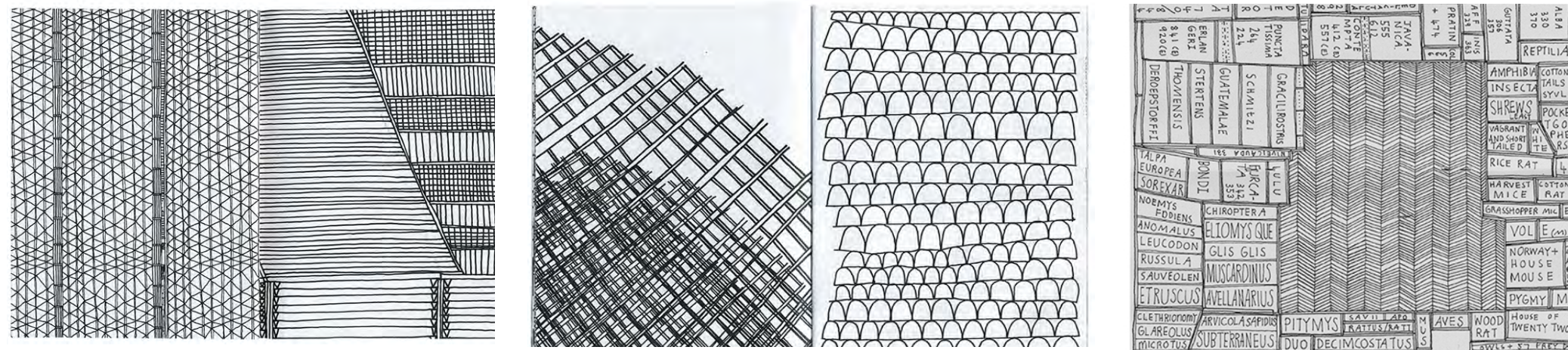
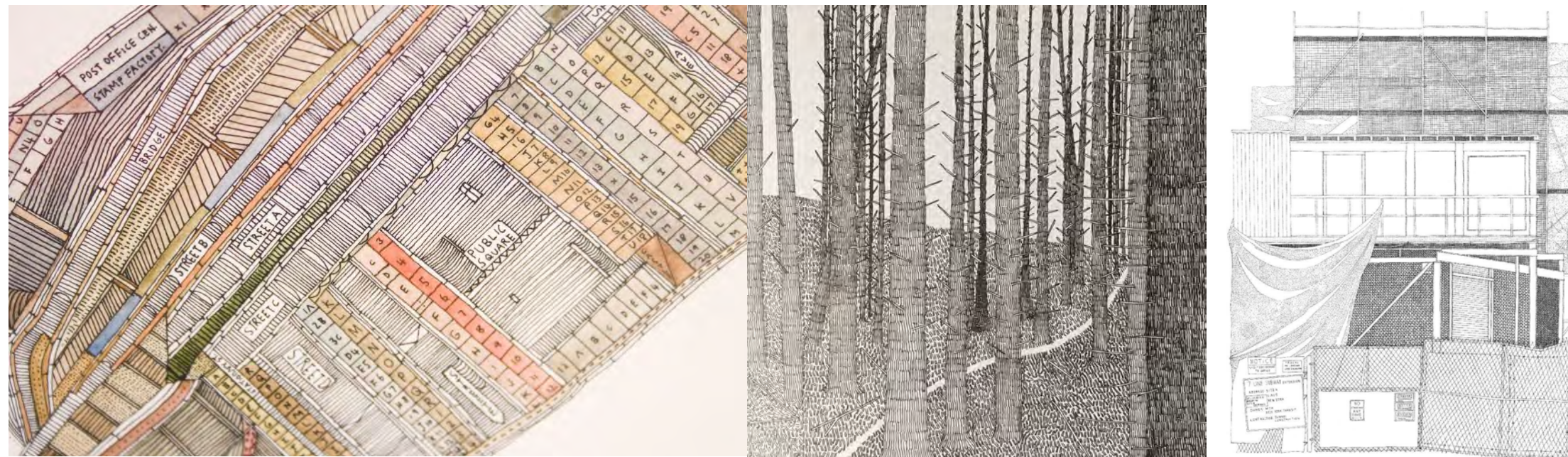
The Stave will act as an invisible framework, guiding the layout of W Smithfield and Charterhouse Street in response to the rhythm of the buildings and the key movement functions of the Street. The framework may become more visible to demarcate entrances, urban rooms etc.

[illegible]

Texture Inspiration

Nigel Peake

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022

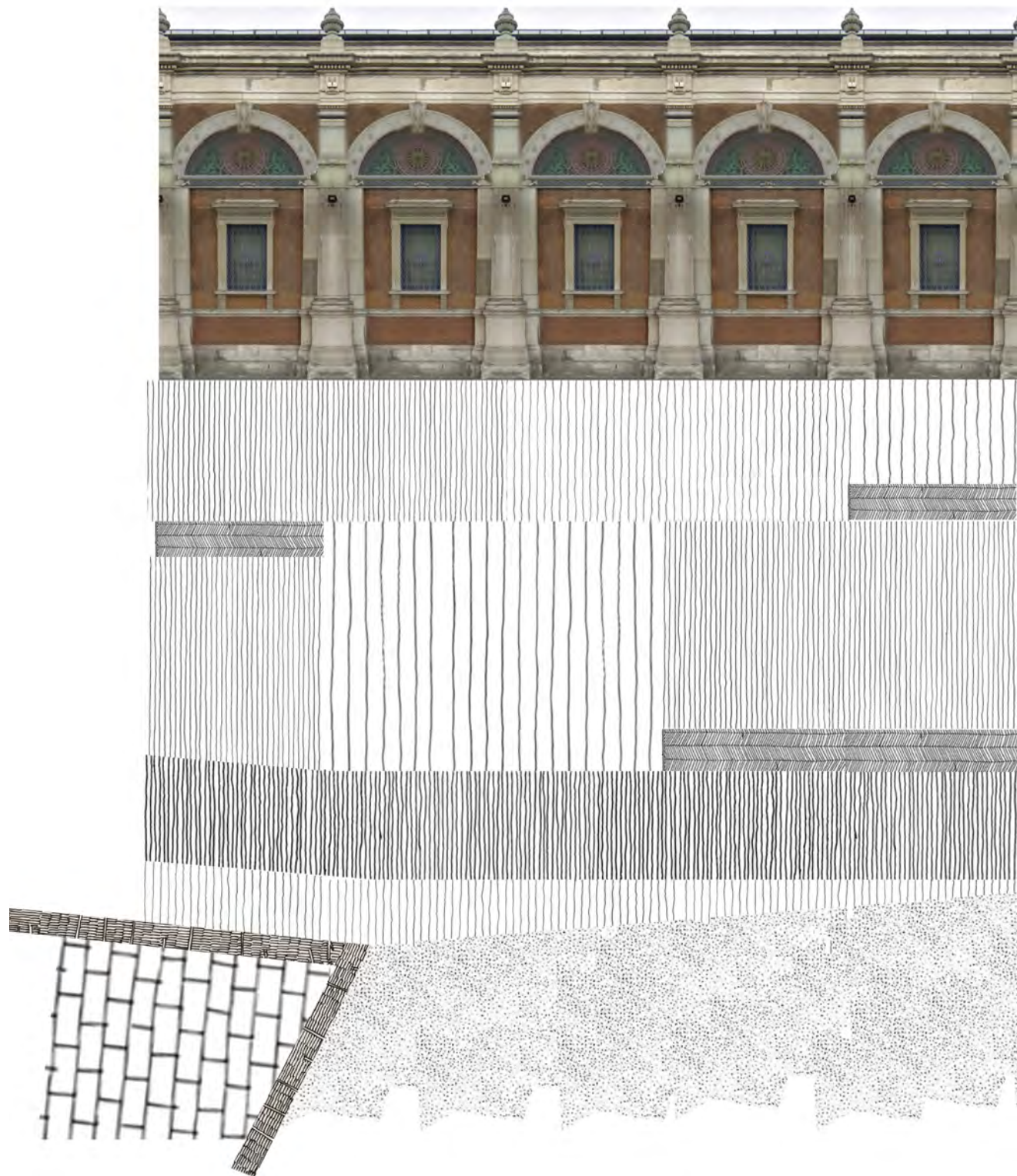
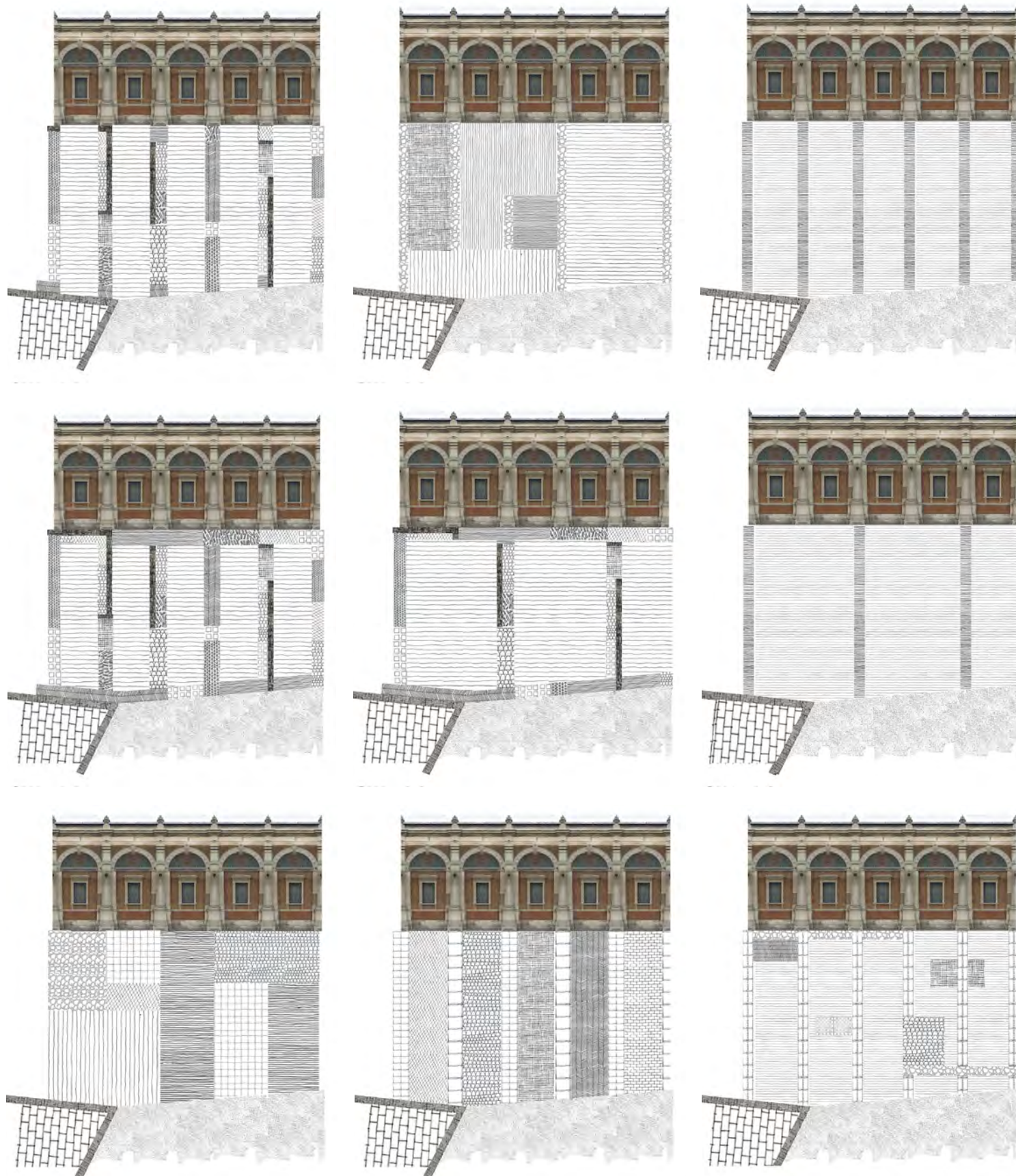


Following the Artist-in-Residence workshops, the design team explored means of representing textures and qualities of materials (rather than the material selection itself, which was still undergoing research and testing). It would be important to capture the textural qualities in a concept plan - which accommodates a change in materials as the design progresses.

Nigel Peake's illustrations became a key source of inspiration for our approach, using a framework to set different textures against each other to create an overall legibility, while celebrating the variation in detail.

Early tests (superseded of the Stave - Market building

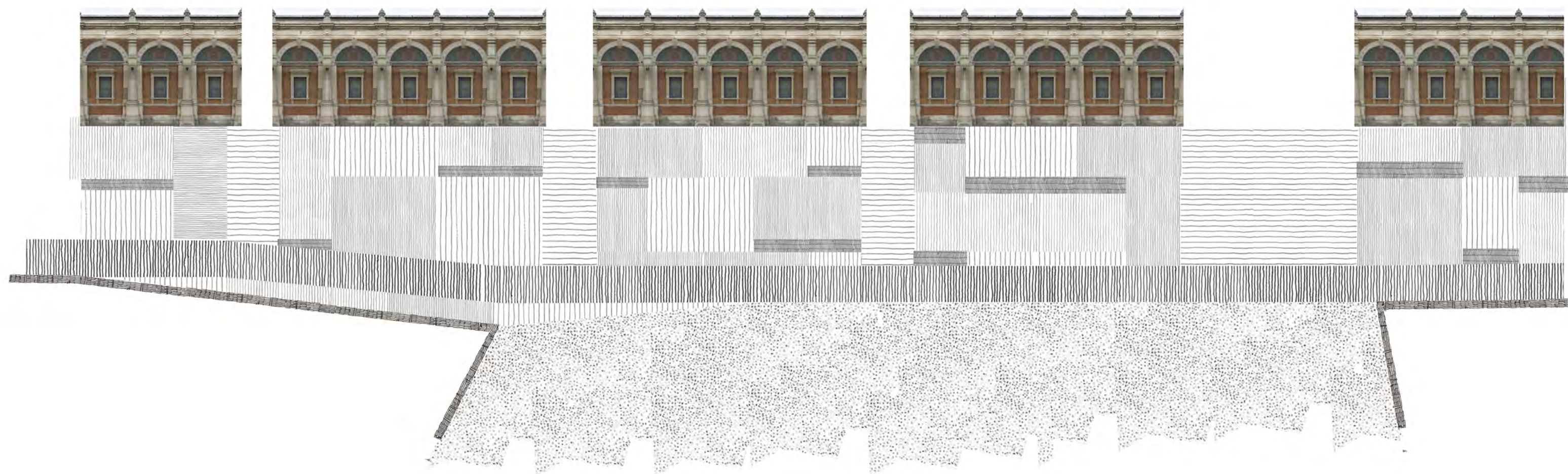
WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



We began by testing these textures to lay out the hierarchy of the Stave, movement corridors and entrances - using the regular rhythm of the Market buildings.

Early tests (superseded) of the Stave - Museum of London

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



We tested each approach extended across the frontage of the Market buildings to review whether the balance of texture and regularity works at a street scale, as well as within a contained space.

Testing with material textures

- Market buildings (work in progress)

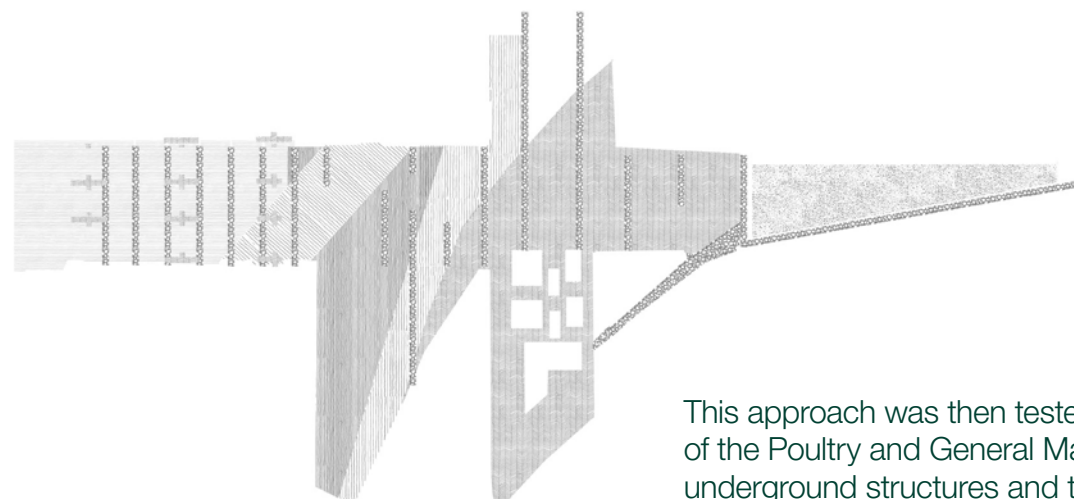
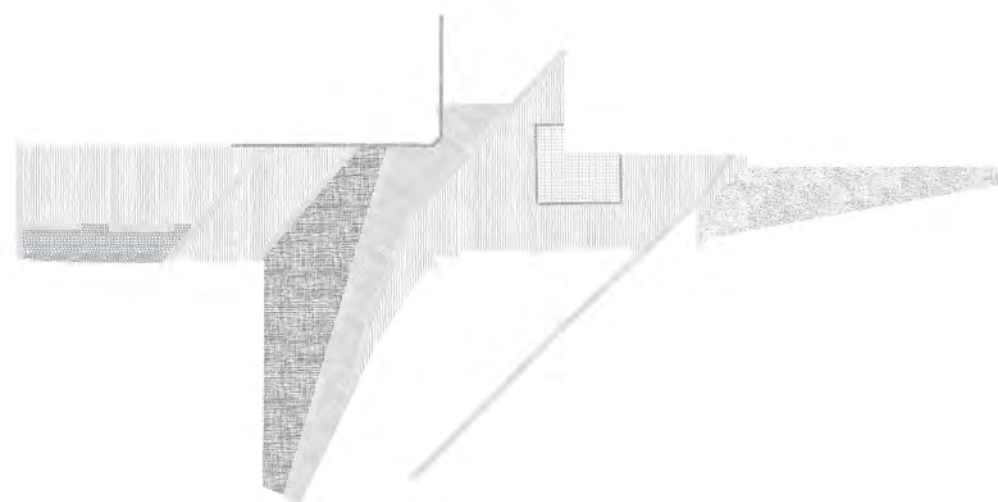
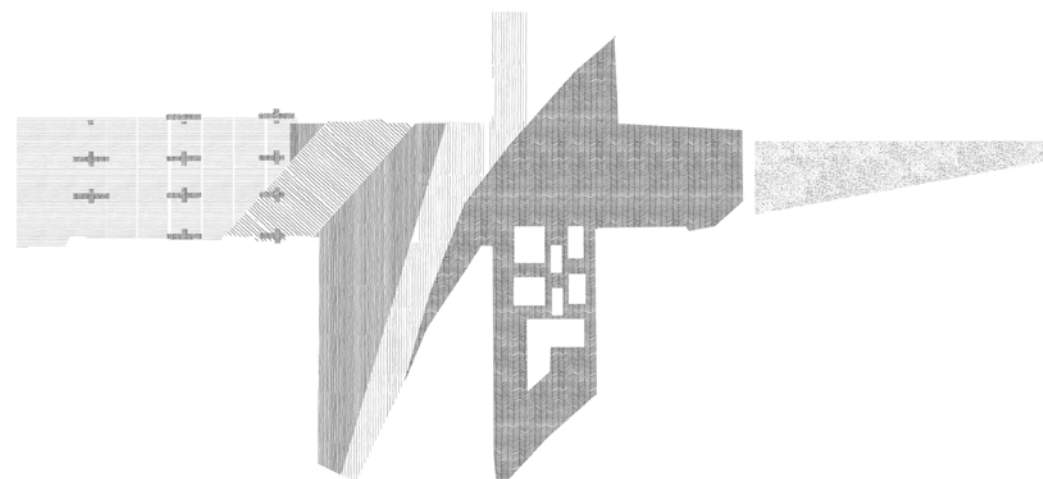
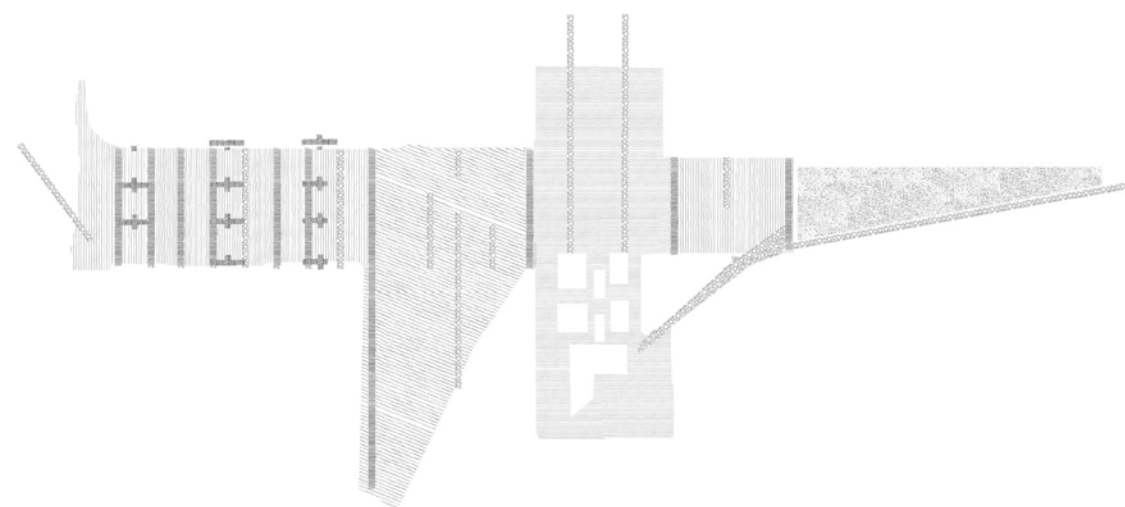
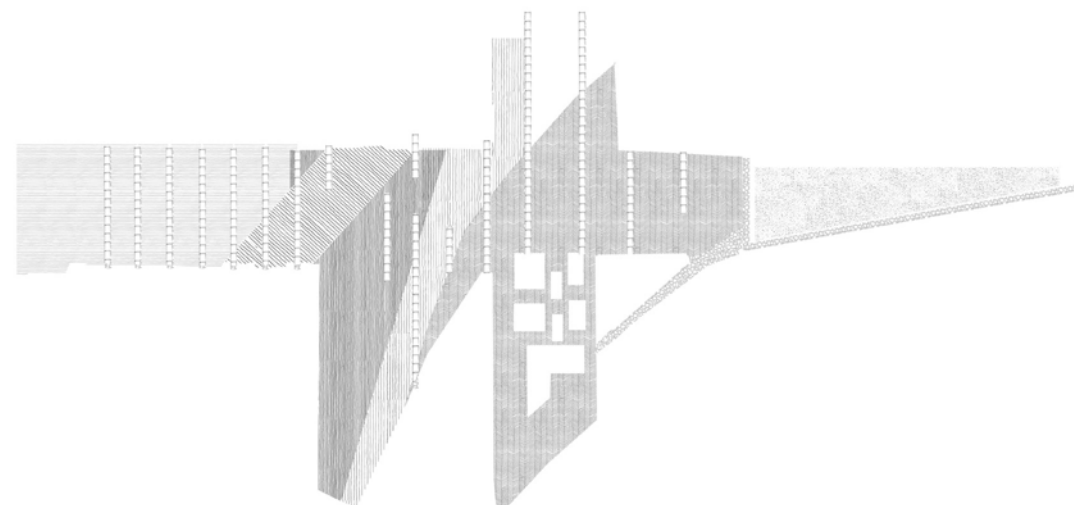
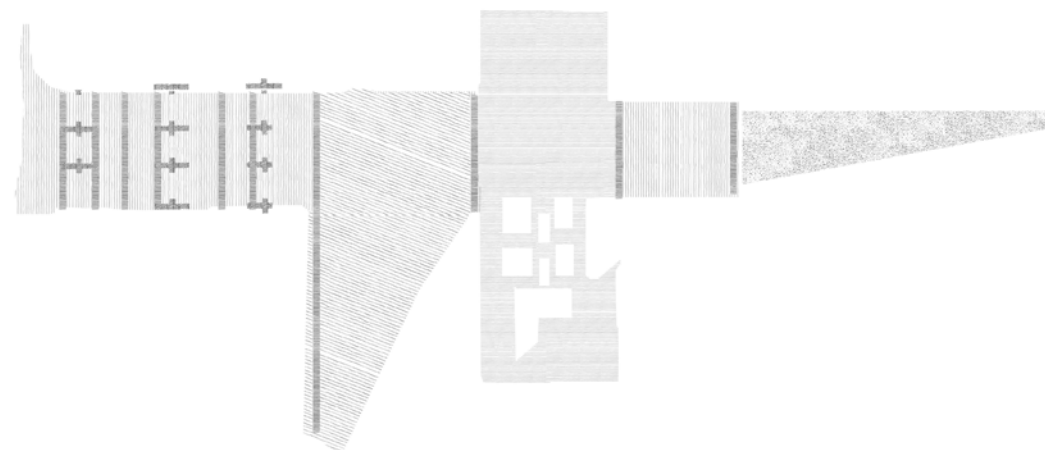
WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



We also then tested these approaches using actual material textures to understand how evident some of these variations are. This will be developed in further detail in Stage 3.1.

Early tests (superseded) of the Stave - Museum of London

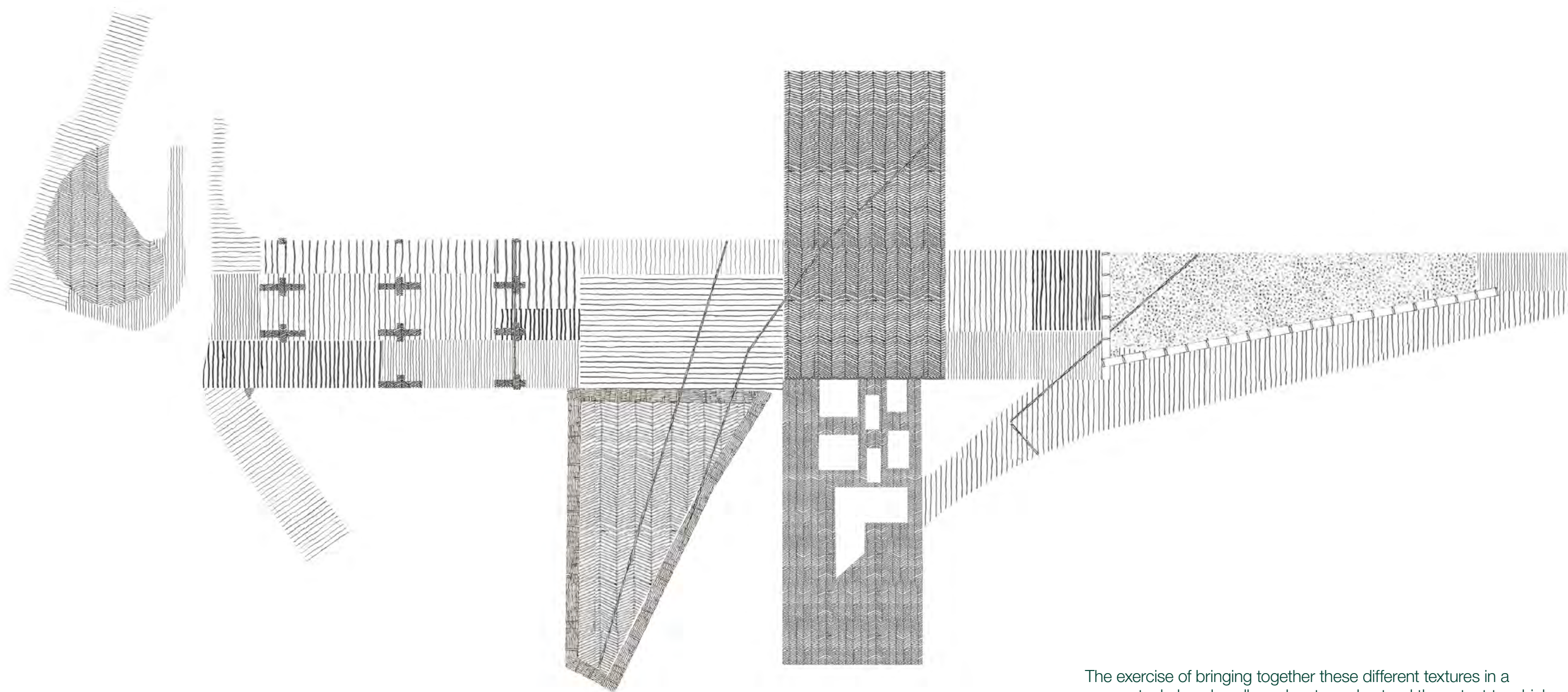
WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



This approach was then tested against the more complex rhythm of the Poultry and General Market buildings. The relationship with underground structures and the interface with the medieval layout is more complicated and messy in this section West Smithfield, in relation to the Market buildings.

Preferred conceptual approach (Museum of London):

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to be developed further in Stage 3.1
24/02/2022

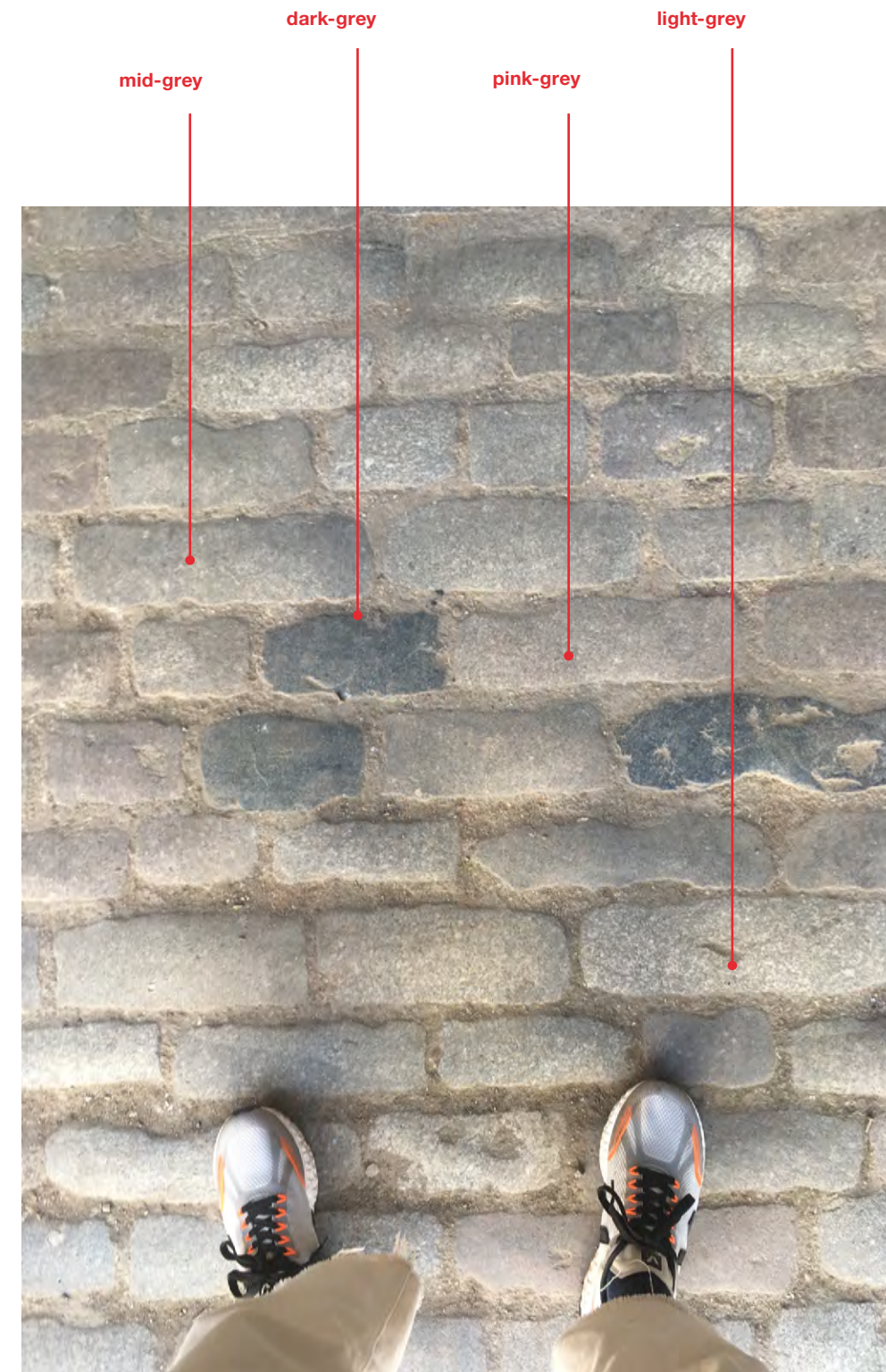
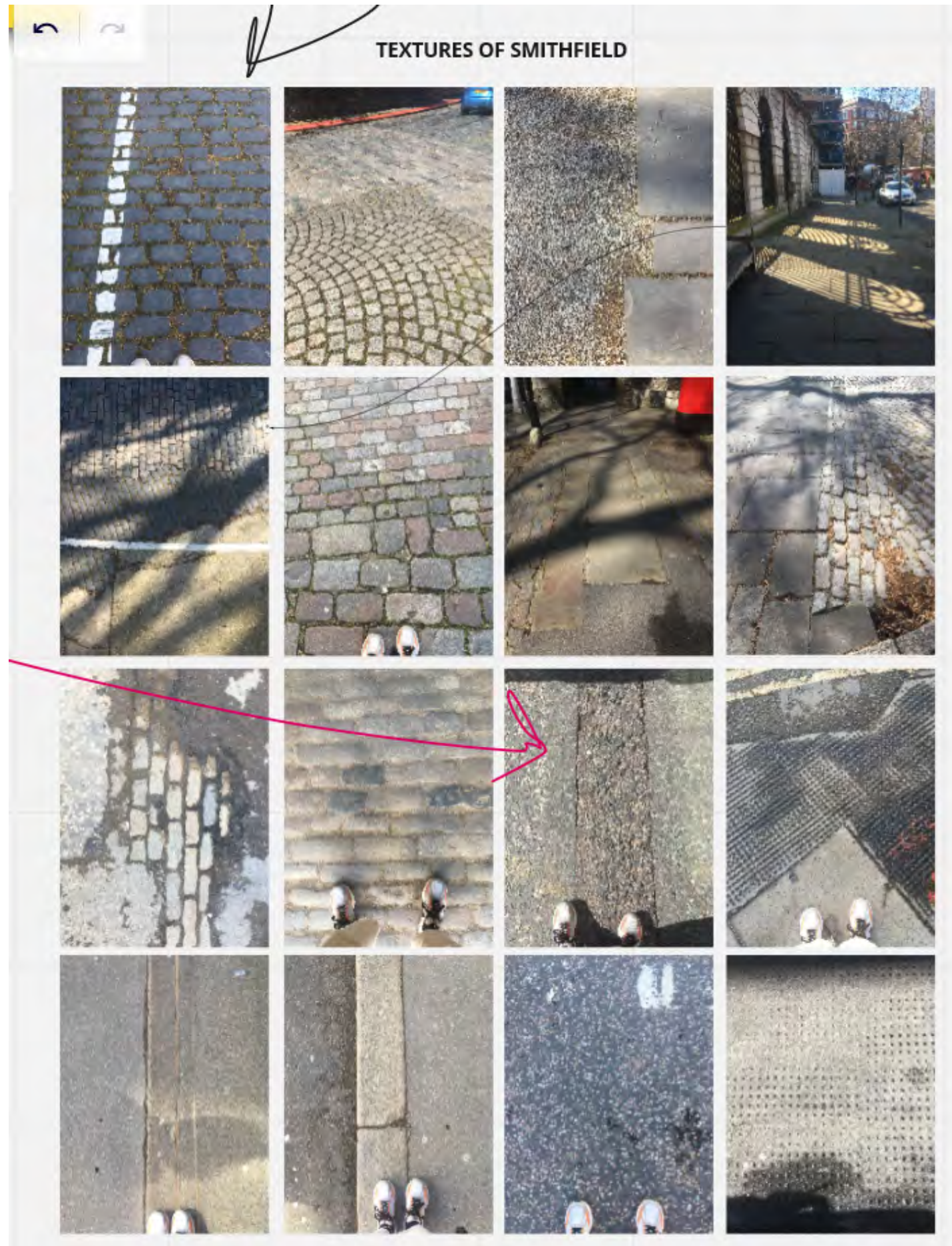


The exercise of bringing together these different textures in a conceptual plan also allowed us to understand the extent to which we can introduce variables in the materials (i.e. material choice, palette, finishes, size, layout) to create and balance textures.

Re-using existing materials and palette

Review of existing materials

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



There is a clear contrast between new and old - with the more contemporary industrial materials and textures (asphalt, hammered texture, concrete and aggregate) juxtaposing with the older granite setts and kerbs.

The ambition of the project is to retain this juxtaposition, rather than prioritising one era of materials or industry. This allows us to be quite playful with the palette, using the greyscale of the existing materials as a base. There are pops of bolder colours in the pint granite, or dark grey/black granite cobbles and asphalt.

Existing setts and cobbles

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022

3.3. Interesting Results & Data Examples

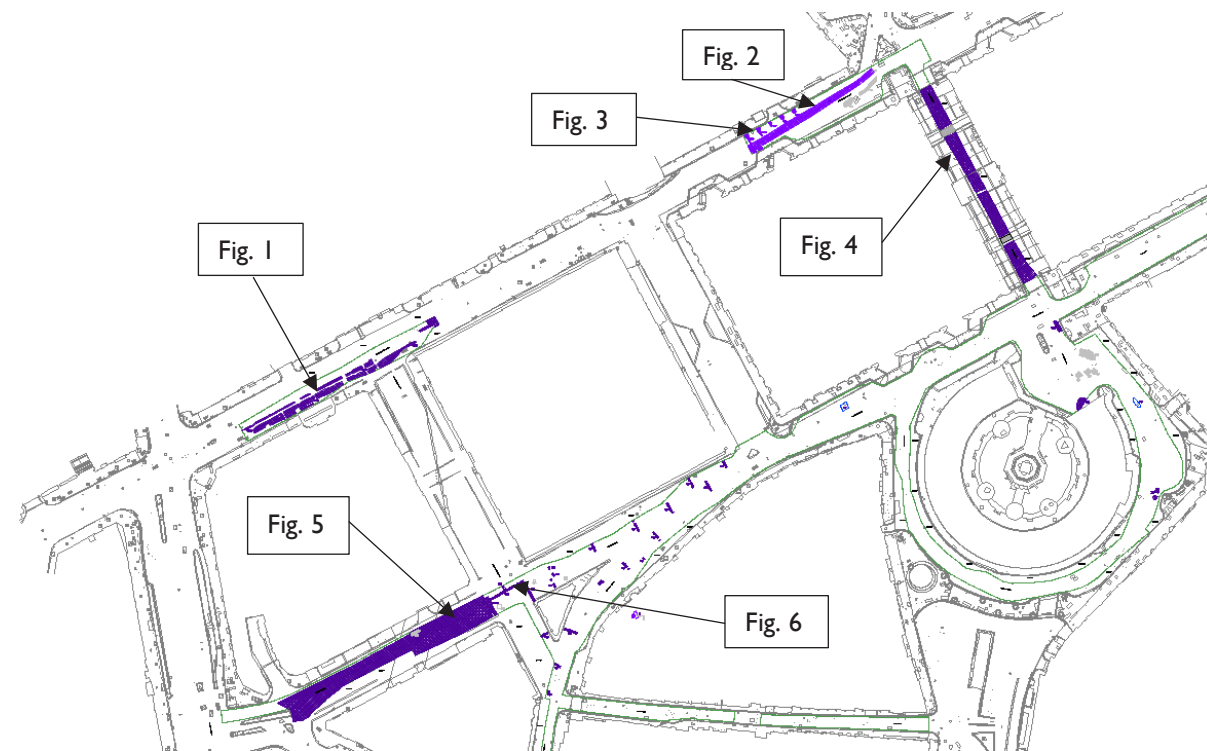


Figure 1:

Possible cobble sett layer detected between 0.07-0.14m deep.

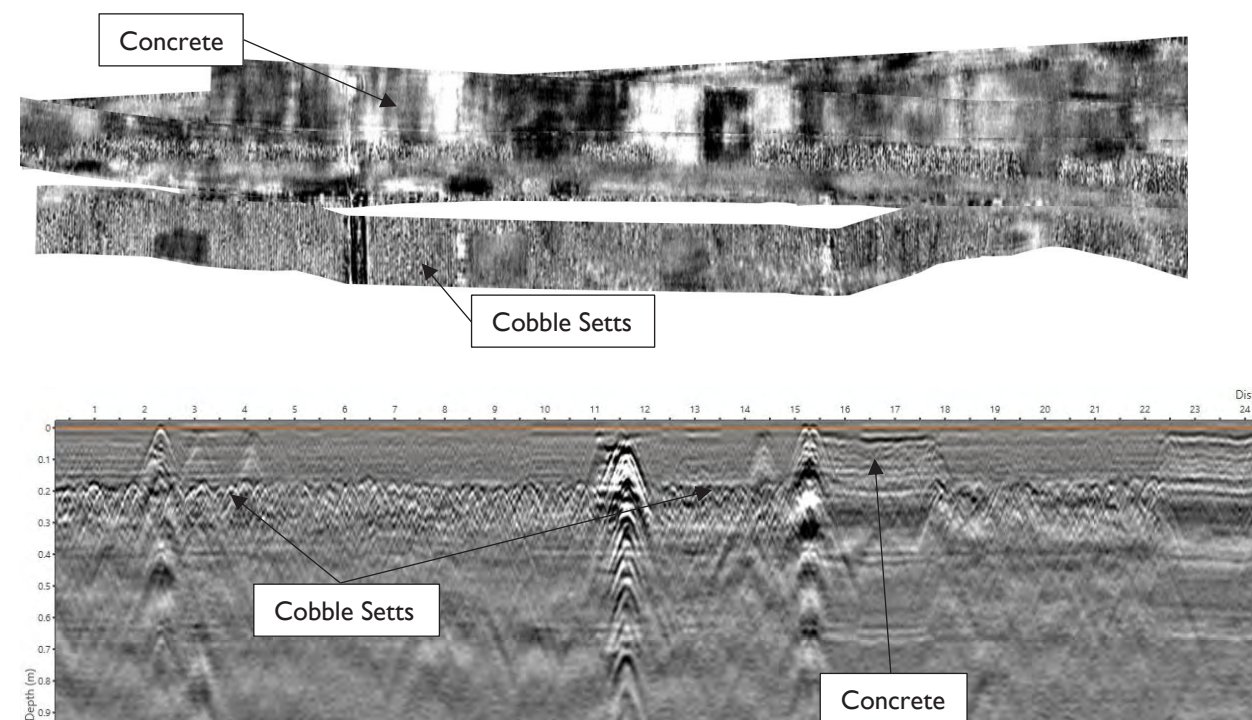


Figure 2:

Structure detected at 0.35m deep.

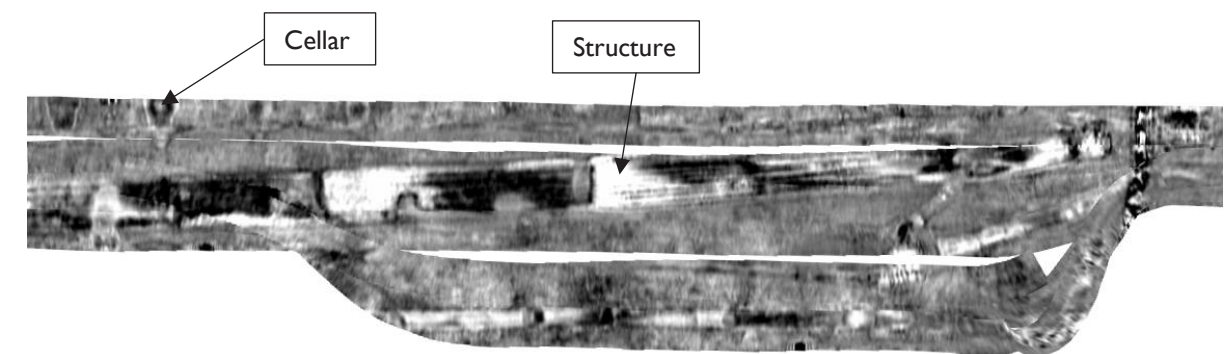


Figure 3:

Possible Cellars.

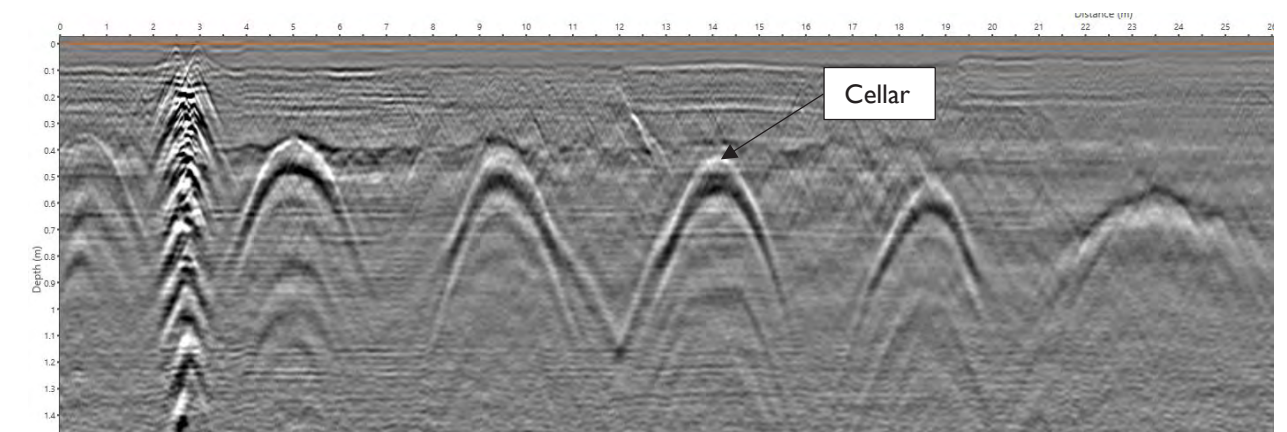
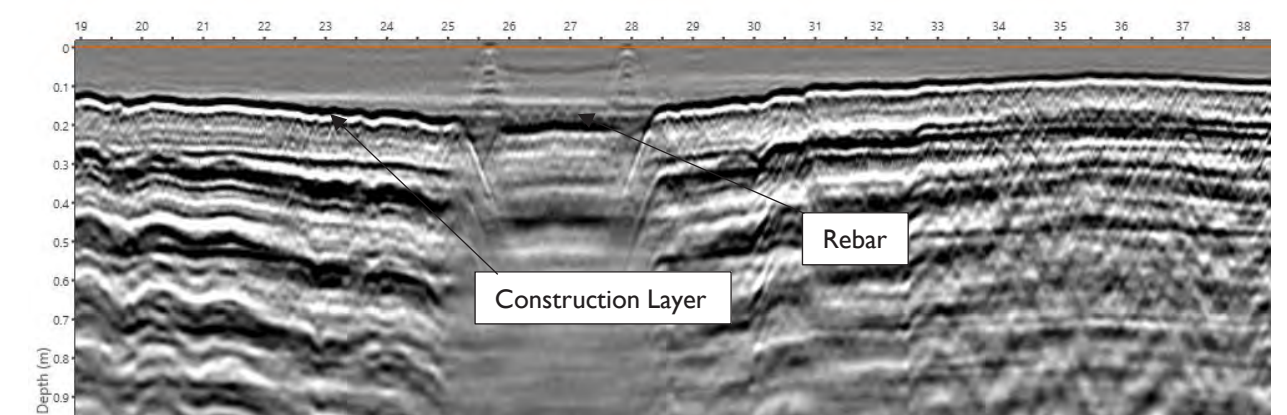


Figure 4:

Construction layer at 0.20m deep.



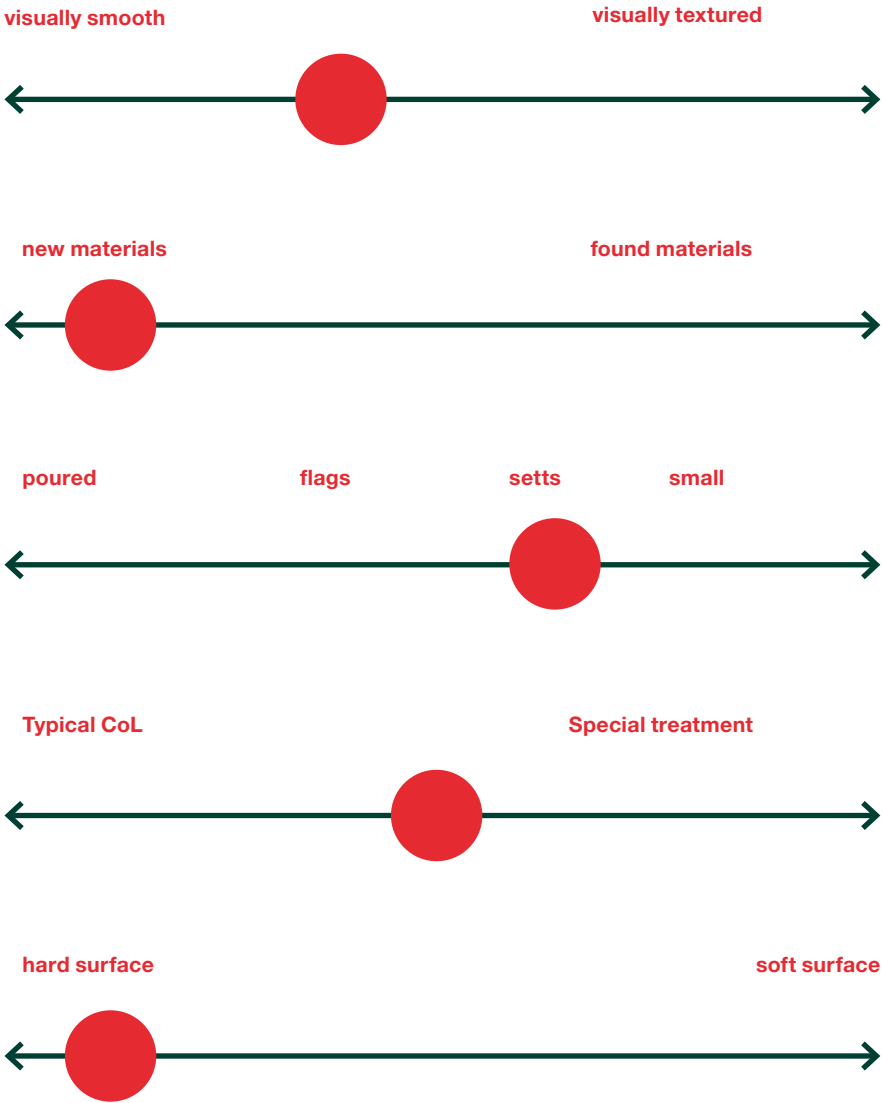
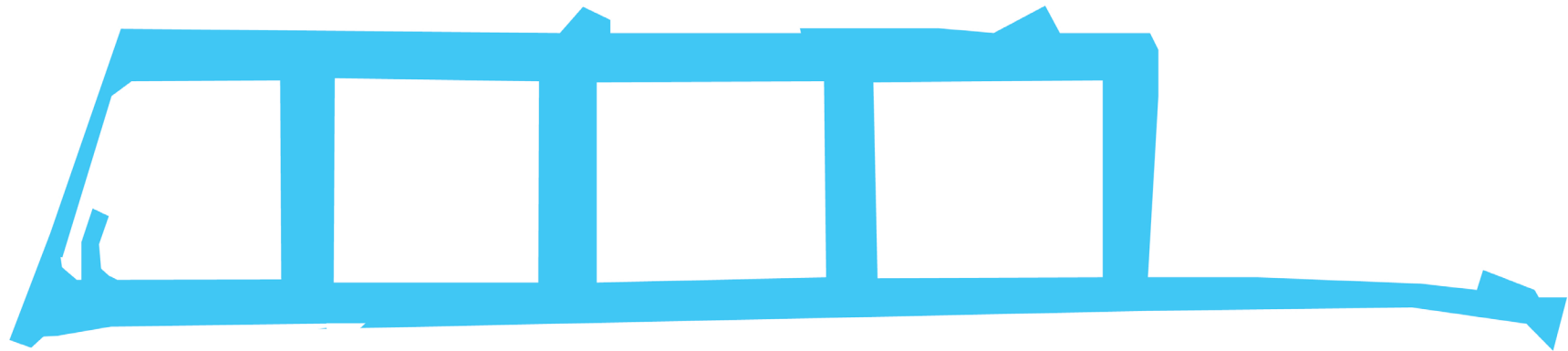
The radar survey (June 2020) illustrates the distribution of setts across the project area - these are largely covered up by asphalt and will need to be excavated for re-use. There is not a very high proportion of these, which suggests that their re-use be focussed around specific sites or feature areas.

Hierarchy of features

01_Base / Default

Greyscale setts

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



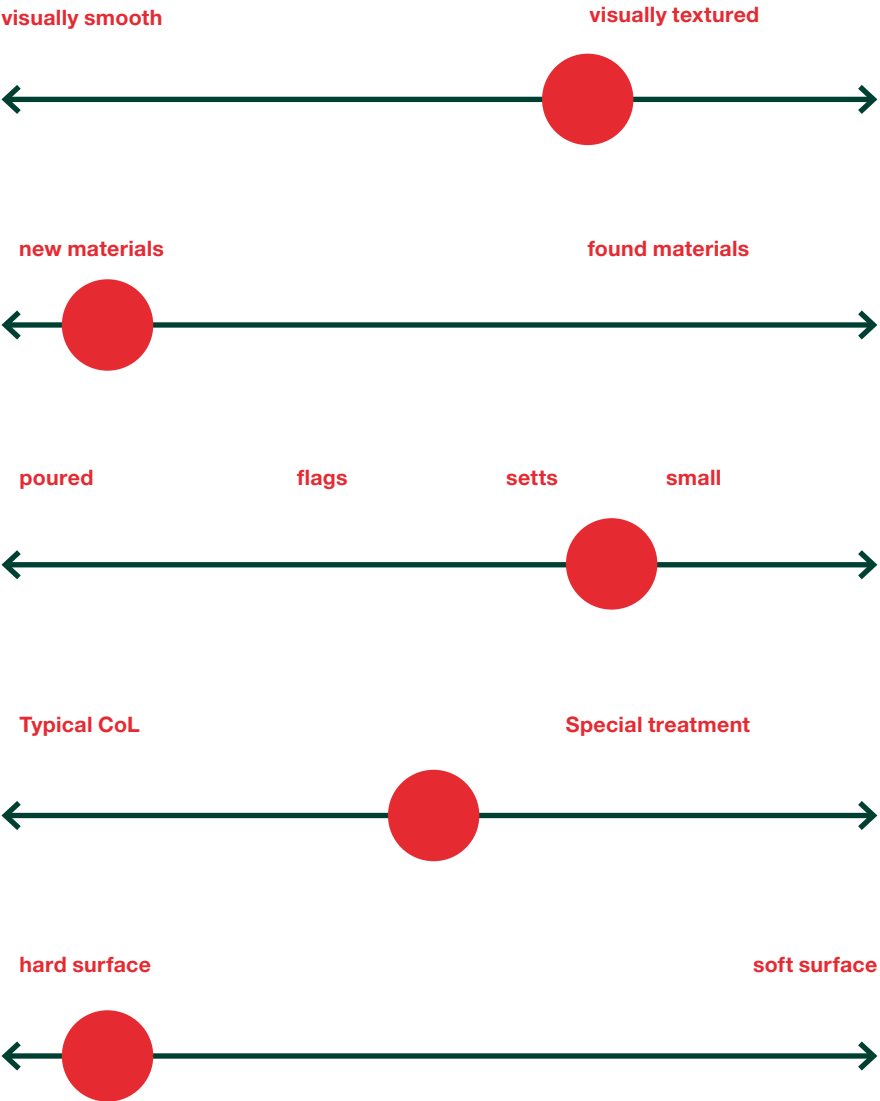
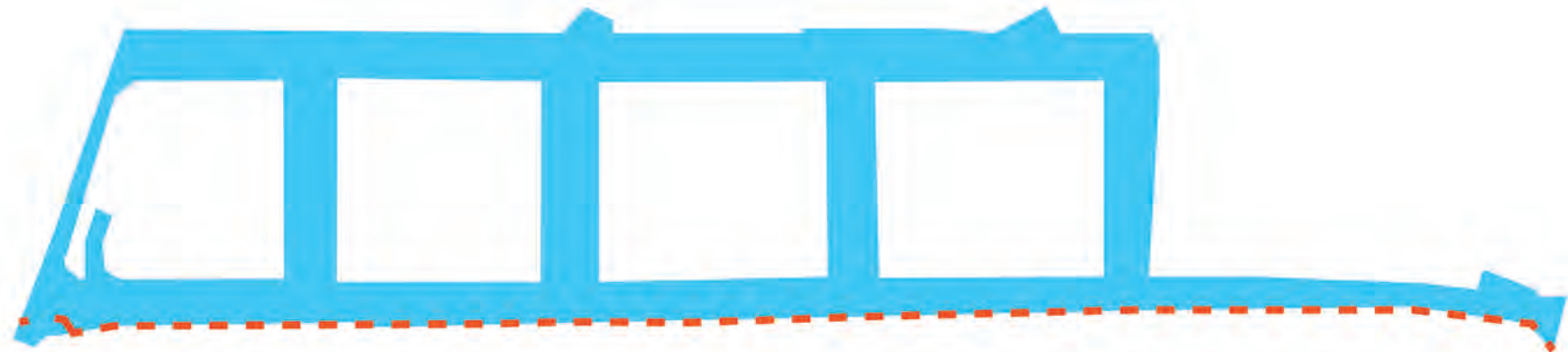
grey / pink / yellow tones
riven finish?
bush hammered?
grit-joined?

granite // greyscale sett mix

The base/default layer encompasses the Victorian grid - West Smithfield, Charterhouse Street and the interconnecting streets. This base layer can reflect the existing palette of greyscale and pink, creating texture through size and layout of materials.

02_Medieval Edge Water Channel

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022

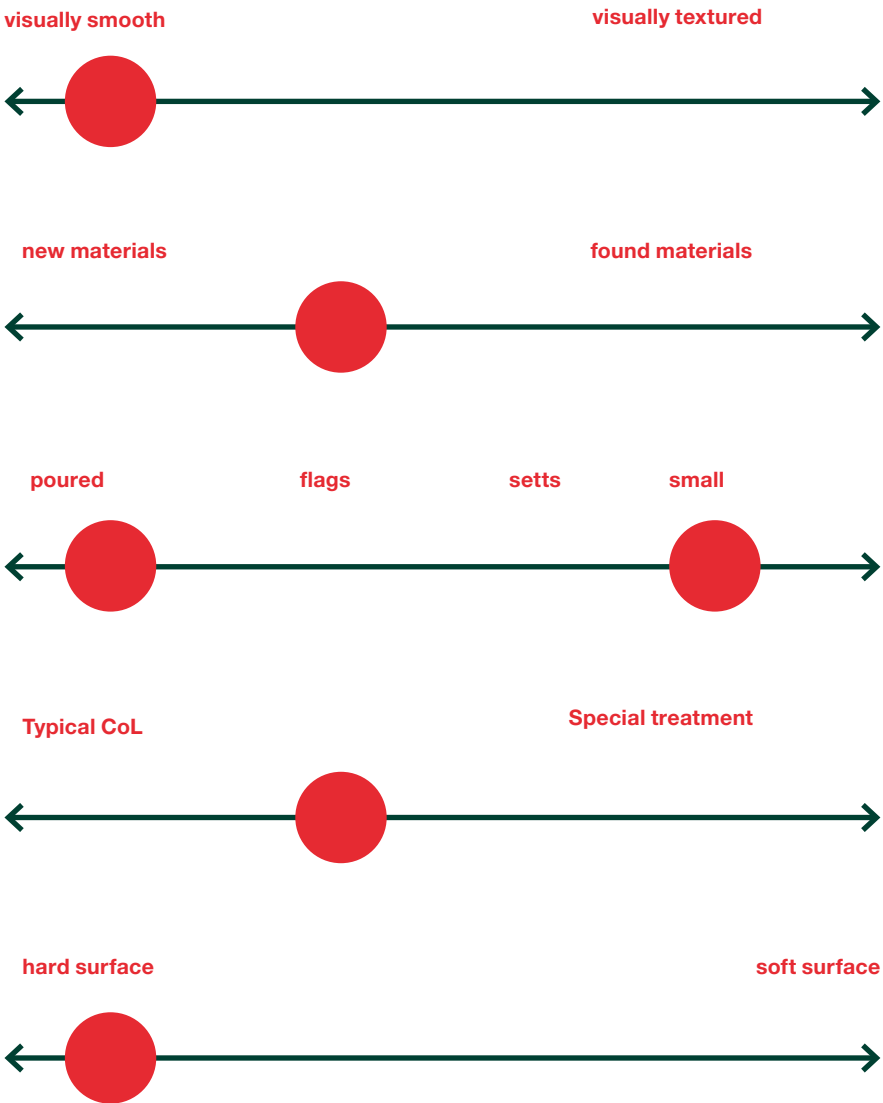
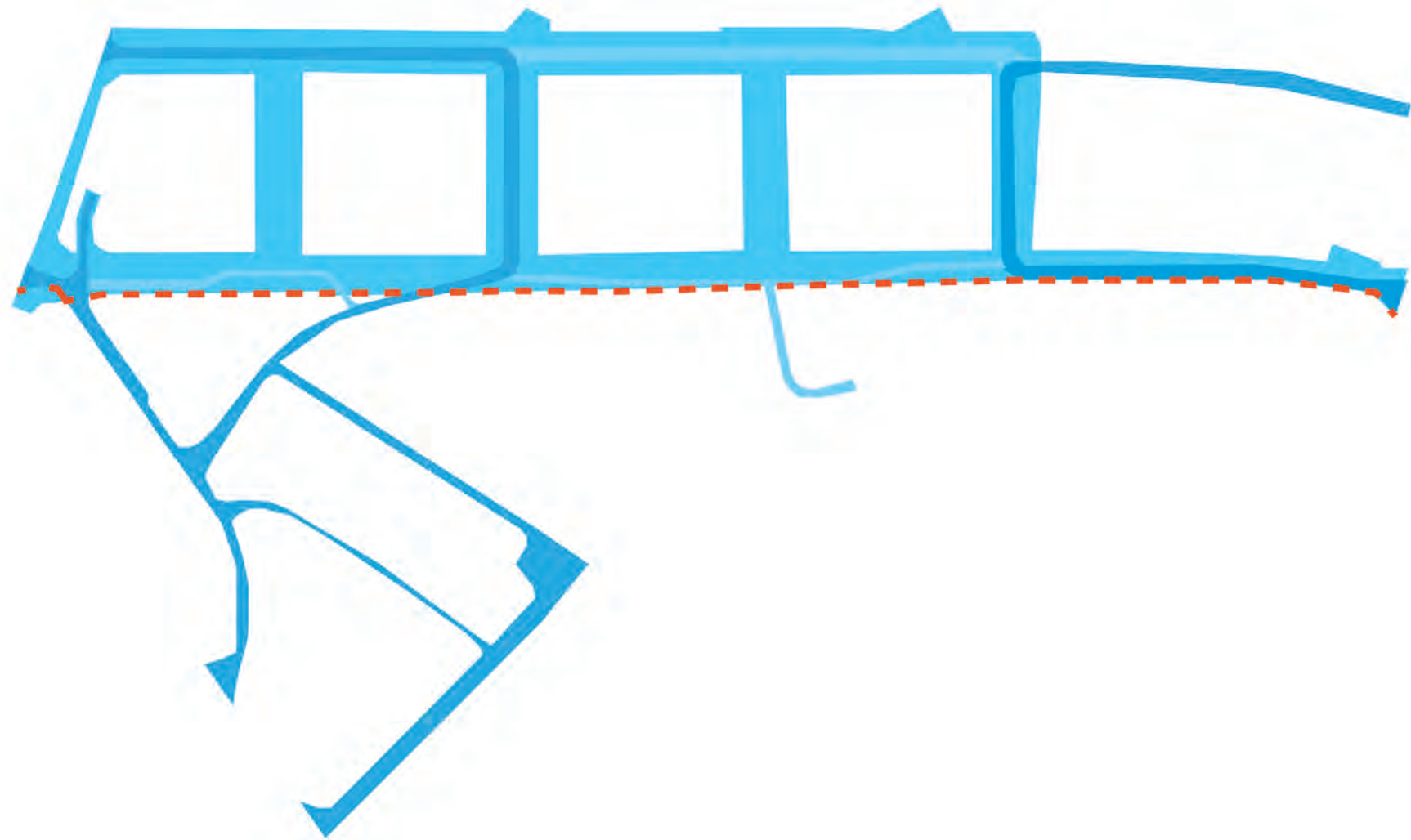


granite // greyscale sett mix

The key collision between the Victorian and Medieval layouts occurs along the south of West Smithfield. This can be highlighted through should a physical separation in the surface/materials. This is proposed to be demonstrated through a feature water channel / drain that highlights the gradual topography of the linear street

03_Carriageway and movement corridors

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



Granite // greyscale sett mix

sawn finish?
mortar joint?
different layout?



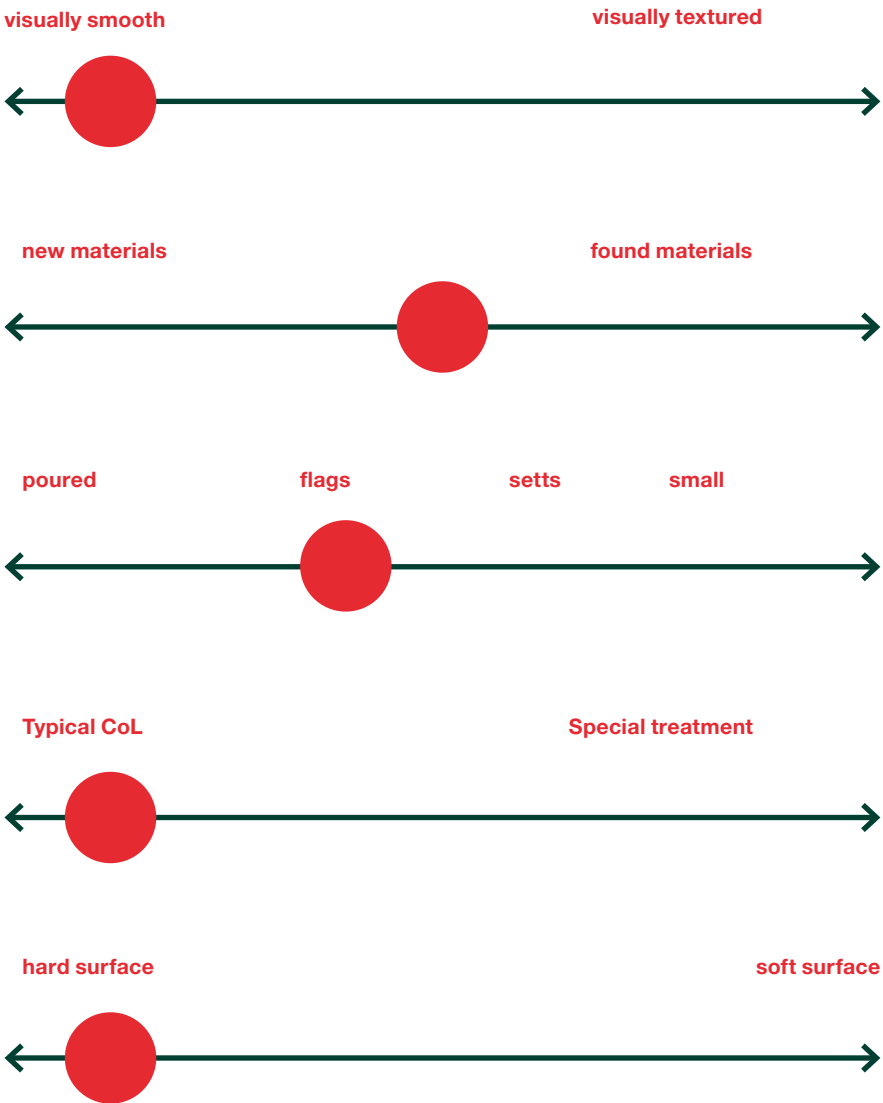
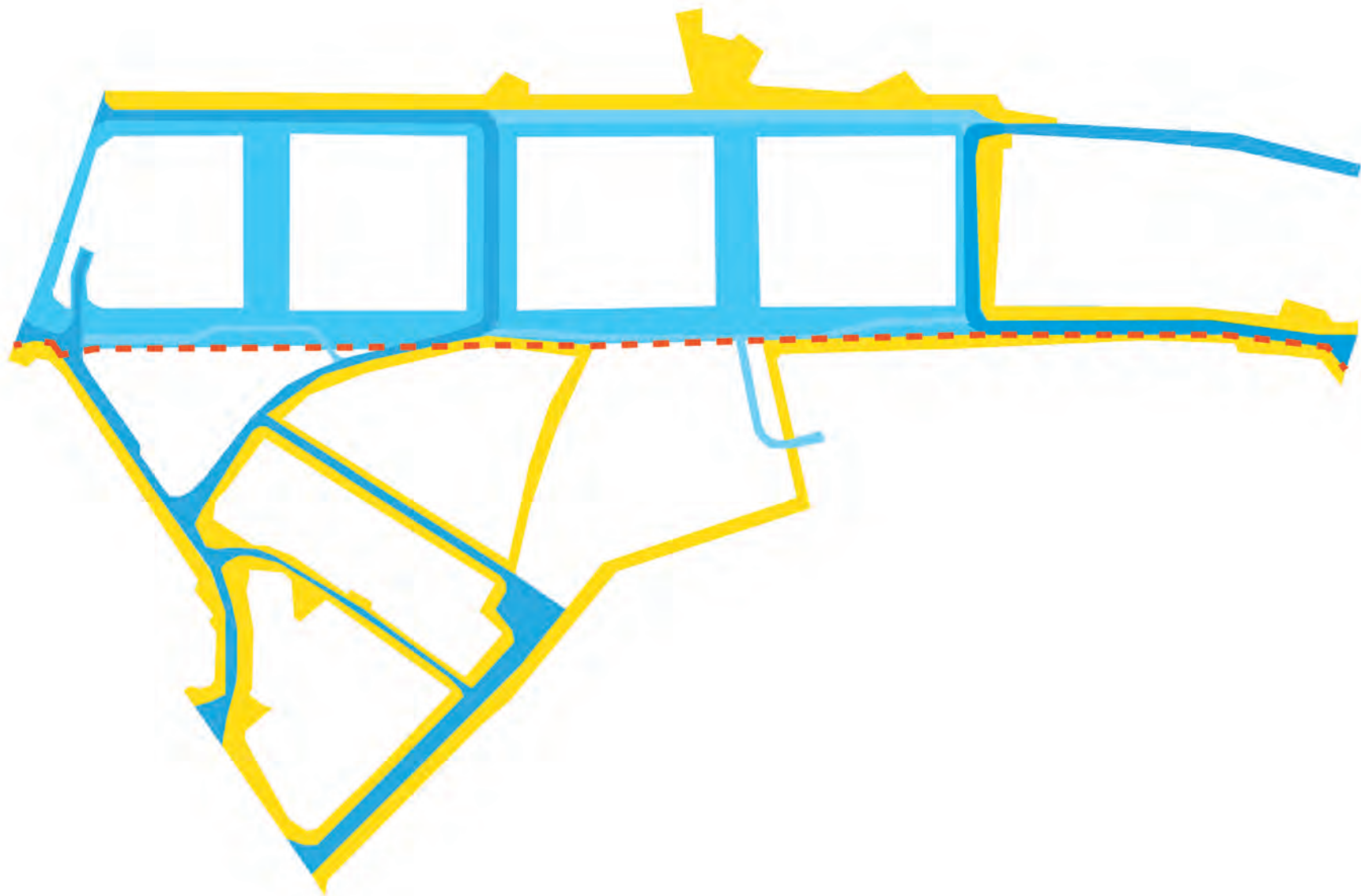
asphalt

re-use material as aggregate?
light-coloured chips?

The next layer sets out the key movement corridors, continuing the road network from Farringdon Rd, Aldersgate St, Cowcross St and Newgate St. There is a hierarchy of movement corridors proposed as part of the transport strategy, with two closed loops to west and east with designated carriageways, and a central shared space with pedestrian priority around the Market buildings and the Rotunda. The hierarchy of these roads can be highlighted through use of materials. While the shared space must demonstrate a continuity in the setts of the default/base layer, these can vary in size or layout to designate the area accessible to vehicles. The carriageways will need a more clear demarcation for safety and accessibility - these could be made up of smaller setts or asphalt with re-used aggregate from the site.

04_Tying into surroundings

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



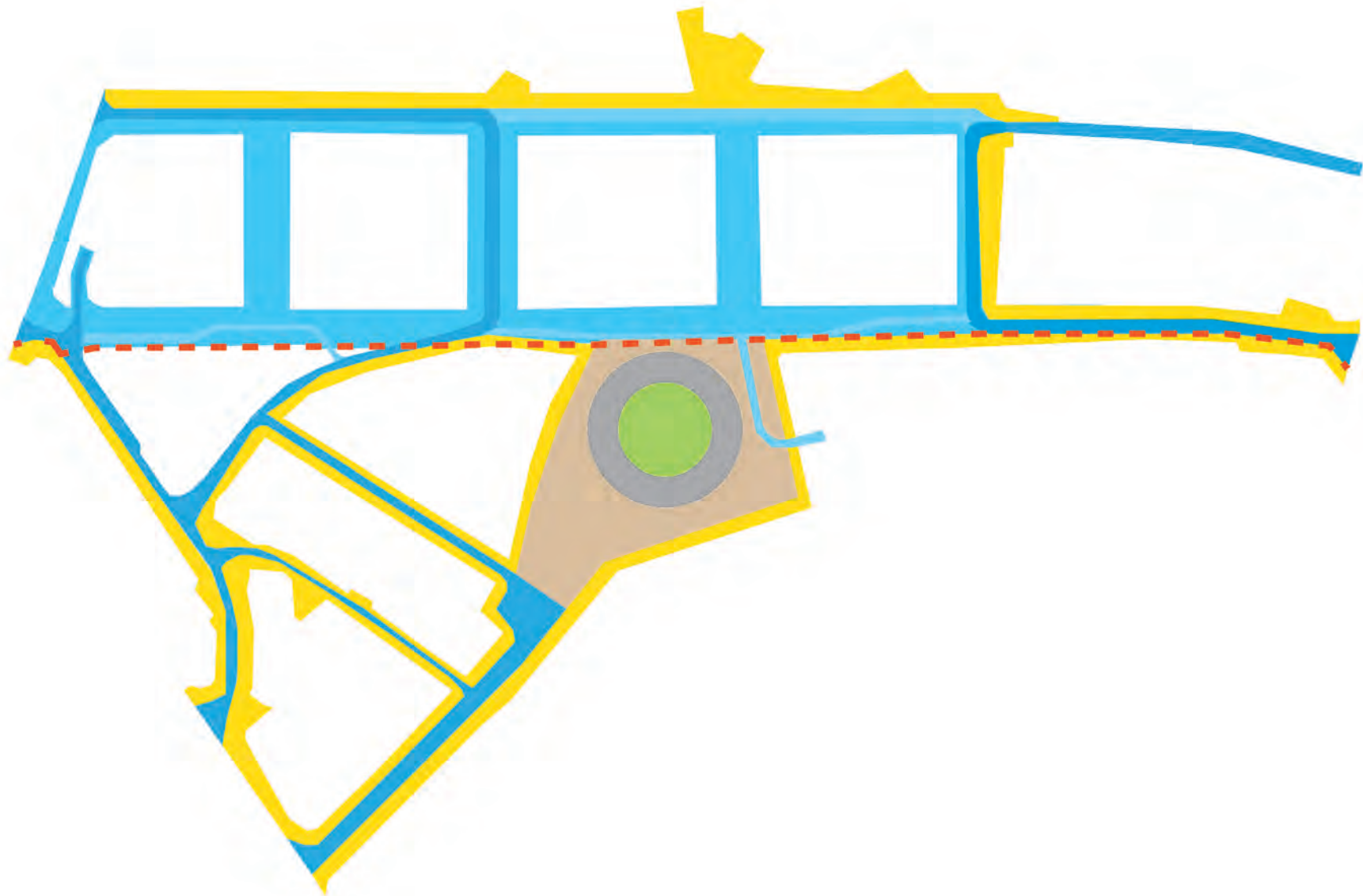
potential to reuse?
flags?

Yorkstone

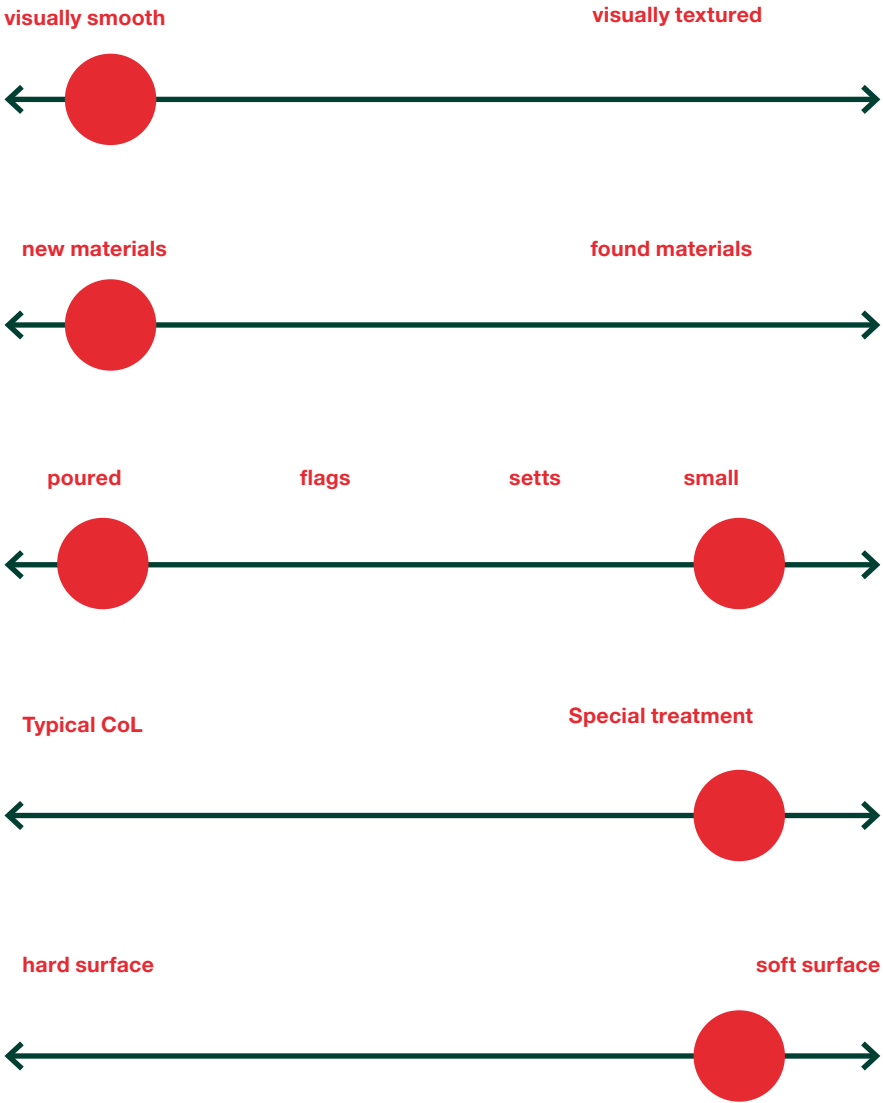
Footways around the Victorian core and throughout the district need to provide consistency and continuity across the district, as well as beyond the district into the surrounding area. The CoL palette suggests Yorkstone, which is consistent along the edges of the district. However, where possible this should be re-used Yorkstone flags with the potential of using alternative, sustainable materials that provide a visual continuity with Yorkstone.

07_Rotunda-in-the-Field

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



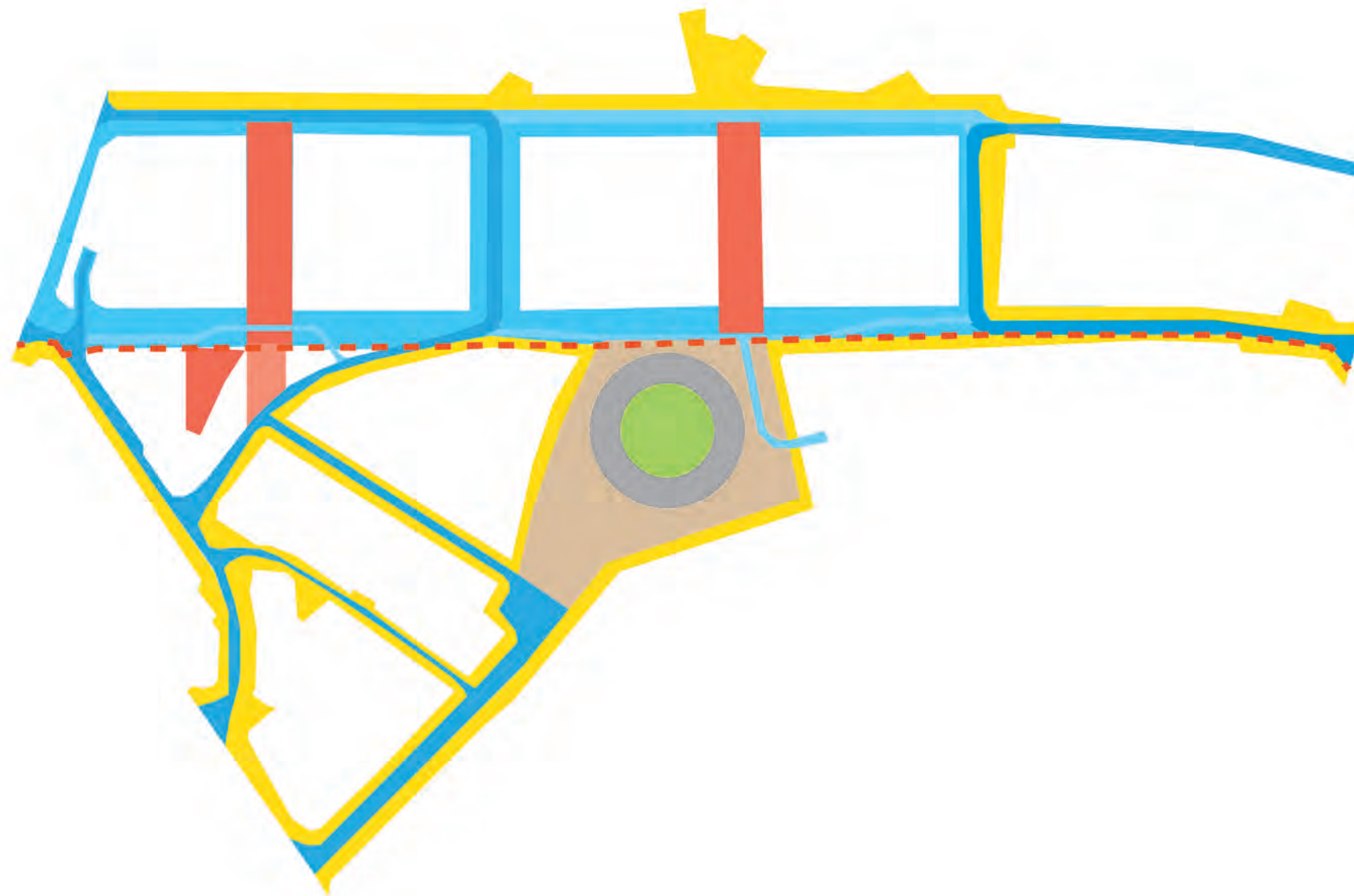
hoggins / self binding gravel



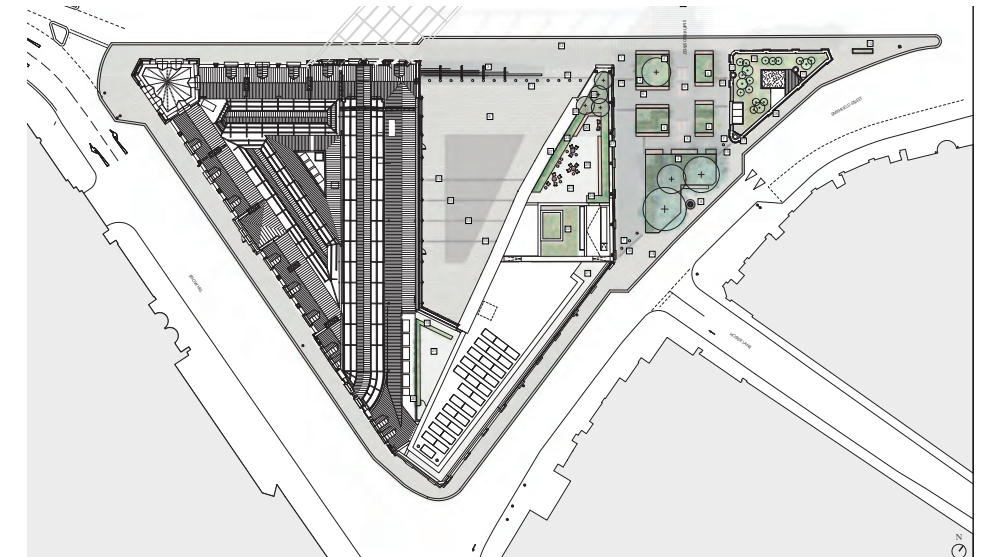
The Rotunda consist of concentric layers of materials. The core of the Rotunda - the Gardens- are a predominantly soft, grassed landscape that should be retained and enhanced. The ramp around the Gardens consist of protected Granite cobbles, that will be maintained and enhanced. The outermost later of the Rotunda-in-the-Field is currently hard, asphalt landscape prioritising vehicles. It will transform into a softer and more malleable landscape, consisting of gravel and planting.

05_Forecourt

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



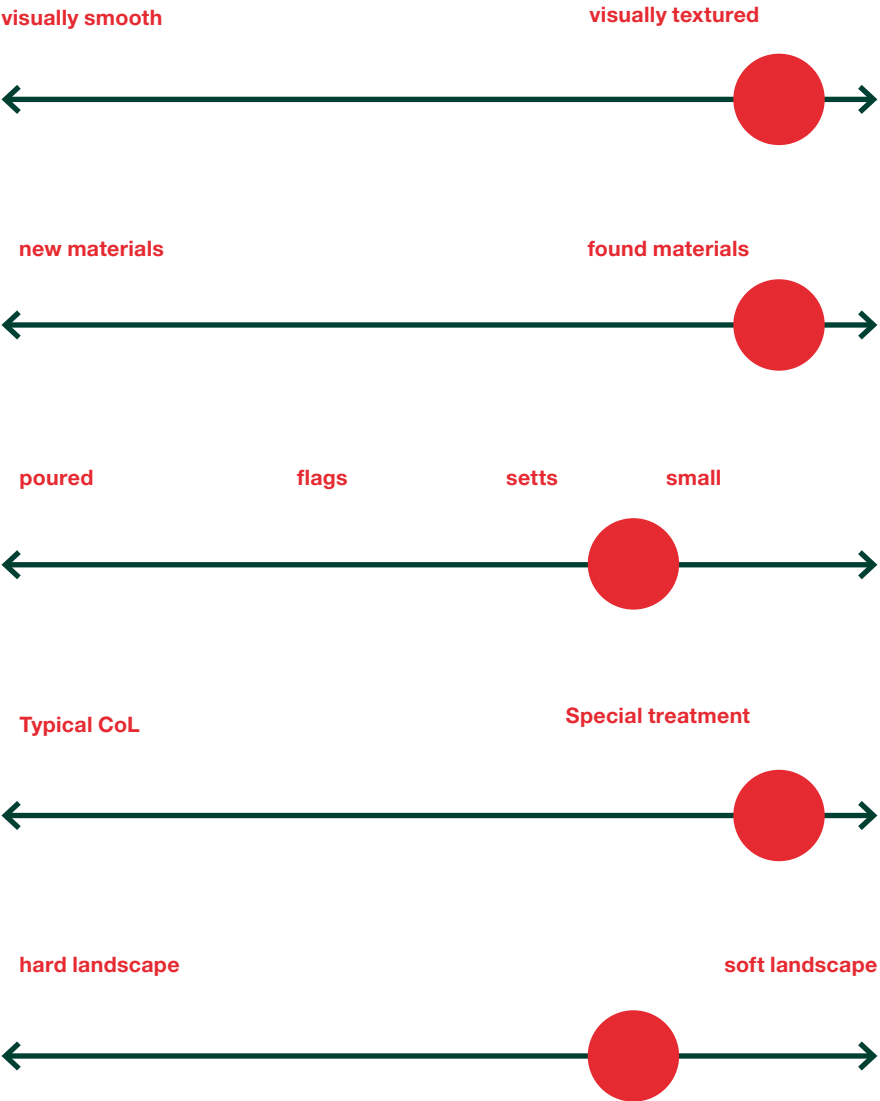
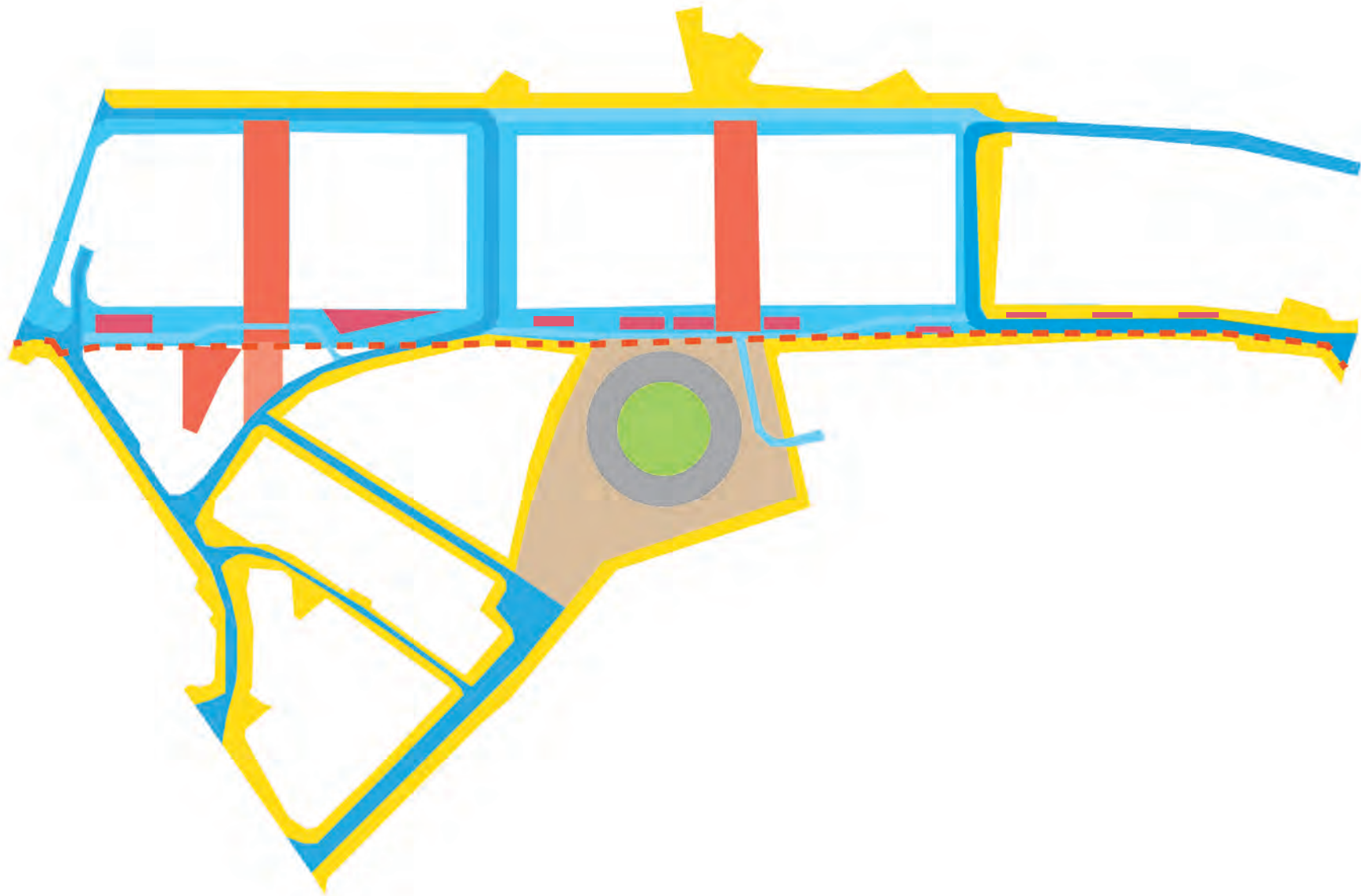
Beyond scope of Smithfield Public realm - align with MoL and Market proposals



The key forecourts to the Museum and Market buildings sit as an overlay on the composition so far. These spaces are largely out of the scope of the public realm scheme, however they need to be integrated as part of the public realm network and reflect the character and principles of the public realm strategy. Where possible these should implement a similar palette as the base layer - however, there is potential to play with finishes and layout.

06_Urban Rooms

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



found materials / granite



found materials / grass pavers

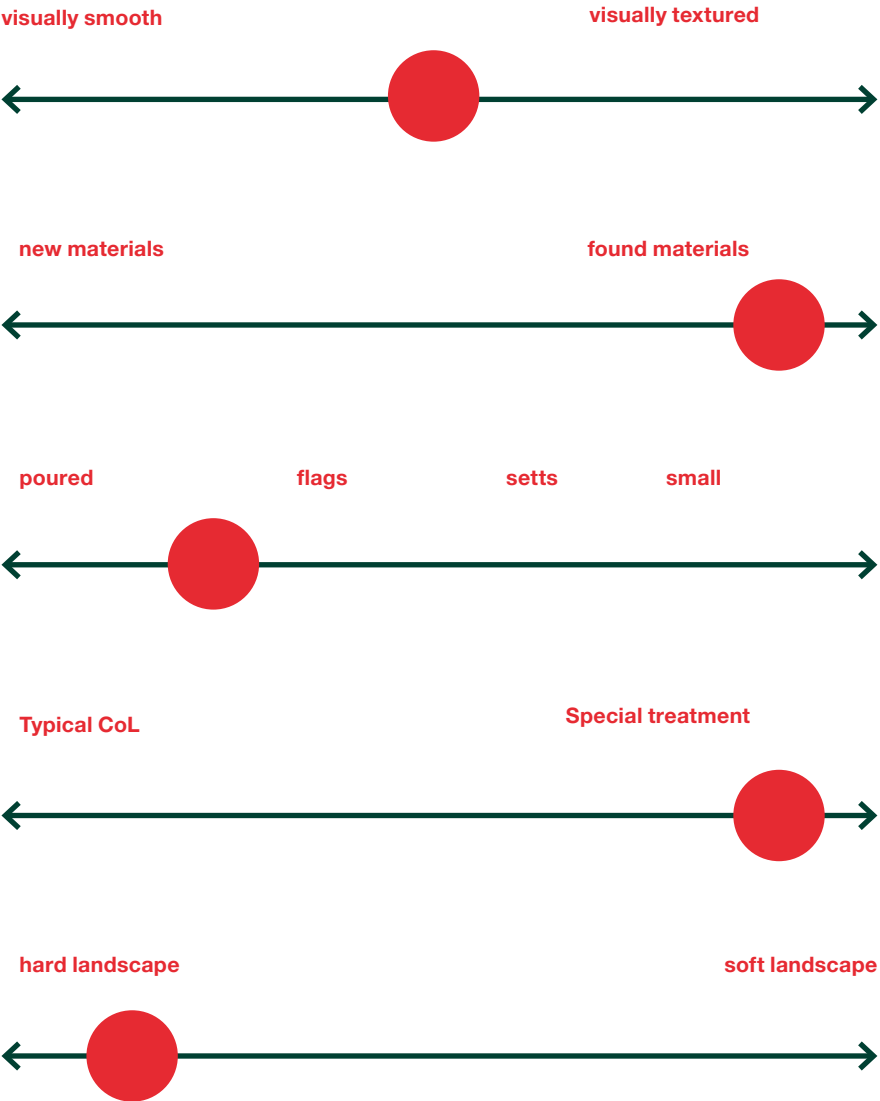
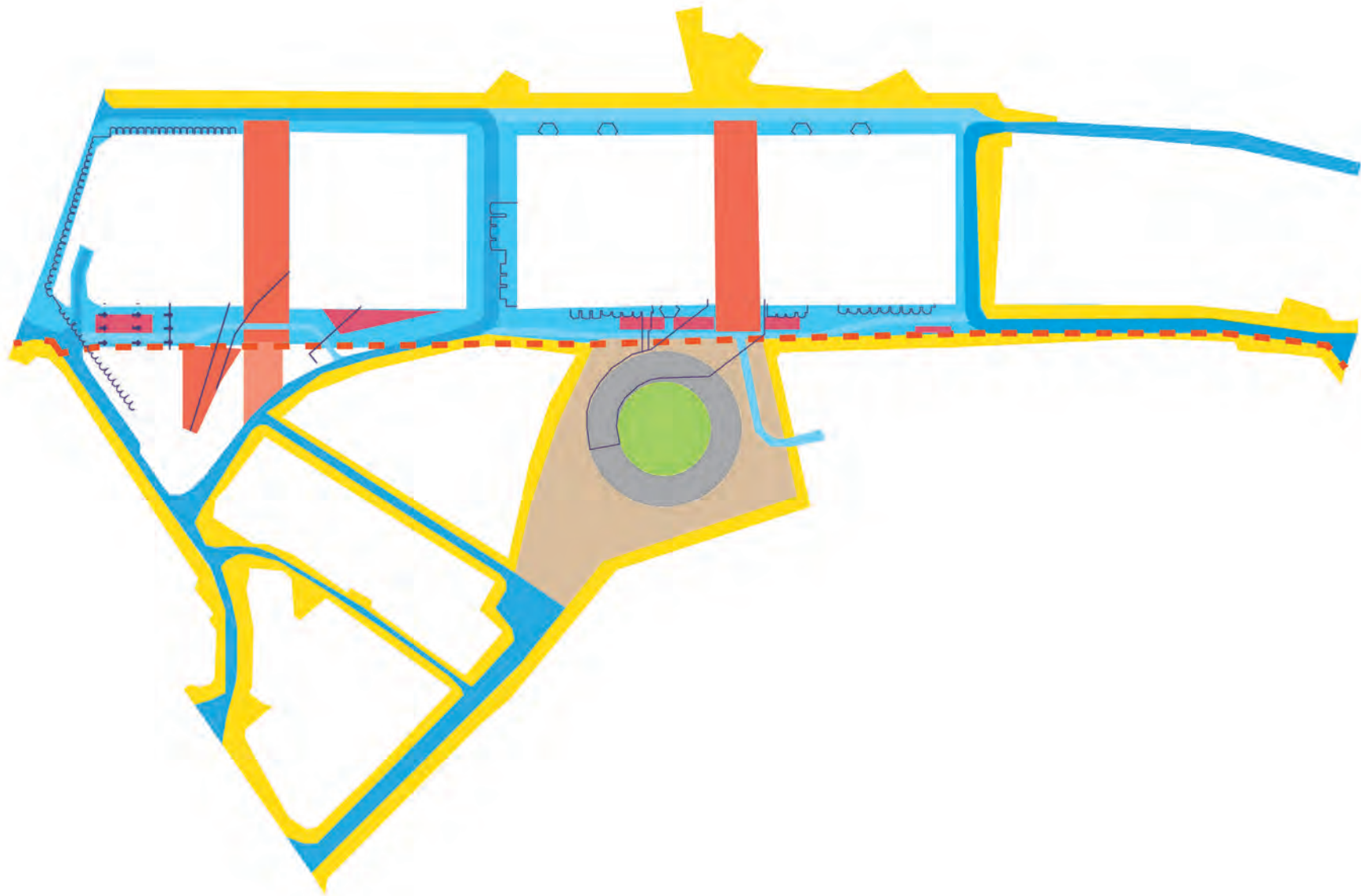


found materials / grass pavers

The Urban Rooms create distinct space of gathering, activity and performance along the stretch of W Smithfield (the Culture Spine). These spaces offer the biggest opportunity for the playful repurpose of found materials, reusing them in innovative ways and integrated with soft landscape features.

06_Substructure

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



stone inlay



concrete / aggregate



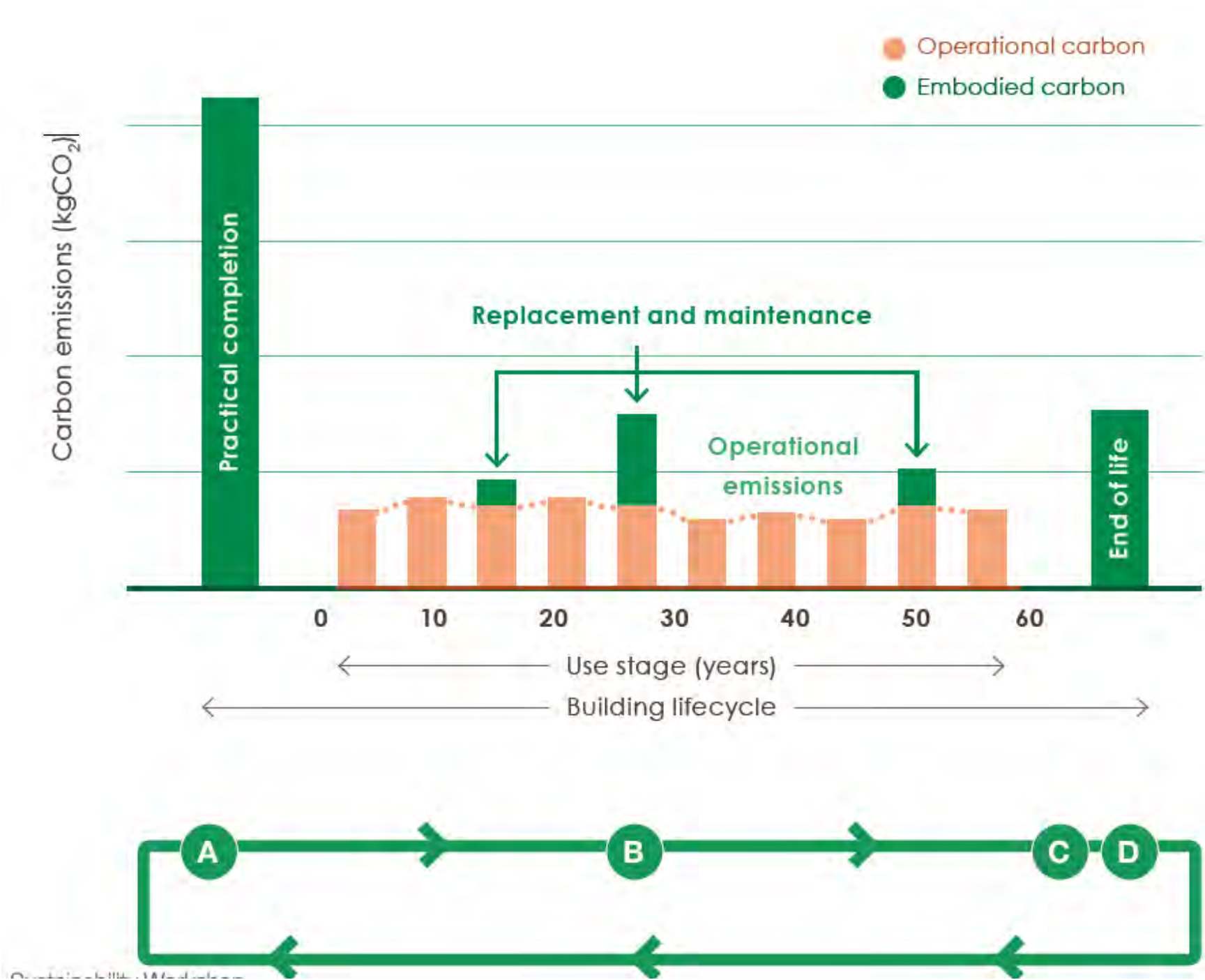
different finishes to the same material

As a final overlay, there is opportunity to bring an added layer to highlight the complex underground substructure. The approach for this will need to respond to the visual texture that the previous layers have created. If sufficient texture is already created across W Smithfield, we can implement a more subtly approach using alternative finishes on the same setts/materials as the base layer. Alternatively, we can use metal, stone or concrete inlays to create an overlay with greater definition - however, this requires further testing to ensure that it does not overwhelm the overarching character of Smithfield

Sourcing and sustainability

Full-life carbon and circular economy

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



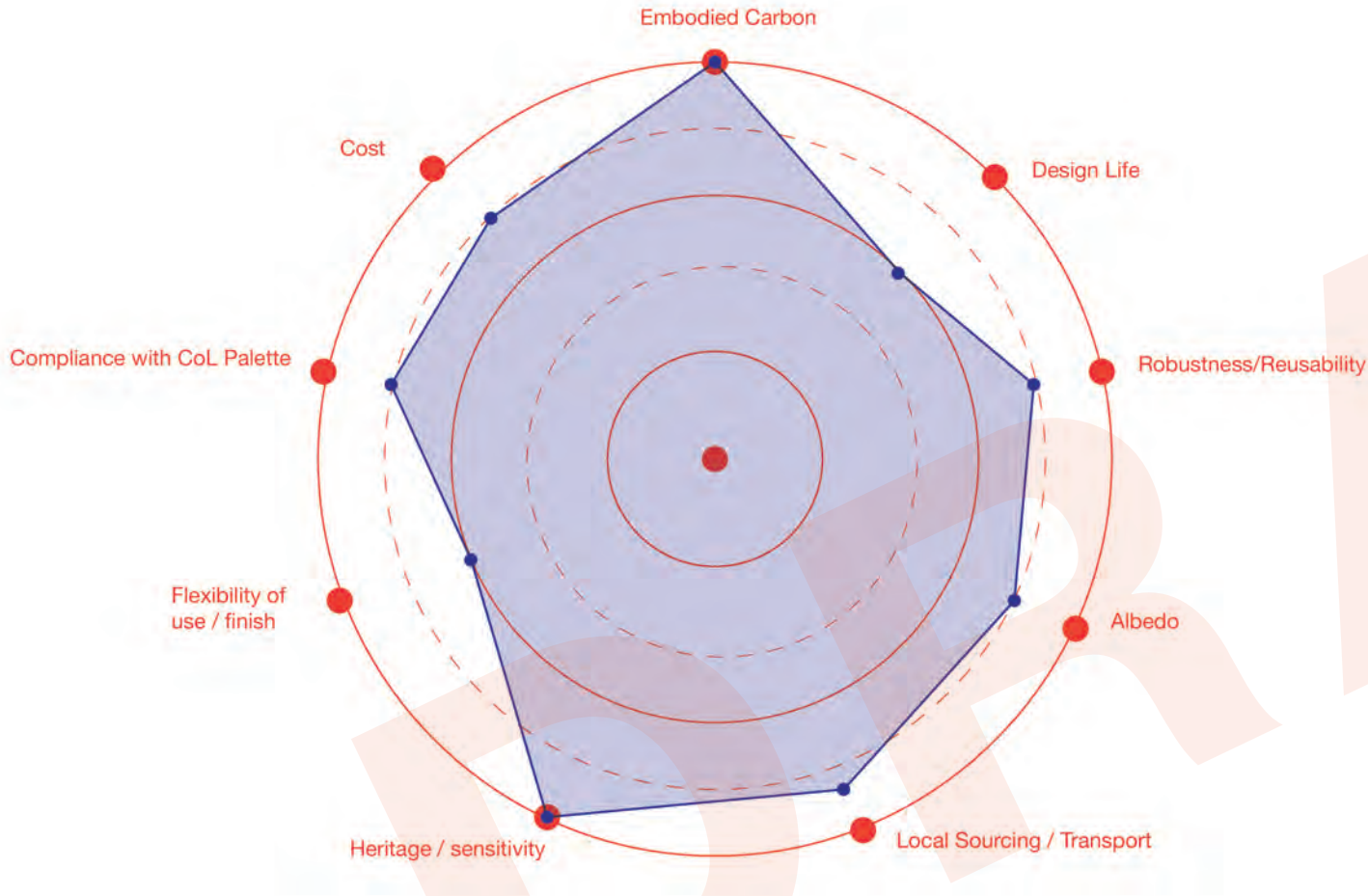
A key driver for the selection, use and sourcing of materials for Smithfield will be a careful consideration of the whole-life carbon emissions of any selected material in the public realm. This will prioritise materials that have the lowest full-life carbon emissions, with consideration for sourcing location, durability, energy for excavation, potential for re-use etc.

These considerations are balanced against key design principles to help select potential materials in the following pages. This aims to provide a more holistic view of materials and their contribution/impact in the public realm. The following pages present early thinking on areas for further research on public realm materials and sustainability in partnership between City of London and Hawkins\Brown.

Balancing priorities

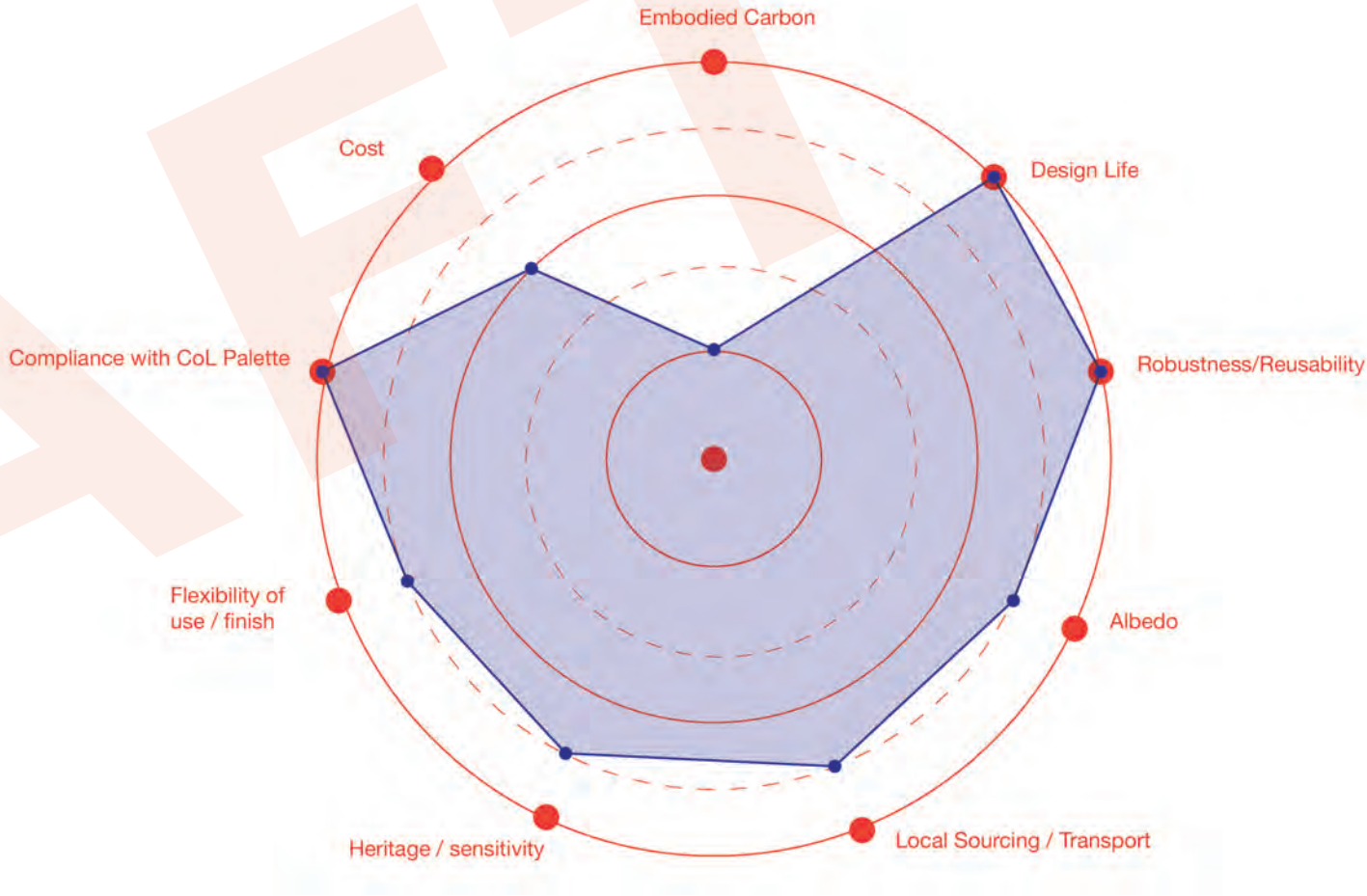
WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022

Granite setts (re-used)



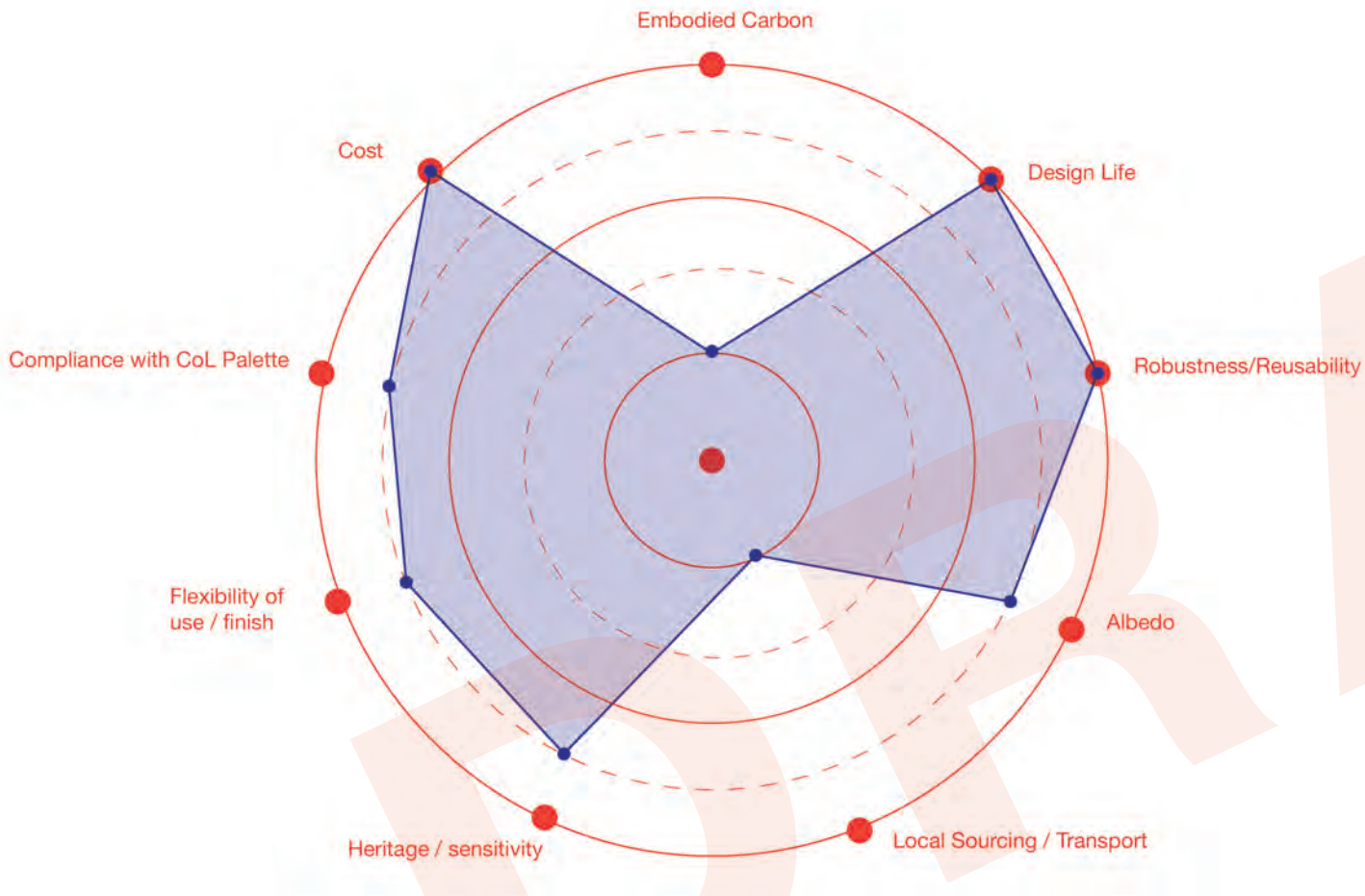
Embodied carbon: tbc
Design Life: 80+ years (reduced from second use?)
Albedo: (for grey/pink/dark grey sett mix): tbc
Local sourcing: On-site storage leading up to works needs to be considered
Heritage sensitivity: Pink + greyscale of found materials
Flexibility of use / finish: n/a
CoL Palette: n/a
Cost: Storage and treatments cost, local transport and treatment

Granite setts (UK/EU Sourced)



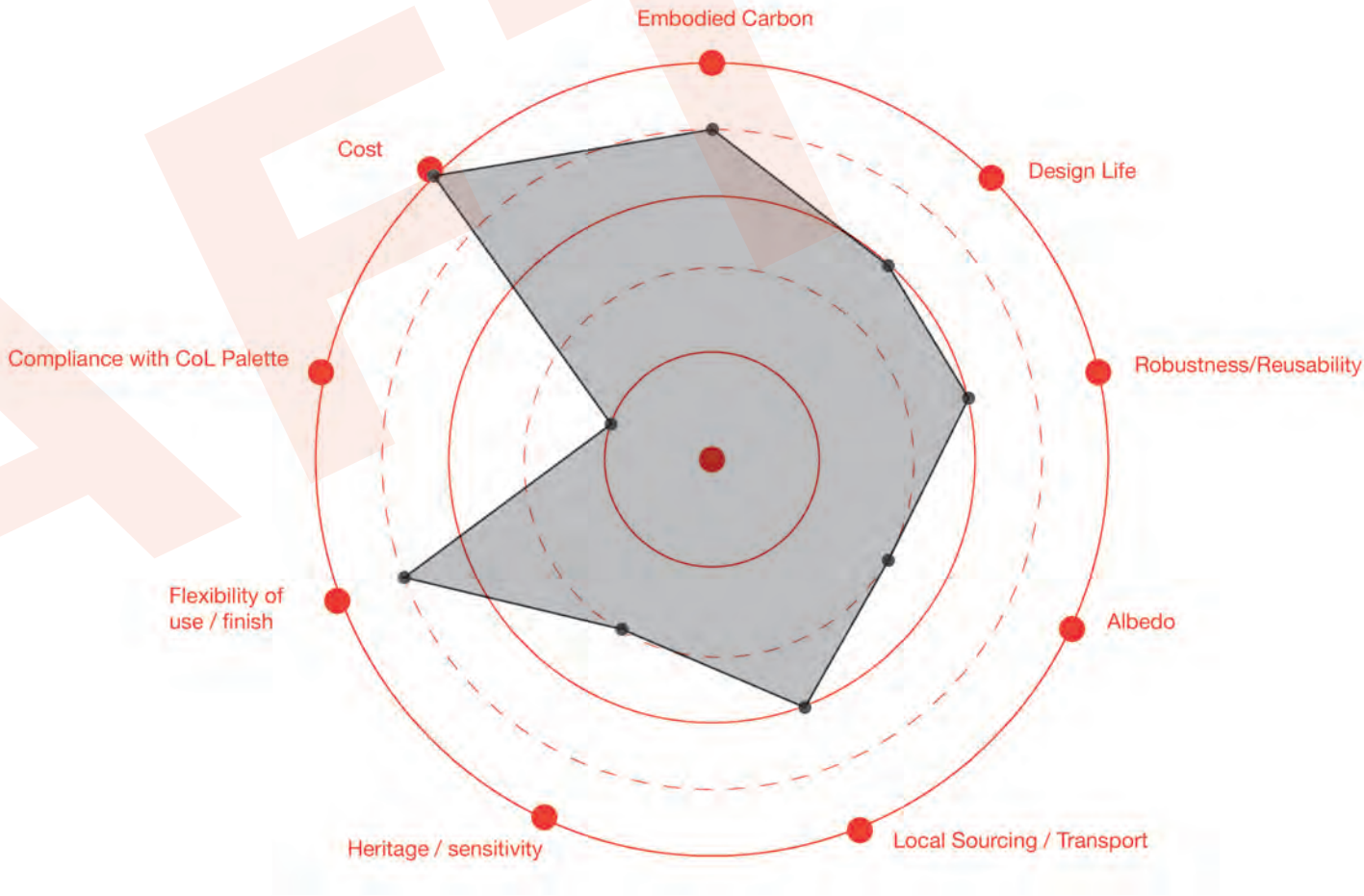
Embodied carbon: 49 kgCO2e/m2 [A-C]
Design Life: 80+ years
Albedo (for grey/pink/dark grey sett mix): tbc
Local sourcing: Potential for Cornish / Scottish sourcing
Heritage sensitivity: Pink + greyscale aligned with found materials
Flexibility of use / finish: Variety of finishes and layouts possible
CoL Palette: Potential to align with CoL palette and guidance
Cost: High capital costs (ethical + local)

Granite setts (Asia sourced)



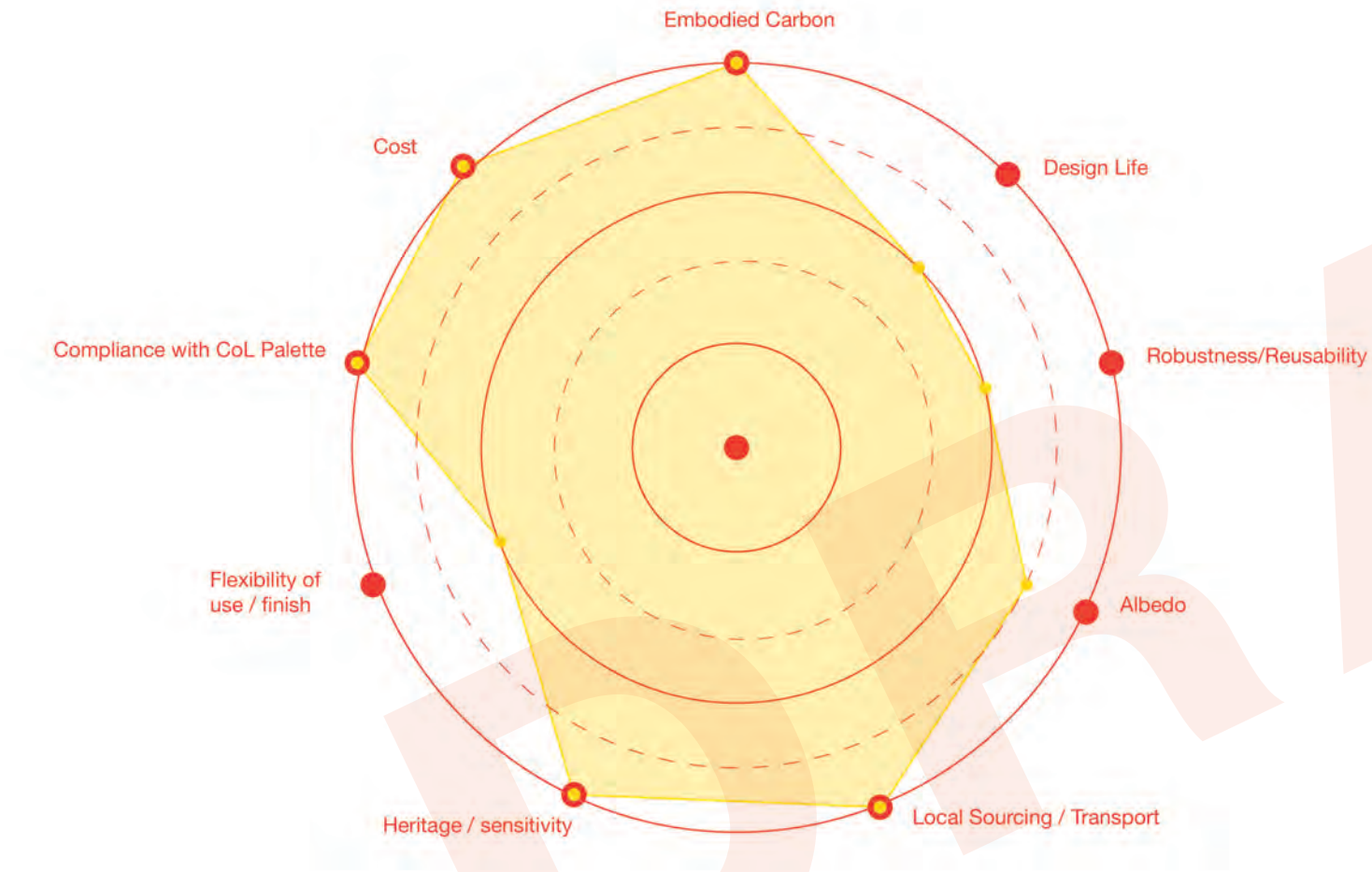
Embodied carbon: 49 kgCO₂e/m² [A-C]
Design Life: 80+ years
Albedo (for grey/pink/dark grey sett mix): tbc
Local sourcing: Potential for Cornish / Scottish sourcing
Heritage sensitivity: Pink + greyscale aligned with found materials
Flexibility of use / finish: Variety of finishes and layouts possible
CoL Palette: Potential to align with CoL palette and guidance
Cost: Cheaper than EU/UK sourced, but difficulty monitoring ethics and fair practices (raw material costs and shipping costs have soared over the last year or so and the comparative advantage of Asia sourced materials is very uncertain)

Pre-cast concrete



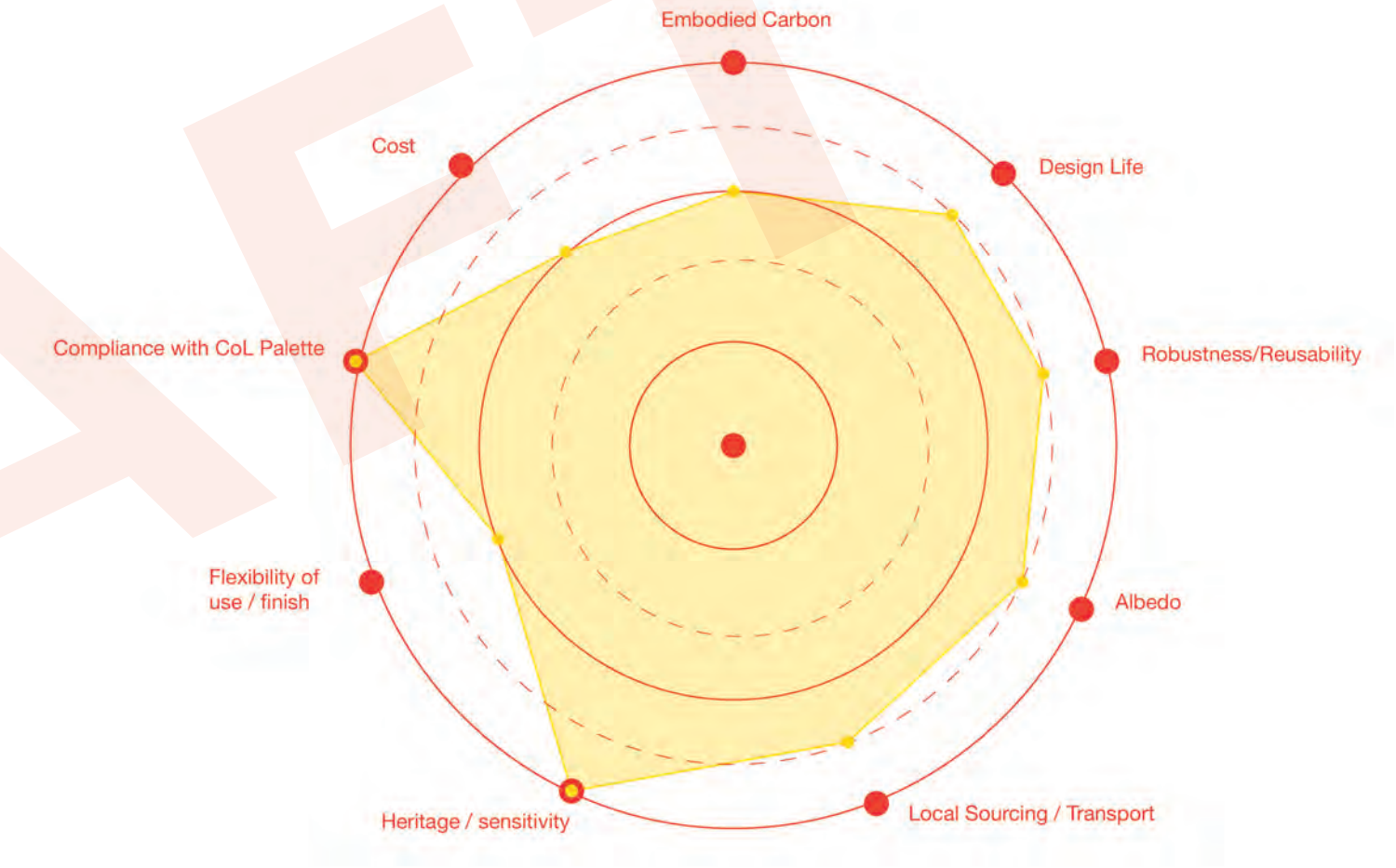
Embodied carbon: 15 kgCO₂e/m² [A-C]
Design Life: 25+ years
Albedo (mid-grey): tbc
Local sourcing: Potential for local sourcing and use of found material as aggregate
Heritage sensitivity: Not aligned
Flexibility of use / finish: Variety of finishes and layouts possible
CoL Palette: Not aligned with palette
Cost: Relatively cheap

York stone flags (re-used)



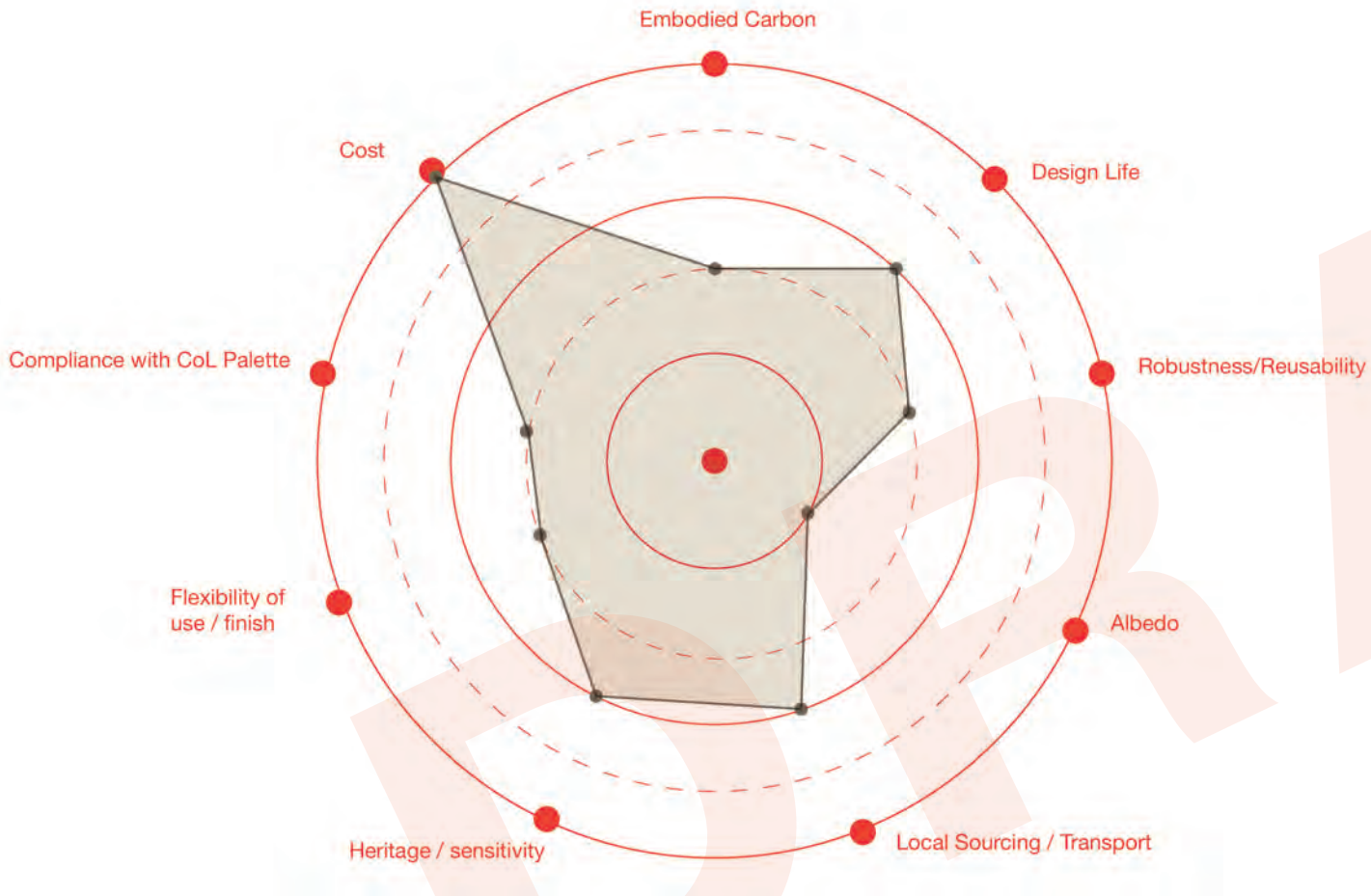
Embodied carbon: 4 kgCO₂e/m² [A-C] (tbc -taken from Schist)
Design Life: 80+ years (reduced from second use?)
Albedo: tbc
Local sourcing: On-site storage leading up to works needs to be considered
Heritage sensitivity: Fully aligned
Flexibility of use / finish: Limited finished but flexible layout
CoL Palette: Fully aligned
Cost: tbc

York stone flags (UK Sourced)



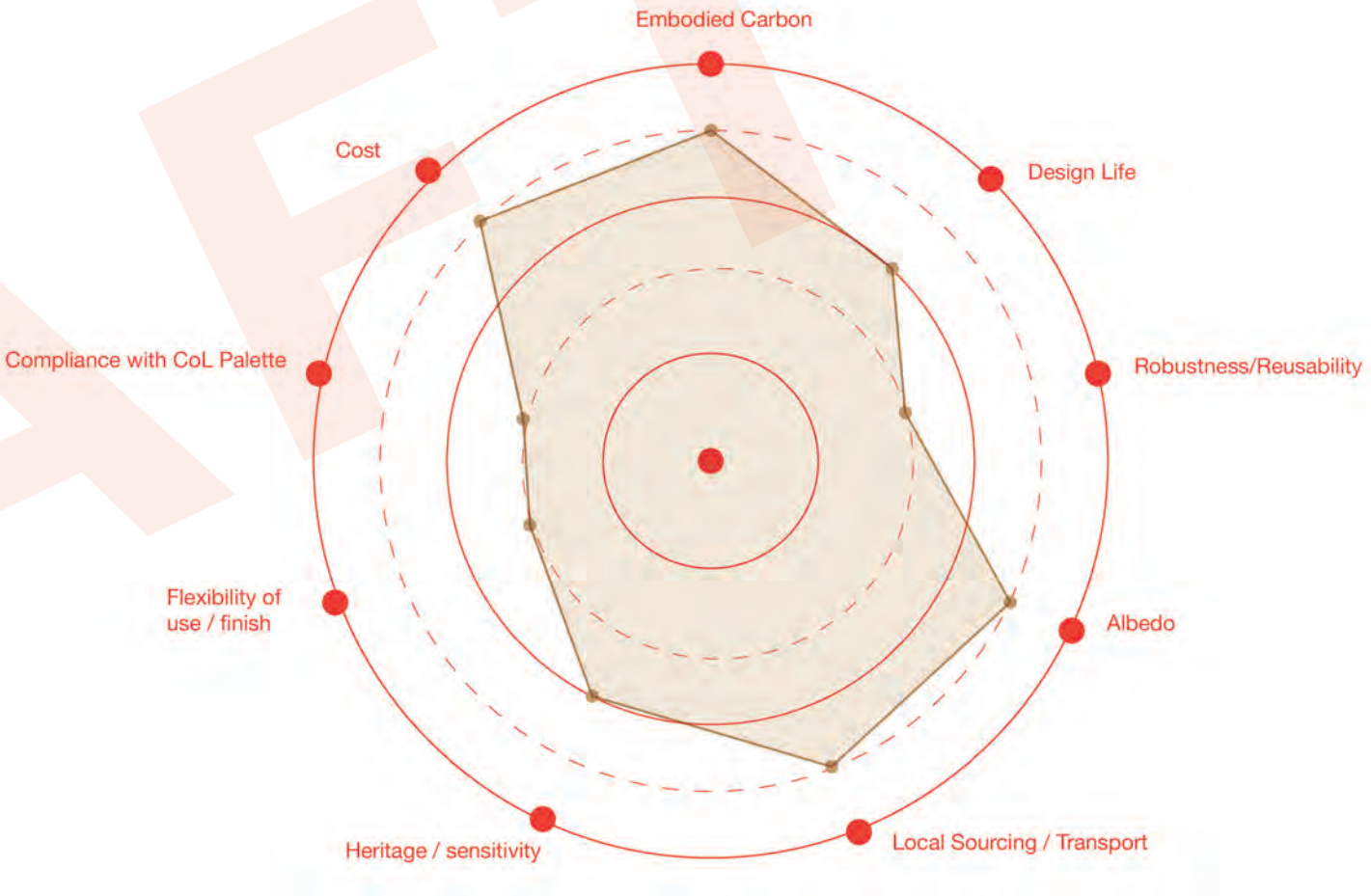
Embodied carbon: 4 kgCO₂e/m² [A-C] (tbc -taken from Schist)
Design Life: 80+ years
Albedo: tbc
Local sourcing: Potential for Cornish / Scottish sourcing
Heritage sensitivity: Fully aligned
Flexibility of use / finish: Limited finished but flexible layout
CoL Palette: Fully aligned
Cost: tbc

Asphalt



Embodied carbon: 25 kgCO2e/m2 [A-C]
Design Life: 25 years
Albedo: tbc
Local sourcing: n/a
Heritage sensitivity: Not aligned
Flexibility of use / finish: Some variety through use of chips/aggregate
CoL Palette: Not aligned
Cost: Relatively cheap

Hoggin / Gravel



Embodied carbon: tbc
Design Life: 10+ years
Albedo: tbc
Local sourcing: Potential for local sourcing and reuse of aggregate
Heritage sensitivity: n/a
Flexibility of use / finish: n/a
CoL Palette: n/a
Cost: Relatively cheap

Contact

London\
Edinburgh\
Manchester\
Los Angeles\

Smithfield Public Realm Statement of Significance *Final draft* Prepared for The City of London January 2022



Smithfield Public Realm Statement of Significance *Final draft* Prepared for The City of London January 2022

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Executive summary

This report has been commissioned by the City of London to support them in developing public realm improvements in and around Smithfield, as part of the Smithfield Public Realm Project, which aims to transform this part of the City into an exceptional civic space. The study area for the project encompasses the streets in and around the existing market buildings as well as those around the West Smithfield ramp, extending south towards Holborn Viaduct. The majority of the area is included in the Smithfield Conservation Area and includes several Grade I and Grade II* listed buildings as well as those listed at Grade II.

Historical development of Smithfield

Smithfield, particularly the area around the existing ramp, is a very old public space with a long history of trade and spectacular events dating back to the medieval period. Its historical development was influenced by its relationship to the City; immediately adjacent but not technically part of it (and therefore not subject to its rules of conduct). Smithfield's open space was preserved as the City developed around it in the sixteenth and seventeenth centuries and this initial development was largely saved from the Great Fire.

Smithfield was drastically altered in the mid-nineteenth century following the 1852 Smithfield Meat Market Removal Act (which authorised the removal of the livestock market to Copenhagen Fields in Islington) and the construction of the Central Meat Market in the 1860s to designs by the City Surveyor Sir Horace Jones. This, along with other infrastructure changes – the extension to the Metropolitan Railway (1860s) and the construction of Farringdon Road (1845–63) and Holborn Viaduct (1863–69) – imposed a linear, supra-structure on top of Smithfield's historic medieval public realm. This juxtaposition can still be experienced today.

In the twenty-first century the area south of Farringdon is being transformed by a series of large-scale projects; the launch of the Culture Mile in 2017, the opening of the new Crossrail interchange and the relocation of the Museum of London to the General Market site.

Historical development of street surfaces

Prior to the mid-Victorian period most streets were made up from gravel and dirt. On those busier and more important roads that did merit a surface, this took the form of irregular pebbles (cobble) with flat stone paths. Granite setts began to appear in the late eighteenth century but were not commonly found until the nineteenth century. These were often accompanied by York stone pavements with granite kerbs. Although granite setts were hard-wearing they had problems with noise and other roads surfaces – tarmacadam and wood blocks – were also used, although these had their own problems with durability, absorbency and were slippery when wet.

Smithfield's public realm today

The majority of the road surfaces within the study area are covered with asphalt with only Cock Lane, the Rotunda ramp and various entranceways at the eastern end of Charterhouse Street being visibly covered with granite setts. The pavements around the market buildings are predominantly asphalt (with granite kerbs) but those on other streets are generally York stone (with granite kerbs).

A ground-penetrating radar survey was carried out specially for this project, to investigate potential survival of older surfaces under the modern roadway. This survey indicates two locations near the General Market where historic setts appear to survive, both incomplete but up to approx. 60m in length.

Significance of Smithfield's public realm

Smithfield's public realm has two different but interlinked aspects to its significance. Firstly, the intrinsic heritage significance of the surviving historic fabric deriving from the quality of materials and the craftsmanship of how it was installed. Secondly, its contribution to the Smithfield Conservation Area, nearby listed buildings and the wider historic environment.

The granite setts on the West Smithfield ramp are statutorily listed at Grade II in their own right because of their aesthetic quality, extent of survival, high quality materials and craftsmanship. They have high intrinsic heritage significance and make a substantial contribution to the wider historic environment. Other areas of setts within the study area have moderate intrinsic heritage significance and make some contribution to the wider historic environment as, whilst they demonstrate some of these qualities they have either been re-laid with wider spacing (as on Cock Lane) or only fragments survive (as on Charterhouse Street). The other street surfaces in the study area – mainly asphalt but with several areas of modern granite setts – have no intrinsic heritage significance and make a neutral contribution to the wider historic environment.

Pavements across the study area have been consistently and substantially altered, so even though moderately significant historic fabric may survive (such as mid-nineteenth century York stone pavements with narrow granite kerbs), in almost all cases it is fragmentary in nature. Having said this, York stone is an historically appropriate material and the prevalence of it, particularly in the southern part of the study area, makes some contribution to the wider historic environment. Asphalt pavements, which dominate around the market buildings, variously make a neutral contribution or actively detract from the wider historic environment depending on their relationship with nearby heritage assets. For example, the asphalt pavement in the Central Avenue is considered to actively detract due to its current condition and the lack of distinction between the carriageway and the pavement.



Significance overview: character and survival

Character

- Medieval organic
- Victorian grid

Survival

- Granite setts visible
- Granite setts buried

Key principles for change

1. The character of historic surfaces comes from the intrinsic qualities of the materials and the way they are laid. Natural stone – particularly granite – is not only durable but has unique properties of texture and colour. Variation from one sett to the next – sometimes subtle – is part of this character.
2. The way that setts were laid created patterns. Patterns arise from the routes marked out and, at a smaller scale, from techniques of construction and drainage. In this way, the designed appearance is a reflection of practical matters and human use.
3. Surviving areas of historic surfaces contribute to the special character of the conservation area and should be retained where possible. The setted carriageway of the Rotunda is especially high in quality. Cock Lane is less well preserved but retains some historic character.
4. Most carriageways are now in asphalt and it would be beneficial to reintroduce more interesting surfaces based on historic character. These would be effective on older streets such as Hosier Lane, but would be most effective as a more extensive network of spaces.
5. York stone pavements and granite kerbs do not have the rarity value of granite setts but generally contribute positively to historic character. These elements range in date and can be quite recent. They are not precious individually, but in their totality help to reinforce historic character.
6. The Smithfield public realm is not just about surfaces, but incorporates individual elements, from the listed drinking trough to smaller ironwork goods. The cast iron covers of manholes, coal holes and drains are usually not significant individually, but have a robust character and patina that contributes positively
7. The survival of high quality surfaces is usually threatened by the need for utilities companies to undertake works periodically. This affects new surfaces as well as old. This risk should be taken into account in the planning and design process, to consider whether there are any potential strategies to mitigate this problem.
8. The historic surfaces of the Smithfield public realm are not unique, but are part of a common language that was used across London. In developing ideas for enhancement, it is legitimate to look at other locations that are well preserved, such as Covent Garden or the mews streets of Kensington, to seek inspiration for ideas.

1.0 Introduction

1.1 Purpose and context

This report has been commissioned by the City of London to support them in developing public realm improvements as part of the Smithfield Area Public Realm Project, which aims to transform this historic part of the City into an exceptional civic space and new destination for visitors. The project aligns with other key developments in the area, namely:

- The redevelopment of the General, Annex and Poultry market buildings into a new Museum of London
- The redevelopment of the Central Smithfield Meat Market buildings into a new visitor destination
- The delivery of Culture Mile: a new destination and creative heart of the City, covering the Smithfield and Barbican areas
- The delivery of the City Transport Strategy, which includes a Healthy Street approach to Smithfield.

In order to inform the new public realms designs the City is undertaking a series of research activities to allow for a thorough understanding of the current area; of which this Statement of Significance is one.

1.2 Structure

This report is divided into six sections:

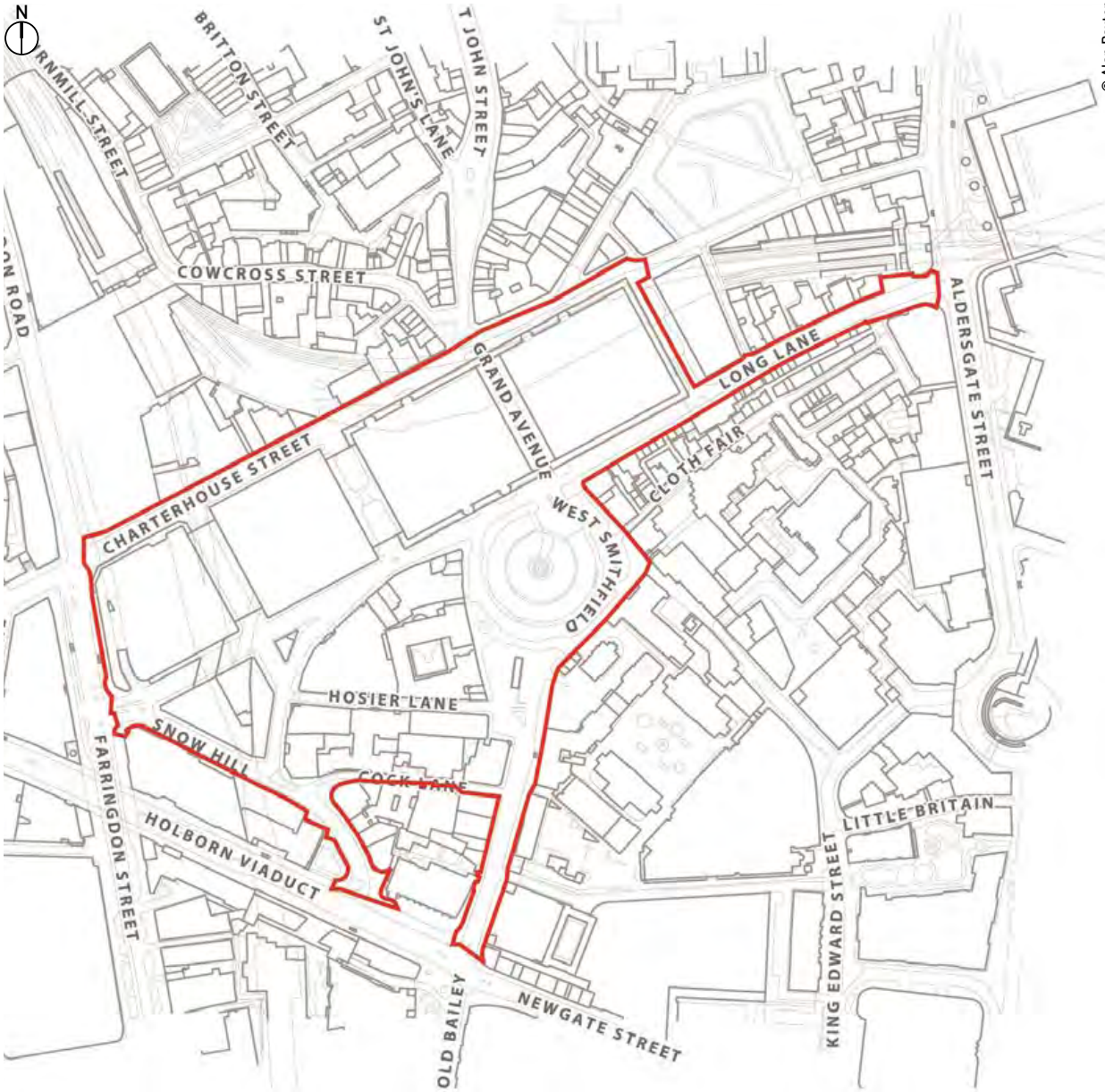
- The preceding executive summary
- This introduction (1.0)

- A summary of the current understanding of the public realm at Smithfield including a summary history of area, a summary of surfacing materials and a consideration of its character today (2.0)
- An assessment of significance including both the intrinsic significance of elements of the public realm as well as their contribution to nearby listed buildings and the Smithfield Conservation Area (3.0)
- Examples from different locations that illustrate broad issues relevant to Smithfield (4.0)
- Key principles for enhancement based on the findings of this report (5.0)
- Supporting information including sources, policy and guidance (6.0).

1.3 Methodology and limitations

This report is based on desktop research and site visits conducted in April 2021. It draws on Alan Baxter's previous work in the area including on the Central Meat Market. It does not deal explicitly with the question of below-ground archaeological interest or potential.

The conclusions and any advice contained in our reports — particularly relating to the dating and nature of the fabric — are based on our research, and on observations and interpretations of what was visible at the time of our site visits. Further research, investigations or opening up works may reveal new information which may require such conclusions and advice to be revised.



1.4 The study area

The study area for this project is shown in Figure 1. This includes the following streets:

- Charterhouse Street
- Long Lane/West Smithfield
- Lindsey Street
- Grand Avenue
- East Poultry Avenue
- West Poultry Avenue
- Hosier Lane
- Smithfield Street
- Cock Lane
- Giltspur Street
- Snow Hill

The boundary between the City of London and the London Borough of Islington runs down the middle of Charterhouse Street. However, the boundary for this study incorporates both sides of the street.

Fig. 1: Study area

1.5 Designations

There are many heritage assets both within and immediately adjacent to the study area. These are shown in Figure 2 and the most relevant are listed below.

1.5.1 Statutorily listed buildings

Grade I

- St Bartholomew the Great
- St Bartholomew’s Hospital: The Gatehouse
- St Bartholomew’s Hospital: North Block; East Block; West Block
- Church of St Sepulchre

Grade II*

- East building of Central Market (this covers the both the west and east buildings of the Central Meat Market)
- Gateway to Church of St Bartholomew the Great
- St Bartholomew’s Hospital: Screen Wall and Colonnade
- St Bartholomew’s Hospital: Church of St Bartholomew the Less

Grade II

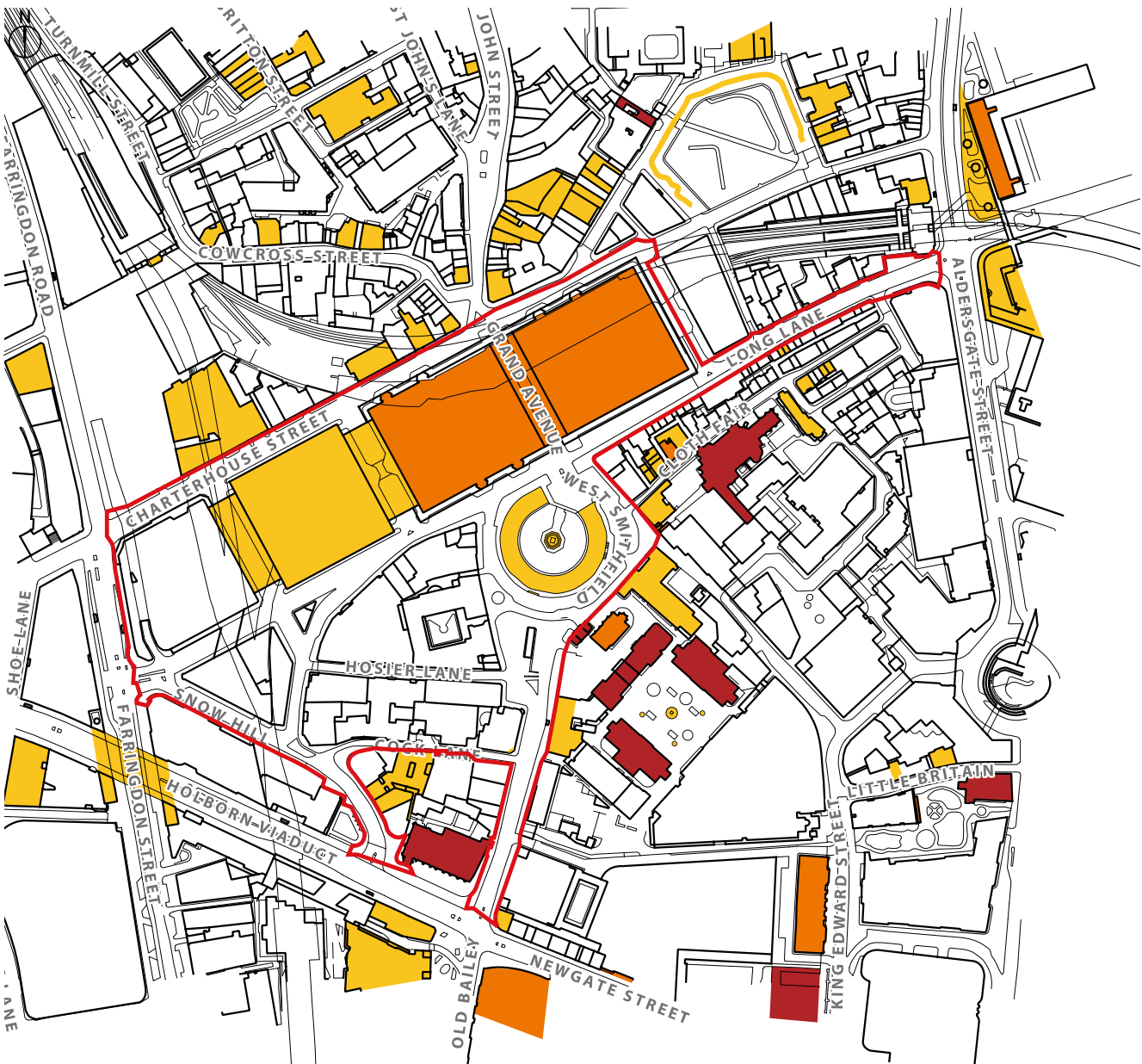
- Smithfield Poultry Market
- Nos. 74 & 75 Long Lane
- St Bartholomew House
- Drinking Fountain in the centre of gardens
- West Smithfield Ramp

- St Bartholomew’s Hospital Medical School
- The Golden Boy of Pye Corner
- No. 4 Snow Hill
- Snow Hill Police Station
- The Viaduct Public House
- Double cattle trough
- Six telephone kiosks (three K2 and three K6)

1.5.2 Conservation areas

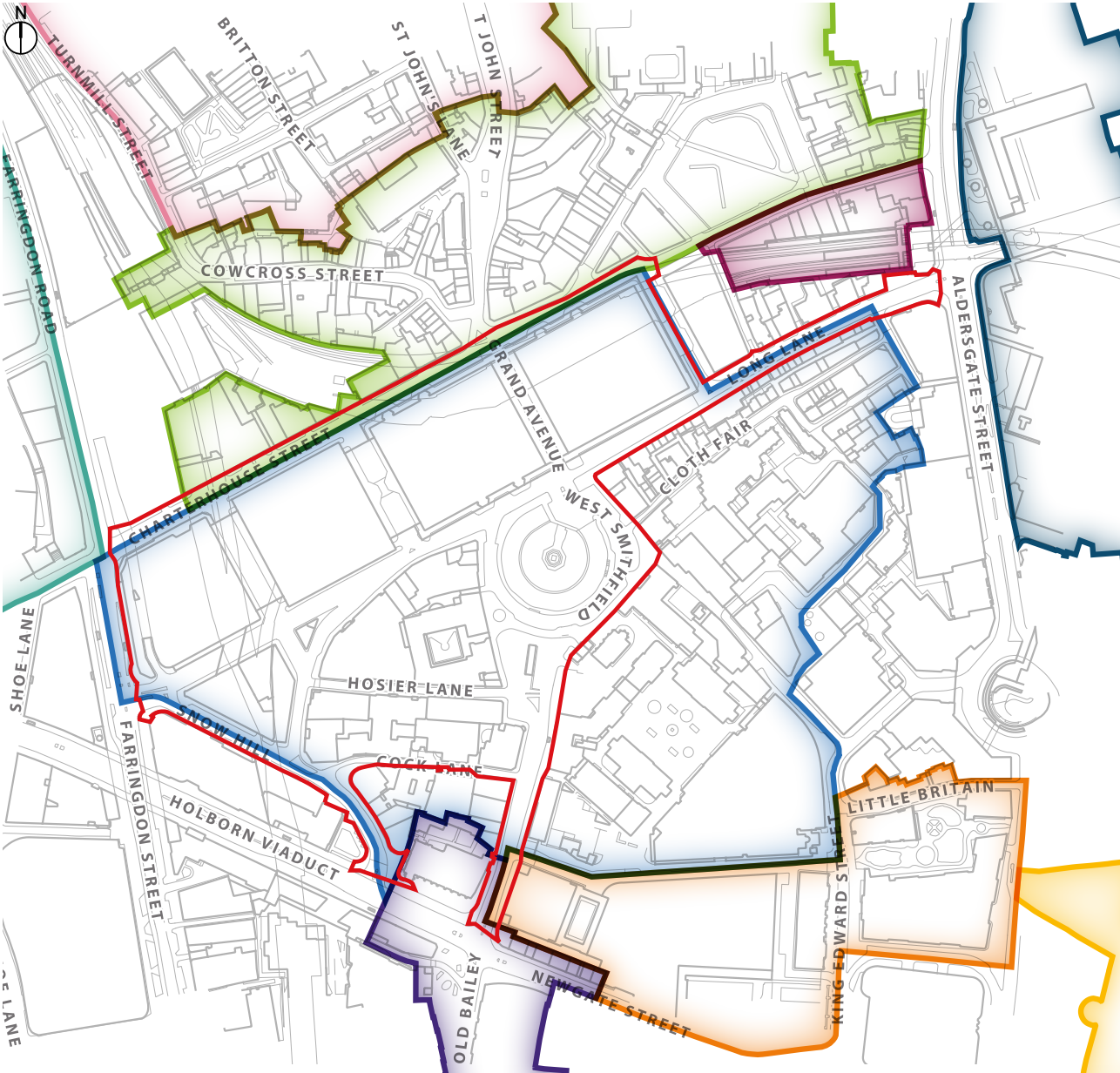
The following conservation areas are either include within the study area or are immediately adjacent to it:

- Smithfield Conservation Area (City of London)
- Postman’s Park (City of London)
- Newgate Street (City of London)
- Charterhouse Square (LB Islington)



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Fig. 2: Statutorily listed buildings



- Smithfield
City of London
- Postman's Park
City of London
- New Gate Street
City of London
- Charterhouse Square
City of London
- Barbican and Golden Lane
City of London
- Foster Lane
City of London
- Charterhouse Square
Islington Borough
- Clerkenwell Green
Islington Borough
- Hatton Garden
Islington Borough
- Site boundary

Fig. 3: Conservation areas

2.0 Understanding Smithfield

2.1 Historical development of Smithfield

2.1.1 Introduction

There is a substantial amount of existing scholarship about the history of Smithfield, and about the history of the meat markets in particular. The following sections offer a brief summary, in order to set the context for the rest of the report, and they draw on the following documents, which should be consulted for a more in-depth history of the area:

- City of London *Smithfield Conservation Area – Character Summary & Management Strategy* SPD (September 2012)
- City of London *Smithfield Meat Market – Statement of Significance & Opportunities* (February 2019)
- Julian Harrap Architects *West Smithfield Market, London – Conservation Plan* (December 2019)

2.1.2 Historical development of Smithfield - key themes

Smithfield, particularly the area around the rotunda, is a very old public space with a long history of trade (of livestock, horses and cloth) and spectacular events (such as tournaments, pageants and executions). Its historical development and current character have been informed by this but also by two other key themes. The first is Smithfield's location; close to the City of London but outside of it. This has meant that its development is both intrinsically linked to the history and development of the City but also separate from it, as the fact that it was outside of the City walls allowed activities to take place here that were not allowed in the City proper. Finally, the area's public realm has a very unique morphology borne of the relationship between surviving layers of its history; the winding medieval alleyways associated with the livestock trade are intersected by the larger-scale and more linear Victorian road and railway infrastructure (see [Fig. 4](#)). These factors are singular to the Smithfield area and are what make it so unique and special.



Fig. 4: West Smithfield, corner of Hosier Lane, with cobbled streets (from J. T. Smith, Antient Topography of London, 1815)



Fig. 5: The same location today, with kerbs for cycle routes

2.1.3 Medieval Smithfield

St Bartholomew's Priory and the Bartholomew Fair

- 1123 – priory and hospital founded at Smithfield.
- 1133 – Bartholomew Fair (annual three-day fair) established.

Livestock market

- Livestock trading is known to have occurred at Smithfield since at least the tenth century.
- A formal charter was granted for a weekly market in the fourteenth century.

- 1381 – slaughtering was banned within the City walls.
- Pre-existing tracks or drove ways (to transport livestock) influenced both the pattern and names of streets in the area i.e. Cock Lane, Cow Cross Street.

Executions and tournaments

- The open space of Smithfield was also used for executions and tournaments during the fourteenth and fifteenth centuries including the execution of Sir William Wallace in 1305.



Fig. 6: 'Agas' Map map of London, c. 1561

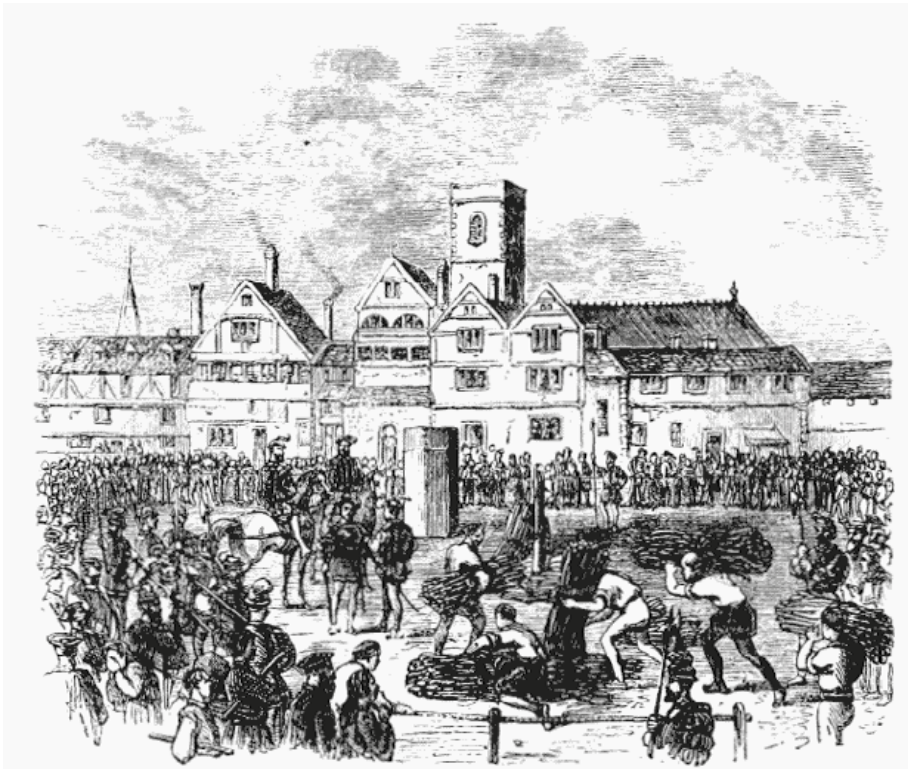


Fig. 7: Place of Execution in Old Smithfield (taken from Old and New Smithfield, 1878)

2.1.4 Smithfield from the sixteenth to the eighteenth century

- Smithfield remained an important open space as London developed around it in the sixteenth and seventeenth centuries.
- Smithfield was largely saved from the Great Fire by its proximity to the City Wall and a change in the wind direction when the Fire reached Holborn
- The Golden Boy of Pye Corner marks the spot where the Fire was finally extinguished.
- 1614–15 – the open space at the centre of Smithfield was paved and drainage provided for the first time.



Fig. 8: Wenceslaus Hollar's map of London, 1666 showing the extent of the Great Fire



Fig. 9: Old Smithfield Market (from Old and New London, 1878)



Fig. 10: Cattle pens of the old market, illustrated 1859 (Memoirs of Bartholomew Fair)

- This evocative image is taken from *Memoirs of Bartholomew Fair*, a compendium of stories of old Smithfield. It shows the market area at night, lit by gas lamps. St Bartholomew's Hospital is to the left and in the centre is the steeple of St Sepulchre-without-Newgate. The artist has depicted the repeating rows of timber bollards and fences, which kept the cattle penned in for inspection by prospective buyers. The surfaces appear to include irregular cobbles. This may have been artistic license. A photograph taken around this time shows regular setts instead (see [Fig. 13](#)).

2.1.5 Nineteenth century Smithfield

A new meat market

- 1849 – Royal Commission recommended the livestock market be removed from Smithfield.
- 1852 – Smithfield Meat Market Removal Act authorised the livestock market's move to Copenhagen Fields (north of Islington).
- 1855 – Bartholomew Fair suspended.

- 1860s – Central Meat Market (for slaughtered meat) constructed to designs by City Surveyor Sir Horace Jones. The interior avenues of the market building were paved with wooden blocks. Stock from all over the country was brought in via the Great Western Railway's goods depot (and through station) at basement level. However, meat only accounted for a fraction of the goods handled by this depot and a separate ramp was constructed for delivery vehicles to transport these other goods across London.
- 1873 – Meat Market enlarged to the west by the construction of Jones' Poultry Market.



Fig. 11: Ordnance Survey map, surveyed 1873



Fig. 12: West Smithfield, early C20th

- 1879 – General Market (selling fruit and vegetables) constructed, extending the market complex to Farringdon Street.

Infrastructure changes

- 1860s – Extension to the Metropolitan Railway constructed between Farringdon and Moorgate.

- 1866–1916 – Branch line south from Farringdon through Snow Hill Tunnel constructed (re-used by Thameslink in 1986).
- 1845–63 – Farringdon Road constructed
- 1863–69 – Holborn Viaduct constructed.
- c. 1870 – Present alignment of Snow Hill and Charterhouse Street constructed.



Fig. 13: Fences to separate cattle from people, before the works, c. 1860



Fig. 14: Long Lane after the works, c. 1890

2.1.6 Twentieth century Smithfield

- There is evidence in the London Metropolitan Archives (LMA) of contracts for wood block carriageways on Charterhouse Street (1900; 1903), Snow Hill (1902), Central Avenue (1905), West Smithfield (1912) and Lindsey Street and West Smithfield (1933). There is also reference to the laying of York stone pavements on West Smithfield and Lindsey Street (1906) and a portion of West Smithfield being re-laid with granite setts (1912). Although it is unknown whether all or just some of these contracts were carried out, they offer a sense of the materials commonly used at the turn of the twentieth century.
- Smithfield General Market damaged by V2 rocket in 1945. Hart's corner remodelled.
- Poultry Market was destroyed by fire in 1958. Replacement constructed by the Corporation to design of Sir Thomas Bennet in 1962–63.



Fig. 15: Ordnance Survey map, 1914



Fig. 16: West Smithfield, 1921

- Bartholomew's Road Surface Maps also offer some insight into potential road surfaces in the first half of the twentieth century. The 1906 map suggests that Giltspur Street was paved with wooden blocks and the western end of Charterhouse Street was surfaced with tarmacadam. A subsequent map dating from 1928 suggests that the western end of Charterhouse Street had been resurfaced with wood blocks and the western end of West Smithfield into Snow Hill paved with granite setts.

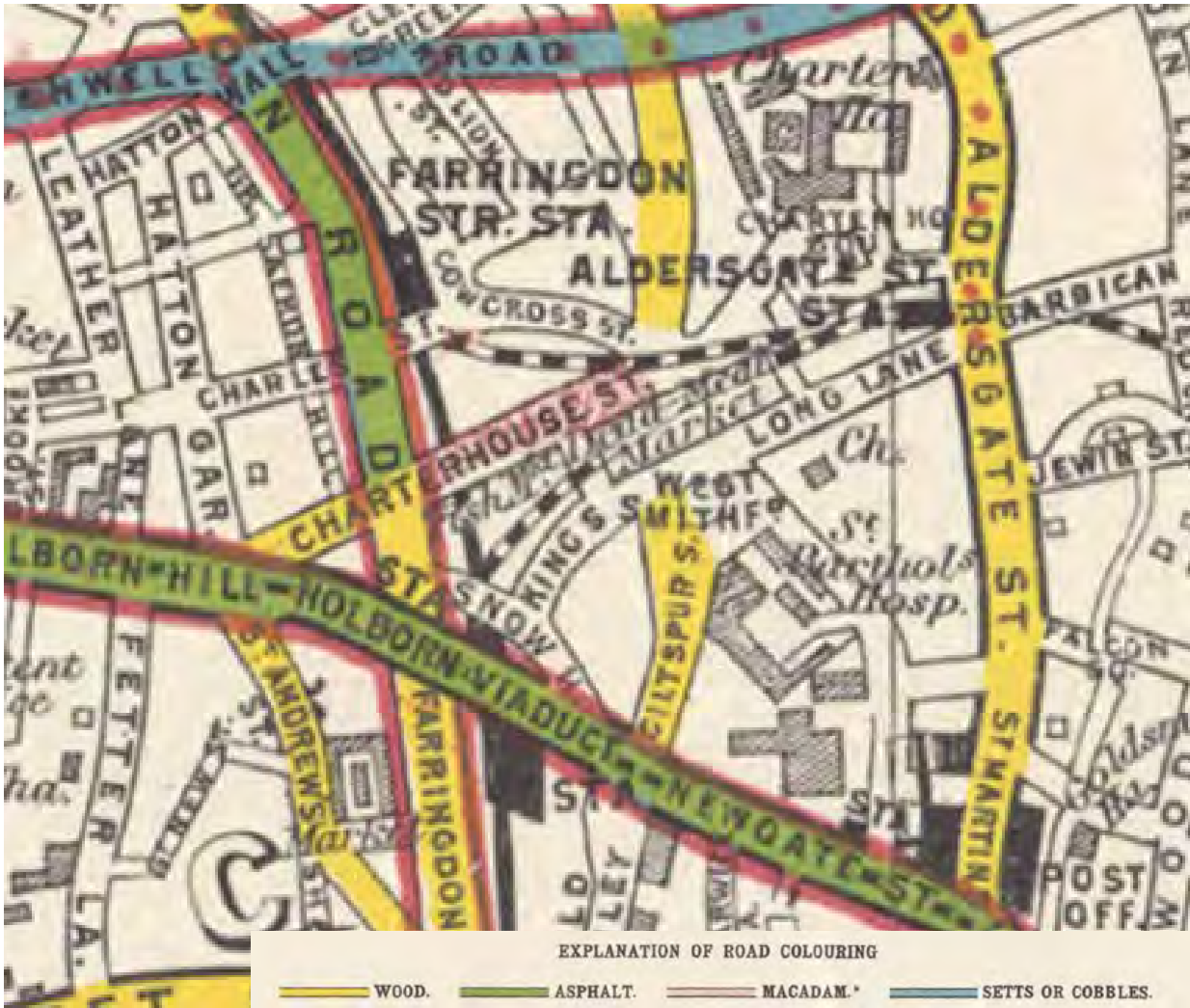


Fig. 17: Bartholomew's road surface map of London, 1906



Fig. 18: Charterhouse Street, 1920

2.1.7 Twenty-first century Smithfield

- July 2017 – The City of London launched Cultural Mile, stretching from Farringdon to Moorgate, with creative exchange, cultural collaboration and learning at its core.
- 2022 – Crossrail station at Farringdon is due to open
- 2025 – Museum of London are due to move to the General Market site at Smithfield



Fig. 19: The City of London's Culture Mile



Fig. 20: Museum of London visualisation (Stanton Williams, 2019)

2.2 Historical development of surfacing materials in London

In contrast to the history of Smithfield, which has a substantial amount of scholarship, relatively little is known about the history of public realm surfacing. This section offers a short summary of the broad development of road and pavement surfacing in London, drawn from two sources in particular:

- Roger Bowdler’s Granite Setts – *Surviving Historic Street Surfaces in Charterhouse Square, L.B. Islington & Ballast Quay, L.B. Greenwich* (2000)
- Historic England *National Heritage List Entry – Setted Street Surface (1393770)* (2010).

2.2.1 Overview

Most streets prior to the mid-Victorian period were made up from gravel and dirt. On those busier and more important roads that did merit a surface, this took the form of round boulders or large, irregular pebbles (known as cobbles). The first regulation for street surfacing dates to after the Great Fire: for example, in 1671 *An Act of Common Council: together with certain orders, rules and directions touching the paving and cleansing the streets, lanes and common passages within the City of London, and liberties thereof: and other things relating thereunto* specified cobbles for main streets with flat stone paths. The eighteenth century saw a series of further Paving Acts including the 1766 London Paving and Lighting Act that authorised the City of London Corporation to establish footways of Purbeck stone raised above the street level and edged with kerbs. Granite kerbstones began to appear from the mid-nineteenth century onwards, pedestrians previously having been protected by simple posts positioned between them and the traffic.

Granite setts as a road surface began to appear in the later eighteenth century but was not commonly found until the next century. Although granite setts were hard-wearing they also had problems with noise and dirt collecting in the gaps between setts. To try and address these issues, two other methods of road surfacing were developed. From the mid-nineteenth century both tar (tarmacadam) and wood blocks were trialled to reduce dust and loose stones and to produce a quieter and smoother surface. The success of these innovations was mixed. Whilst they were successful in reducing dust and noise they were also less hard-wearing, slippery when wet and, in the case of wood blocks, absorbent of undesirable materials.

2.2.2 Materials

Road surfaces

Stone cobbles and later granite setts originated from a variety of locations both across the UK and abroad including the Channel Islands, Cornwall, Mountsorrel (Leicestershire), the Midlands, the Lake District, Lowland Scotland and Aberdeen (see [Fig. 23](#); the red areas represent granite). The diversity of sources for granite setts resulted in a wide variety of colours and differences in visual appearance. The geographical spread of the trade was largely driven by improvements in transport during the nineteenth century although, shipping continued to remain the most important method of distribution and by the end of nineteenth century granite (as well as wood blocks) were being shipped from Scandinavia and Australia.



Fig. 21: Granite setts dating to the 1860s (with potentially earlier examples), Charterhouse Square (2021)



Fig. 22: Wooden blocks on Chequer Street (2021)

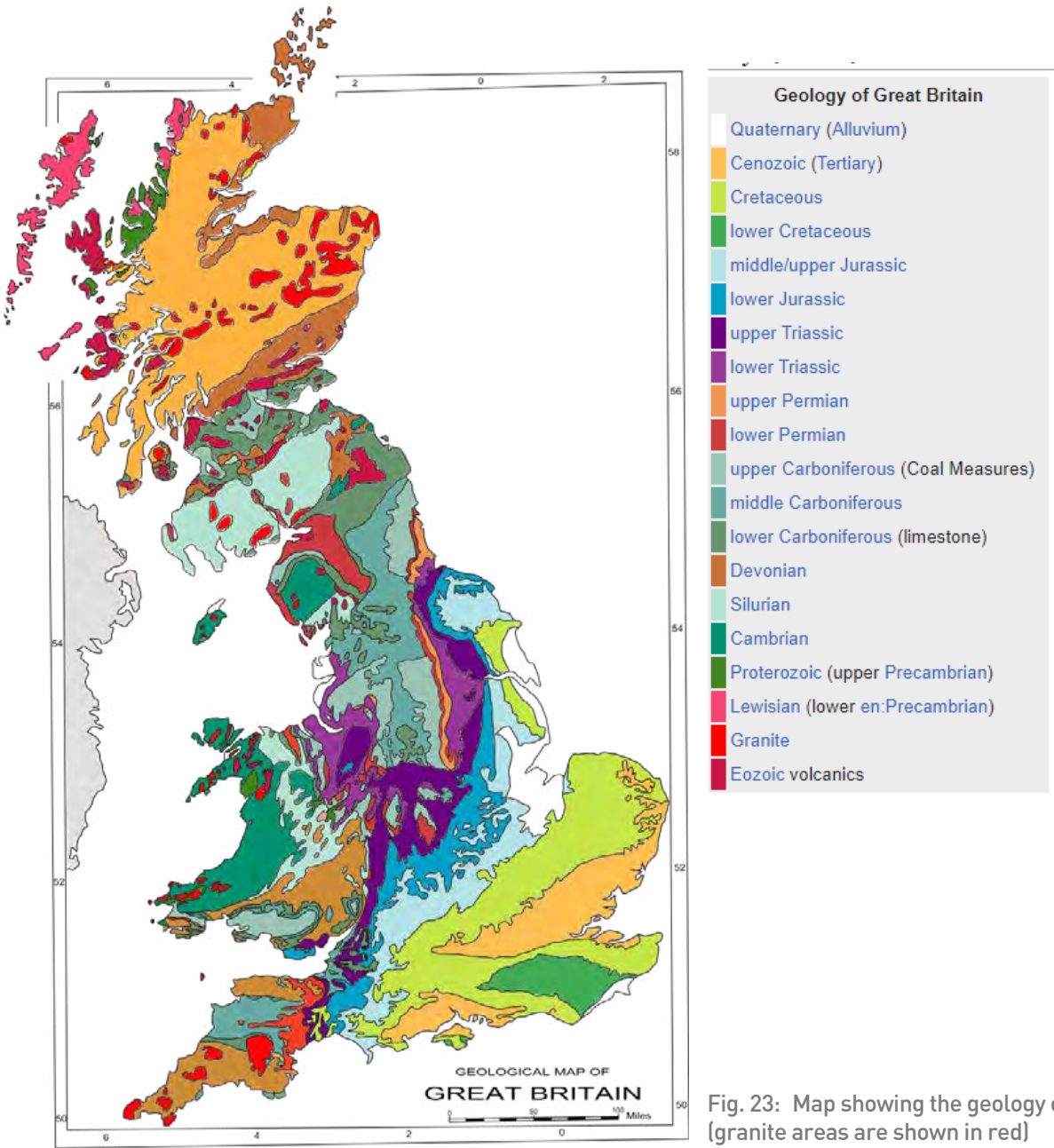


Fig. 23: Map showing the geology of Britain (granite areas are shown in red)

Pavements

Purbeck stone was used for pavements up until the early nineteenth century, with Kentish ragstone as a more locally available alternative. Both were usually bedded in gravel from the Thames basin. Canal-borne York stone became increasingly popular from the late eighteenth century onwards and by the 1830s had virtually replaced Purbeck as the principal paving material. Portland stone was also used for paving but it was considerably more expensive.



© Alan Baxter

Fig. 24: York stone paving with granite kerbs dating to the 1860s, Charterhouse Square (2021)

2.2.3 Dimensions and construction

The nineteenth century saw the development of a more formalised process of carriageway and pavement surfacing. This was driven by both greater consistency of approach and the growth of large contractor firms of expert craftsmen.

Greater consistency in the approach to street surfacing was advocated by individuals such as engineer Thomas Telford who, in 1824, wrote a report advocating that roads should be laid on a foundation of broken stone or concrete upon which should be placed rectangular paving stones of granite, worked flat on the face and straight and square on the sides so as to join close, grouted with lime and sand (Historic England, 2010). Telford also suggested different sizes of stones for different classes of streets, ranging from four to seven inches wide and seven to thirteen inches long. The Metropolitan Board of Works used Telford's system in many streets laid out in the 1860s.

The mid-nineteenth century saw a major campaign to re-surface London's streets, triggered in part by the proliferation of metropolitan improvements. New arterial routes were generally surfaced with granite setts as the road surface needed to be highly durable to cope with the volume of traffic. Granite setts, as opposed to cobbles, required greater human input as they had to be squared off by hand. Although the length of individual setts could differ substantially, the width of the setts needed to be regular enough to be able to be laid close together in precise rows in order to create a smooth, durable street surface. This required a high level of skill and craftsmanship and the work was often undertaken by trained stonemasons. The growth of large infrastructure projects in the Victorian period went hand in hand with the increasing professionalism of the building trades and the appearance of large contractors capable of laying surfaces efficiently and to a high standard.

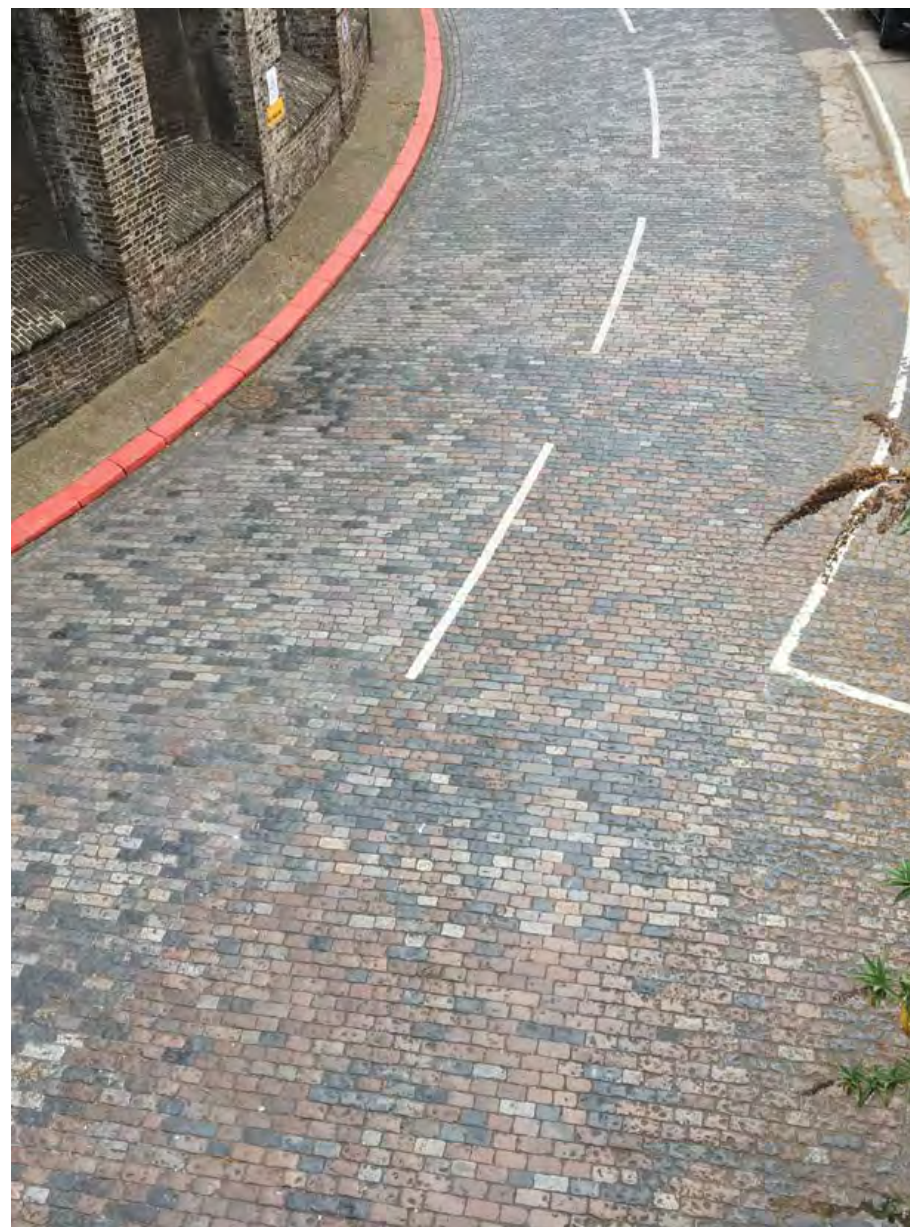


Fig. 25: Granite setts dating from the 1860s, West Smithfield rotunda (2021)

2.3 Smithfield today

2.3.1 Summary

The character of Smithfield's public realm today is a direct result of its historical development: Victorian, linear, large-scale infrastructure juxtaposed with the surviving, winding, narrow medieval street pattern (see [Fig. 26](#)). This is most obvious in two places: firstly, in the open space of West Smithfield and secondly, at the junction between Charterhouse Street, Cowcross Street and St John's Street. West Smithfield has, as set out in [Section 2.2](#), historically always been an urban open space. However, its northern end was transformed with the construction of the Central Meat Market and now the prevailing experience of West Smithfield is as a utilitarian appendage to the market complex rather than the social and commercial centre of the surrounding streets (as it was when the livestock market and Bartholomew Fair were present). The central focus of this space is the view north from Little Britain towards the Central Meat Market – across the surviving open space – rather than the open space itself. The view looking south from the northern end of historic Smithfield has also been dramatically altered by the construction of the Central Meat Market buildings. The winding, medieval lanes of Cowcross Street and St John's Street would historically have opened out onto the open space of West Smithfield but this view is now terminated by the architectural focus of the Grand Avenue.

The construction of the Meat Market buildings over the second half of the nineteenth century did not just alter the streetscape but also what was underneath it and the proliferation of railway tunnels and sidings, as well as the basements of the Meat Market buildings themselves, survive today. This means that Smithfield's existing public realm is not entirely formed on solid ground but is part of a wider cross-section that incorporates the Meat Market buildings above, the public realm fabric at street level, and a complex arrangement of basement vaults and railway tunnels below. Therefore, the public realm that this report is concerned about is, in reality, only a very thin slice of Smithfield's built fabric.

2.3.2 Road surfaces

[Fig. 27](#) maps the current road surface treatments in the study area, the majority of which is asphalt. However, this may hide previous, older treatments such as granite setts (see [Section 2.3.6](#)).

- Historic granite setts survive in three areas:
- West Smithfield Rotunda ([Fig. 25](#))
- Cock Lane ([Fig. 30](#))

Various entranceways at the eastern end of Charterhouse Street ([Fig. 26](#))

Those on the Smithfield rotunda and the various entranceways along Charterhouse Street likely date to the opening of the market and the associated reconfiguring of the public realm. Those on Cock Lane and the section further along Charterhouse Street (Location A on [Fig. 27](#)) may date to later in the nineteenth-century. More modern granite setts are also present in five locations (see [Fig. 29](#); [Fig. 27](#) for locations).



Fig. 26: Street morphology

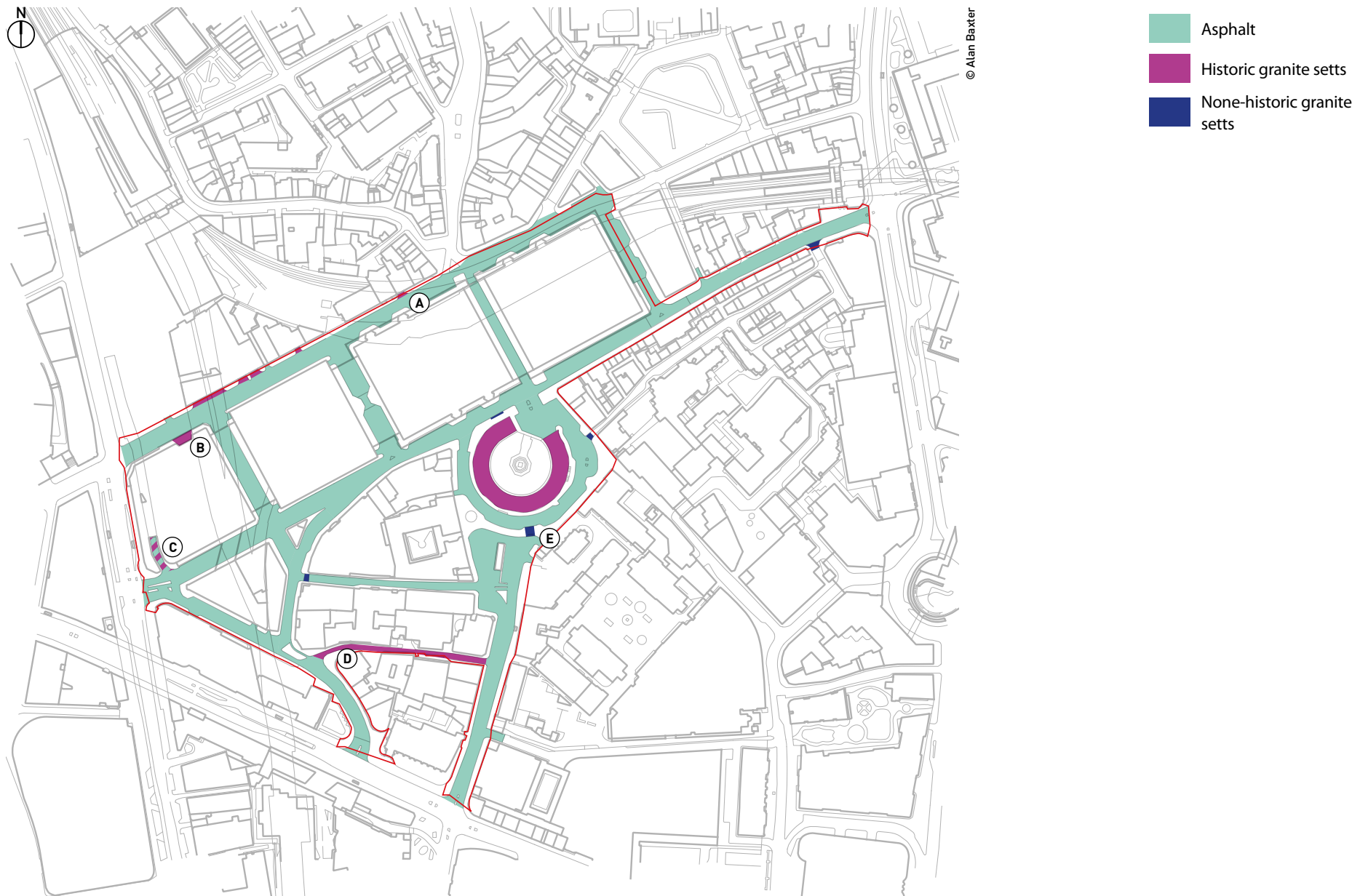


Fig. 27: Existing road surfaces in the study area



Fig. 28: North side of Charterhouse Street (Location A on [Fig. 27](#))



Fig. 31: Granite setts adjacent to northern entrance to the General Market (Location B on [Fig. 27](#))



Fig. 29: Granite setts hidden under later asphalt surfacing (Location C on [Fig. 27](#))



Fig. 30: Historic granite setts on Cock Lane (Location D on [Fig. 27](#))



Fig. 32: More modern granite setts, West Smithfield (Location E on [Fig. 27](#))

2.3.3 Pavements

Pavement surfaces across the study area are either asphalt, which is largely confined to the pavements around the market buildings, or York stone, which predominates in the streets south of Long Lane/West Smithfield (see [Fig. 33](#)). There are many variations in the York stone used across the study area – in terms of size, shape, colour and arrangement – demonstrating the fact that pavements, or sections of pavement, are continually being repaired and resurfaced (see [Fig. 34](#)). Older surviving sections tend to have a more weathered look and texture.

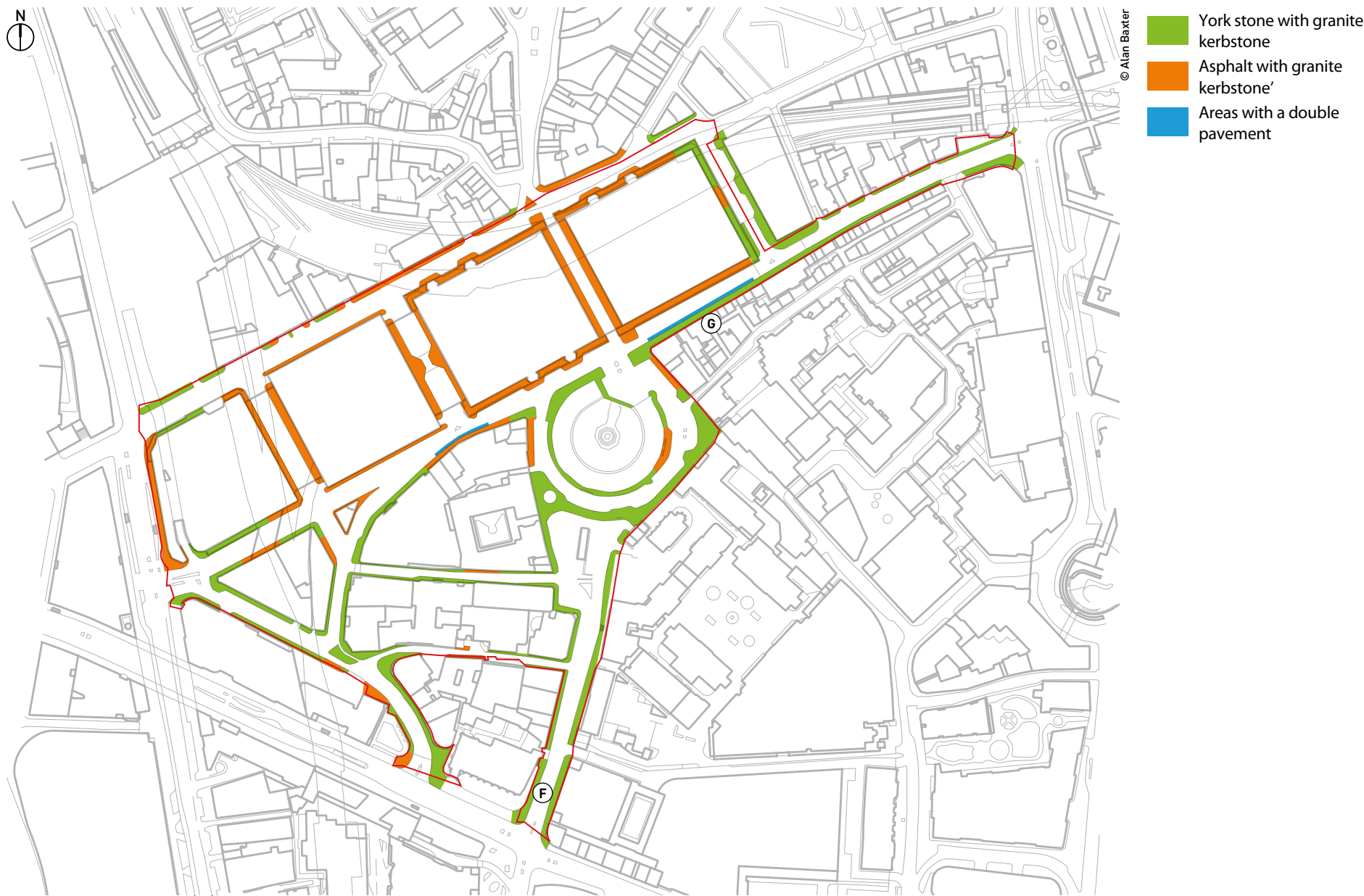


Fig. 33: Existing pavement surfaces in the study area

Both asphalt and York stone pavements across the study area are bounded by granite kerbs. As with the paving material, these kerbs have often been replaced and repaired with different sizes and colours (see [Fig. 35](#)). The shallower kerbstones (around five and a half inches in depth/140mm) are likely to be older than wider ones (see the kerbstones in Charterhouse Square; [Fig. 24](#)).

There are two sections along the southern side of Long Lane/West Smithfield that have double pavements (see [Fig. 36](#)). Although the precise reason for this is unclear it is likely to do with the relationship between the level of road, street and the basements of the adjacent properties.



Fig. 34: Three different types of York Stone paving present at the southern end of Giltspur Street (Location F on [Fig. 29](#))



Fig. 35: Granite kerbstones of different widths



Fig. 36: Double pavement along Long Lane (Location G on [Fig. 29](#))

2.3.4 Elements set within pavements and road surfaces

There are many different elements that have been inserted into or painted onto road and pavement surfaces. These include drain grilles, man-hole covers, coal holes and road/parking outlines. Across the study area these have a variety of ages, forms and styles. One distinctive element is the slim, narrow drain, designed to fit within two rows of setts (see below). A unifying factor is the common use of ductile cast iron.

Coal holes, set within the pavement above underground coal vaults, are typical features of historic pavements in the eighteenth and nineteenth century. They allowed deliveries of coal directly into the vaults beneath without entering a house. As these are usually found in domestic settings there are not many surviving examples within the study area. However, four examples survive at the southern end of Giltspur Street and Snow Hill (see overleaf).



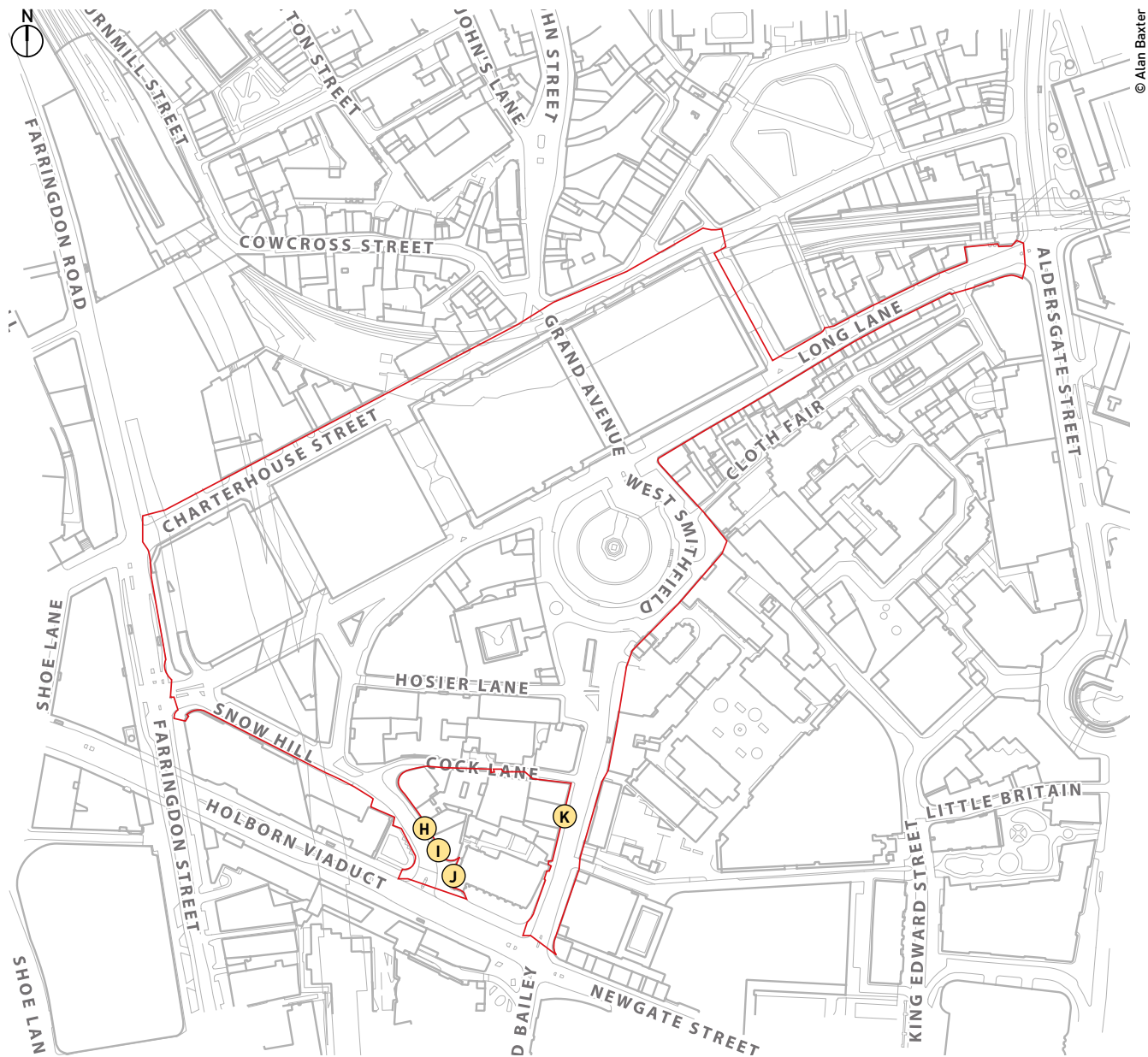
Fig. 38: Manhole cover on the western side of Snow Hill.



Fig. 37: Different elements (including drain and man hole covers) set within the road and pavement of Cock Lane



Fig. 39: A common type of drain cover (Giltspur Street)



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Fig. 40: Location of surviving cole holes



Fig. 41: Cole hole over at the southern end of Snow Hill (Location J on Fig. 40)



Fig. 42: Cole hole cover at the southern end of Snow Hill (Location 2 on Fig. 40)



Fig. 43: Cole hole cover at the southern end of Snow Hill (Location 2 on Fig. 40)



Fig. 44: Cole hole cover outside Giltspur House (Location 4 on Fig. 40)

2.3.5 Other public realm elements

The public realm is not composed of street and road surfaces but also of other elements such as street lighting and furniture, green space and trees as well as public art. These have been mapped in the City of London *West Smithfield Public Realm Baseline Research Report* (see 6.4). An important addition to the public realm is the historic drinking fountain and trough (Grade II), located south of the rotunda. This was erected in 1881, combining a drinking fountain for people with troughs for animals. It acts as a reminder that humans once shared the city with horses and other animals.

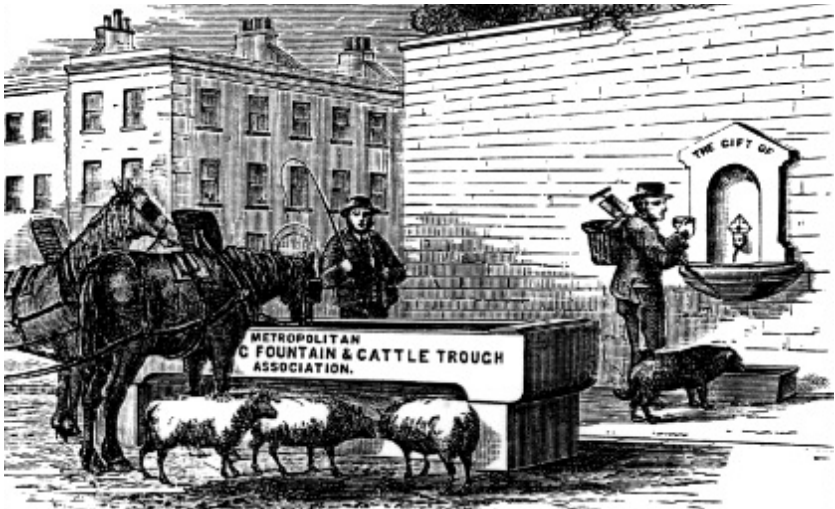


Fig. 45: A drinking trough in use (Burke's Peerage, 1879)



Fig. 46: Double cattle trough on the south side of the West Smithfield rotunda

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2.3.6 Potential for survival of buried surfaces

The Ground Penetrating Radar (GPR) survey was designed to search for stone setts and significant structural features within 0.50m of the surface.

Carried out in May 2021, the survey indicates the survival of a range of different structures underneath the modern road surfaces, as summarised in [Fig. 47](#).

In two locations, north and south of the General Market building, the survey indicates the survival of setted surfaces (locations 1 and 5 on the map). These do not extend to the full width of the roadway. This suggests historic partial removal of the setts, for roadworks/services.

Both features appear to extend for up to approx. 60m in length. There is therefore strong potential for the survival of granite setts in these two locations.

Locations highlighted on the map:

1. Possible layer of **setts**, Charterhouse Street, 0.07-0.14m deep
2. Structure detected (undetermined), Charterhouse Street, 0.35m deep
3. Possible cellars, Charterhouse Street
4. Construction layer at 0.20m deep
5. Possible layer of **setts**, West Smithfield, 0.07-0.10m deep
6. Possible tie/dowel bars, 0.20m deep

See section [6.3](#) for the full survey report setting out the methodology and results.

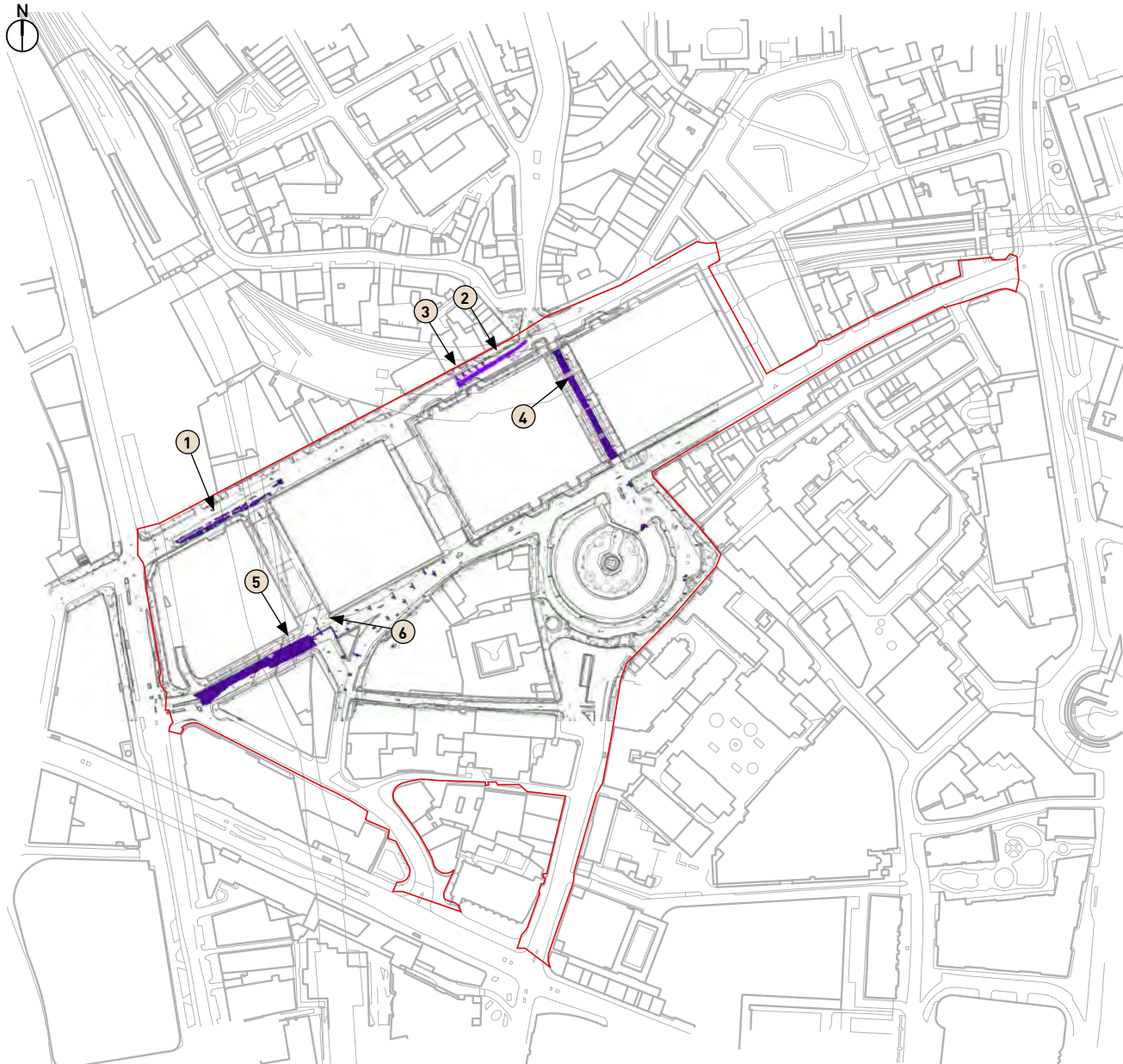


Fig. 47: GPR survey

3.0 Assessment of significance

3.1 Assessing significance

Assessing significance is the means by which the cultural importance of a place and its component parts is identified and compared, both absolutely and relatively. The purpose of this is not merely academic, it is essential to effective conservation and management because the identification of elements of high and lower significance, based on a thorough understanding of a site, enables owners and designers to develop proposals that safeguard, respect and where possible enhance the character and cultural values of the site. The assessment identifies areas where no change, or only minimal changes should be considered, as well as those where more intrusive changes might be acceptable and could enrich understanding and appreciation of significance.

3.1.1 Definitions

Statutory designation is the legal mechanism by which significant historic places are identified in order to protect them. The designations applying to the study are listed in Section 1.5.1. The *National Planning Policy Framework* (NPPF, 2019) places the concept of significance at the heart of the planning process. Annex 2 of the NPPF defines significance as:

The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.

The Planning Practice Guidance defines the types of heritage interest that make up significance as follows:

Archaeological interest: *As defined in the Glossary to the National Planning Policy Framework, there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.*

Architectural and Artistic Interest: *These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skill, like sculpture.*

Historic Interest: *An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history, but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity [sometime called 'communal value'].*

Any assessment of significance is usually an amalgam of these different interests, and the balance between them will vary from one case to the next. What is important is to demonstrate that all these interests have been considered. This is achieved by assessing the significance of the whole site relative to comparable places, and the relative significance of its component parts.

3.1.2 Assessing the significance of Smithfield's public realm

There are two main aspects to consider when assessing the heritage significance of elements of the public realm:

1. Their intrinsic significance, based primarily on craftsmanship, quality of materials, aesthetics and rarity. It must be noted that even if the intrinsic significance of a street surface is exceptional it is unlikely to have the same level of significance as say, a Grade II* or Grade I listed building.
2. The contribution that they make to the wider historic environment and particularly to the setting of nearby statutorily listed buildings. Often historic surfacing materials, such as granite setts or York stone, add grain and detail to an otherwise plain or homogenous area of streetscape (much like bricks do on the elevation of a building). This is often particularly noticeable in larger areas of public space.

These two aspects of significance, in conjunction with the architectural and historic interest described in Section 3.1.1 will be used to assess the significance of Smithfield's public realm. The following table outlines different levels of each type of significance which will be used to categorise different elements of Smithfield's public realm.

Significance level	Definition: intrinsic heritage significance	Definition: contribution to the wider historic environment
High significance	<p>Demonstrates one or more of the following:</p> <ul style="list-style-type: none"> • Coverage of a relatively large, continuous area • High quality of workmanship • High quality of materials • High aesthetic quality • Exceptionally rare 	Makes a substantial contribution to the significance of one or more nearby heritage assets and/or appreciation of the wider historic environment of an area.
Moderate significance	<p>Demonstrates one or more of the following:</p> <ul style="list-style-type: none"> • Smaller or disjointed areas • Quality workmanship • Quality of materials • Aesthetic quality • Rare 	Makes some contribution to the significance of one or more nearby heritage assets and/or appreciation of the wider historic environment of an area.
Neutral significance	<p>Demonstrates one or more of the following:</p> <ul style="list-style-type: none"> • Inoffensive appearance • Widespread materials 	Make little/no contribution to the significance of one or more nearby heritage assets and/or appreciation of the wider historic environment of the area but does not actively detract from it.
Detracts	Poor quality materials used in an unsightly or inappropriate manner	Actively detracts from the significance of one or more nearby heritage assets and/or appreciation of the wider historic environment of an area.

3.2 Significance by element

3.2.1 Road surfaces

Asphalt

Asphalt is the primary road surface across the study area. This is both easy to install and remove and as such is often replaced frequently. Asphalt is ubiquitous material that is relatively non-descript in the context of the public realm. It has **no intrinsic heritage significance** and make a **neutral contribution to surrounding heritage assets and the wider historic environment**.

Historic setts

The large, relatively intact expanse of setts on the West Smithfield rotunda ramp have been statutorily listed at Grade II in their own right because of their materials and craftsmanship, historic interest and group value with the adjacent market buildings. The aesthetic quality of these setts – a combination of different colours and sizes organised in regular rows – is high. Therefore, these setts have both **high intrinsic heritage significance** and make a **substantial contribution to surrounding heritage assets and the wider historic environment**.

There are several other areas of historic setts within the study area, namely along Cock Lane and smaller patches at the eastern end of Charterhouse Street. Whilst the setts along Cock Lane are continuous along its length they do not have the attractive and smooth surface area that those on the rotunda and Charterhouse Street do, suggesting they have been taken up and re-laid at some point. Therefore, they have **moderate intrinsic significance** and **make some contribution to surrounding heritage assets and the wider historic environment**. The sections of granite setts along the eastern end of Charterhouse Street are more fragmentary but exhibit a higher quality of craftsmanship and aesthetic quality that suggests that are contemporary with the market and have been relatively undisturbed. These sections therefore also have **moderate intrinsic significance** and make **some contribution to surrounding heritage assets and the wider historic environment**.

Modern setts

There are several areas of more modern granite setts within the study area, often to denote crossing points or laybys. These have **no intrinsic heritage significance** and make a **neutral contribution to surrounding heritage assets and the wider historic environment**. However, as they emulate the character and appearance of modern setts they help to add a finer grain to the streetscape (in contrast to say, asphalt) and therefore improve the general appearance of the public realm.

3.2.2 Pavements

Asphalt

The majority of pavements around the market buildings are asphalt. Similarly to where asphalt is used on the road, asphalt pavements are also installed and removed frequently and as such they have **no intrinsic heritage significance**. In terms of their contribution to nearby heritage assets and the wider historic environment this largely depends on both their condition as well as their relationship with nearby heritage assets. For example, an asphalt kerb immediately adjacent to a timber-framed building would actively detract from its significance. Therefore across the study area asphalt pavements make a **neutral contribution or actively detract from surrounding heritage assets and the wider historic environment** depending on the context. The asphalt pavements around the outside of the market buildings are considered to be **neutral** whereas the asphalt pavement in Central Avenue is considered to **actively detract** due to its current condition and the lack of distinction between the carriageway and the pavement.

York stone

There are many different types of York stone pavements across the study area reflecting different dates and materials. Older examples tend to exist over smaller areas and display more variety and a greater, more attractive patina of age when compared to their more modern counterparts (see Fig. 48 and Fig. 49). These have **moderate intrinsic heritage significance** compared to more modern sections which have neutral intrinsic heritage significance. However, the contribution of old and newer York stone paving to surrounding heritage assets and the wider historic environment is less clear cut. Very few, if any, continuous areas of historic paving survive of a reasonable size, and it is all but impossible (and arguably not that useful) to distinguish between paving dating from the 1860s and 1920s. Therefore all areas of York stone paving within the study area are considered to make **some contribution to surrounding heritage assets and the wider historic environment** by virtue that the use of York stone is historically appropriate and, that it contributes, no matter what its age, to the fine grain and detail of the streetscape.



Fig. 48: Older York stone pavements display an attractive patina of age (south end of Cock Lane)



Fig. 49: Large expanse of modern York stone paving (junction of West Smithfield and Little Britain)

Granite kerbs

Both the types of pavement surfacing described above have granite kerbstones. Historic kerbstones tended to be narrower, contributing to the finer grain of the historic streetscape often engendered by the contribution of kerbs, setts and paving stones. These have **moderate intrinsic heritage significance**. More modern examples are wider and as such have less contrast with the adjacent paving stones and have **neutral intrinsic heritage significance**. However, across the study area there is few, if any, discernible areas of continuous historic (or modern) paving as sections have been replaced repeatedly. Therefore in general, granite kerbs across the study area make a **neutral contribution to surrounding heritage assets and the wider historic environment**.



Fig. 50: Historic granite kerbstones on Cock Lane

3.2.3 In combination

Part of the interest of historic surfaces is the way they are used in combination. The distinction between York stone and granite setts relates essentially to civil engineering requirements. York stone is fine for pedestrians, but can fracture under wheeled traffic. Hence, the use of smaller, harder granite setts for carriageways. This is not particular to Smithfield but found throughout the UK. There is an aesthetic and historic interest in this use of materials as chosen based on these requirements

The traditional street scene of paviers and setts divided by kerbs is also a distinctive combination in visual terms. As buildings tend to dominate townscape views, the subtler role of surfaces can be overlooked. But, the visual transition from building to pavement to carriageway is part of the interest of historic townscape, made distinctive due to the contrast between large paviers and smaller setts.

The kerbs that divide pavement from carriageway lead the eye, especially in a perspective view along the street. These receding perspectives are so commonplace that they are hardly noticed until they are gone, as happens in public realm schemes where the pavement is eliminated (e.g. Narrow Way, Hackney).



Fig. 51: Cock Lane, looking east

3.2.4 Other elements

Coal holes

Four historic coal hole covers survive within the study area, at the southern ends of Giltspur Street and Snow Hill. These have visual interest and serve as a reminder of the residential history of the streets in the study area. They have **moderate intrinsic heritage significance and make some contribution to surrounding heritage assets and the wider historic environment.**

Road markings associated with the modern use of the market

Painted on the asphalt around the historic market buildings are a plethora of practical road markings associated with the modern use of the market. Although these are purely functional and have **no intrinsic heritage significance** in themselves, those that directly reference the meat market (using the letters MMKT) demonstrate the changing nature of the market's operations and make a **little contribution to surrounding heritage assets and the wider historic environment.**



Fig. 52: Modern painted markings on the asphalt around the meat market (MMKT) denoting parking and loading bays

3.3 Significant spaces and views

3.3.1 Introduction

Having assessed the significance of the different aspects of Smithfield’s public realm, this section takes a broader overview and analyses the significant spaces and associated views within the study area. This does not include an assessment of the relative significance of the medieval and Victorian street patterns – they are both equally significant for different reasons – however, it does identify and qualify those areas where the juxtaposition of these elements creates highly significant spaces and views that are unique to Smithfield.

3.3.2 West Smithfield

As set out in Section 2.3.1, this area was historically an open, urban space used for a variety of activities from the medieval period to the nineteenth century. Its open character would have been in direct contrast to the densely packed, winding streets surrounding it and it would have been full of life and movement due to the livestock and cloth market. With the construction of the Meat Market buildings, the northern end was remodelled and the Rotunda ramp was inserted into the heart of the open space. Today, West Smithfield is a quiet, ancillary, utilitarian space. The medieval openness of the area remains intact, as does its relationship to the surrounding medieval streets, particularly Cloth Fair, Little Britain and Giltspur Street. It also allows impressive views of the Central Meat Market and Grand Avenue, particularly across West Smithfield from Little Britain. These twin characteristics mean that West Smithfield continues to be a highly significant space in the context of the surrounding historic environment, and this significance and is best experienced in the view of the Meat Market buildings across.

3.3.3 View south from the junction between Charterhouse Street, Cowcross Street and St John Street

The other key view within the study area is that looking south towards Grand Avenue from the junction between Charterhouse Street, Cowcross Street and St John’s Street. As with the view from Little Britain north, this view encapsulates the juxtaposition between the medieval and Victorian street patterns: walking along the winding Cowcross Street there is a moment of surprise when the architectural centrepiece of the Grand Avenue abruptly comes into view.



Fig. 53: View looking south towards the Central Meat Market from the eastern end of Cowcross Street



Fig. 54: View looking north across West Smithfield from the northern end of Little Britain.



Fig. 55: Significance overview: character and survival

4.0 Conservation issues

This chapter includes examples of historic surfaces in other parts of London. These are included to illustrate particular issues that in broad terms are also relevant to Smithfield.

4.1 How setts are laid

Laying setts is a labour intensive process. Whereas an asphalt road can be created in a day, a setted roadway can take weeks. The process is summarized overleaf. When setts vary slightly in size, they are individually selected and laid on a prepared bed so that they tessellate satisfactorily. They must be evenly

bedded to achieve a smooth surface and carefully tessellated to fit closely together. Traditionally, a high quality setted surface would minimize the size of the joints between setts. Once the setts are laid satisfactorily, a grout mixture is poured on top and brushed over, to fill the open joints.



Fig. 56: Setts waiting to be laid, Holborn Viaduct, 1869 (London Picture Archive)

Traditional method of laying setts



Setts are individually selected and laid on a specially prepared sandy bed



Setts are laid to tessellate with each other which can be time consuming



Once setts are laid, a grout mixture is poured on top and brushed over



If the work is good, the finished result should have a relatively even surface

4.2 Disturbance

A widespread conservation issue is that historic surfaces are frequently disturbed. Roads are excavated for the laying of services, from new water pipes to the latest broadband cables. This can happen every 5-10 years. Utility companies are usually required to reinstate surfaces as they find them. However, because setts are painstaking to lay, it is difficult to ensure quality control over the long life span of the road. Most setted surfaces show signs of having being re-laid, often with wider joints and a reduction in quality.



Fig. 57: A road in Shoreditch dug up for services



Fig. 58: The same location after setts are re-laid



Fig. 59: The special qualities of setted surfaces are vulnerable to repeated relaying

4.3 Patterns

Patterns can be observed in historic surfaces at two scales: firstly, at the broader scale of roads and paths, secondly, at the smaller scale of details of construction. In both cases, patterns resulted from practical reasons, rather than being imposed.

Some of London's earliest pavements were in Purbeck stone. Examples can be seen in the Inns of Court. The cost of transporting stone to London meant it was used sparingly. The paths were laid with flagstones, but the areas between paths were given smaller (cheaper) stones or gravel. The paths were laid along the main desire lines. Therefore the different patterns and textures were simply a reflection of human use. Aspects of this practice continued into the nineteenth century. Larger setts were sometimes reserved for the busier routes (Fig. 61).

The practicalities of laying setts also creates patterns on a smaller scale. Setts are laid in a staggered grid. Where this interacts with a curved alignment, the edges to the kerbs must be resolved one way or another. This was sometimes done with a row of setts at right angles (Fig. 65), or with special longer stones (Fig. 62), or with an elaborate tessellation (Fig. 63). Drainage gullies were another practical necessity that were often visually prominent (Fig. 64 and Fig. 67). In each case, the patterns created simply reflect practicalities of construction.



Fig. 60: Stone paths on desire lines (Hare Court, City of London, c. 1700)



Fig. 61: Setts in the foreground are larger than those (right) on the less trafficked route (Thornhill Road, Islington)



Fig. 62: Cloth Fair, undated (EP 3172_022) detail



Fig. 63: Corner detail (Idol Lane, City of London)



Fig. 64: Drainage gully (Tower Wharf, City of London)



Fig. 65: Kerb detail, Rotunda



Fig. 66: An unusual arrangement at Woodfield Road, Westbourne Park (Google)



Fig. 67: Drainage gully, Charterhouse Mews



Fig. 68: Flagstones for cartwheels, Charterhouse Mews



Fig. 69: Four-way junction, Blossom Street, Shoreditch

5.0

Key principles for change

5.1 Introduction

This report investigates the heritage interest of the Smithfield public realm. With the exception of the Rotunda, historic surfaces are not well preserved. This means that there is ample opportunity for enhancement.

The public realm has a key role to play in revealing and celebrating the rich historic environment of Smithfield. Exciting new ventures in and around the old market buildings, including the Museum of London and Elizabeth Line, demand an improved public realm that embraces these opportunities.

The focus of this report is in providing a baseline study. It is not intended to be overly prescriptive. Nevertheless, the findings set out in this report do point toward some broad principles, as set out below.

5.2 Key principles

1. The character of historic surfaces comes from the intrinsic qualities of the materials and the way they are laid. Natural stone – particularly granite – is not only durable but has unique properties of texture and colour. Variation from one sett to the next – sometimes subtle – is part of this character.
2. The way that setts were laid created patterns. Patterns arise from the routes marked out and, at a smaller scale, from techniques of construction and drainage. In this way, the designed appearance is a reflection of practical matters and human use.
3. Surviving areas of historic surfaces contribute to the special character of the conservation area and should be retained where possible. The setted carriageway of the Rotunda is especially high in quality. Cock Lane is less well preserved but retains some historic character.
4. Most carriageways are now in asphalt and it would be beneficial to reintroduce more interesting surfaces based on historic character. These would be effective on older streets such as Hosier Lane, but would be most effective as a more extensive network of spaces.
5. York stone pavements and granite kerbs do not have the rarity value of granite setts but generally contribute positively to historic character. These elements range in date and can be quite recent. They are not precious individually, but in their totality help to reinforce historic character.
6. The Smithfield public realm is not just about surfaces, but incorporates individual elements, from the listed drinking trough to smaller ironwork goods. The cast iron covers of manholes, coal holes and drains are usually not significant individually, but have a robust character and patina that contributes positively.
7. The survival of high quality surfaces is usually threatened by the need for utilities companies to undertake works periodically. This affects new surfaces as well as old. This risk should be taken into account in the planning and design process, to consider whether there are any potential strategies to mitigate this problem.
8. The historic surfaces of the Smithfield public realm are not unique, but are part of a common language that was used across London. In developing ideas for enhancement, it is legitimate to look at other locations that are well preserved, such as Covent Garden or the mews streets of Kensington, to seek inspiration for ideas.

6.0 Supporting information

6.1 Sources

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6.2 Policy and guidance

Most roads and pavements are managed by the local highway authority, in this case the City of London. The exceptions include the Transport for London Road Network (TLRN), also known as red routes, which are managed by Transport for London, including Farringdon Street. These bodies have powers to maintain and improve highways under the Highways Act 1980. Improvements to roads and pavements do not usually require a planning application. However, changes to the traffic orders do require public consultation. Individual local highways authorities can create guidelines for their areas. The City of London has its own manual of guidelines for surfaces and street furniture, as does Transport for London.

Under highways legislation there is no protection for historic surfaces, such as granite setts. Historic surfaces are usually only protected if they are listed (which is rare), or if they are within a conservation area. Local planning authorities have a duty to designate conservation areas ‘of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance’ (Act 1990, para. 69). However, conservation area designation does not introduce planning controls for the removal of historic surfaces (whereas demolition of unlisted buildings in conservation areas does require consent). Local planning authorities can introduce an Article 4 direction if they wish in order to introduce additional controls to protect specific elements within a conservation area.

6.3 Survey Report

GPR Survey

Survey Report

Ultra-Wide Band High Density Array Ground Probing Radar

Smithfield 3D Radar Investigations

Document ref: MSLP211599_Smithfields GPR SURVEY REPORT


Date of Survey: May 2021

Approved By: Craig Simmonds FCInstCES





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Smithfield Market
GPR Survey Report

May 2021

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MSLP211599_Smithfields GPR SURVEY REPORT

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1

1. Introduction and Scope

1.1. Project Specific Introduction

Macleod Simmonds Limited were commissioned to carry out GPR survey to locate and map the position of buried stone setts within the survey boundary.

The data provided by this survey is focussed on the detection and positioning of historical stone setts known to be present around the market place. The project objectives were as follows:

- 1. To locate, position and map all detectable areas of buried stone setts and significant tructures within 0.50m of the surface.
- 2. To minimise any disruption to local pedestrian and vehicular traffic during the data acquisition phase.
- 3. To deliver a 2D Model in CAD and PDF formats together with a Written Report.

This report is to be read in conjunction with Macleod Simmonds GPR survey, drawing number ‘MSLD211599_01 Smithfield GPR- 2d.dwg’.

1.2. Survey Area

Smithfield Market, Grand Avenue, London, EC1A 9PS



1.3. Control

All data is referenced to OSGB36.

1.4. Deliverables

	Reference/Name	Type/Content	Date Issued	Authorised
No.1	MSLD211599_01 Smithfield GPR- 2d	2d digital CAD file	02/06/21	CMS
No.2	MSLD211599_01 Smithfield GPR- 2d x 23 Sheets	Digital PDF file	02/06/21	CMS
No.3	This Report Reference: MSLP211599_02 Smithfield GPR SURVEY REPORT	Digital PDF file	02/06/21	CMS

2. Survey Notes

2.1. Ground Penetrating Radar Survey Method

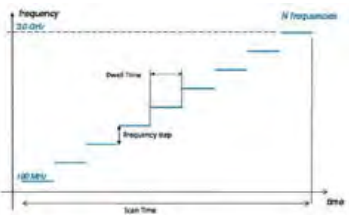
All data was acquired using a vehicle towed 24 channel 3D-Radar Ultra-Wide Band Ground Probing Radar system. The towing vehicle used is a sign written, Chapter 8 compliant, survey vehicle with flashing Amber Lights, which were active for the duration of the acquisition. 5 passes were required to cover the first lane and the hard shoulder to achieve a comprehensive coverage, across the full width. The towed solution travelled along one trajectory, slowed to 15 Mph (as required under the ‘mobile works’ protocol) and record data as it travelled over the structure. The speed was kept constant to the next junction, where the system then turned around perform the measurements in the opposite carriageway. This process was repeated, until full coverage was achieved.

2.2. General Notes on Ultra-Wide Band GPR

The 3D-Radar HDAGPR is the fastest step-frequency radar available at the current time. By using a digital frequency source instead of traditional phase-locked loop technology, the 3D-Radar can generate waveforms from 100 MHz up to 3 GHz with as much as 1500 frequencies with waveform lengths of 0.5-10 milliseconds. This ‘step-frequency’ radar has a coherent receiver which means that the whole waveform length (typically a few milliseconds) is used as 100% efficient integration time. By comparison, impulse GPRs use stroboscopic sampling with significant loss of energy.

What Is Step-Frequency Radar?

Step-frequency is a radar waveform consisting of a series of sine waves with linearly increasing frequency. The radar measures the phase and amplitude on each frequency and used an inverse Fourier transform of these data to build a time domain profile (A-scan). Thus, the step-frequency radar collects data in the frequency domain and converts the data to time-domain data through computer processing.

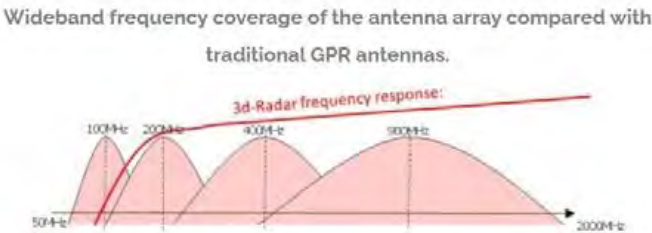


The step-frequency waveform gives optimum source signature with a uniform frequency spectrum. The computer control allows the user to set the dwell time on each frequency as well as the start and stop frequencies as shown to the right.

How Does Step-Frequency Data Differ from Data from Impulse Radars?

Impulse radars transmit very short pulses (impulses) with a fixed pulse repetition rate (PRF) and uses stroboscopic sampling to build the time domain trace from several subsequent pulses. Hence, the impulse radar data is the direct reading of the time-domain reflection from the underground. The step-frequency radar data can either be stored as frequency domain data or as time domain data after inverse Fourier transform. The time-domain data from a step-frequency radar are equivalent to time-domain data from an impulse radar. However, the frequency data allows a much wider range of frequency domain processing possibilities.

In opposition to traditional octave-band GPR antennas the ultra-wideband bow-tie monopoles have continuous frequency coverage from the 100 MHz range up to 3 GHz as illustrated below. In practice this allows the user to collect data from 100 MHz to 3 GHz without changing antennas. By comparison, a similar survey using impulse GPR would require use of 200 MHz, 400 MHz, 800 MHz and 1600 MHz antennas. The antenna elements are arranged in a linear array where the transmitting and receiving antennas are displaced to each other. During the survey, the radar combines the transmit/receive antennas sequentially to obtain several profiles (or channels).



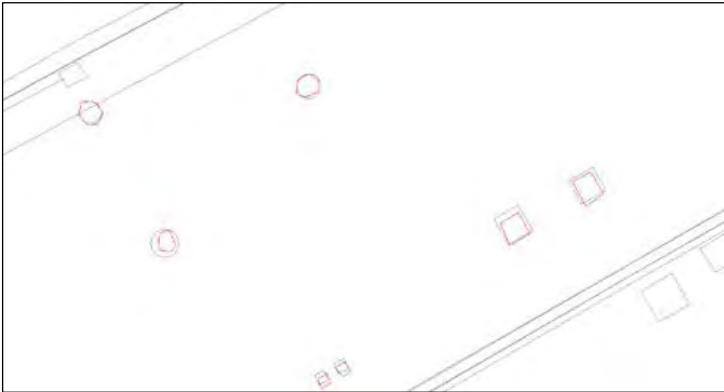
In less technical terms, our 24 channel UWB HDAGPR system can scan faster and reach greater depths, whilst also providing clear high-resolution data at shallow depths. In practice, this means that a single acquisition can be used to obtain details on utility networks, buried structures and pavement condition. Usually this would require the deployment of many different systems to achieve, decreasing efficiency and increasing disruption and data alignment issues.

2.3. Quality Control

2.3.1. Planimetric Accuracy

As metallic utility covers are impenetrable to GPR, their positions are clearly visible within the GPR data and are used to check the accuracy of the radar data's positioning.

The utility cover positions found within the radar are directly compared to those shown on the topographical data to ensure that there are no positional errors present and that the GPR data has been recorded to the correct survey grid.



2.3.2. Vertical Accuracy

The depths defined within our survey results are based on a calculated signal velocity through the ground. Different construction materials and variations in the moisture content present will all affect the accuracy of this calculation; however, multiple 'calibration' measurements are taken around the site to minimise such errors. The methodology used to 'calibrate the data is based on the accepted practice of 'hyperbola fitting' which relies on the shape of a detected target changing according to the velocity of the EM energy within that area. As a general guide, calculated depths should be within 10% of actual depth; however, experience has shown that interpreted depths are often considerably more accurate than 10%.

3. Appraisal of GPR Survey Results

3.1. Site Specific Survey Notes

This GPR survey is searching for historical stone setts and significant structural features within 0.50m of the surface, therefore specific parameters have been set at the acquisition and analysis stage to refine the data at this depth range.

A number of areas could not be accessed on site at the time of survey, due to obstructions present. These areas are annotated on the supplied drawing along with the outline of the GPR coverage.

Examples of obstructions encountered at this site location are shown below along with an explanation:

Construction site in Charterhouse street:



Parked vehicles in West Smithfield:



Parked vehicles in West Smithfield:



3.2. Calibration Data

The radar waves velocity can be calculated using the simple equation below, where c is the speed of light (30 cm/ns) and ϵ is the dielectric constant. Typical velocity values are between 8 and 12 cm/ns.

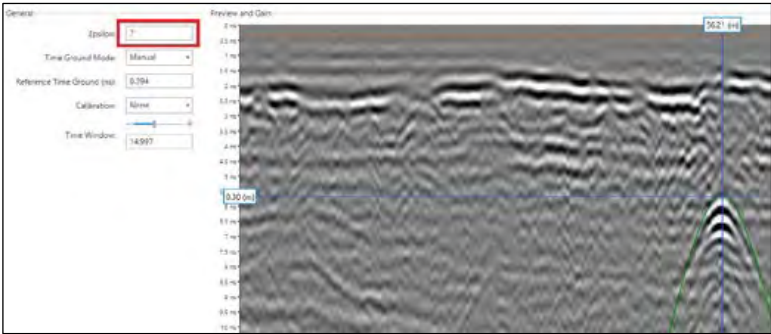


Image 1

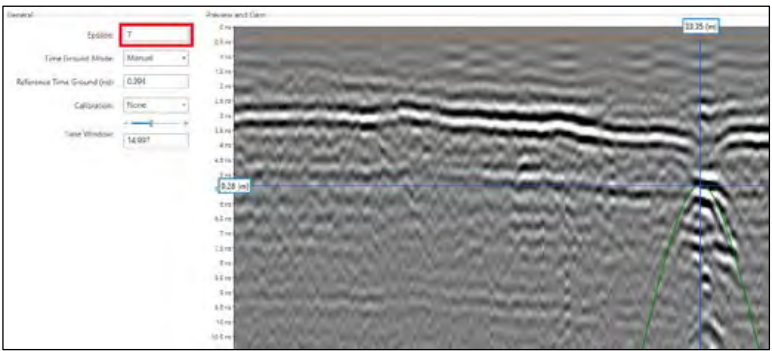


Image 2

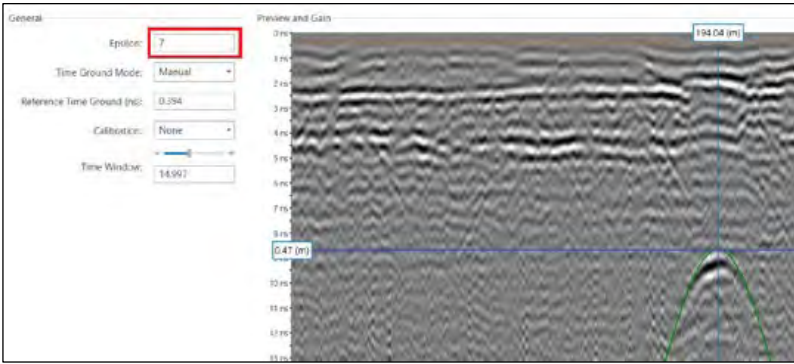


Image 3

Image 1
Hyperbola Fitting, 11.3 cm/ns
Image 2
Hyperbola Fitting, 11.3 cm/ns
Image 3
Hyperbola Fitting, 11.3 cm/ns

The velocity value was found to not vary across the survey significantly. A value of 7 cm/ns was applied as a calibration to the data.

3.3. Interesting Results & Data Examples

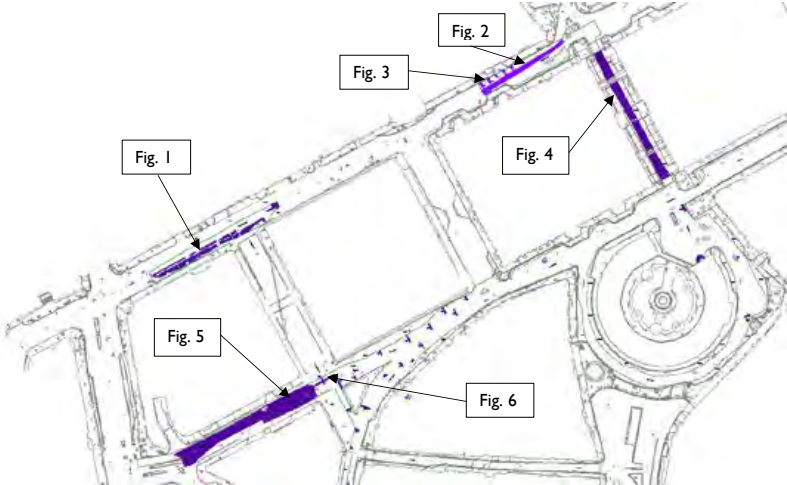


Figure 1:
Possible cobble sett layer detected between 0.07-0.14m deep.

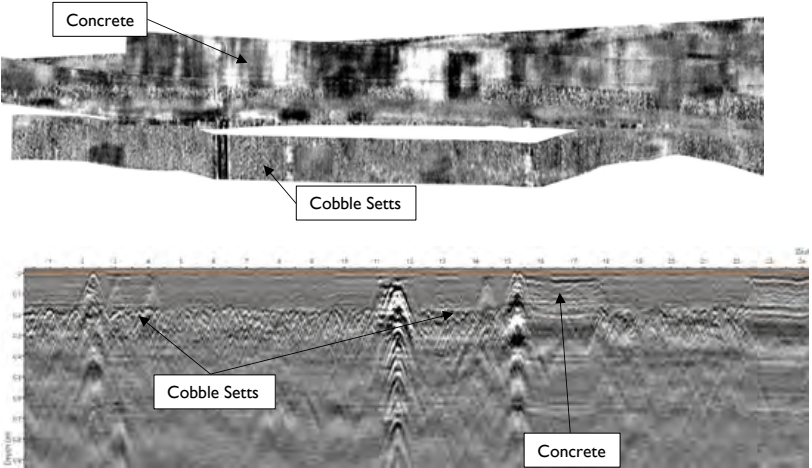


Figure 2:
Structure detected at 0.35m deep.

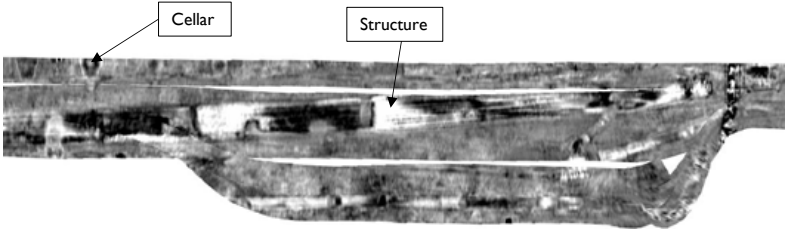


Figure 3:
Possible Cellars.

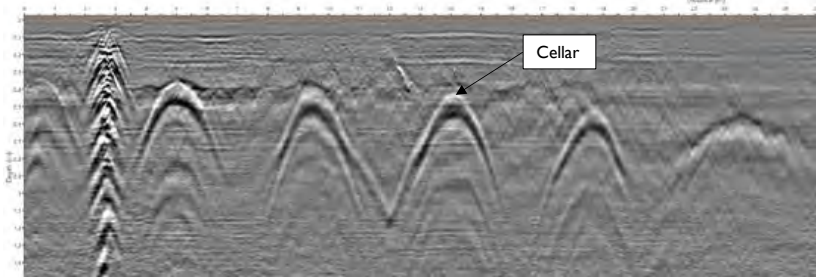


Figure 4:
Construction layer at 0.20m deep.

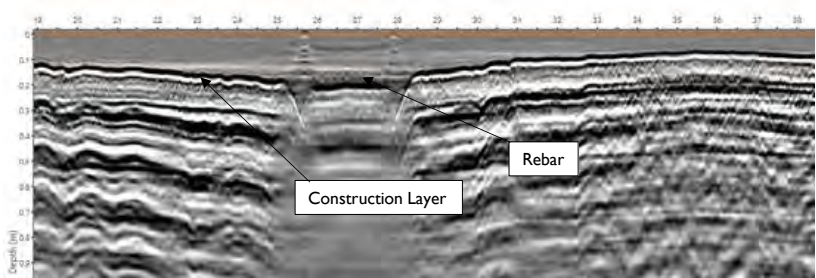


Figure 5:
Cobble setts layer detected between 0.07-0.10m deep.

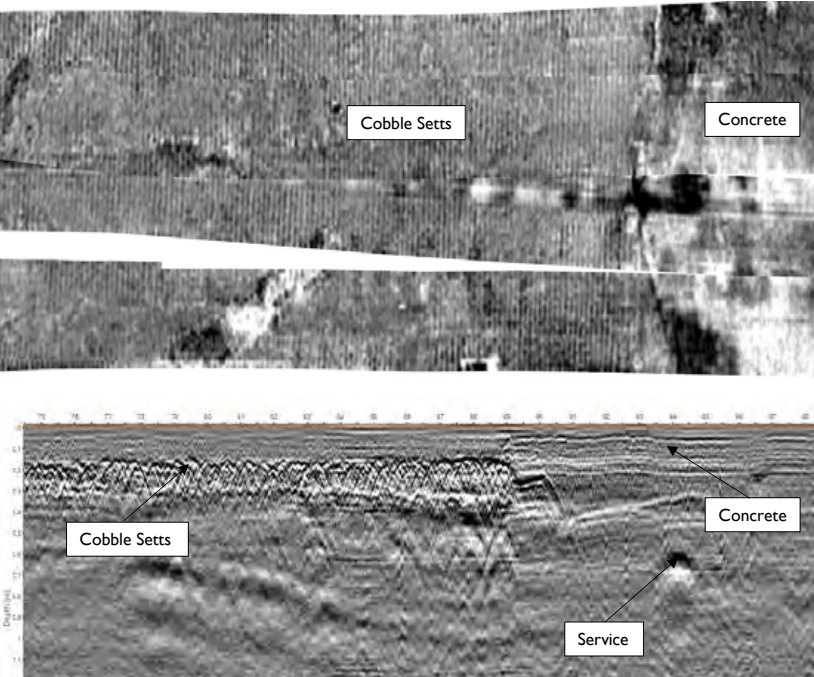
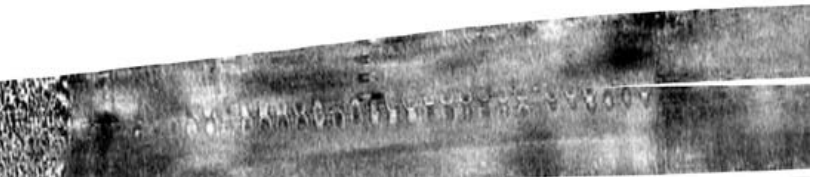


Figure 6: Possible Tie/Dowel bars at 0.20m deep.



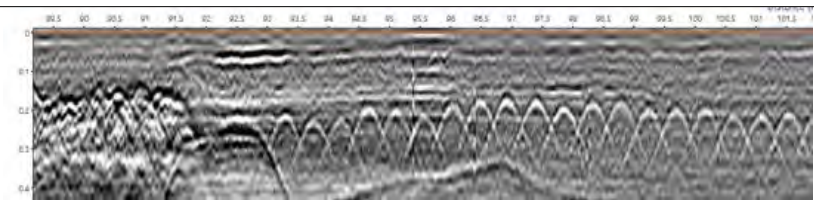
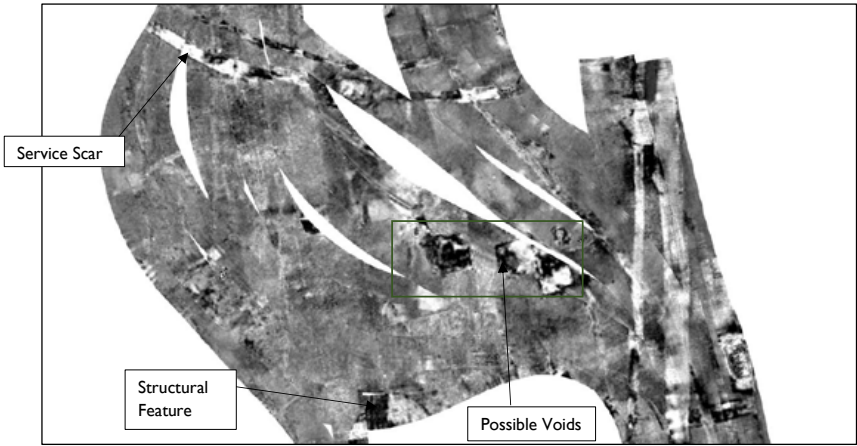


Figure 6: Possible voids and multiple service scars.



Smithfield Market
GPR Survey Report

May 2021

4. Conclusions

The results shown on the CAD model accompanying this written report accurately depict the features detected using Ground Probing Radar technology at this location.

A concrete layer is visible in the data across much of the survey area. Where this is visible it is reasonable to assume the absence of the cobble setts layer.

Most of the area appears to have been re-constructed over the years and much of the historical cobbles appear to have been removed. Where they are visible within the data, they are extremely clear which provides an added layer of confidence to the results generated.

There are many anomalies, structures and services present within the data, down to an effective depth of 1.3-1.5m in places. It is possible to re-visit this data in the future should more information be required.

End of Report

6.4 Trees, public art

3.2 Trees and Greening

TREES

The map opposite shows the locations of trees in the Smithfield project area.

Aside from the cluster within the Rotunda Garden, the area has a real lack of trees and (it can be assumed) the health benefits associated with trees (i.e. Lack of shade, greenery, interest, wildlife habitats, soft landscaping, improved air quality etc.)

Whilst the causes for the lack of trees are likely related to the activity in the area historically (e.g. the Meat Market), as the uses and functions of buildings and spaces change, so too will there be opportunities presented for increased trees. One real challenge in planting trees in the area is the lack of space below the ground, where there are a myriad of tunnels, utilities channels, bridge structures and basements.



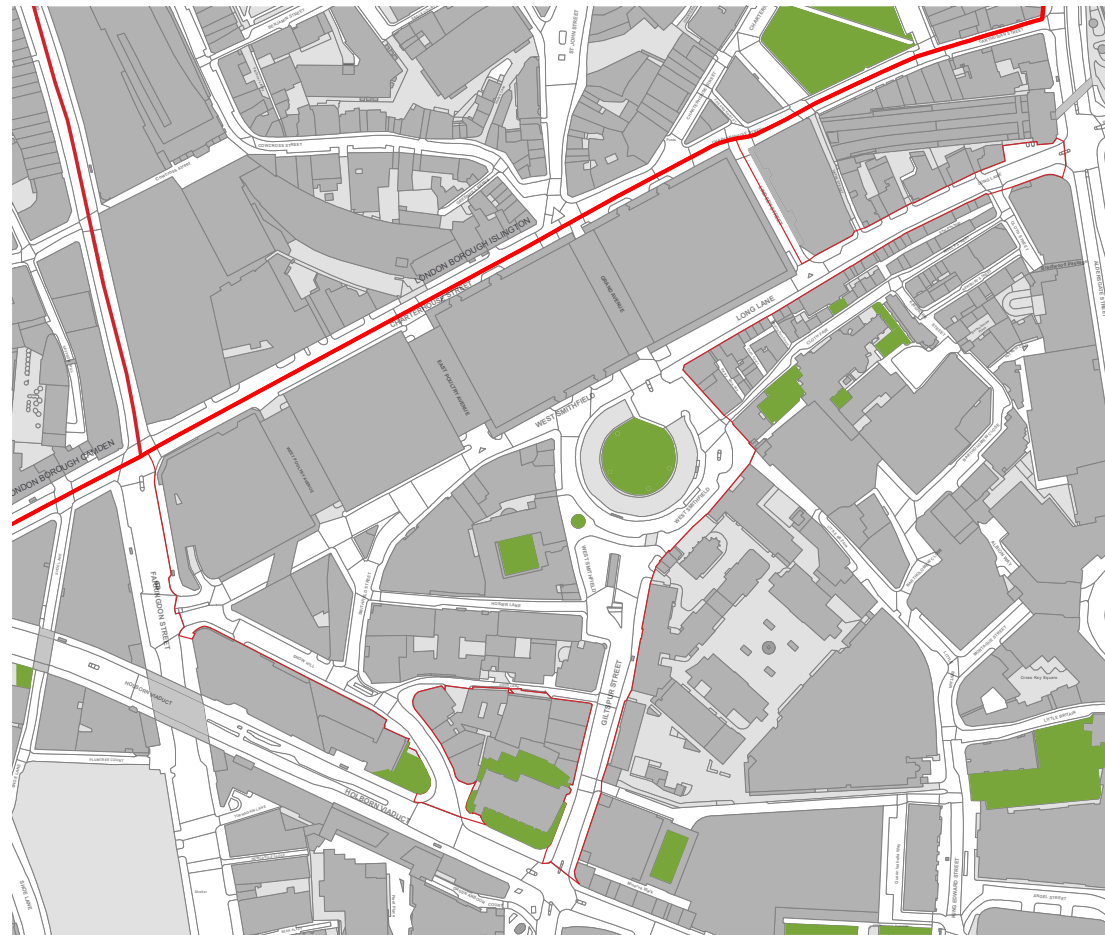
Tree surveys - map

3.2 Trees and Greening

GREEN SPACES

The map opposite shows the green open spaces in the project area, both public and private. The main locations are Smithfield Rotunda Garden, and the churchyard of St Bartholomew the Great. In addition, just on the boundaries of the project area are the churchyards of Holy Sepulchre without Newgate and Christchurch Greyfriars, along with Postman's Park.

On the page opposite is more detail of the Smithfield Rotunda Garden, and the churchyard of St Bartholomew the Great, along with key issues and opportunities. This information was produced by Fluid and Arup as part of the Look and Feel Strategy research.



Green spaces in Smithfield area - map

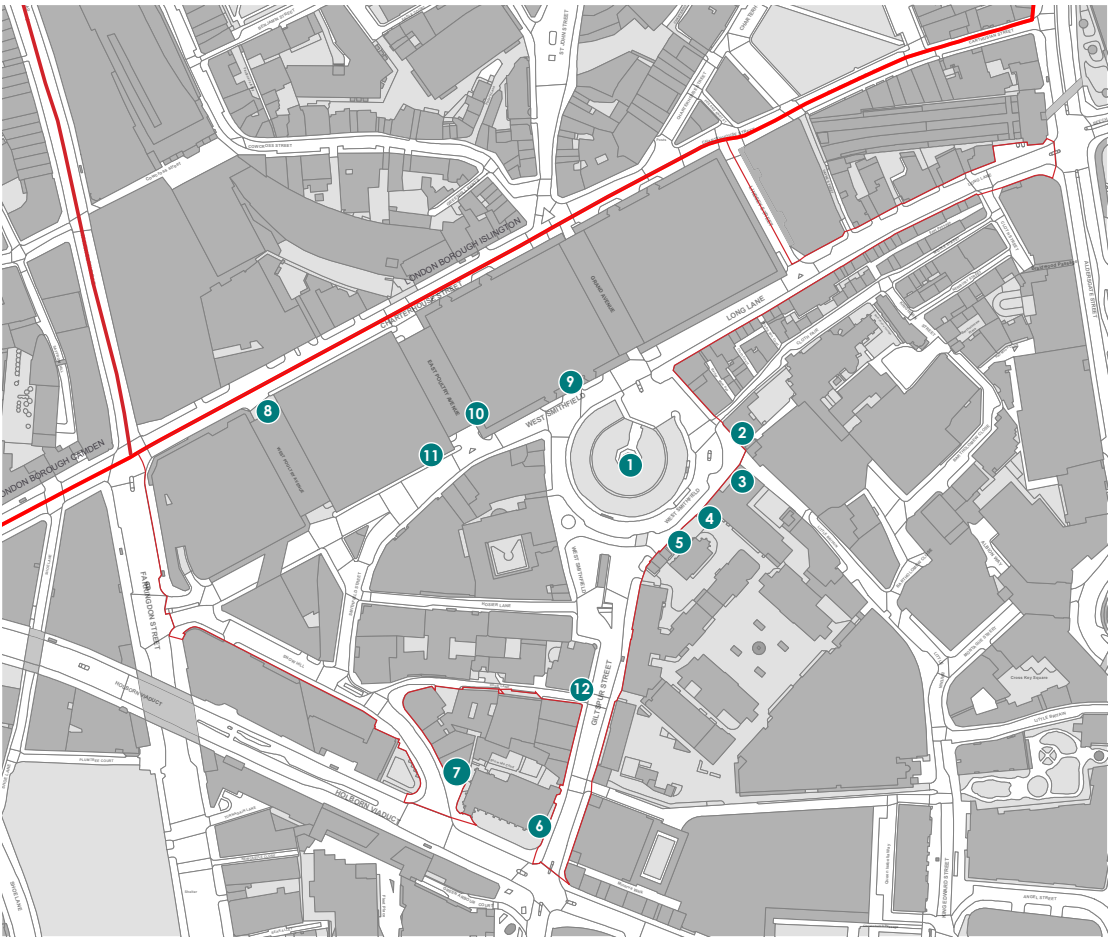
3.10 Historic Interpretation and Public Art

OVERVIEW

Smithfield is one of the oldest and most historic parts of London, many notable events have occurred there, and significant characters have passed through. The layers of the area's history can be considered when looking at the architecture of the area. However, there is relatively little in terms of historic interpretation on the street, and very few public art installations.

The sites of interpretation and public art are shown on the map opposite and images are given on the following pages. The data shows that what does exist often takes the form of memorials, including memorials to highly significant events such as the Fire of London, and individuals of national importance such as William Wallace.

There are also art and sculptures in the area that are housed in local buildings that can be visited by the public, such as the collection in the Haberdasher's Hall, items that form part of the Barts Hospital heritage collections and a Damian Hirst statue in St Bart's the Great Church



Locations of public art and monuments

3.10 Historic Interpretation and Public Art



1 Peace memorial fountain - Smithfield Rotunda



2 Saint Bartholomew Gate



3 The Great Rising of 1381 memorial



4 Smithfield Martyrs' memorial



5 William Wallace memorial



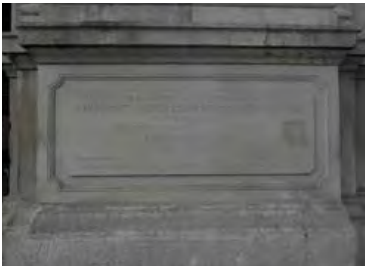
6 Charles Lamb memorial



7 Site of Saracen's Head



8 Lord Mayor of London Sir Frederick Alfred Hoare memorial



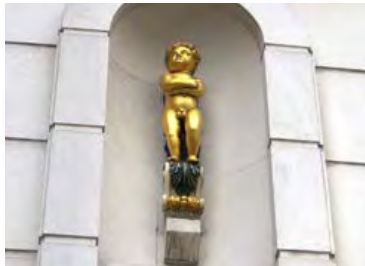
9 Reopening the East Meat Market 1997



10 People who lost their lives in conflict since Great War 1914-1918



11 Reopening OF London Central Markets 2001



12 Golden Boy of Pye Corner - Fire of London memorial 1666

Alan Baxter

Prepared by Victoria Bellamy

Reviewed by Gemma Fowlie, Robert Hradsky and William Filmer-Sankey

Draft v1 issued May 2021

Draft v2 issued August 2021

Final draft issued January 2022

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24/02/2022

Smithfield Public Realm Arist-in-Resident - process and takeaways

Artist-in-residence competition

Context, brief and selection

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022

Context

Working with the City of London, Hawkins/Brown identified an opportunity for an artist to be involved in the design team for the redevelopment of the public realm around Smithfield Market. The streets of Smithfield are an important part of the 'Culture Spine' of the City of London, a connecting force for the institutions and activities that form Culture Mile. The artist will be embedded within the public realm design team and will also work closely with the major cultural stakeholders in the area including the City of London, Culture Mile, Barbican, St Bartholomew's Hospital and Museum of London to interrogate planned and future cultural programming and activation in the Smithfield area.

Due to the situation with COVID-19 at the time, attention was given throughout this artist brief for a remote commissioning and delivery process which enables an artist to be embedded into the architectural/design team and make a meaningful contribution to the development of the Smithfield public realm design process.

Smithfield is an area of central London rich in history and character that can be said to be a microcosm for much of London's wider history. There are layers of pre-history, Roman remains, medieval street plan and Victorian innovation all told in its streetscape, and many figures of national importance are connected with the area. Over the next ten years, it is expected that the area will undergo some transformational changes.

The most fundamental change being the potential relocation of the wholesale meat business out of Smithfield, which will alter the character of an area that is currently dominated by this trade. In addition, the Museum of London will move its collections and activities to the General and Poultry Market buildings, operating as a 24-hour space for the people of the city and attracting increased visitor numbers. Crossrail stations will open at Farringdon bringing more visitors to the area and its cultural institutions. The appointed artist needed to work across cultural partner engagement and programming to make connections and identify gaps in partner programmes. Using the knowledge gathered alongside their own research into the history and current usage of the area, the artist needed to develop an iterative response to the cultural space development plan, testing and informing the work of the design team and the development of public space through close collaboration with the team and their design process.

Through this layered approach of cultural stakeholder engagement and design team collaboration, the artist's activity would aim to influence the public realm design, make partner programme strands more visible, identify creative programme space typology commonalities and indicate how provision for culture could be best implemented into the hard and soft landscape.

The opportunity detailed in this artist brief is for an artist to work collaboratively with cultural stakeholders and design team to add

a creative layer to programmatic engagement with Smithfield and to consider how the history of this central area of London, its current narratives and shared futures can be engrained into the permanent use of the public realm impacting meaningfully on its character and use.

Commission

Tasked with considering the human aspect of the public realm development; how the character of the area is activated, celebrated and protected, the artist would need to develop an overview of public realm programming across all major stakeholders, connecting nodes of cultural activity and drawing out common threads across programming plans. This first part of the artist's research and development was undertaken remotely, which could in itself become a creative project.

The artist would bring their research and knowledge to the design team and work collaboratively using digital platforms which are project focussed and built to immerse participants in all aspects of complex project development, enabling the sharing of data, images, plans and allowing meetings to continue. **The selected artist would bring views and opinions from a completely different experience, understanding and sensibility to the design team.** Together artist and design team would explore how the public realm design can best support current and emerging cultural programming and further creative initiatives.

Artist Selection

A longlist of artists was drawn up by Contemporary Art Society and these selected artists were provided with the Artist Brief for review. Their commitment was ascertained through an oral expression of interest. Artists were asked to demonstrate:

- Original, considered and imaginative thinking to the collaborative nature of the brief
- Understanding and work with the technical parameters of the Smithfield Public Realm project context
- Process for working inclusively within the context of a project team
- Delivery of project presentations and represent their work positively

Expressions of interest, biographical information, and images of relevant work for longlisted artists are considered by the Public Art Steering Group (PASG) as well as each artist's commitment to the project and their ability to work on site.

A shortlist of three artists were then agreed by the PASG artists were invited to an online site briefing prior to interview.

At interview, artists were invited to:

- Make a short presentation about their practice and relevant previous works
- Discuss the Smithfield public realm opportunity and respond to the vision for the area
- Address any initial thoughts or ideas they might have about the site and how they

Artist-in-residence competition

Context and brief

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022

would approach working with the design team

- Identify areas of research and stakeholder activity they would like to explore

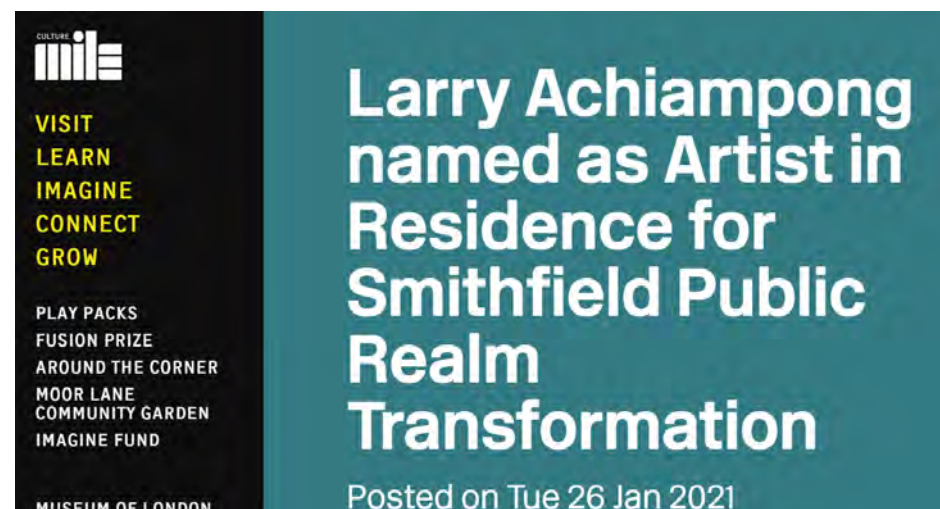
Following discussion and assessment, one artist was invited by the PASG to undertake the commission.

Artist-in-Residence: Larry Achiampong

Larry Achiampong was invited to undertake the commission following his presentation to the PASG. Larry's approach focussed on the aural and sensory – with a view to go beyond the gallery to embed in the city sound as experience into the city.

The PASG responded well the to aspiration to give communities a voice and agency, working with schools – to establish a clear role for critical perspectives and underrepresented voices.

The design team was excited to have Larry on board as a Critical Friend, as well as for him to expand on his own artistic research and practice and involvement with stakeholder engagement - with a focus on challenging inequalities in the public realm and through the design process, working in multimedia and fluidly with the design team and bringing attention to the experience of Smithfield for different generations.



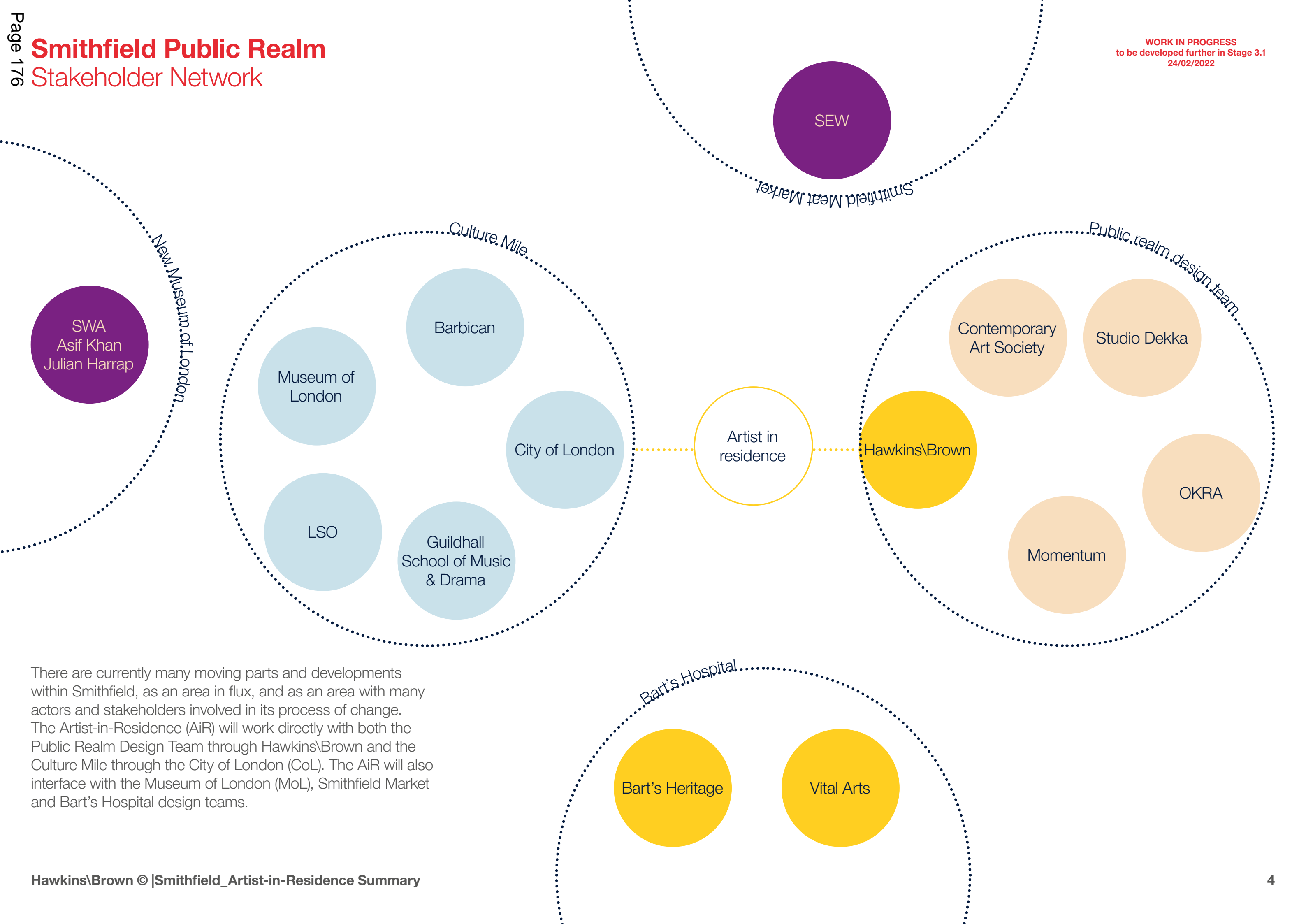
Critical friend to
design team

Artistic research
and practice

Stakeholder
mapping and
engagement

Smithfield Public Realm Stakeholder Network

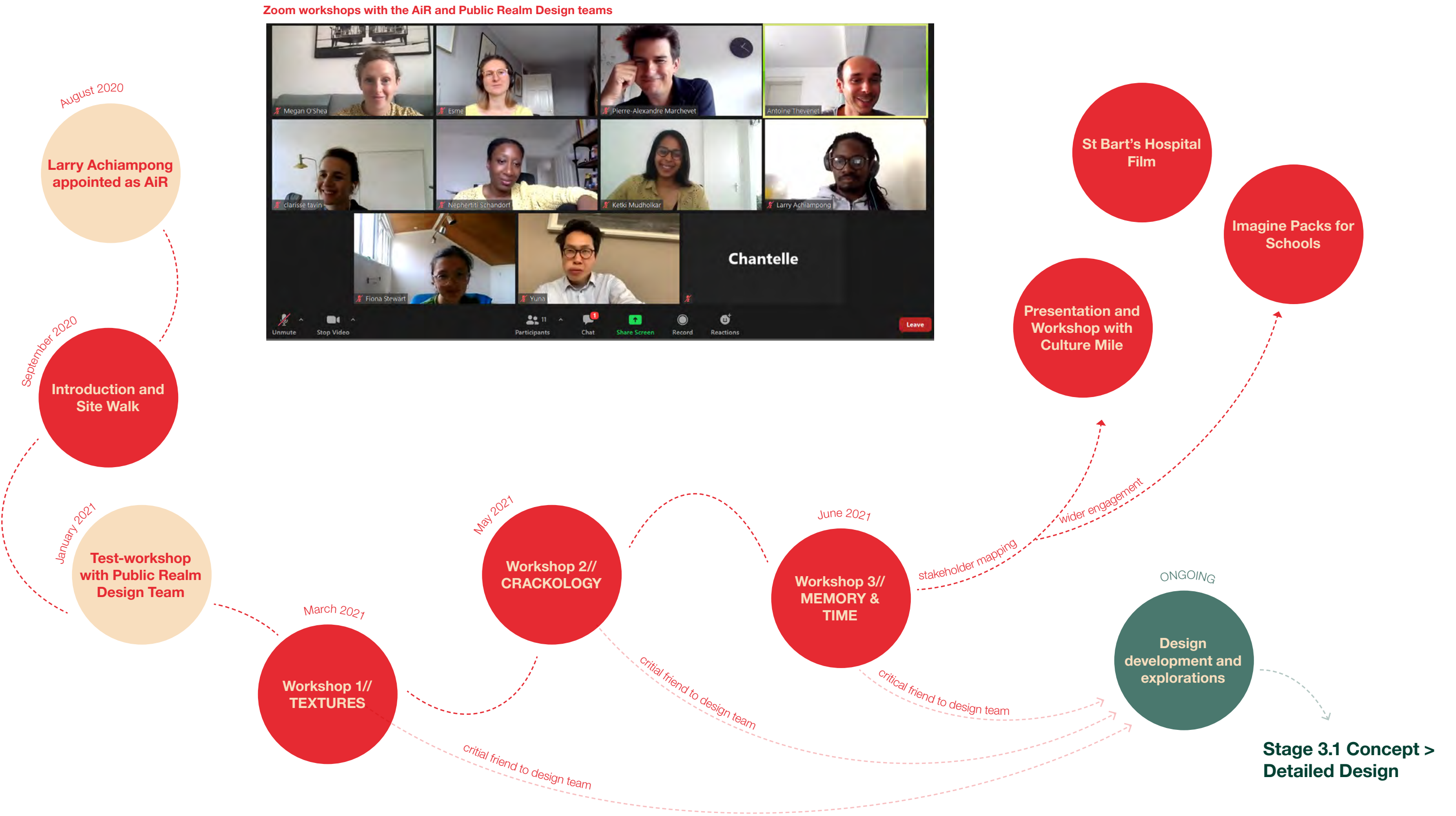
WORK IN PROGRESS
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There are currently many moving parts and developments within Smithfield, as an area in flux, and as an area with many actors and stakeholders involved in its process of change. The Artist-in-Residence (AiR) will work directly with both the Public Realm Design Team through Hawkins\Brown and the Culture Mile through the City of London (CoL). The AiR will also interface with the Museum of London (MoL), Smithfield Market and Bart's Hospital design teams.

Smithfield Public Realm Artist-in-Residence timeline

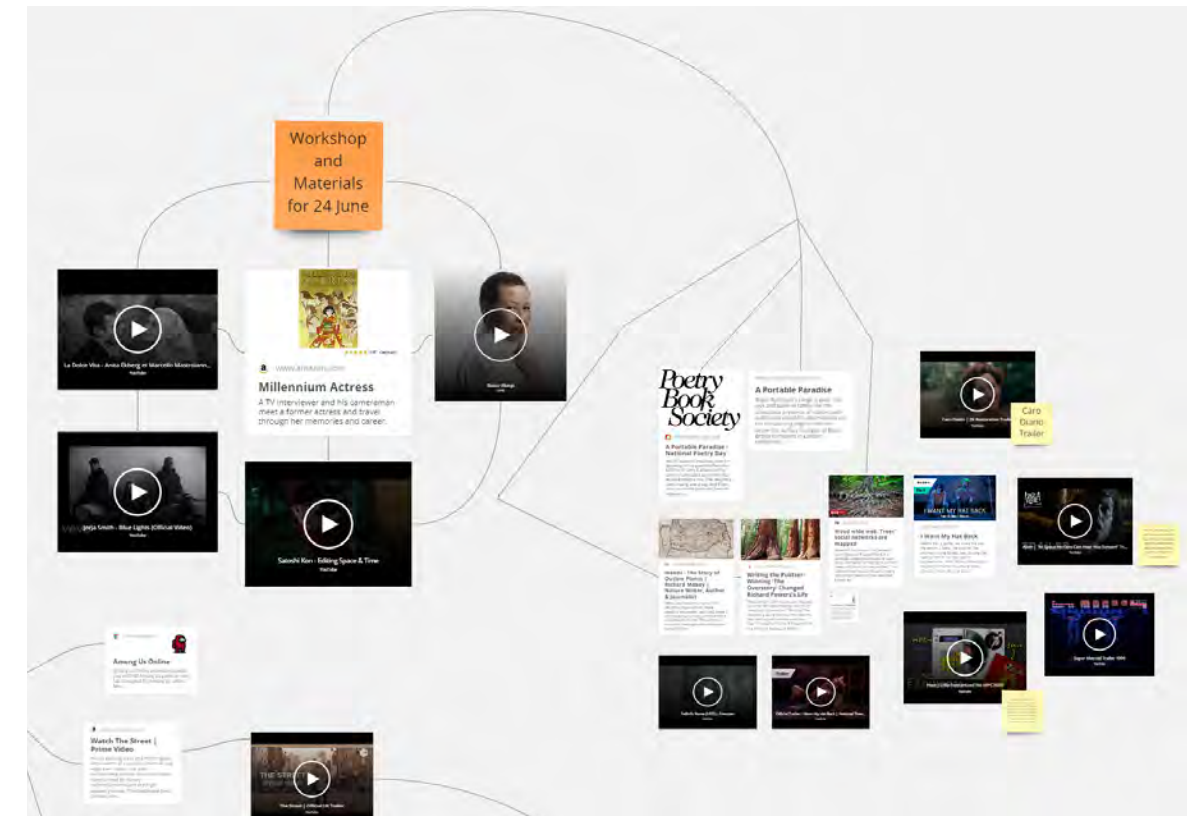
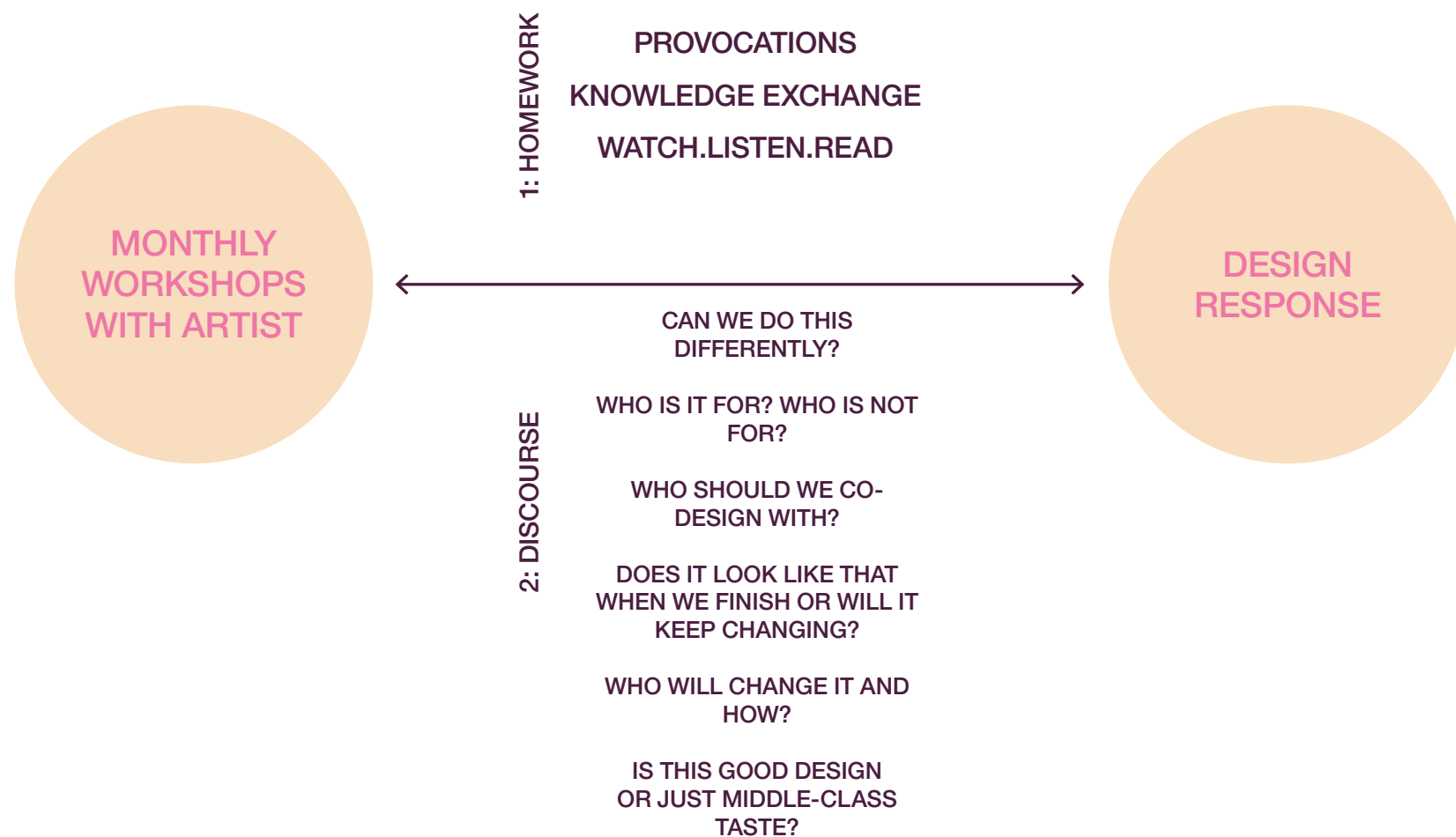
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24/02/2022



Artist-in-residence : WORKSHOPS

Critical Friend to the Design Team

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



‘put it on the board!’

In the role as ‘Critical Friend’ with a view to challenge the design team to approach the design process differently, the AiR team ran a series of workshops with the team. This required some preparation in advance for everyone, with some “homework” to watch, listen and read prior to each workshop.

The format of each workshops was consistent, despite the content and outputs deliberately unprescribed at the outset of each session. The workshops would begin with an informal introduction and update, particularly pertinent during the

lockdown where face to face meetings (and therefore the associated small talk) was lacking. This was followed by a discussion about the homework material, often prompting critical and interrogative debate through the first half of the workshop. This would lead to design questions related to taste, participation, inclusivity and access.

This would be followed by an update from the design team and an opportunity to interrogate the approach and changes incorporated since the last workshop. An accompanying Miro

board, became a digital collation of the thought process, bringing together a range of media that was discussed and shared - ranging from documentaries and films, techno and minimal electronic tracks, articles about colonialism, all the way to personality quizzes to highlight introvert /extrovert tendencies. All aspects of these discussions, directly or indirectly related to the design process were given equal weight and value - with a view to holistically influence the design and the designers.

Artist-in-residence : WORKSHOPS

Miro Board

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



Smithfield Artist in Residence

Legacy / continuing conversations

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022



The key outputs from the AiR research, engagement and workshops are collated as part of Larry Achiampong's Smithfield Dossier

Future Engagement

“Make your mark”

WORK IN PROGRESS
to be developed further in Stage 3.1
24/02/2022

Following the AiR workshops and to align with the parallel strand of engagement that Larry and his team are carrying out (set out in the pages before), the Design Team is proposing a series of immersive engagement exercises bringing people to the site and Smithfield and encouraging them to engage with it to ‘make their mark’

Walking and talking

- Introductory sessions walking around the site structured around how to observe the built environment and relate back to how we feel about different places
- Questions: what are the components that make a place feel the way it does? E.g. Age / use / height / material of buildings, amount of green space / trees, road layout & materials, types of street furniture, lighting quality etc.

Site observations

- Take observation skills learnt from walking and talking, and document how & why spaces around Smithfield feel the way they do to different individuals
- Photography/sound recording/voice notes
- Questions: What happens where / what’s the vibe?
- Can this tie into Imagine Packs?

On-site workshops (co-design / co-brief setting)

- Drawing and live [temporary] intervention on site – e.g. spray paint / chalk – to test what could happen here and space needed

Design workshops

- Online/in person dependent on restrictions
- Testing options / interventions + setting briefs (e.g. MoL stage / the Elms / urban rooms)

Design Review

- MoL / Market /Culture Mile teams
- Young voices panel
- Questions: is this a place you’d want to spend time in? what would you do here?

Online resource / documenting the engagement process

- To backdate including engagement with Larry + youth panel + London ambulance + TfL + above engagement sessions - > photographic / sound recording

Contact

London\
Edinburgh\
Manchester\
Los Angeles\

Smithfield Engagement Plan Stage 3.1

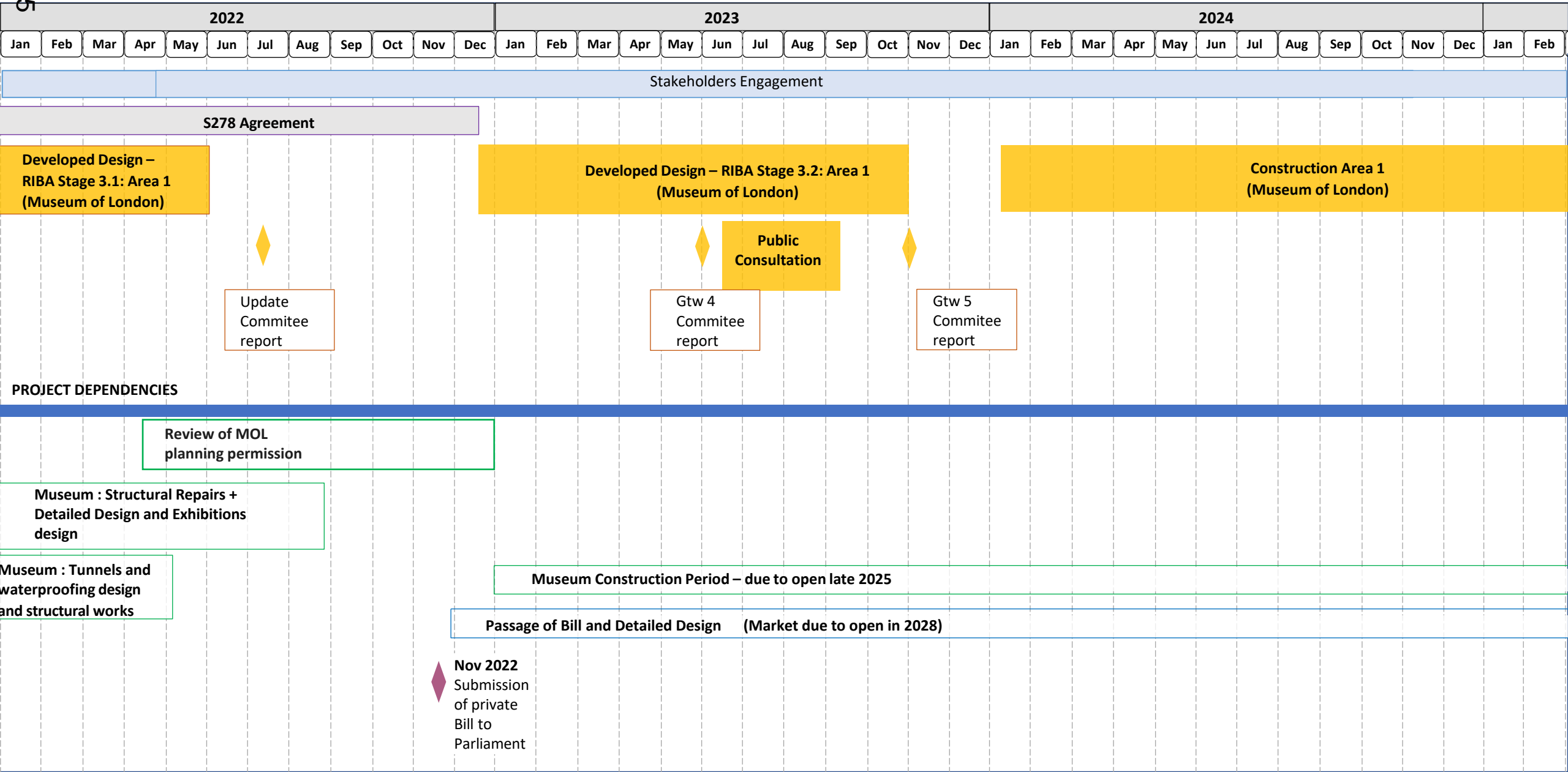
Approach / Aims

1. **Function:** ensure that the transport work is properly informed by the functional requirements of the area, e.g. on servicing and access needs.
2. **Information:** provide local people – residents, businesses, organisations, stakeholders – with information relevant to them about the project
3. **Access, inclusivity and equity:** link to work with Artist in Residence and with Culture Mile about social sustainability and inclusivity in design. Aim to target communities that are not usually represented in engagement. Work across borough border.
4. **Co-design:** feed engagement into the design process. Ensure that HB are across the engagement and are clear from the start about how it will feed into the design process. Plan and manage specific opportunities for co-design.

What	Engage with whom	Management/ Process	When
1. Function			
<u>Project Dependencies</u> Coordination between the developments and major projects in the project area	<ul style="list-style-type: none"> • City Surveyors – Red Brick and Engine House TBC • District Surveyors – Engineer team for structural and waterproofing works • Museum of London team • City Surveyors – Market Co-location Programme 	Email / Meetings Smithfield Area Advisory Group meetings	On going
<u>Transport engagement</u> Coordination around servicing and access needs / Scope of S106 and S278	<ul style="list-style-type: none"> • Museum of London • Transport for London • COL Planning team • Local Businesses 	Emails Meetings	On going
2. Information			
<u>General local engagement with the public</u> ON HOLD Introduce them to the project / raise awareness of wider project area – i.e. long-term vision. NOT 'public consultation' on plans'	<ul style="list-style-type: none"> • General public, including local residents/ business and wider local community 	Engagement through a consultant: surveys / drop in sessions /digital engagement	ON HOLD To restart as part of stage 3.2
<u>Targeted Stakeholder engagement</u> Ensure key stakeholders are aware of project	<ul style="list-style-type: none"> • Bart's Hospital • Bart's Heritage • Market Superintendent • LB Islington • Helical • Local residents representatives 	Meetings Emails Artist in Residence	On going

<u>Culture Mile Partners and team</u>	<ul style="list-style-type: none"> • Culture Mile Central team • Museum of London • Barbican • London Symphony Orchestra • Guildhall School and Music and Drama 	Meetings Emails Engagement in related programmes (i.e. Imagine Packs)	On going
3. Access, inclusivity and equity			
<u>Design Competition 'Co-designing Equity in the public realm'</u> Develop deeper understanding on how people feel when they are in the area's streets and public spaces, and how to make public spaces more inclusive and encourage diversity	<ul style="list-style-type: none"> • Foundation for Future London (East Bank) • Culture Mile team • London Festival Architecture 	Competition programme and codesign process	June 2022 – Summer 2023
4. Co-design			
<u>Artist in Residence engagement</u> This work sees the inclusion of an artist in the design stage of the project. Artist Larry Achiampong's role includes his own research into to the area and engaging with local communities and stakeholders to develop a unique creative response that informed the permanent design of the civic spaces of Smithfield.	<ul style="list-style-type: none"> • Artist Larry Achiampong • Bart's Hospital • London Ambulance • Culture Mile Learning • Young Voices panel (to be started at Stage 3.2) 	Meetings Email	On going and to be restarted as part of Stage 3.2
<u>Universities</u> Engage with Academic Organisations to ensure the project design is innovative and every opportunity is explored	<ul style="list-style-type: none"> • University College London • Brunel University 	Presentations and jury panel attendance	As required

Appendix 2: Smithfield Area Programme for the public realm



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City of London: Projects Procedure Corporate Risks Register

Project Name: Smithfield Public Realm		PM's overall risk rating: Medium	CRP requested this gateway	£ -	Average unmitigated risk	9.3	Open Risks	16
Unique project identifier: 11956								
		Total estimated cost (exc risk): £ 12,000,000	Total CRP used to date	£ -	Average mitigated	5.3	Closed Risks	0

General risk classification											Mitigation actions						Ownership & Action		Comment(s)				
Risk ID	Gateway	Category	Description of the Risk	Risk Impact Description	Likelihood Classification pre-mitigation	Impact Classification pre-mitigation	Risk score	Costed impact pre-mitigation (£)	Costed Risk Provision requested Y/N	Confidence in the estimation	Mitigating actions	Mitigation cost (£)	Likelihood Classification post-mitigation	Impact Classification post-mitigation	Costed impact post-mitigation (£)	Post-Mitigation risk score	CRP used to date	Use of CRP		Date raised	Named Departmental Risk Manager/Coordinator	Risk owner (Named Officer or External Party)	Date Closed OR/Realised & moved to issues
R1	3	(2) Financial	A - The cost of the project goes over the budget. The sources of project funding and the release of funds is not agreed in time to progress the project	a) The project scope may have to be reduced. b) An additional committee may be required, which may cause delay of the project	Likely	Serious	8	£0.00			Regular budget monitoring, checking invoices and POs. During procurement processes, be clear about budget constraints. Project funding confirmed via committee reports in good time.	£0.00	Possible	Serious	£0.00	6	£0.00			02/01/2020	Stefania Pizzato/Clarisse Tavin	Policy and Projects	
R2	3	(4) Contractual/Partnership	Project Dependencies: Partnership management: with key stakeholders Museum of London, Market Co-location Programme and City Surveyors (the Annex building)	The agreed scope, objectives or cost of the project changes due to partner priorities diverging. The priorities change regularly.	Likely	Major	16	£0.00			Work closely with the team throughout the project to inform all parties about possible changes and to understand where there are issues arising. Where possible come to decisions approved by both parties. Meetings with partners held regularly.	£0.00	Possible	Serious	£0.00	6	£0.00			13/03/2020	Stefania Pizzato/Clarisse Tavin	Policy and Projects, Museum of London, Market Consolidation Programme and City Surveyors	
R3		(4) Contractual/Partnership	Project Dependencies: The Annex building occupancy and exact use is unknown at this stage of the project	The risk could have an impact on scope, budget and could create a possible delay	Likely	Serious	8	£0.00			Ensure that good communication and regular updates are maintained with the City Surveyors	£0.00	Possible	Minor	£0.00	3	£0.00			16/03/2020	Stefania Pizzato/Clarisse Tavin	Policy and Projects and City Surveyors	
R4		(4) Contractual/Partnership	Project Dependencies: The Market building and the Rotunda occupancy and exact use is unknown at this stage of the project	This risk could have an impact on scope, budget and reputation. Project could be significantly delayed. Potential uses of the Market and the Rotunda could be in conflict with aspiration for the Public Realm.	Possible	Serious	6	£0.00			Regular meeting are in place and good communication is maintained with Market Co-location team and Consultants. Three team design meetings scheduled regularly and the client for both projects meets weekly. KPI's for each project are being set	£0.00	Likely	Serious	£0.00	8	£0.00				Stefania Pizzato/Clarisse Tavin	City Public Realm and Market Consolidation Programme	
R5		(3) Reputation	The design is not delivered on time to meet with the Parliamentary Bill deadline and opening of the New Museum of London	If the project does not meet important deadlines realting to project dependencies it could impact on the City of London's reputation and cause further delays for all related major projects	Possible	Major	12	£0.00			Ensure project programme is up to date and there is enough contingency within the programme. Ensure public engagement on the concept design is planned well in advance.	£0.00	Possible	Serious	£0.00	6	£0.00				Stefania Pizzato/Clarisse Tavin	Policy and Projects	
R6		(9) Environmental	Scope: improvements need to be significant enough to meet the Healthy Street plan and Culture Spine outcomes	The targets in Transport Strategy and Culture Mile Look and Feel strategy would not be met.	Possible	Major	12	£0.00			Continued engagement with transportation team, transportation consultants and Culture Mile team as part of the design process.	£0.00	Possible	Serious	£0.00	6	£0.00				Stefania Pizzato/Clarisse Tavin	Policy and Projects	
R7		(2) Financial	City of London not able to identify funds for the whole project	The project is not able to fulfil its objectives	Possible	Major	12	£0.00			Close working with Major Project team and City members.	£0.00	Unlikely	Major	£0.00	8	£0.00				Stefania Pizzato/Clarisse Tavin	Policy and Projects, Town Clerk	
R8		(3) Reputation	Conflicting opinions about the scope and objectives of the project	The risk could result in lack of consistent decision making. This could cause change in scope and have an impact on cost estimation, time and reputation.	Possible	Serious	6	£0.00			Ensure that good communication is maintained and members are receiving regular project updates. Keep Chief Officers updated	£0.00	Unlikely	Minor	£0.00	2	£0.00				Stefania Pizzato/Clarisse Tavin	Policy and Projects, Environment Department Director	
R9		(3) Reputation	Residents object to the project	The project is not able to fulfil its initial objectives. It could have an impact on scope and delay the project by looking for alternative design solutions.	Unlikely	Serious	4	£0.00			Residents representative to sit on Stakeholder Working Party. Engagement on concept design, initiate communication with residents through e-bulletin, letters, public consultation, meeting/events. Comms Strategy updated	£0.00	Rare	Minor	£0.00	1	£0.00				Stefania Pizzato/Clarisse Tavin	Policy and Projects	
R10		(3) Reputation	Negotiations with traders causes problems to City Public Realm project	The risk could have an impact on scope, cost estimate, time and reputation. Traders objectives could cause issues for all parties involved in the project.	Possible	Major	12	£0.00			Work closely with the MCP team who are leading on traders engagement. Engagement with Markets team to understand traders' business needs.	£0.00	Possible	Serious	£0.00	6	£0.00				Stefania Pizzato/Clarisse Tavin	Policy and Projects and MCP Team	
R11		(3) Reputation	Local businesses object to transportation changes and proposed design option	The project is not able to fulfil its initial objectives. It could have an impact on scope and delay the project by looking for alternative design solutions.	Possible	Serious	6	£0.00			Ensure good communication with local businesses through surveys, e-bulletin, letters, public consultation, and other meeting/events and regular project updates are in place.	£0.00			£0.00		£0.00				Stefania Pizzato/Clarisse Tavin	City Public Realm	

R12		(4) Contractual/Partnership	Problem with decision making between three large separate consultants teams	Lack of clear lines of responsibilities and poor communication could cause project delay in all consultants team. This would have an impact on budget and reputation.	Possible	Major	12		£0.00			Ensure that good communication is maintained between three separate consultants team and regular meetings are in place.	£0.00			£0.00		£0.00			Stefania Pizzato/Clarisse Tavin	City Public Realm, MCP team, Museum of London team		
R13		(2) Financial	Issues relating to appointment of consultants	Delays cause by problems with finalising contracts with consultants	Unlikely	Major	8		£0.00			City procurement practices are in place	£0.00			£0.00		£0.00			Stefania Pizzato/Clarisse Tavin	Policy and Projects		
R14		(3) Reputation	Lack of clear and effective communication with LB Islington	Poor communication with LB Islington could impact scope of the project and cause delay. It would also impact project reputation.	Unlikely	Serious	4		£0.00			Ensure that good communication is maintained with LB Islington and regular meetings are in place.	£0.00			£0.00		£0.00			Stefania Pizzato/Clarisse Tavin	Policy and Projects		
R15		(1) Compliance/Regulatory	The Parliamentary Bill for Smithfield Market relocation not approved	The project is not able to fulfil its objectives. Significant changes to scope would be introduced.	Unlikely	Extreme	16		£0.00			MCP team working closely with Remembrancers' dept. CPR team to contribute required design work in a timely manner.	£0.00			£0.00		£0.00			Chris Bonner	MCP team		
R16		(9) Environmental	Covid-19 impacts	Due to Covid 19 and the impact of this (e.g. social distancing measures and contractors stopping work), certain elements of the project are delayed. Could particularly impact on Stakeholder engagement and transport modelling.	Possible	Serious	6		£0.00			Reorder project programme to concentrate on priorities; ensure that transport options are set out so that one option is not pre-determined prior to engagement.	£0.00	Possible	Serious	£0.00	6	£0.00			Stefania Pizzato/Clarisse Tavin	Policy and Projects		
R17									£0.00				£0.00			£0.00		£0.00						
R18									£0.00				£0.00			£0.00		£0.00						
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R26									£0.00				£0.00			£0.00		£0.00						
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Committee(s)	Dated:
Property Investment Board – For information Operational Property and Projects Sub Committee – for information	19 July 2022 20 July 2022
Subject: City Surveyor's Departmental Risk Register – June 2022 Update	Public
Which outcomes in the City Corporation's Corporate Plan does this proposal aim to impact directly?	5
Does this proposal require extra revenue and/or capital spending?	N
If so, how much?	N/A
What is the source of Funding?	N/A
Has this Funding Source been agreed with the Chamberlain's Department?	N/A
Report of: City Surveyor (CS 219/22)	For Information
Report authors: Faith Bowman / John Galvin City Surveyor's Department	

Summary

This report has been produced to provide your Committee with a quarterly update on the management of risks within the City Surveyor's Department.

The City Surveyor department managing one corporate risk (Appendix 1). There are a further nine risks on its Departmental Risk Register (Appendix 2). Three of these departmental risks are recorded as red. The red risks currently being managed by the department are:

- Corporate Risk:
 - CR 37 – Maintenance and renewal of physical assets – Investment property and Corporate (operational) property (excluding housing)
Current risk score 16 (Red)
- Departmental Risks:
 - SUR SMT 005 – Construction Price Inflation
Current risk score 16 (Red)
 - SUR SMT 007 – Energy Pricing
Current risk score 16 (Red)
 - SUR SMT 009 – Recruitment and retention of property professionals
Current risk score 16 (Red)

Since the last time Members received an update (CS 137/22), the risk relating to the 'maintenance and renewal of physical assets' has been formally escalated to the Corporate Risk Register.

Recommendation(s)

Members are asked to:

- Note the report, and the actions taken within the City Surveyor Department to effectively monitor and manage risks arising from our operations.

Main Report

1. The City of London Corporation's Risk Management Policy and Strategy (RMP&S) requires each Chief Officer to report regularly to Committee the key risks faced in their department. The Property Investment Board (PIB) and Operational Property and Projects Sub Committee (OPPSC) has determined that they will receive the City Surveyor's risk registers on a quarterly basis.
2. All Corporate Risks are reported regularly through to Audit and Risk Management (A&RM) Committee. Whilst A&RM Committee 'owns' the Corporate Risk Register, Members of both PIB and OPPSC will have invaluable input into the risk itself – notably due to their familiarity with the drivers and technicalities associated with the risk. The department welcomes feedback from Members of this Committee to shape these risks, mitigating activities, and risk scoring.
3. This report has attached the relevant Corporate Risk as Appendix 1, and the wider Departmental Risk Register as Appendix 2.
4. Risks are reviewed regularly by the department's Senior Management Team (SMT) in line with the organisation's RMP&S. Risks are assessed on a likelihood-impact basis, and the resultant score is associated with a traffic light colour.
5. Should any changes occur between formal meetings a process exists such that risks can be captured, assessed, and mitigating activities captured. This ensures that the risk management process remains 'live'.

Current Position

6. The City Surveyor is currently managing one Corporate Risk. This is currently rated as red. Further, the Departmental Risk Register contains three red, five amber and one green risk. The details of each of these are included in Appendix 1 (Corporate Risk) and Appendix 2 (Departmental Risks).
7. Risk SUR SMT 009, relating to the Recruitment and retention of property professionals has increased due to a buoyant market for property professionals in the workforce.
8. The department also manages the repairs and maintenance risks associated with the five city bridges. These risks are reported separately through to the Bridge House Estates Board.

Changes since last review

9. The key items to note for this period are summarised below:

- A. CR 37 (formerly SUR SMT 004) — Investment property and Corporate (operational) property (excluding housing assets)
Current score – 16 (Red)

This risk has been escalated up and accepted onto the Corporate Risk register. The risk reflects the disparity between the asset requirements and the available funds required to meet or maintain this standard.

- B. SUR SMT 009 – Recruitment and retention of property professionals
Current score – 16 (RED)

This risk has been identified by several of the divisions within the City Surveyor's Department. It is becoming increasingly difficult to recruit suitably skilled staff at the correct level for the grade being advertised.

It has also become more difficult to retain staff who get better reward packages from other organisations (both commercial and public sector).

The risk score on this item has recently been increased to reflect a growing difficulty in recruiting and retaining the best staff.

The department is actively engaging with corporate partners to help mitigate this risk. There is a strong relation to the emerging Corporate Risk relating to the 'skills and capacity of our people'. This risk is being considered by the Executive Leadership Board.

Whilst some mitigations are outside the control of CSD, the department is keen to ensure that it pursues all available actions to mitigate the likelihood and impact of this risk. These items are captured in the mitigating actions in Appendix 2.

- C. SUR SMT 005 – Construction Price Inflation
Current score – 16 (Red)
SUR SMT 007 – Energy Pricing
Current score – 16 (Red)

Both these risks capture pricing inflation concerns. The department is monitoring these markets closely and pursuing a range of actions which will assist mitigating the impact of these macroeconomic forces. These items will be kept under close review.

Heatmap

10. Through the performance dashboard tool, Power BI, it is possible to create heatmaps of the department's risks. This is a graphical summary of the current

departmental risks (left). A comparison with the those presented at the last report (May) is included as the table on the right. Note that the table includes the Corporate Risk that is being managed by the department.

11. The Heatmaps do not track individual risks over time, rather it is a snapshot comparison of the overall risk profile. Members should note that there is one additional risk for this period.

	Minor	Serious	Major	Extreme
Likely			4	
Possible		1	4	
Unlikely		1		
Rare				

Table 1: July 2022 Risk Heatmap

	Minor	Serious	Major	Extreme
Likely		1	2	
Possible		1	4	
Unlikely			1	
Rare				

Table 2: May 2022 Risk Heatmap

Conclusion

12. Members are asked to note the recent changes to the departmental risk register, and the actions taken by CSD to mitigate the likelihood and/or impact of the risks.

Appendices

- Appendix 1 – Department's Corporate Risk
- Appendix 2 – Departmental risk register

Background Papers

- The City Surveyor – The City Surveyor's Departmental Risk Register – May Update (CS 137/22)
- The City Surveyor – The City Surveyor's Departmental Risk Register – July Update (CS 215/21)
- The City Surveyor – The City Surveyor's Departmental Risk Register – August Update (CS 357/21)
- The City Surveyor – The City Surveyor's Departmental Risk Register – November Update (CS 455/20)

John Galvin

Faith Bowman

Departmental Performance & Services
City Surveyor's Department

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SUR Departmental risks - detailed report EXCLUDING COMPLETED ACTIONS for COMMITTEE

Report Author: Faith Bowman

Generated on: 24 June 2022



Rows are sorted by Risk Score

Risk no, title, creation date, owner	Risk Description (Cause, Event, Impact)	Current Risk Rating & Score		Risk Update and date of update	Target Risk Rating & Score		Target Date/Risk Approach	Current Risk score change indicator
CR37 (formerly SUR SMT 004) Maintenance and renewal of Physical Assets-Investment property and Corporate (operational) property (excluding housing assets) 04-Nov-2019 Paul Wilkinson	Cause: Poor property condition combined with insufficient budget to maintain assets in line with commitments/expectations. Event: Misalignment between the relevant Asset Management Strategy, City's lease obligations to third parties in occupation and the available funds to reach / maintain this standard Impact: Built estate becomes not fit for purpose/ functions/occupancy. The City becomes in breach of legal repairing covenants. Cost of maintenance and utility costs increases, placing further pressure on City resources. In extreme circumstances there will be H&S implications, leading to potential enforcement action, legal action by tenants or asset failure in whole or part with detrimental effects leading to impact on occupiers	 Likelihood Impact	16	This risk was presented to Chief Officer Risk Management Group (CORMG – March) and the Executive Leadership Board (ELB – April). Following discussion at these forums, it was recommended that the risk be escalated as a Corporate Risk. Subsequently the risk has been presented to Audit & Risk Management Committee, who endorsed this decision. 24 Jun 2022	 Likelihood Impact	4	31-Mar-2023	 Constant
							Reduce	

Action no	Action description	Latest Note	Action owner	Latest Note Date	Due Date
SUR SMT 004a	Cyclical Works Programme (CWP)	<p>The CWP bid for 22/23 is valued at £29.8m, and these works are essential to keep the operational properties in a good standard.</p> <p>This bid was subject to a bilateral meeting on 08/10 and following Member steer has subsequently been reduced to c.£11.1million. This funding was approved by RASC in January and progress will be reported through to OPPSC.</p> <p>Peter Collinson & Peter Young will be meeting with Sonia Virdee (Chamberlain's) to discuss the interaction between the Medium-Term Financial Plan (MTFP) and the combination of backlog and deferred maintenance (July 2022). A new bid is being developed (23/24) and will likely be circa £30m, but will need to go through a similar prioritisation process.</p>	Peter Collinson	24-Jun-2022	31-Mar-2023
SUR SMT 004b	Ring fenced properties and budgets (CoLP estate, New Spitalfields, Billingsgate and the three private schools	<p>CSD is communicating with ring fenced departments to identify appropriate building maintenance requirements and spend (forward maintenance). These department occupiers allocate their own funds for the maintenance of the built assets. Whilst the City Surveyor's Department recommends work to be undertaken, it is the occupying department who holds the budget responsibility and thus decides with final control over maintenance activity.</p> <p>This element is being mitigated through the delivery of the recommendations arising from the recent Internal Audit.</p> <p>Internal Audit are currently undertaking a planned progress update review following the 2021 Audit. The department is actively engaging with this review to help pinpoint areas where progress has not proceeded as rapidly as desired. Recommendations arising from this review will be implemented by the department and promoted to other departments where it falls outside of CSD control.</p> <p>The master planning of certain sites (such as the Boys' School) helps add clarity around required spend.</p>	Peter Collinson; Peter Young	24-Jun-2022	31-Mar-2023
SUR SMT 004c	Repairs and Maintenance Budget	The local repairs and maintenance budget has come under significant pressure. The intelligent prioritising of works helps mitigate the impact of this issue. This reflects good practice and helps inform the CWP scoring matrix. The implementation of the new Computer Aided Facilities Management (CAFM) system Concerto increases the intelligence that can be drawn from our systems.	Peter Collinson	24-Jun-2022	31-Mar-2023
SUR SMT 004d	Revenue Programme (Investment Estate Only)	<p>The allocation of sufficient funds to maintain our investment portfolio to a high standard is required to maximise income generation and asset appreciation. Discussions are on-going with internal colleagues such that sufficient provision is made from the rent received.</p> <p>For the coming year 4.6% of projected rent has been allocated, broadly in line with the 5% industry 'rule of thumb'. One of the post-Covid trends is a 'flight to quality' from occupiers, making the condition of our assets critical to future income.</p>	Nicholas Gill	24-Jun-2022	31-Mar-2023

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SUR Departmental risks - detailed report EXCLUDING COMPLETED ACTIONS for COMMITTEE

Report Author: Faith Bowman

Generated on: 23 June 2022



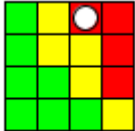
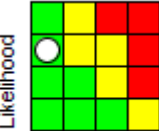

Rows are sorted by Risk Score

Risk no, title, creation date, owner	Risk Description (Cause, Event, Impact)	Current Risk Rating & Score		Risk Update and date of update	Target Risk Rating & Score		Target Date/Risk Approach	Current Risk score change indicator
SUR SMT 005 Construction Price Inflation	Cause: Market conditions have led to input price inflation Event: Project and programme cost escalation Impact: Inability to delivery capital and revenue projects within budget	 Likelihood Impact	16	<p>Material costs and labour availability are combining to raise costs. This cost increase has already been seen in our tender returns, and this explains why this risk notes its likelihood as “likely”.</p> <p>The recent sharp uplift in fuel and energy prices is creating negative impacts across the supply chain and may lead to this risk being less transitory than first envisaged.</p> <p>We are currently experiencing the following issues:</p> <ul style="list-style-type: none"> . Contractor claims – have increased (this is in-line with the broader industry) . Contractor financial stability – is being monitored closely, and we are ensuring that contingencies are in place where relevant. 	 Likelihood Impact	6	31-Mar-2023	

14-Oct-2021 Ola Obadara				<p>. Market interest – contractors are being selective, and often declining to tender.</p> <p>. Shortage of labour and materials – manifesting in significant increases in prices (tendered projects are often circa 20% above the pre-tender estimate).</p> <p>As a headline, tender prices are forecast to rise by over 21% between now and Q1 2026.</p> <p>There is the risk that there are further price rises. This will lead to some cancelled projects, or projects facing uplifts in costs. This therefore has a knock-on impact on other corporate priorities which require project delivery.</p> <p>These increased costs may impact the organisation's ability to deliver capital and revenue projects within budget.</p> <p>21 Jun 2022</p>			Reduce	Constant
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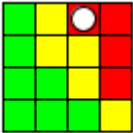
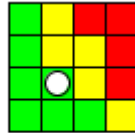
Action no	Action description	Latest Note	Action owner	Latest Note Date	Due Date
SUR SMT 005a	Procurement Strategy	<p>The department is working with legal and procurement to identify different buying options, thereby managing the risk to the department / organisation. This exploration included a review of the prior Single Stage tender process (which had been preferred for medium range projects - £2m - £50m).</p> <p>Following the review Two Stage contracts will be used more frequently. This is the current market norm for these projects. The change enables contractors to better transfer their risk and leaves the City with a degree of cost uncertainty, even post Gateway 5. Whilst this transfer is not desired, it offers far better market coverage and reflects the prevailing external conditions. This will be kept under review.</p>	Ola Obadara	21-Jun-2022	31-Mar-2023

SUR SMT 005b	Committee Paper	The City Surveyor's Department input into a paper for (then) Project Sub Committee, Procurement Sub Committee and Policy and Resources outlining the impact and implications of this risk. Awaiting Decision.	Ola Obadara	21-Jun-2022	30-Sep-2022
SUR SMT 005c	Capital Project Review	A detailed review of projects that are scheduled to be delivered over the next 2-3 years is underway. This will test different inflationary assumptions. (Notes currently being compiled from review)	Ola Obadara	21-Jun-2022	31-Jul-2022
SUR SMT 005d	Contracts	Chamberlain's procurement and the department will explore the potential inclusion of fluctuating provisions in our contracts. Currently contractors are expected to take inflation into account when tendering, sharing this risk may attract greater interest for contractors to price and deliver.	Ola Obadara	21-Jun-2022	31-Mar-2023
SUR SMT 005e	Contract Engagement	We are looking to engage early with our contractors on a consultancy basis to obtain as much information as possible prior to contract.	Ola Obadara	21-Jun-2022	31-Mar-2023
SUR SMT 005f	Specification and Materials	Ensuring materials are readily available before and during the design phase and, if possible, procure in advance of the contract. Further consideration is being given to the origin of source materials to ensure supply.	Ola Obadara	21-Jun-2022	31-Mar-2023
SUR SMT 005g	Scope of works	In the event of the above mitigations being insufficient to contain the quantum of cost, some projects may need to be de-scoped, delayed or even cancelled. Should this action be required, there will be a knock-on impact on the delivery of departmental and corporate objectives. This will be kept under review.	Ola Obadara	21-Jun-2022	31-Mar-2023

Risk no, title, creation date, owner	Risk Description (Cause, Event, Impact)	Current Risk Rating & Score		Risk Update and date of update	Target Risk Rating & Score		Target Date/Risk Approach	Current Risk score change indicator
SUR SMT 007 Energy Pricing 18-Oct-2021 Peter Collinson	Cause: Rapid increases in the market cost of energy Event: Increasing price born by the City of London Corporation Impact: Money directed to energy payments that could be used in other endeavours	 Likelihood Impact	16	Energy Prices have continued to remain at an extremely high level, this trend appears to be continuing into 23/24. This has created significant inflationary pressure in the current financial year and somewhat into 23/24. The purchasing strategy has managed this risk and is designed to provide a market reflective price. The Power Purchase agreement is likely to provide over 50% of our power at substantially lower cost, alleviating this budgetary pressure. However, the construction of the Solar Farm by Votalia has been delayed by SSE grid connection issues, outside of our control. The PPA is now due for operation in October 22. 15 Jun 2022	 Likelihood Impact	3	31-Mar-2023	 Increasing
							Reduce	

Action no	Action description	Latest Note	Action owner	Latest Note Date	Due Date
SUR SMT 007a	Managing cost management	This element of the risk is being managed through the forward buying strategy, Power Purchase Agreement (PPA), and energy efficiency measures. A briefing note has been sent to the City Surveyor and Chamberlains. We are hedging the market by placing trades, to ensure a market reflective price, however there has been unprecedented volatility in the market over recent months. Higher prices are unavoidable, though the PPA will support a reduction in the average price of electricity post October 22.	Peter Collinson; Graeme Low	21-Jun-2022	31-Mar-2023

SUR SMT 007b	Managing supplier failure	The City is contracted with TGP energy, which is a large multi-national with risk divested across both supply and generation. TGP has a low portion of income generated from UK domestic customers (thereby minimising price capping implications).	Peter Collinson; Graeme Low	21-Jun-2022	31-Mar-2023
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Risk no, title, creation date, owner	Risk Description (Cause, Event, Impact)	Current Risk Rating & Score		Risk Update and date of update	Target Risk Rating & Score		Target Date/Risk Approach	Current Risk score change indicator
SUR SMT 009 Recruitment and retention of property professionals	<p>Cause: Uncompetitive pay and benefits structures within some professional grades; poor quality work environments; lack of professional progression over recruitment freeze and restructuring period; increased employee focus on work-life balance</p> <p>Event: Increasingly difficult to recruit suitably skilled staff at the correct level for the grade being recruited for. Increasingly difficulty to keep staff who get better reward packages from other organisation (both commercial and public sector)</p> <p>Impact: Increased vacancies, objectives unachieved or delivered late (including project delivery and income generation), reduced customer satisfaction, less real estate activity, reduced employee wellbeing, demotivation of staff. Increased costs born by the organisation through recruitment campaigns and training etc, or to the department through filling vacancies through comparatively expensive temporary contracts.</p>	<p>Likelihood</p>  <p>Impact</p>	16	<p>This risk has been identified within a number of divisions within the City Surveyor's Department.</p> <p>Across the wider economy there is an increase in the amount of jobs being offered leading to greater competition for employees. This is putting greater focus on the wider 'offer' that is being provided by the CoL/CSD in comparison to our competitors.</p> <p>Building magazine have cited that there are currently 48k vacancies in the construction industry, the highest figure for two decades, and this is leading to 'poaching' of staff, with premiums of up to 25% provided.</p> <p>Employee research (Cushman & Wakefield, JLL, Gensler) have highlighted that work-life balance is an increasing priority for staff so being aware of these evolving employee demands is critical.</p> <p>The cost of recruitment is also significant and can harm the overall position of the organisation. Much of this risk is outside the control of CSD, however the department continues to deliver actions to mitigate the risk where possible. Further, it has pro-actively with our corporate partners to seek further solutions.</p> <p>This departmental risk directly</p>	<p>Likelihood</p>  <p>Impact</p>	4		↑

21-Jan-2022				supports the Corporate Risk on “Skills & capacity of our people” on the Corporate Risk Register. 21 Jun 2022			Reduce	Increasing
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Action no	Action description	Latest Note	Action owner	Latest Note Date	Due Date
SUR SMT 009a	Advertising	The department and the HR Business Partner has produced a recruitment best practice document, which includes ensuring that vacant posts are advertised in areas which will generate interest from suitably qualified candidates, including those currently under-represented within our workforce.	Rupert James; Paul Wilkinson	21-Jun-2022	31-Mar-2023
SUR SMT 009b	Best Practice	Including delivery of appraisals, regular one-to-ones, team and group meetings. This aims to improve communications at all levels, ensuring that CSD is a positive work environment and that issues/blockers can be raised and addressed. In some areas career graded roles have been instituted, and deployment can be further explored.	Paul Wilkinson	21-Jun-2022	31-Mar-2023
SUR SMT 009c	Communication	Quarterly meetings from the department’s Chief Officer so all staff feel engaged with the activities of the department.	Paul Wilkinson	21-Jun-2022	31-Mar-2023
SUR SMT 009d	Engagement with HR	Some of the items highlighted as the ‘causes’ of this risk are outside the control of CSD, and engagement with our Corporate partners will be critical to overcoming these items. This departmental risk directly supports the Corporate Risk on “Skills & capacity of our people”.	Paul Wilkinson	21-Jun-2022	31-Mar-2023
SUR SMT 009e	Equalities, Diversity and Inclusion	The department has an active ED&I network, which regularly engages with the City Surveyor and the Senior Management Team. This is seeking to make the department a more attractive destination for under-represented groups and seek to retain and progress staff from all backgrounds.	Ola Obadara	21-Jun-2022	31-Mar-2023
SUR SMT 009f	Pay and Review Survey	Review with HR the possibility of a refreshed Pay and Review survey. This was last undertaken in January 2018 by McDonald and Co and, as noted in the update, considerable market change has occurred since this time. A budget will need to be identified for this activity for it to progress.	Paul Wilkinson	21-Jun-2022	31-Mar-2023
SUR SMT 009g	Your Voice Matters Survey	The Your Voice Matters survey was undertaken earlier in 2022. Detailed results are now available and have been communicated to Directors. Analysis within the department have highlighted positives / areas for consideration, and particularly with respect of the second of these we are working with Corporate Colleagues to develop a response (these themes are reflected in the “risk cause” above.	Paul Wilkinson, Kaye Saxton-Lea, John	24-Jun-2022	31-Mar-2023

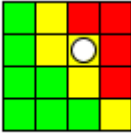
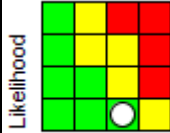

		The department will be supporting the ‘roadshow’ activities scheduled for Summer/Autumn which will develop additional granularity. This action will help mitigate the ‘retention’ element associated with this risk.	Galvin		
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		Shadow budget now agreed. To commence this financial year 22/23.	Collinson; John James; Peter Young		
SUR SMT 002g	Maintenance Management	The department continues to work with Skanska, our Building Repairs and Maintenance Contractor, to review and improve the correct Planned Preventative Maintenance (PPM) regime.	Peter Collinson	19-Apr- 2022	31-Mar- 2023
SUR SMT 002j	Budget adjustment	The department is identifying how to maintain services across the complex in light of lower budget allocations for 2022/23.. This will identify areas where savings are being made and any changes in service to align to the new budget.	Peter Collinson; Peter Young	19-Apr- 2022	31-Mar- 2023

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	<p>3. Tenancies (Long term Headlease geared, FRI, directly managed)</p> <p>4. Covenants (multinationals, SME)</p> <p>5. Asset management (lease renewals, voids, arrears, etc)</p> <p>6. Monitoring retail habits in change of building use</p>				
SUR SMT 003b	<p>Portfolio</p> <p>Ensuring that the overall composition of the investment portfolio takes advantage of emerging segments of growth, whilst managing the exposure to property types which are showing reducing demand.</p>	This is achieved through regular market scanning, and the integration of learning into the Corporation's approach.	Nicholas Gill	21-Jun-2022	31-Mar-2023
SUR SMT 003c	<p>Climate Action</p> <p>The alignment of our portfolio with the future strategic needs of occupiers, particularly supporting their ESG (Environmental-Social-Governance) needs. Climate Action is principally managed through the Climate Action risk (SUR SMT 001). However, it is referenced here as there is a requirement to ensure that the properties offered by the City of London are meeting the emerging needs of tenants.</p>	Ensure that the properties offered by the COL are meeting the emerging needs of tenants.	Nicholas Gill	21-Jun-2022	31-Mar-2023
SUR SMT 003d	<p>Office risk</p> <p>A slow return of workers to the office may lower demand for office spaces, or the types of spaces required may necessitate additional works prior to letting</p>	<p>The department is monitoring the return to the office through data supplied by partners (such as football information), market research reports, and tenant feedback.</p> <p>The department continues to observe a 'flight to quality' – higher specified and higher quality spaces. Occupiers are increasingly considering their space as a tool in the 'war for talent'. Whilst some occupiers are downsizing their space, others are looking to create a better environment for staff through lower densities / improved amenities.</p> <p>The team is working with Corporate Colleagues in connection with the "Destination City" agenda and the Investment Property Director presented to the June RASC Away Day to highlight market trends.</p>	Nicholas Gill	21-Jun-2022	31-Mar-2023
SUR SMT 003e	<p>Retail</p> <p>Changes in consumer preferences (moving to on-line retail) which has been accentuated through the COVID-19 pandemic. Elements of the City portfolio is also dependent on tourism, which has seen a significant decline over the last 12+ months. The speed at which this return is yet to be understood.</p>	<p>The moratorium on enforcement action concluded in March 2022. Arrears built up from 03/20 – 07/21 will be ring-fenced for six months. Over this time the government is encouraging tenants and landlords to reach a commercial agreement pertaining to these arrears. Arrears outside of this period are being handled in line with existing process/procedures.</p> <p>The 'Covid-arrears' element of the risk was managed through the below. These actions were largely successful, and only a minor increase in voids manifest.</p> <ul style="list-style-type: none"> . Move to monthly payments (offered to directly managed and FR&I tenants). . Rent concessions for some tenants (Mar, Jun, Sep, Dec quarters). No further concessions are 	Nicholas Gill	21-Jun-2022	31-Mar-2023

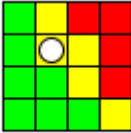
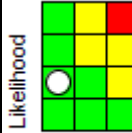

		proposed. . Engagement with peers to understand wider market impacts. . Regular arrears monitoring, including the provision of bi-monthly dashboards Rental collection snapshot is being produced by Chamberlain’s Department.			
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Risk no, title, creation date, owner	Risk Description (Cause, Event, Impact)	Current Risk Rating & Score		Risk Update and date of update	Target Risk Rating & Score		Target Date/Risk Approach	Current Risk score change indicator
SUR SMT 006 Construction Consultancy Management 14-Oct-2021 Ola Obadara	Cause: Poor performance by consultants Event: Abortive work, delays, or non-performance. Impact: Additional costs, project delays	 Likelihood Impact	12	This risk is being managed but it will take some time to resolve issues arising from contractors previously appointed. This relates to abortive design / development. 21 Jun 2022	 Likelihood Impact	4	30-Sep-2022	 Constant
							Reduce	

Action no	Action description	Latest Note	Action owner	Latest Note Date	Due Date
SUR SMT 006a	Commissioning stage	The department has commenced going to market at RIBA stage 3 rather than RIBA stage 4. This will prevent abortive design and development. This change followed close work with the procurement team in Chamberlain's. The impact of this change will be tracked over the coming months.	Ola Obadara	23-Jun-2022	30-Sep-2022
SUR SMT 006b	Legal	The team is working closely with the legal department to ensure that procurement activity aligns with project objectives and the consultants meet quality requirements.	Ola Obadara	23-Jun-2022	30-Sep-2022

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		to ensure comprehensive accuracy.			
SUR SMT 010b	Funding	Funding will need to be identified. In earlier years this budget was met from CS Local Risk, however this budget line can no longer accommodate this spend. Where leases allow, the cost can be recovered from commercial tenants, and operational occupiers as appropriate. However, up front funding will need to be identified.	Nicholas Gill; John James	26-May-2022	31-Mar-2023
SUR SMT 010c	Delivery	Deliver - Once funding has been identified	Nicholas Gill	26-May-2022	31-Mar-2023

Risk no, title, creation date, owner	Risk Description (Cause, Event, Impact)	Current Risk Rating & Score		Risk Update and date of update	Target Risk Rating & Score		Target Date/Risk Approach	Current Risk score change indicator
SUR SMT 008 Special Structures 20-Oct-2021 Peter Young	Cause: Lack of central register for special structures and/or ambiguity over accountability, responsibility for budget provision Event: Incomplete, or not up-to-date register of special structures and planned maintenance regime Impact: Potential failure of special structure and/or forced closure of asset / space	 Likelihood Impact	6	Special structures relate to those structural elements with an asset which supports other (often public) elements, so captures basements, sub-road spaces, supporting structures etc. There is no current central register of these structures within the portfolio, and therefore no current prescribed or routine inspection regime in place to ensure that these structures remain in a suitable condition. 21 Jun 2022	 Likelihood Impact	2	31-Mar-2023	 Constant
							Reduce	

Action no	Action description	Latest Note			Action owner	Latest Note Date	Due Date
SUR SMT 008a	Special Structures register	Funding to undertake the technical inspections, create the inventory and survey current condition was approved as part of the Cyclical Works Programme (CWP) 22/23 Bid List. The Operations Group is now developing detailed briefs for contractors. It is anticipated that the process will run through 2022 and, depending on the gap between current and desired condition, further funding bid requests may result.			Peter Collinson; Peter Young	21-Jun-2022	31-Mar-2023
SUR SMT 008b	Special structures – investment portfolio	Register for the investment estate exists but requires a refreshed survey to ensure on-going accuracy of information.			Peter Collinson; Nicholas Gill; Peter Young	21-Jun-2022	31-Mar-2023
SUR SMT 008c	Special structures – Barbican Estate	Corporate Property Group Director met with Barbican to discuss that all special structures across the Barbican are identified (not just tunnels) and that they will need to be recorded. Housing use a physical asset register system called Keystone and the rest of the portfolio (non-housing) is on Concerto (CAFM) managed by the City Surveyor.			Peter Collinson; Peter Young	21-Jun-2022	31-Mar-2023

		<p>The department's Operation's Group is reviewing whether the CAFM system is the right place to record the special structures once fully identified and inspected. Barbican Estate is considering Keystone for the Barbican special structures.</p> <p>For Barbican Estate and Housing, point to note is that Community and Children's Services have their own corporate maintenance contract and do not use the CSD corporate BRM contractor (Skanska). This adds a further layer of complexity for Barbican, where there is more than one maintenance contractor undertaking works (housing and non-housing).</p>			
SUR SMT 008d	Special Structures – other assets	Corporate Property Director and Operations Group Inspector to engage with other departments to ensure that there is clarity over responsibilities and what actions need to progress to mitigate this risk comprehensively across the City of London Corporation.	Peter Collinson; Peter Young	20-Apr-2022	31-Mar-2023

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		and BEMS support will be in place in the coming weeks.	Collinson; Graeme Low	2022	2027
SUR SMT 001c	Capital Projects	Mobilisation in progress facilitated by the delivery of the recruitment action. Guidelines / brief requires clarification, and this is being resolved with the relevant internal leads. Whole Life Carbon assessments began from April 2022.	Peter Collinson; Graeme Low	21-Jun- 2022	31-Mar- 2027
SUR SMT 001d	Resilience	Mobilisation in progress facilitated by the delivery of the recruitment action. Climate Impact Modelling exercise started April 2022.	Peter Collinson; Graeme Low	21-Jun- 2022	31-Mar- 2027
SUR SMT 001f	Monitoring and awareness	Review of targets annually to reflect changing industry standards. This is related to the 'carbon factor' of the electricity grid, and how rapidly this de-carbonises. This may change the programme or prioritisation of works.	Peter Collinson; Graeme Low	21-Jun- 2022	31-Mar- 2027
SUR SMT 001g	Recruitment	There is a requirement to have a team of nine for climate action, but recruitment had been delayed by governance issues. The Centre of Excellence is largely in place (as per SUR SMT 001b). In addition, the department has two permanent posts within the team that are currently vacant – these are in the recruitment phase..	Peter Collinson; Graeme Low	21-Jun- 2022	31-Mar- 2027

Committee(s)	Dated:
Property Investment Board – For information Operational Property and Projects Sub Committee – For information	19 July 2022 20 July 2022
Subject: City Surveyor's Business Plan 2021-26 Quarter 4 2021/22 Update	Public
Which outcomes in the City Corporation's Corporate Plan does this proposal aim to impact directly?	4, 7, 12
Does this proposal require extra revenue and/or capital spending? N/A	N
If so, how much? N/A	N/A
What is the source of Funding? N/A	N/A
Has this Funding Source been agreed with the Chamberlain's Department? N/A	N/A
Report of: The City Surveyor (CS 220/22)	For Information
Report author: John Galvin / Faith Bowman City Surveyor's Department	

Summary

This report provides Members of Property Investment Board (PIB) and Operational Property and Projects Sub Committee (OPPSC) details of progress in quarter 4 (January to March) 2021/22 against the 2021-26 Business Plan.

Since the onset of Coronavirus in early 2020 we have not been providing a Red-Amber-Green (RAG) assessment for three measures. Each of these relate to investment property performance where, whilst we have reported on performance, it has been difficult to set meaningful targets. We have set targets for 2022/23 and will report on these along with the other Key Performance Indicators.

The department has continued to perform well. The last 12 months have been extremely challenging as the City returns to the 'new normal.' We have continued delivery of our core services – the safe operation of our sites, the management of our assets, the delivery of key projects, the management of our investment estate, and the promotion of the City – this is a testament to the commitment and drive of our staff whilst in adapting to change.

At the end of the reporting year, seven key performance indicators (KPIs) achieved the target (green), and three items were marginally behind in achieving the target set for the year. One final measure (MSCI outperformance) will be reported in the first quarter of 2022/23 as information was not available at the time of writing this report.

The red indicators were as follows:

- KPI. 1 – Asset Realisation and Additional Income (OPPSC)
- KPI. 6 – Capital Projects risks status (OPPSC and PIB)

- KPI. 14 – Digital infrastructure strategy (OPPSC and PIB)

The financial position at the end of the year, set out in Appendix A, reveals that the City Surveyor was overspent by £1.159m against a budget of £27.743m (4.2%) for his City Cash and City Fund services. The City Surveyor's Bridge House Estates services, which are now shown separately, were underspent by £251k against a budget of £2.520m (10%).

Recommendation(s)

That Members note the content of this report.

Main Report

Background

1. In line with the City Corporation's performance management approach, this is a quarterly report on the progress made during quarter 4 of 2021-22 (January to March) against the 2021-26 Business Plan.

Current Position

2. This report provides the latest budget information which is set out in Appendix A. Appendix B provides a detailed table of the department's Key Performance Indicators (KPIs). Charts of performance indicators that are of interest to your Committee are included in Appendix C. Commentary on the commercial property market is included in Appendix D.
3. In addition, Members receive regular monitoring reports covering Rent Reviews, Lease Renewals, Arrears, Vacancies and Delegated Decisions. These provide indications of the current market situation, particularly for directly managed properties.
4. A separate monitoring report on the risks within the department is also circulated for this meeting.

Financial Statement

5. The outturn reveals that the City Surveyor was overspent by £1.159m against a budget of £27.743m (4.2%) for his City Cash and City Fund services. This overspend contained two exceptional items. One was £313k for business rates due to a tenant failure on City's Estate. The second was an overspend at the Central Criminal Court principally due to extra cleaning and equipment, as a result of COVID-19, and additional energy costs. As the service was only transferred to the City Surveyor in November 2021 there was little opportunity for him to have any impact on this overspend at the Court. The reasons for remainder of the overspend are set out in Appendix A.
6. This year the Chamberlain in consultation with the Chairman and Deputy Chairman of the Resource Allocation Sub-Committee have agreed that no departmental overspend will be carried forward into 2022/23.

7. The City Surveyor's Bridge House Estates services, which are now shown separately, were underspent by £251k against a budget of £2.520m (10%). This was due to underspend on repairs and maintenance, partly due to a project not completing, as well as savings on energy costs. These underspends were in part offset by additional professional fees for marketing Electra House (investment) and extra security costs. A small carry forward budget of £40k has been approved by the Bridge House Board out of the underspend. This carry forward will be used to complete work to upgrade lighting at Viper Industrial Estate (investment) to improve the buildings EPC to a B. This work did not complete in 2021/22.

Business Plan progress update

8. The following KPIs are not currently being assessed against a target, and consequently no RAG status will apply. As London emerges from Coronavirus-imposed restrictions, we will again report against a target for these measures. This is anticipated to be from quarter 1 2022/23.
- A. KPI. 9 – Rental forecasts (PIB)
 - B. KPI. 10 – Minimise arrears (PIB)
 - C. KPI. 11 – Minimise voids (PIB)

Quarter 4 2021/22 update

9. A RAG status is used to summarise the progress of the performance indicators we are measuring on a quarterly basis. The table below provides an 'at a glance' status report for the City Surveyor's KPIs at the end of quarter 4.

Status ¹	Green	Amber	Red	TBC	N/A
Operational Property and Projects Sub Committee	7		3		
Property Investment Board	1		2	1	3
Overall ²	7		3	1	3

10. Of the fourteen key performance indicators monitored, seven were assessed as being on target (green), with three indicators ended the year behind target (red).
11. As noted in paragraph 8, three measures do not have a RAG assessment. One further measure, relating to our investment performance against the Morgan

¹ Red = High Risk of Failure or Not Achieved; Amber = Some Concern; Green = On Target or Achieved.

² Some KPIs relate to both PIB and OPPSC. Therefore, row indicating KPIs overall is not a total of the PIB and OPPSC rows.

Stanley Capital Index (MSCI) benchmark, will reported in quarter 1 once data is finalised.

12. KPI.2 – Corporate Energy Consumption recorded a weather corrected year-on-year increase of 4%. However, this measure has been assessed as green as the equivalent period in 2020/21 was heavily impacted by COVID-19 lockdowns. A comparison with the year prior (2019/20) shows a 17% weather corrected reduction in consumption, which is tracking ahead of the long-term target.

13. The following indicators was marginally behind target at the end of quarter 4:

A. KPI. 1 – Asset Realisation and Additional Income (OPPSC)
Quarter 4 performance – not achieved

The objective of this indicator is to attain receipts (capital and projected income) that are > 90% of the total forecast value of £1.9m. There is also an additional income target £1.5m per annum. This relates to an increase in rental billing (achieved through lease events), not in relation to rent received. As we approach the end of the financial year, an update on our key sites is noted below:

Park View

On target, the Committee has approved disposal and easement. Total receipts of £171,500, broken down as follows:

- City Fund - £148,500
- Epping Forest Capital Fund - £23,000

Woodredon Farm and Equestrian Centre

Second round offers have been received and assessed. The preferred bidder has recently withdrawn from the process and the under bidders are currently being considered.

Green Lane

This site is not on target. There are complex estate management issues which are being worked through in consultation with the Epping Estate Team, supported by external advice. Resolution is expected by September 2022 before this property will be ready for disposal.

Income Target

The income target is not forecast to be achieved. The continued impact of COVID-19 and the resulting market uncertainty, combined with the extended moratorium on forfeiture provisions until March 2022, have led to a delay in agreeing many transactions and new uplifts in rental payments.

Despite these headwinds, the Corporate Property Group in the department has generated combined additional savings, income and capital receipts from transactions completed in 2021/22 across the operational estate of £3.35m (of which only £166k contributes to departmental local risk budget). Furthermore, additional income of circa £122k per annum has been secured through the lease event programme managed by this department on behalf of other service departments i.e., the management of the third-party interests (leases, licences etc).

B. KPI. 6 – Capital Project – Project Risk Status (OPPSC and PIB)
Quarter 4 performance – 23%.

The objective of this indicator is to look at the Risk Status of each project comparing the percentage of 'Red-status' projects to the overall number of projects. A target has been set for red projects not more than 20%. The quarter 4 result for this indicator was just above target at 23%.

The amber rating is a direct result of COVID-19 and site restrictions. Due to these limitations several projects are still running behind programme and therefore did not achieve a green status.

C. KPI. 14 – Digital Infrastructure Strategy (OPPSC and PIB)
Quarter 4 performance – not achieved

The objective of this indicator is to deliver the Digital Infrastructure Strategy by the end of 2022. This strategy focusses on encouraging and facilitating the deployment of telecommunications networks to boost economic growth, digital inclusion, and deliver a range of societal benefits. This delivery of this strategy is assessed against quarterly milestones.

The target has not been achieved in quarter due to the wireless concession partner changing ownership. Consequently, the contract to deliver the pilot was being held in abeyance. It is expected that sign-off will be achieved to allow deployment of the pilot in quarter 1 2022/23.

Conclusion

Over 2021/22 the department performed exceptionally well. The year was characterised by uncertainty driven by the Coronavirus pandemic. The fact that most of our measures met and exceeded target is a testament to the commitment and professionalism of the department's workforce.

Appendices

- | | |
|--------------|---------------------------------|
| • Appendix A | Budget Monitoring Statement |
| • Appendix B | Key Performance Indicator Table |
| • Appendix C | Headline Performance Charts |
| • Appendix D | Market Commentary |

Background Papers

- The City Surveyor The City Surveyor's Business Plan 2021-26 (CS 347/20)
- The City Surveyor Business Plan Quarter 1 Update (CS 358/21)
- The City Surveyor Business Plan Quarter 2 Update (CS453/21)
- The City Surveyor Business Plan Quarter 3 Update (CS123/22)

Faith Bowman

John Galvin

Departmental Performance & Services

City Surveyor's Department

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LOCAL RISK BUDGET Quarter 4	Latest Approved Budget £000	Quarter 4 Total Expenditure £000	(Over) / Under Spend for Period £000	
City Fund				
City Fund Estate & Leadenhall	(1,613)	(1,652)	(39)	
CPAT & City Centre	(491)	(472)	19	
Walbrook Wharf	(929)	(876)	53	
Mayor's & City of London Court	(20)	(26)	(6)	
Recoverable Projects	0	0	0	
Lower Thames St Roman Bath	(7)	(7)	0	
Central Criminal Court	(346)	(627)	(281)	1
R&M & MI Work for other departments	(1,255)	(1,160)	95	2
Corporate FM cleaning & security	(90)	(96)	(6)	
	(4,751)	(4,916)	(165)	
City's Cash				
City's Cash Estate	(3,017)	(3,548)	(531)	3
Departmental	(9,105)	(9,828)	(723)	4
Mayoralty & Shrievalty	(93)	(54)	39	
R&M & MI Work for other departments	(1,836)	(1,864)	(28)	
Corporate FM cleaning & security	(610)	(642)	(32)	
	(14,661)	(15,936)	(1,275)	
Guildhall Administration				
Guildhall Complex	(8,061)	(7,780)	281	5
	(8,061)	(7,780)	281	
Total City Surveyor Local Risk excl BHE	(27,473)	(28,632)	(1,159)	
Bridge House Estates				
Bridge House Estates	(2,258)	(2,027)	231	6
Tower Bridge Corporate FM cleaning	(262)	(242)	20	
	(2,520)	(2,269)	251	
Total City Surveyor Local Risk incl BHE	(29,993)	(30,901)	(908)	

Notes

1. Overspend mainly due to additional temporary cleaners and equipment to meet Covid safety standards throughout the courts and extra spend on energy costs which could not be recovered from the Court Service.
2. Underspend due to lower reactive repairs and maintenance than anticipated.
3. Overspend due to additional business rates spend and reduced service charge recovery due to voids.
4. Overspend due to delayed facilities management restructure, and residual part of 12% savings target not being met.
5. Savings on reactive repairs and maintenance and security due to the pandemic.
6. Savings on repairs & maintenance, partly due to a project not completing, and energy costs were in part offset by additional professional fees for marketing Electra House and extra security costs.

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Key Performance Indicators																
Ref	Title	Target	Group	Committee	Q1		Q2		Q3		Q4					
					Actual	RAG	Actual	RAG	Actual	RAG	Actual	RAG				
KPI 1	Asset Realisation and additional income	£19m	CPG	OPPSC	on target	green	off target	amber	off target	amber	not achiev	red				
KPI 2	Energy Consumption ^{xxx}	Min 4%	CG	OPPSC	16.00%	green	10.00%	green	6.00%	green	4.00%	green				
KPI 3	Space Utilisation [*]	£3,826	CPG	OPPSC	n/a	n/a	n/a	green	n/a	amber	£3,739	green				
KPI 4	Property contract Performance Compliance	> 90%	CG	OPPSC	90.37%	green	96.30%	green	90.37%	green	91.11%	green				
KPI 5	Adherence to Budgetary Spend Profiles	95% to 10%	All	PIB; OPPS	9.53%	green	31.92%	green	37.62%	green	94.00%	green				
KPI 6	Capital Project - Project Risk Status	< 20%	PPG	PIB; OPPS	21.00%	amber	17.00%	green	23.00%	amber	23.00%	red				
KPI 7	Capital Project- Health & Safety [*]	80%	PPG	PIB; OPPS	n/a	n/a	87.00%	green	n/a	n/a	89.00%	green				
KPI 8	Capital Project - Site sustainability waste management	> 90%	PPG	PIB; OPPS	98.00%	green	98.00%	green	98.00%	green	97.00%	green				
KPI 9	Rental Forecasts ^{xxxx}	n/a	IPG	PIB	£122.19m	n/a	121.6m%	n/a	121.1m%	n/a	119.33%	n/a				
KPI 10	Minimise Arrears ^{xxxx}	n/a	IPG	PIB	13.52%	n/a	12.03%	n/a	11.46%	n/a	9.25%	n/a				
KPI 11	Minimise voids ([*]) ^{xxxx}	n/a	IPG	PIB	3.45%	n/a	n/a	n/a	2.91%	n/a	n/a	n/a				
KPI 12	Outperform MSC ^{xx}	exceed btl	IPG	PIB	n/a	n/a	n/a	n/a	n/a	n/a	bbc	n/a				
KPI 13	Delivery of improvements districts	on schedu	CPAT	PIB; OPPS	on target	green	on target	green	on target	green	achieved	green				
KPI 14	Digital infrastructure strategy	on schedu	CPAT	PIB; OPPS	on target	green	off target	amber	off target	amber	not achiev	red				
	[*] reported bi annually															
	^{xx} reported annually															
	^{xxx} reported a quarter in arrears															
	^{xxxx} RAG currently suspended															

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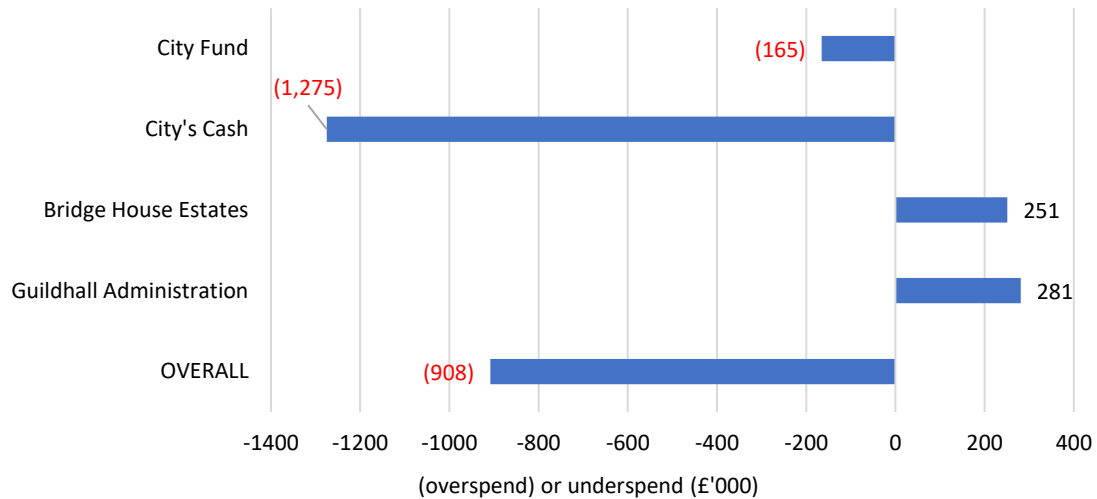


Figure 1 End of year variance against local risk budget – (overspend) or underspend

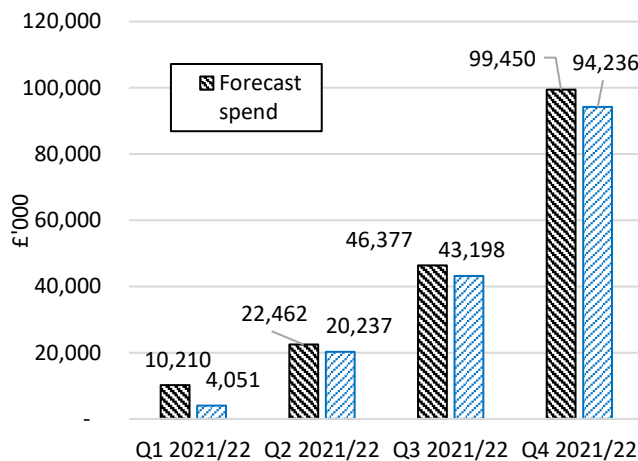


Figure 2 All project spend, forecast v actual

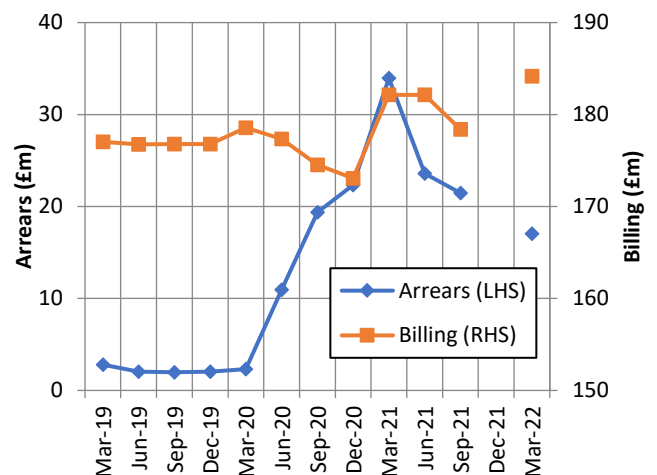


Figure 3 (Investment Properties) Commercial tenants' arrears compared to annual rolling billing run.

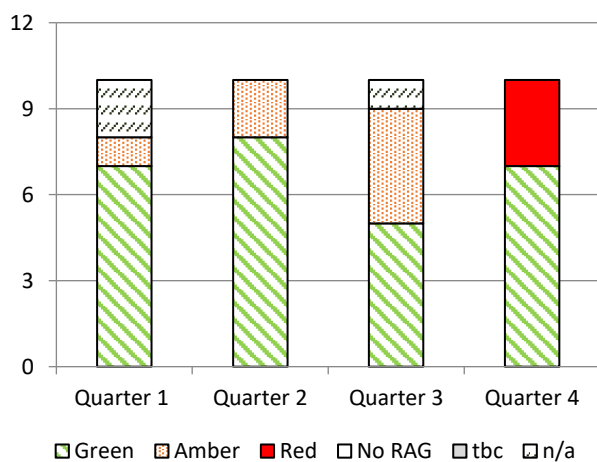


Figure 4 Performance of KPIs linked to Corporate Property (Operational Property and Projects Sub Committee)

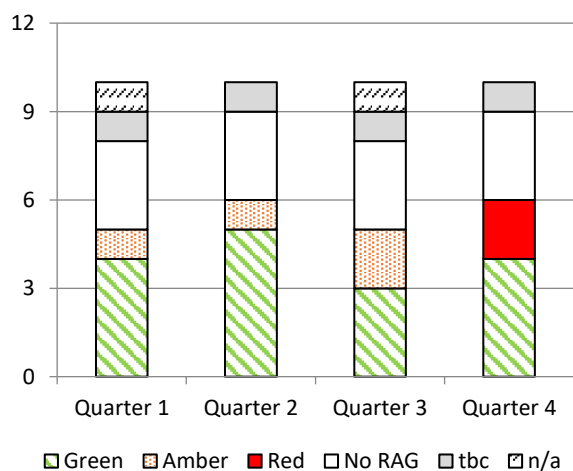


Figure 5 Performance of KPIs linked to Investment Property (Property Investment Board)

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Market Trends, January – March 2022

1. In the City office leasing market, Savills reported that March take-up reached 402,554 sq ft across 32 deals, bringing the total quarter take-up figure to 1.3m sq ft. This is up 71% on the same point last year and is in line with the ten-year average. The twelve-month rolling take-up currently sits at 5.4m sq ft – this is 125% to the same figure twelve months ago (2.4m sq ft).
2. Total City supply rose by 4% and currently stands at 12.9m sq ft, equating to a vacancy rate of 9.2%, and is up considerably on the five-year average of 8.3m sq ft. A contributing factor to this rise is the addition of 550,000 sq ft of speculative schemes scheduled to complete by September 2022 being added to availability.
3. The average Grade A City rent for the first quarter of 2022 settled at £67.11 psf, up on the same period last year by 4%. In the last six months Savills have seen 49 rents achieved over £70.00 psf, or 30% of all known rents in that period. This leaves the average prime for the last six months of £83.64 psf, a record level for any six-month period.
4. The quarter (January to March) saw 683,657 sq ft of office space complete and brought to market. Of the remaining 3.0m sq ft scheduled to complete this calendar year, 40% is pre-let. In total, between 2022 and 2025, the City is anticipating 15.5m sq ft to be completed, of which 18% is pre-let.
5. In the West End office leasing market, Savills reported March as the strongest month for take-up so far this year, albeit the quarter has been quiet in comparison to previous years. Leasing activity reached 264,341 sq ft across 25 transactions – this took the quarter's total to 652,105 sq ft across 79 transactions. This was both 35% and 20% below the ten-year long-term average by volume and number of leasing transactions, respectively.
6. From this 1.30m sq ft of space, 82% is classified as Grade A, whilst 78% of the quarter's take-up was also made up of Grade A space. At the end of the first quarter, the average prime rent stood at £121.66 psf, a 1.5% rise from where it stood at the end of last year.
7. Average Grade A rents remain strong at £82.78 psf whilst the average Grade B rent has fallen by 13% from the end of last year to reach £48.05 psf as demand for this type of office space continues to lessen, albeit this is based on a smaller number of transactions.
8. At the end of the quarter supply rose slightly to reach 7.6m sq ft. This supply was, in part, due to the addition of speculative 2022 completions, which were added to supply at the end of this quarter, adding 606,624 sq ft to supply. Consequently, the vacancy rate has risen in March to reach 6.5%, 20 bps

higher than the previous month and above the ten-year long-term average of 4.1%. Savills are still seeing the available tenant supply decline as it reached 1.6m at the end of last month, an 18% fall from the start of the year.

9. In the City investment market, Savills confirmed the total transaction volume for the quarter reached £3.8bn across 36 deals, 27% higher than the previous record in the January-March quarter in 2007. This reflects a year-on-year increase of 540% on the same quarter in 2021. March was the busiest month of the quarter, with 20 deals reaching exchange of contracts totalling £2.731bn, reflecting an average lot size of £136.5m.
10. In the West End investment market, Savills recorded a quarterly investment turnover of £1.91bn across 23 transactions. Of this 16% of the volume took place in March, where nine deals totalling £307m exchanged. However, the lion's share derives from January's turnover (82%) which is largely attributed to Google's acquisition of Central Saint Giles. The market witnessed a resurgence of activity following a muted February, and the quarterly volume figure represents an increase on the five-year and ten-year averages by 60% and 37%, respectively.
11. In terms of available stock, Savills are tracking a wealth of 'buyable' assets totalling £2.1bn, and over 20% of this volume was marketed in March, across nine buildings. Following a particularly strong quarter, and with a further £1.76bn under offer, they expect momentum to continue into the next (current) quarter, particularly as vendors wish to close existing sales before the traditional lull of summer.
12. Savills Prime City yield remains at 3.75% (same as pre-covid), this compares to a West End Prime Yield of 3.25%.

Committee(s)	Dated:
Operational Property and Projects Sub Committee	20 th July 2022
Subject: 2021/22 Energy & Decarbonisation Performance Q4 Update for the Operational Portfolio.	Public
Which outcomes in the City Corporation's Corporate Plan does this proposal aim to impact directly?	5,11 & 12
Does this proposal require extra revenue and/or capital spending?	No
If so, how much?	£ n/a
What is the source of Funding?	n/a
Has this Funding Source been agreed with the Chamberlain's Department?	n/a
Report of: The City Surveyor	For Information
Report author: Graeme Low	

Summary

This report presents the 2021/22 Quarter 4 energy performance for CoL operational sites.

The continued reduction in 2021/22 was largely due to the reduction in building related activities and operations. In addition, work by both the sites and the Energy Team has enabled these savings to be secured. Please note, for the purposes of comparable analysis we have also shown the reduction from 2019 figures.

- The Q4 result for 2021/2022 was a 10% increase in energy consumption from Q4 2020/2021 when corrected for the impact of weather. This is due to the expected rebound as the gradual return to normal conditions post pandemic.
- Compared to the 2018/2019 Climate Action Strategy (CAS) baseline year, energy consumption reduced by 18% in absolute terms.
- Since 2018/2019 the entire portfolio CO_{2e} emissions have reduced by 11,650 tonnes (32% reduction), achieved through a combination of grid decarbonisation, energy reduction in buildings, and disposals.

Recommendation(s)

- Note new carbon and energy targets for operational buildings derived from the CAS targets as shown in the Appendix.
- Note the progress of £9.4m BEIS grant, covering the majority of capital investment needed for the PSDS project.
- Note the large majority of the PSDS funded work is now complete.

Main Report

Background

1. At OPPSC on 30th May 2022 the 21/22 Q3 Energy performance report was presented. This identified the rolling 12-month energy performance to Q3 as a 16% improvement on the weather corrected values for the Climate Action Baseline year of 2018/19.

2. This saving was due to the continued closure of buildings due to the Covid lockdown initiatives which occurred across this period, site disposals and active management of the BEMS by the Energy Team.
3. The CAS targets have now been incorporated into the Energy Performance report, replacing the previous Carbon Descent Plan targets for the Operational buildings.
4. The Public Sector Decarbonisation Scheme (PSDS) projects have supported this goal and all projects on the PSDS programme have reached GW5 or beyond. The RA-W contract, covering the majority of PSDS works commenced in September 2021. Full completion of the projects are expected by November 2022.

CAS target alignment

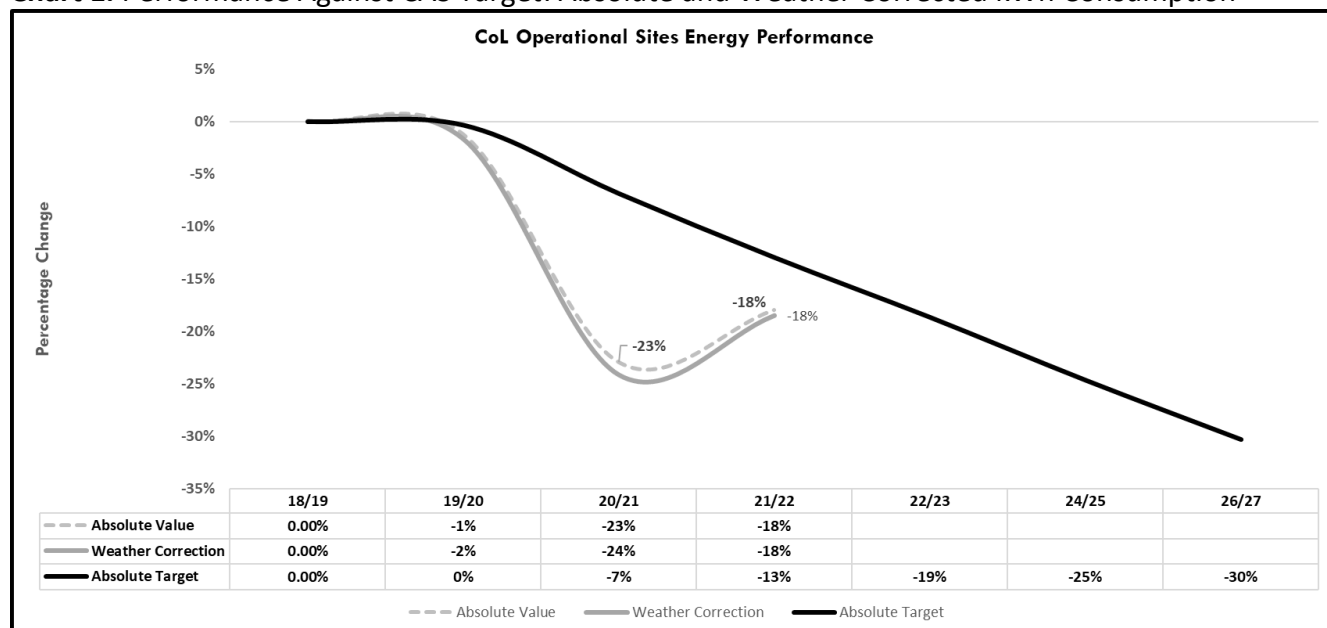
5. The Energy Team continue to collaborate with CAS on best practise methodologies for reporting KPIs and achieving overall CAS targets. The CAS buildings baseline includes the following:
 - Operational property portfolio; and
 - Landlord supplies to housing estates and investment properties
6. Approximately 60% of emissions relate directly to the operational property portfolio.
7. To achieve CAS Net Zero CO2 target by 2027, residual emissions are planned to be mitigated via land-based carbon sequestration from our green spaces. These targets are translated into energy and CO2e, see chart 1 and chart 2 below.

Current position

There has been a gradual increase in consumption since the previous quarter due to the return to normal operations. The impact of PSDS Energy saving projects will not be fully realised until later in 22. However, we remain on track to reach our CAS targets.

Performance update

Chart 1. Performance Against CAS Target: Absolute and Weather Corrected kWh Consumption

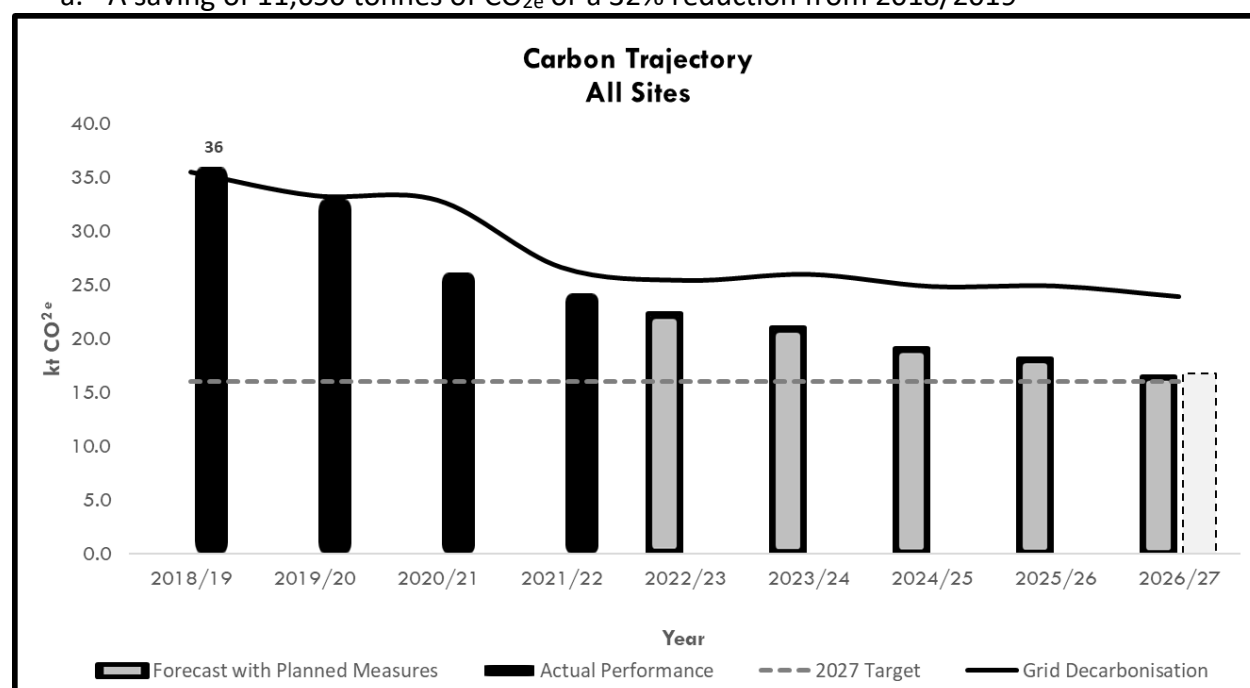


8. **Long term:** Chart 1 presents updated operational building targets to reflect 2018/2019 baseline data in conjunction with the Climate Action Strategy (CAS). It shows continued progress towards the interim target. Compared to the 2018/2019 baseline, the performance up to Q4 2021/2022 indicates:
- A 18% reduction in absolute energy consumption; and
 - A 18% reduction when corrected for the weather

A comparison of energy performance for Q4 2021/22 and Q4 2020/2021 shows an increase in weather corrected values by 10%. This was expected as we have returned to a normal mode of operations for the majority of 2021/22. However, we remain on track towards our CAS target. Further details can be found in table 1 of the appendix.

Chart 2. Carbon Trajectory presents progress towards the 2027 carbon target for the Corporation's portfolio and shows:

- A saving of 11,650 tonnes of CO_{2e} or a 32% reduction from 2018/2019



The following provides a synopsis of Chart 2:

- The savings since 2018/19 demonstrate a positive trajectory for the Climate Action Strategy 2027 Net Zero Carbon target. Finalisation on the delivery of PSDS projects (table 4 of Appendix) will support continued reduction of emissions as we return to more sustained use of our buildings. The Energy Team recommends that sites continue to take active control of their energy consumption by ensuring proper maintenance of BEMS and staying on top of general operating/maintenance issues to ensure consistent reduction of carbon emissions.
- Building stock changes and improved control of our energy usage through Building Energy Management System (BEMS) control improvement within buildings has played a key role in capturing these savings. The PSDS project is expected to further enhance these savings upon completion.

11. Item 10 of the appendix provides an overview of the Operational property carbon performance, without landlord emissions for Housing and IPG portfolios. This currently shows 15.7 KtCO₂e of emissions, a reduction of 6.4KtCO₂e or 29% since 2018/19. This keeps the Operational property portfolio on track to support the City Corporation's net zero carbon targets for 2026/27.

Table 1. Overall performance Q4 Top 5 and bottom five sites – weather corrected

Top 5 Best Performing Sites Weather Corrected	Mar-19	Mar-20	Mar-21	Mar-22	Difference kWh 21 vs 22	Difference kWh 19 vs 22	Difference % 19 vs 22
London Central Market (Smithfield)	17,049,847	14,332,450	9,837,849	10,491,520	653,671	-6,558,327	-38%
Guildhall Complex	17,810,289	17,306,302	13,787,993	14,319,976	531,984	-3,490,313	-20%
Barbican Arts Centre	17,473,586	20,584,573	11,679,670	14,465,174	2,785,504	-3,008,412	-17%
Streetlighting	3,622,410	3,124,297	2,212,522	1,983,340	- 229,182	-1,639,070	-45%
Central Criminal Court	7,825,308	6,853,478	5,771,230	6,631,306	860,076	-1,194,002	-15%

Bottom 5 Performing Sites Weather Corrected	Mar-19	Mar-20	Mar-21	Mar-22	Difference kWh 21 vs 22	Difference kWh 19 vs 22	Difference % 19 vs 22
New Street (21)	1,807,820	1,902,878	1,793,435	2,545,050	751,615	737,229	41%
Walbrook Wharf Cleansing Depot	1,727,333	1,902,766	1,769,201	2,124,381	355,180	397,048	23%
Open Spaces Epping Forest	662,274	641,894	648,932	746,886	97,954	84,612	13%
Open Spaces Parliament Hill	262,267	300,138	232,157	279,111	46,955	16,844	6%
Open Spaces Hampstead Heath Leisure	656,692	702,492	513,847	671,636	157,789	14,944	2%

12. Table 1 above provides a snapshot of the highest energy reductions and the greatest increases within the top thirty buildings over the past 12 months to March, when compared to the previous 12 months. The full list of the top thirty site performance and performance overview for bottom five increases can be found within table 1 of the Appendix.
13. The top sites have continued to show a reduction due to improved controls and implementation of energy saving measures and a decline in occupancy levels. Lighting upgrades have occurred at Guildhall and across streetlighting. Smithfield reductions are due to active management of the BEMS and reduced occupancy levels at the commercial offices. The Barbican Exhibition Halls have closed temporarily supporting further demand reduction.
14. The bottom sites can be attributed to increases in heating and refurbishment activities, as well as possible maintenance issues. Further, there has been an increase in occupancy levels due to a recruitment drive at 21 New Street. The energy team continue to collaborate with the sites to support reduction projects and provide training opportunities via webinars. Further information can be found in the Appendix.

Energy Team and other activity

Progress on energy projects

15. **The PSDS Project:** the scope of works included lighting upgrades, ventilation upgrades, building control upgrades and improvements, sub-metering, new energy management and building analytics software. These works are mostly complete across the Barbican Arts Centre, Guildhall, GSMD, and the LMA; with some remaining works and commissioning programmed up to November 2022. Verification of the savings is expected at gateway 6 in 2022.

16. **Energy Supply contract procurement:** Gas and electricity contracts have been procured using a “purchase in advance” approach for the period October 2021 -2025, this strategy is designed to return a market reflective price. We continue to procure volume for October 22 – September 23 via our Brokers (Laser Energy). Continued volatility in the marketplace has increased the likely impact of a significant impact into 23/24. The introduction of the City Corporation’s PPA will help significantly to mitigate the full impact of electricity prices rises when this begins operating in the Autumn.
17. **PPA:** The PPA contract with Votalia UK Ltd. is in place and construction work on site at the South Farm Solar site near Blandford Forum is now very well advanced with completion expected by mid October 2022. Recently work has progressed with the electricity sub-station, grid connection is also due in October. Once operational, the PPA will provide over 50% of our electricity at ~ £37 MWh in 22/23 compared to the current market rates for electricity of ~£200 MWh. The PPA is expected to provide a £2.12m cost benefit in 2022/23 and a £7.35m cost benefit for 23/24 based on current market rates for grid connected electricity (Source: Mitie energy research).

Corporate and strategic implications

18. **Strategic implications:** Energy performance is linked to resilience and helps ensure business continuity through reduced pressure on the energy infrastructure within the square mile. We support a thriving economy through ensuring environmental responsibility in this way. Our energy performance helps to shape outstanding environments through the reduction of CO₂ emissions and our commitment to procuring clean renewable energy. In this way our energy performance helps shape outcomes 5, 11 and 12 of the Corporate Plan.
19. **Financial implications:** The savings in this report detail reductions in energy consumption and not against agreed budgets. For longer sustainable gains the focus needs to be on improving efficient use of energy, through targeted investment in energy saving measures. Note that savings from the PSDS project will be transferred to the Build Back Better fund for re-investment with further projects.

Conclusion

20. The Energy performance within Q4 remains on track with the long-term trajectory needed to meet our CAS targets for 2027. We continue to mobilise workstream (NZ1) related to operational buildings within the Climate Action Strategy and ensure delivery of the projects that form part of the PSDS project by Q2 2022/23. We remain confident that we can absorb the impact of the reoccupation of our building stock. Our new targets are challenging but achievable, requiring action in all areas of the Corporation to ensure we meet our planned objectives.

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City Surveyor's Department

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Appendix

1. Top 30 site energy performance and bottom 5 performance overview

Performance comparison by top 30 sites: Q4 2021/22 with Q4 2020/21 and 2019/2020

Note: performance includes the years 19/20 to display the impact of covid and provide a fair comparison.

Q4:

Row Labels	Sum of Mar-				kWh			
	19	20	21	22	Difference 22 Versus 21	kWh Difference 22 vs 19	% Change 22 vs 21	% Change 22 vs 19
Animal Reception Centre	746,890	791,442	733,518	747,981	14,464	1,092	2%	0%
Barbican Arts Centre	17,473,586	20,584,573	11,679,670	14,465,174	2,785,504	- 3,008,412	24%	-17%
Baynard House Car Park	165,216	163,052	176,680	151,024	- 25,656	- 14,192	-15%	-9%
Billingsgate Market	3,579,617	3,800,079	3,324,503	3,461,594	137,091	- 118,023	4%	-3%
Bishopsgate Police Station	3,409,658	3,496,132	3,373,176	3,231,309	- 141,867	- 178,350	-4%	-5%
Central Criminal Court	7,825,308	6,853,478	5,771,230	6,631,306	860,076	- 1,194,002	15%	-15%
City of London Crematorium	2,788,975	3,625,693	3,343,369	2,292,229	- 1,051,140	- 496,745	-31%	-18%
City of London Freeman's School	4,861,084	4,588,096	3,401,836	4,586,124	1,184,288	- 274,961	35%	-6%
City of London School	3,229,652	3,155,744	2,936,372	3,155,942	219,570	- 73,710	7%	-2%
City of London School For Girls	2,860,320	2,334,938	1,733,175	1,742,499	9,323	- 1,117,821	1%	-39%
GSMD	2,265,131	1,528,999	1,453,884	1,992,445	538,561	- 272,686	37%	-12%
GSMD - Milton Court	3,876,940	3,063,553	2,418,558	3,849,028	1,430,469	- 27,912	59%	-1%
GSMD - Sundial Court	1,776,176	1,774,805	1,374,017	1,648,327	274,311	- 127,849	20%	-7%
Guildhall Complex	17,810,289	17,306,302	13,787,993	14,319,976	531,984	- 3,490,313	4%	-20%
London Central Market (Smithfield)	17,049,847	14,332,450	9,837,849	10,491,520	653,671	- 6,558,327	7%	-38%
London Metropolitan Archives	1,344,258	1,315,079	1,645,442	1,265,552	- 379,890	- 78,706	-23%	-6%
London Wall Car Park	219,171	211,916	226,319	215,333	- 10,986	- 3,838	-5%	-2%
Mansion House	2,289,797	2,058,914	1,973,846	2,250,048	276,202	- 39,749	14%	-2%
Mayor's Court	313,093	187,947	288,463	253,760	- 34,704	- 59,333	-12%	-19%
New Spitalfields Market (Landlords)	6,800,091	6,612,893	5,822,563	5,826,230	3,667	- 973,861	0%	-14%
New Street (21)	1,807,820	1,902,878	1,793,435	2,545,050	751,615	737,229	42%	41%
Open Spaces East Heath & Kenwood	215,554	195,228	173,463	193,818	20,355	- 21,736	12%	-10%
Open Spaces Epping Forest	662,274	641,894	648,932	746,886	97,954	84,612	15%	13%
Open Spaces Golders Hill & Extension	382,402	429,041	320,959	339,817	18,858	- 42,585	6%	-11%
Open Spaces Hampstead Heath Leisure	656,692	702,492	513,847	671,636	157,789	14,944	31%	2%
Open Spaces Parliament Hill	262,267	300,138	232,157	279,111	46,955	16,844	20%	6%
Streetlighting	3,622,410	3,124,297	2,212,522	1,983,340	- 229,182	- 1,639,070	-10%	-45%
Tower Bridge	2,304,911	2,392,513	1,827,242	2,015,708	188,466	- 289,203	10%	-13%
Tower Hill Coach & Car Park	542,795	548,716	355,994	537,209	181,215	- 5,586	51%	-1%
Walbrook Wharf Cleansing Depot	1,727,333	1,902,766	1,769,201	2,124,381	355,180	397,048	20%	23%
Grand Total	112,869,559	109,926,050	85,150,214	94,014,358	8,864,144	- 18,855,201	10%	-17%

2. Bottom 5 performing sites

Weather Corrected data

Bottom 5 Performing Sites Weather Corrected	Mar-19	Mar-20	Mar-21	Mar-22	Difference kWh 21 vs 22	Difference kWh 19 vs 22	Difference % 19 vs 22	Potential Rationale
New Street (21)	1,807,820	1,902,878	1,793,435	2,545,050	751,615	737,229	41%	Refurbishment from 2017 to 2019 would account for the lower consumption. Late 2021 has seen an increase in occupancy from approximately 30% to 70% due to recruitment drive.
Walbrook Wharf Cleansing Depot	1,727,333	1,902,766	1,769,201	2,124,381	355,180	397,048	23%	Reinstatement of heating; increased occupancy including tenants (tenant consumption provided in Appendix 1)
Open Spaces Epping Forest	662,274	641,894	648,932	746,886	97,954	84,612	13%	BEMS investigation is occurring at the View. Possible issue with underfloor heating or increase in
Open Spaces Parliament Hill	262,267	300,138	232,157	279,111	46,955	16,844	6%	The Energy Team is currently collaborating with the site to determine potential rationale.
Open Spaces Hampstead Heath	656,692	702,492	513,847	671,636	157,789	14,944	2%	

* includes tenant consumption. Tenant consumption is further broken down in section 9

3.CO_{2e} targets for City of London Corporation

City of London (own operations)	Units	Scope	2018	2019	2020	2021	2022	2023	2024	2025	2026	2030	2035	2040
Corporate Properties and Landlord Area	ktCO _{2e}	Scope 1 & 2	36.4	33.9	30.4	24.4	22.8	19.4	18.1	17.0	14.85	7.2	4.5	3.1
Carbon Removals and Land Management (Scope 1)	ktCO _{2e}	Scope 1	-16.2	-16.2	-16.2	-16.2	-16.2	-16.2	-16.2	-16.2	-17.64	-17.6	-17.6	-17.6
Total net zero emissions	ktCO_{2e}	Scope 1 & 2	20.2	17.7	14.2	8.19	6.54	3.18	1.83	0.76	-2.79	-10.5	-13.1	-14.6
Net (negative removed)	ktCO _{2e}	Scope 1 & 2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	17.6			
% reduction against baseline year	%	Scope 1 & 2	0%	-7%	-16%	-33%	-37%	-47%	-50%	-53%	-59%			
Target amount to reduce in period	ktCO _{2e}	Scope 1 & 2					13.6		4.7		3.2			
% of target to deliver in that period	%	Scope 1 & 2					63%		22%		15%			
Total target amount to reduce	ktCO _{2e}	Scope 1 & 2									21.5	To be reduced by 2026/7		

4. PSDS Project update

The large majority of the PSDS funded work is now complete, with only commissioning and snagging to complete in July apart from the Guildhall Ventilation Project. This project has been delayed to reduce the risks to maintaining the internal space conditions and protect the art works and manuscripts until after the summer period, and so has been deferred in part for completion in November 2022.

5. List of key sites in an energy performance partnership with Vital Energi

Guildhall Complex	City of London School	London Metropolitan Archives
Barbican Arts Centre	City of London School for Girls	Tower Hill Car Park
London Central Market (Smithfield)	Walbrook Wharf Cleansing Depot	GSMD – Sundial Ct
Central Criminal Court	Tower Bridge	
New Spitalfields Market	GSMD - Milton Court	
City of London Freeman's School	Mansion House	
Billingsgate Market	GSMD	

High Level Assessments of 13 of the above sites have been completed, with further surveying in progress for the remainder. Following this, projects will be selected to enter into the investment grade proposal stage. Projects under consideration will typically include (but not limited to):

- Energy efficient lighting and controls
- Improvements to HVAC systems
- Optimisation and improvement of BMS controls
- Hydraulic and pumping optimisation
- Low carbon heating
- Renewables
- Fabric measures and draught proofing

6. Cumulative Forecast Carbon Savings

		Carbon Savings - Cumulative (tCO ₂ e/yr)								
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9
		2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
PSDS	Gas	0	0	0	0	358	357	355	354	353
	Elec	0	0	0	0	595	622	579	585	548
	Citigen Heat	0	0	0	0	93	88	83	78	73
	Citigen Coolth	0	0	0	0	88	92	85	86	81
Phase 1 & 2	Gas	0	0	0	0	7	7	7	7	7
	Elec	0	0	0	0	93	97	91	91	86
	Citigen Heat	0	0	0	0	18	17	17	16	15
	Citigen Coolth	0	0	0	0	4	5	4	4	4
Energy Saving Loan scheme	Elec	23	21	19	15	14	14	13	13	12
GHC Chillers	Elec	0	0	0	0	0	179	166	168	157
Operational management	Gas	0	348	347	349	365	387	409	431	453
	Elec	14	355	351	277	290	348	367	413	427
	Citigen Heat	0	0	120	71	86	104	119	132	143
	Citigen Coolth	0	14	362	278	271	301	297	316	312
CAS	Gas				0	153	598	885	1,170	1,451
	Elec				0	356	1,192	1,527	1,963	2,233
	Citigen Heat				0	50	188	266	334	392
	Citigen Coolth				0	38	145	196	259	300
Total		37	738	1,200	991	2,879	4,740	5,467	6,421	7,045

7. Cumulative forecast energy cost savings

		Energy Cost Savings - Cumulative (£/yr)								
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9
		2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
PSDS	Gas	£ -	£ -	£ -	£ -	£ 59,733	£ 62,127	£ 65,295	£ 68,482	£ 69,359
	Elec	£ -	£ -	£ -	£ -	£ 530,581	£ 535,785	£ 539,696	£ 549,928	£ 565,152
	Citigen Heat	£ -	£ -	£ -	£ -	£ 81,950	£ 85,235	£ 89,581	£ 93,953	£ 95,156
	Citigen Coolth	£ -	£ -	£ -	£ -	£ 51,278	£ 53,333	£ 56,053	£ 58,788	£ 59,541
Phase 1 & 2	Gas	£ -	£ -	£ -	£ -	£ 1,197	£ 1,245	£ 1,308	£ 1,372	£ 1,390
	Elec	£ -	£ -	£ -	£ -	£ 82,928	£ 83,741	£ 84,352	£ 85,951	£ 88,331
	Citigen Heat	£ -	£ -	£ -	£ -	£ 16,327	£ 16,982	£ 17,848	£ 18,719	£ 18,959
	Citigen Coolth	£ -	£ -	£ -	£ -	£ 2,557	£ 2,659	£ 2,795	£ 2,931	£ 2,969
Energy Saving Loan scheme	Elec	£ 11,274	£ 11,761	£ 11,941	£ 11,670	£ 12,046	£ 12,164	£ 12,253	£ 12,485	£ 12,831
GHC Chillers	Elec	£ -	£ -	£ -	£ -	£ -	£ 153,895	£ 155,018	£ 157,957	£ 162,330
Operational management	Gas	£ -	£ 54,948	£ 51,159	£ 52,052	£ 60,857	£ 67,430	£ 75,211	£ 83,437	£ 89,120
	Elec	£ 6,710	£ 197,716	£ 218,471	£ 222,830	£ 258,881	£ 300,294	£ 341,644	£ 388,021	£ 439,767
	Citigen Heat	£ -	£ -	£ 51,193	£ 56,795	£ 75,794	£ 100,687	£ 128,789	£ 159,164	£ 185,600
	Citigen Coolth	£ -	£ 7,596	£ 139,209	£ 143,242	£ 158,752	£ 175,289	£ 194,918	£ 215,644	£ 229,763
CAS	Gas				£ -	£ 25,566	£ 104,107	£ 162,729	£ 226,368	£ 285,455
	Elec				£ -	£ 317,748	£ 1,027,204	£ 1,422,736	£ 1,844,884	£ 2,301,889
	Citigen Heat				£ -	£ 43,869	£ 182,512	£ 287,727	£ 402,360	£ 509,390
	Citigen Coolth				£ -	£ 22,443	£ 84,502	£ 128,555	£ 176,513	£ 220,992
Total		£ 17,984	£ 272,021	£ 471,974	£ 486,589	£ 1,802,507	£ 3,049,193	£ 3,766,507	£ 4,546,958	£ 5,337,992

8. Energy Reduction Programme Phase 1 and 2 estimated savings

	Budget (incl. risk)	Savings (£/yr)	Savings (tCO ₂ e/yr)
Energy Reduction Programme - Phase 1			
Tower Hill Car Park Lighting	£176,080	£35,782	38
CCC Lighting	£181,703	£43,239	48
Smithfield Car Park Lighting	£90,600	£15,543	25
Energy Reduction Programme - Phase 2			
Smithfield HVAC Upgrades	£186,111	£31,622	37
London Metropolitan Archives Air Conditioning controls	£15,560	£2,770	33
Central Criminal Court Steam System Insulation	£3,241	£2,758	14
Mansion House Lighting	£66,568	£13,899	9
Tower Hill Coach & Car Park Ventilation Control	£123,611	£16,793	18

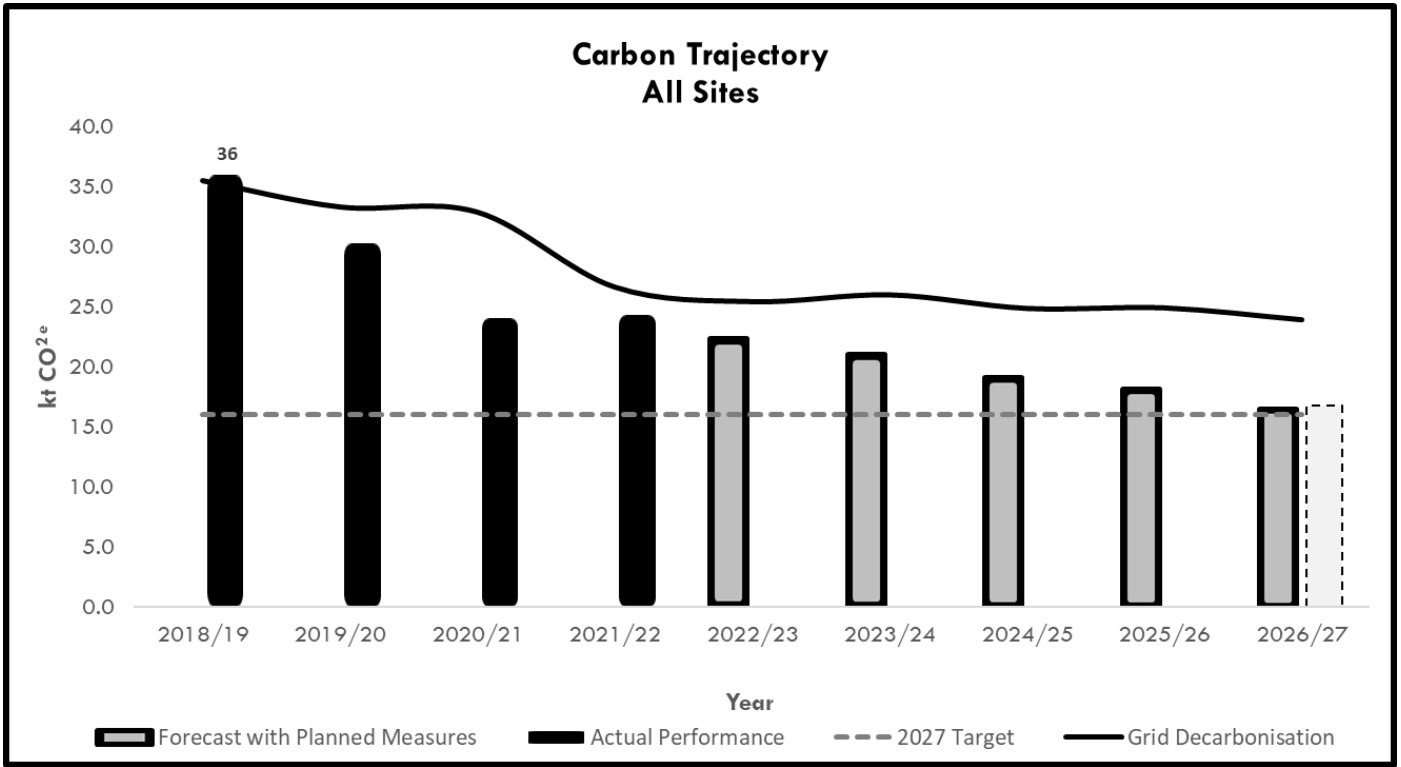
9. Tenant consumption

Note: This table has been newly created due to feedback from stakeholders requesting information about tenant and landlord consumption.

Tenant Consumption figures (kWh)		April - June 2021 Q1	July - Sept 2021 Q2	Oct - Dec 2021 Q3	Jan - March 2022	Total 21/22
Electricity	Billingsgate Market	31,845	373,310	303,367	768,811	1,477,333
Gas	Billingsgate Market	202,690	50,789	190,709	65,883	510,071
Electricity	London Central Market (Smithfield)	1,193,433	1,777,086	1,340,800	1,288,375	5,599,694
Electricity	New Spitalfields Market (Landlords)	1,262,768	1,507,878	1,177,265	1,031,986	4,979,897
Electricity	Wallbrook Wharf	20,110	28,023	29,760	23,641	101,534

10. Operational properties only

The black bars represent operational portfolio carbon. The grey bars represent projected carbon. The black line shows actual carbon and projected carbon for the City's entire portfolio, including operational, investment and housing.



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Committee(s)	Dated:
Operational Property and Projects Sub Committee	July 20th 2022
Subject: CAS NZ1, NZ3 and RS3 Workstream update for the Operational Portfolio	Public
Which outcomes in the City Corporation's Corporate Plan does this proposal aim to impact directly?	5,11 & 12
Does this proposal require extra revenue and/or capital spending?	Yes
If so, how much?	£10,527,715 mix of revenue and capital
What is the source of Funding?	CAS Budget
Has this Funding Source been agreed with the Chamberlain's Department?	Yes
Report of: The City Surveyor	For Information
Report author: Graeme Low	

Summary

This report presents an update on the key actions of the operational buildings workstreams as part of the Climate Action Strategy (CAS). Progress has been made in the following key areas:

- Vital Energi have started a programme of building energy surveys, all top fifteen buildings have High Level Assessments issued. Following this, five detailed proposals are now in development.
- Appointment of Arcadis to provide assurance and support to City Surveyors led CAS Projects (NZ1, RS3 & NZ3).
- One Energy Project Manager post has been filled with one remaining vacancy currently in recruitment.
- Climate Impact Modelling has begun with a "digital twin" model of the square mile in development, workshops are planned for July focusing on heat stress and flooding.

Recommendation(s)

- Note the progress made on actions within the report.
- Note the completion of the review of the Centre of Excellence and the subsequent inclusion of support for heat decarbonisation and merger of resilience and design standards support services.

Main Report

Background

1. The Climate Action Strategy (CAS) measured our direct building emissions in 2018/19 as 36 ktCO₂e, by 2026/7 this must reduce to 15.3 ktCO₂e to reach our net

zero target for our operational properties and Housing portfolio. CO₂e emissions for Housing and operational properties are as follows:

Table 1: Baseline and current carbon emissions by portfolio and 2027 target

Portfolio	Baseline 2018/19	12 months to Mar 2022	2026/27 Target
Housing	10.6 kt/CO ₂ e	6.9 kt/CO ₂ e	4.6 kt/CO ₂ e
Operational Properties	22.2 kt/CO ₂ e	15.7 kt/CO ₂ e	10.8 kt/CO ₂ e

2. To support this goal, the CAS buildings approach was presented at the April Corporate Asset Sub Committee in 2021 with a series of discrete actions which conjoin to deliver the CAS strategy NZ1, NZ3 and RS3 for the Operational buildings' portfolio – including housing. These actions are summarised in the table 2 below and demonstrate the requirement for the City to continue investment in carbon reduction projects.

Table 2: NZ1 - Operational Property and Housing Landlord Areas Actions

1 - Commission building energy surveys– operational assets & Housing
2 - Develop building controls management strategy
3 - Enhance monitoring and targeting programme
4 - Decarbonisation of Heat
5 - Deep fabric retrofit pilot – Commercial asset??
6 - Additional energy specialist resources
7 - Capital programme roll-out

Status Updates

Action 1 Progress: Commission building energy surveys – operational assets & Housing

Corporate

3. Vital Energi Ltd. are providing energy efficiency audits to the top fifteen buildings (appendix 1) in support of the Climate Action Strategy. Their activities have involved a high-level assessment of each building, to provide a list of projects that can be immediately undertaken, and a list of projects that rely on other existing CoL projects finishing.
4. To date, all fifteen buildings have been through an initial survey and a High-Level Assessment issued. This is currently being reviewed and appraised and a programme of further detailed proposals and subsequent works will be developed and reported on in Q2. Five investment grade proposals have been completed at the Guildhall, Freeman's School, Tower hill Coach and Carpark, Central Criminal Court & Girl's School.

Housing

5. The Housing Action Plan has been drafted and presented to Committees for approval in September, returning to the Community and Children's Services Committee for approval in the first half of 2022/23.
6. Survey work has been completed at the Barbican Estate to evaluate the benefit of improving insulation to soffits, barrel vaulted roofs and internal insulation in general to properties, improvements to heating controls. Further cost analysis is currently taking place to ascertain the value and benefit of undertaking these works. We continue to consult with the Barbican Association as this progresses.
7. Housing surveys are currently being commissioned to review scope 1 & 2 operational emissions, focusing on options for PV, LED lighting upgrades and other opportunities such as pump controls, ventilation, and lift efficiency improvements. This will later combine with survey work focusing on heat decarbonisation opportunities.

Next Steps – Action 1	
a.	Operational: Completion of energy surveys and development of project delivery plan for operational properties.
b.	Housing: Commission building surveys and feasibility studies for pilot projects.

Action 2 Progress: Develop building controls management strategy.

8. The Schneider Electric Building Advisor platform (Analytics) has now gone live, training for users will commence from the week commencing 4th July 2022. The platform enables our Building Energy Management System resources to start the creation of tasks to action energy inefficiency issues with HVAC plant at Guildhall Complex and London Metropolitan Archives from 4th July onwards.
9. The Building Energy Management System (BEMS) Phase 1 Upgrades LMA and Walbrook Wharf- consultant has been appointed and project planning in progress. The Guildhall Yard East upgrade project has appointed a consultant and is working on detailed design and options appraisals for gateway 3-4 paper.
10. Sigma EMS integration with BEMS is progressing as the BEMS is migrated and Sigma is fully onboarded over the forthcoming quarter. The draft Building Controls Strategy is expected for 30/07/2022. This is dependent on completion of technical standard for BEMS migration projects which is currently with the City Surveyors projects team for comment.

Next Steps – Action 2	
a:	Integration of BEMS with Sigma
b.	Begin BEMS upgrades at LMA and Walbrook Wharf

Action 3 Progress: Enhance monitoring and targeting programme.

11. The TEAM Sigma software has been rolled out, following the successful completion of initial user training. Benchmarking, target setting and analysis against variables is now being set up.

Action 4 Progress: Decarbonisation of Heat

12. Citigen - 4MW of heat pumps are now installed and E.On are moving into a long-term period of seasonal commissioning – E.On estimate 25% carbon reduction following the commissioning process. Representing 4,000 tCO₂ per annum across the network.
13. Operational estate – Capital works assessment being undertaken by PSDS partners to remove/ reduce fossil fuel derived heat provision. Centre of Excellence support is now in place to lead on this and develop/review the strategy for Citigen post 2027.
14. Further discreet feasibility studies will shortly be developed to provide further details on the opportunities to decarbonise heat across the operational properties.
15. Housing – Additional consultancy work is currently being procured as part of the programme to review opportunities focused on reducing fossil fuel-based heat provision.

Next Steps – Action 4	
a.	Identify additional funding streams for decarbonisation support.
b.	Continue with Citigen decarbonisation studies prior to review period in 2024.
c.	Undertake review of housing opportunity.

Action 5 Progress: Deep fabric retrofit pilot – operational asset

16. This project will be a proof of concept to inform our wider design and resilience standards. Scoping and delivery will be driven by the dedicated design resource within the Centre of Excellence.

Action 6 Progress: Additional energy specialist resources.

17. A review of the Centre of Excellence (CoE) structure and roles has been completed. Changes were agreed including the merging of resource for resilience and design standards and the creation of resource to support heat decarbonisation. We have recruited one of two Energy Project Managers to support the delivery of NZ1, the second role is being advertised with a closing date of 27/07/22. The Centre of Excellence is now embedded with support from detailed in the table below. Housing is likely to be resourced via alternative providers in the coming weeks.

Centre of Excellence roles	
Sustainable Investment Property Specialist – Arcadis (in place)	Heat Decarbonisation Engineering Support – Arcadis (in place)
Resilience and Sustainable Design – Arcadis (in place)	Energy Project Services (Housing) - TBC
Building Management Systems Operations – Schneider (in place)	Monitoring and Targeting – Team Energy Auditing (in place)

18. This resource will also address the NZ3 and RS3 work streams plus the Investment portfolio (NZ4) approach.

Next Steps – Action 6	
a.	Appointment of remaining Energy Project Manager and remaining resource requirement for BMS and Housing project manager.
b.	Actions 1,2,3,4 & 5 are reliant on a fully resourced Centre of Excellence.

Action 7 Progress: Capital programme roll-out

19. The main capital programme roll-out will flow from opportunities identified in action one energy surveys. It should be noted that existing carbon saving projects are also currently in progress with the £9.5m PSDS project (completing in August 2022), Phase 1 & 2 of the Energy Reduction Programme (completion 2022/23) and £4.5m Guildhall Cooling replacement project (completion expected summer 2023). Project resource is currently being procured to ensure Climate Action Strategy capital works can continue from July onwards.
20. Specific projects at three sites categorised as ‘quick-wins’ have been progressed to the Investment Grade Proposal stage. These are LED lighting projects for which there is immediate known benefit and value for money. Projects are focusing on City of London Freeman’s School, City of London School for Girls, and Central Criminal Court. This aims to begin the delivery phase of the operational Climate Action Plan without delay.

Next Steps – Action 7	
a.	Project resource in place via framework in July to enable to effective Project Management of upcoming projects.
b.	Delivery of quick win projects at three sites.

NZ3 Capital Projects Design Standards and RS3 Resilient Buildings

21. Arcadis have been appointed to develop the technology and design standards which will be delivered in Q2 and Q3, respectively. Work has begun on both the Design and Technology standards beginning with scoping workshops in June. Embedding these standards will begin in October 2022, planned completion is in March 2023.

22. The climate impact modelling has begun with a digital twin model of our buildings being developed in June, highlighting the impact of resilience risks such as increased temperatures, fluvial and pluvial flooding. A series of workshops are planned for early July 2022 to review the initial findings. This modelling will inform the resilience action plan which is planned for completion by Q3.

Project support activities

23. Arcadis have been appointed by the City Surveyor, to provide project support across each individual project (NZ1, RS3 & NZ3). As part of this brief support will be in place to cover initial assurance support; ongoing assurance; establishing and promoting the Centre of Excellence and to lead the development of an auditable energy management system. The assurance support is now extended through to November 2022.

Key Risks

Risk	Mitigation
Delays in securing resource Impacts project delivery.	Review of Centre of Excellence completed to address this issue. Use of flexible frameworks for Project Management resource.
Funding gap emerges following investment grade proposals.	Existing funding allocation to be complemented with grant funding applications. Investigate energy performance contracts option to minimise capital investment.
Carbon grid factors adversely affected.	Keep in review BEIS grid factors and their impact on reach the 2026/27 Targets.
Major projects/programmes: The proposed further review of operational properties as part of the MTFP and Net Zero Budgeting.	Major programmes and projects may impact the decisions on CAS interventions or reduce the payback period if a decision is made to dispose or refurbish a building. In all cases full consideration should be made within the decision making process.

Corporate & Strategic Implications

Strategic implications:

24. This suite of actions drives the objectives of the Climate Action Strategy, buildings stream and will provide linkage and co-ordination with ongoing property management, capital schemes and cyclical works.

Financial implications:

25. The CAS tasks in this report are covered within the overall Climate Action Strategy programme. Capital and resource costs are estimated at £21m for the 6-year term for the tasks related to these project plans. This funding forms part of the £68m agreed at RASC and P&R committees in September 2020.

Climate implications:

26. This action stream will deliver the Net zero carbon goals of the Corporation and support the climate residence goals of the broader programme.

Conclusion

27. The City Surveyor has commenced the mobilisation and has moved into the delivery stage of the building-related workstreams, three being relevant to this Sub Committee (NZ1, NZ3 & RS3). A flexible approach continues to be necessary to secure the right mix of skills and experience needed. This approach will support our need to move the programme forward and meeting key milestones.

Report author**Graeme Low**

Acting Head of Energy and Sustainability

City Surveyor's Department

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Committee(s)	Dated:
Operational Property and Projects Sub Committee	20 July 2022
Subject: MEES compliance strategy for Operational buildings	Public
Which outcomes in the City Corporation's Corporate Plan does this proposal aim to impact directly?	5,11 & 12
Does this proposal require extra revenue and/or capital spending?	Revenue
If so, how much?	£15,000
What is the source of Funding?	City Surveyor's local risk budget
Has this Funding Source been agreed with the Chamberlain's Department?	No
Report of: The City Surveyor	For Information
Report author: Graeme Low / Rodrigo Matabuena	

Summary

Currently, the Operational Property portfolio is compliant with the Minimum Energy Efficiency Standard (MEES) regulations. However, with the tightening of the regulations in April 2023, there are several buildings in the Operational Property portfolio that would be at risk of non-compliance due the lack of an EPC rated E or above. The cost of non-compliance penalties would be linked to the rateable value of the building but could be up to £150,000 per building.

In order to maintain compliance, an action plan with the following stages is being followed:

- Stage 1: Gap analysis (Completed)
- Stage 2: Develop EPCs on properties that require one
- Stage 3: Development and delivery of a programme of energy efficiency measures to increase the EPC rating of at-risk properties.
- Stage 4: Development of a programme of capital works on the Operational Property portfolio to maintain compliance with the stricter incoming regulation in 2027 and 2030.

There is a total of 11 buildings without a valid EPC in the Operational Property portfolio (see Appendix 1). The cost of performing these EPCs is estimated to be in the region of £15,000. A budget is yet to be identified for this cost or the subsequent cost of any additional improvements required to reach compliance and this remains a risk. It is envisaged this, could be spread out onto the individual maintenance budgets of each building as a BAU operational cost. The cost of each individual EPC is dependent on the floor area of the building; they range from £500 - £2,000.

It would be required to deliver the EPCs as soon as possible in order to complete the energy efficiency improvements before the April 2023 deadline.

In addition, there are two properties with an existing EPC rating G that would require capital interventions to achieve compliance by April 2023 (see Appendix 2)

Some risks have been identified:

- In order to develop the necessary exemptions, additional funds will be required. These costs are expected to be paid by existing local risk budgets.
- Completing energy efficiency upgrades after April 2023 could lead to an improbable but possible fine.

Recommendation(s)

- To note the content of the report and the number of properties without a valid EPC.

- To note the proposed strategy to achieve compliance for the at-risk properties in the Operational Property portfolio.

Main Report

Background

1. The MEES regulations were introduced by the government back in 2018.
2. From 1st April 2018 any commercial property that has an EPC of lower than an 'E' cannot be rented out to new tenants or renew any existing tenancy contracts until at least an 'E' rating is obtained.
3. In order to require an EPC, a building must meet all the following criteria: a floor area larger than 50 sqm, have a lease between six months and 100 years, have walls and roof and use energy to condition the indoor climate.
4. From April 2023, MEES will apply to all existing commercial leases. This report covers only leased assets from operational property.
5. The regulations will be tightened up in the future requiring leased buildings to achieve an EPC rating of C by 2027 and B by 2030. Certain exemptions will apply.
6. Letting out a non-compliant property for longer than three months could result in a fine of 20% of the property's rateable value (capped at £150,000).
7. There are some exemptions that will enable a landlord to let, or continue to let, a substandard property:
 - a. A property can be exempted if it is found that efficiency measures would decrease the property's value by 5% or more
 - b. 'Seven-year payback test': you will only be required to make energy efficiency improvements that have an expected payback of seven years or less. However, many measures are likely to meet the payback test. Lighting retrofit programmes, for example, or building control systems, can typically deliver savings well within the seven-year timeframe.
 - c. A temporary exemption of six months can be granted to new landlords
 - d. Six-month preparation for new tenants
 - e. When tenants will not allow access to the property
8. In order to maintain compliance after the change in regulations, the below described action plan has been followed:
 - Stage 1:
 - Gap analysis, consisting of a thorough review of the Operational Property portfolio and identify the buildings that do not have a valid EPC. During this stage, exemptions to a number of buildings would be identified, reducing significantly the list of potential properties and buildings at risk of non-compliance.
 - Stage 2:
 - Ensure all properties with a lease and that require an EPC, have a valid one.
 - Procure an EPC contractor to perform an EPC on the buildings that require one and identify all buildings that would require capital interventions to improve their EPC rating.
 - Once results are known, all departments and service committees with assets at risk will be informed
 - Stage 3:

- Stage 3a: Identify a series of capital works on the non-compliant buildings, before April 2023, including the review and preparation of relevant documentation to get the MEES regulation exemptions (for example, listed markets) to operational buildings.
- Stage 3b: Deliver the capital works to increase the energy efficiency of the properties to a “E” rating or above with the provision of a valid EPC.
- Stage 4:
 - Ahead of tighter regulations coming in by 2027 and 2030, where properties are required to achieve an EPC rating of C or above or B or above respectively, review a programme of capital works required to improve energy efficiency and achieve compliance across the Operational Property portfolio. These works will be integrated with the capital works required for Climate Action Strategy.

9. A subsequent paper will be presented in September with an update on the findings of Stage 2.

Current Position

10. The Operational Property portfolio is compliant with the current MEES regulations.
11. The MEES regulations are changing in April 2023 and therefore, some buildings might not be compliant with the incoming regulation.
12. There are 11 buildings that do not have a valid EPC. It is likely that most of these buildings will have a D rating or above but in order to comply with the regulations, they will now need to have a valid EPC. The estimated cost of performing these is estimated at £15,000.
13. There are 2 buildings that have a valid EPC with a rating of G. These sites will require energy efficiency interventions in order to achieve EPC greater than E. Some of the measures could be LED lighting replacement; insulation; improved heating systems. Funding for these works is yet to be discussed and options will be presented in an update paper in September.

Timeline

Activity	2022/23																							
	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	...	W43	W44	
	06-Jun-22	13-Jun-22	20-Jun-22	27-Jun-22	04-Jul-22	11-Jul-22	18-Jul-22	25-Jul-22	01-Aug-22	08-Aug-22	15-Aug-22	22-Aug-22	29-Aug-22	05-Sep-22	12-Sep-22	19-Sep-22	26-Sep-22	03-Oct-22	10-Oct-22	17-Oct-22	...	27-Mar-23	03-Apr-23	
Stage 1: Gap analysis																								
Stage 2: Develop EPCs on properties that require one																								
Stage 3: Development and delivery of a program of energy efficiency measures to improve EPCs																								
Stage 4: Development of a program of capital work to maintain compliance by 2027 / 2030																								

Energy Team and Corporate Property Group roles

Stages	Lead	Comments
Stage 1: Gap Analysis	Energy Team	The Energy team has done a comprehensive review of the MEES regulations and their implication for the Operational Property portfolio.
Stage 2: Development of EPCs	Energy Team	The Energy team will appoint a contractor for developing the EPCs at the relevant buildings. This stage will also include the development of MEES exemptions.

Stage 3a: Development of capital programme	Energy Team	Based on the information gathered during Stage 2, the Energy Team will produce a staged capital delivery programme to implement the necessary energy efficiency measures on the targeted properties and to maintain compliance after April 2023.
Stage 3b: Delivery of capital programme	Minor Works Team	The delivery of the capital programme includes: <ul style="list-style-type: none"> • Developing the funding strategy of the works • Procuring contractors • Overseeing the construction works
Stage 4: Development of programme for future compliance	Energy Team	Based on the Operational Property portfolio review, a new programme of capital works would be required to increase the energy efficiency of leased buildings to EPC ratings of C and B by 2027 and 2030 respectively. This programme will be developed considering the capital works required by the Climate Action Strategy.

Corporate & Strategic Implications

Assessing the energy efficiency performance of the Operational Property portfolio through EPCs is now a requirement that would inevitably increase the cost of maintenance of a property / building. From a building management perspective, EPCs are relatively inexpensive (between £500 and £2,000) per building and have a validity of 10 years. However, it would have to be now a recurrent theme in the Operational Property portfolio.

The cost of non-compliance poses a significant financial and reputational risk and could impact the goals of the Climate Action Strategy.

Conclusion

The Operational Property portfolio is currently compliant with the MEES regulation. However, given the incoming changes in the regulation, some properties are at risk of non-compliance by April 2023.

The Energy Team has developed a strategy to maintain MEES compliance after the changes in the regulations.

There are cost implications in the region of £15,000 on implementing the strategy. These costs would be dispersed across local existing risk budgets of the Operational Property portfolio.

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Operational Property and Projects Sub Committee	20 July 2022
Subject: MEES compliance strategy for Operational buildings	Public

Appendix 1

List of properties at risk of non-compliance by April 2023

Building Name	Unit(s) Reference	Notes
Epping	Field Studies Centre Teaching Block	
Wallbrook Wharf	1st Floor	
Billingsgate Market	1st Floor Office 22 & 23	Potential EPC exemption
Billingsgate Market	Cold Store	Potential EPC exemption
Billingsgate Market 1st Floor Offices 45, 46 & 47		Potential EPC exemption
CoL Cemetery & Crematorium Cafe	Cafe	
New Spitalfields Market - Pod D	Floor G Cafe	
New Spitalfields Market - Pod A	Floor 1 Cafe	
New Spitalfields Market - Pod E	Ground Floor Cafe	
Animal Reception Centre	Port Health - The Residence	
Billingsgate Market	Whole Building	Potential EPC exemption

Appendix 2

Buildings non-compliant with MEES by April 2023

Building Name	Address	EPC rating
West Ham Park	242 Upton Lane, E7 9NP	G
West Ham Park	Upton Lane, E7 9PU	G

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