



FINAL

HOLBORN VIADUCT



City of London | Fleet Street Quarter

HOLBORN VIADUCT

Architectural Lighting Opportunities

FINAL

PROJECT NO. UK0037930.3786-100

OUR REF. NO. HOL-WSP-XX-XX-RP-SL-000001

DATE: NOVEMBER 2024



The Holborn Viaduct was built to provide easier access over the valley carved out by the River Fleet. The river has long since been diverted into an underground culvert, but still flows out into the Thames at Blackfriars.

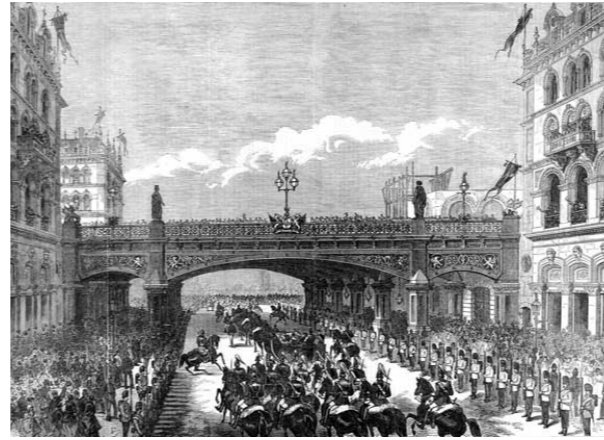
The viaduct was Grade II listed by Historic England in 1972. The two step-buildings on the north side of the Viaduct were damaged in 1941 during the Blitz. However, the north-west corner was faithfully reconstructed in the 1990s, with the north-east corner following in 2008.

The relocation of the Museum of London to the former Smithfield Market building just north of the Holborn Viaduct is part of a larger transformation to the area.

Some key developments and aspirations have been outlined throughout with the Holborn Viaduct identified as an important gateway into the area and beyond..

Key elements identified within the brief include:

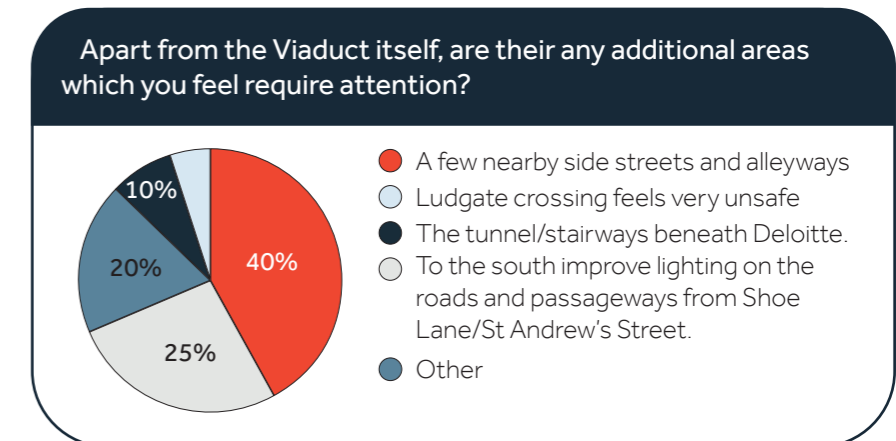
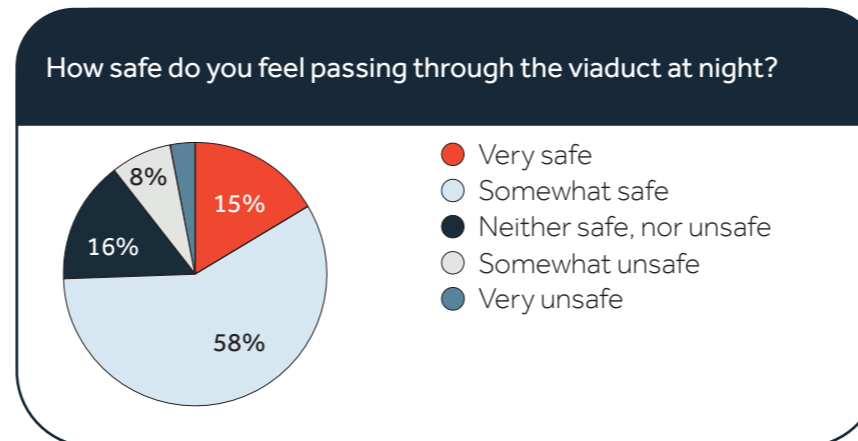
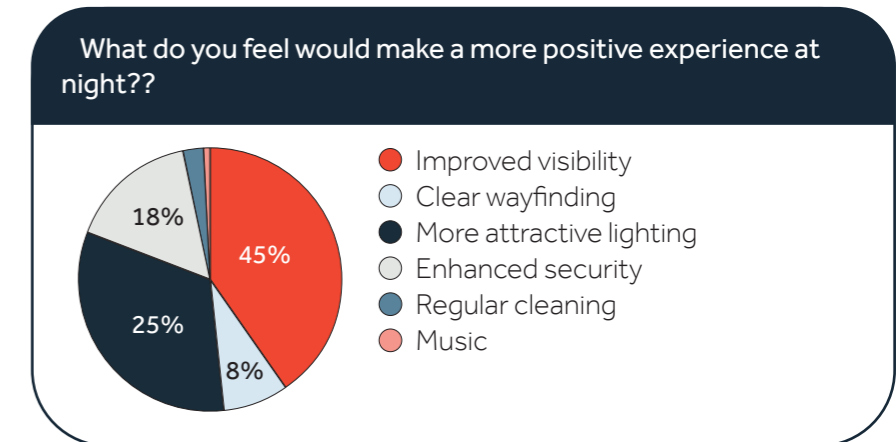
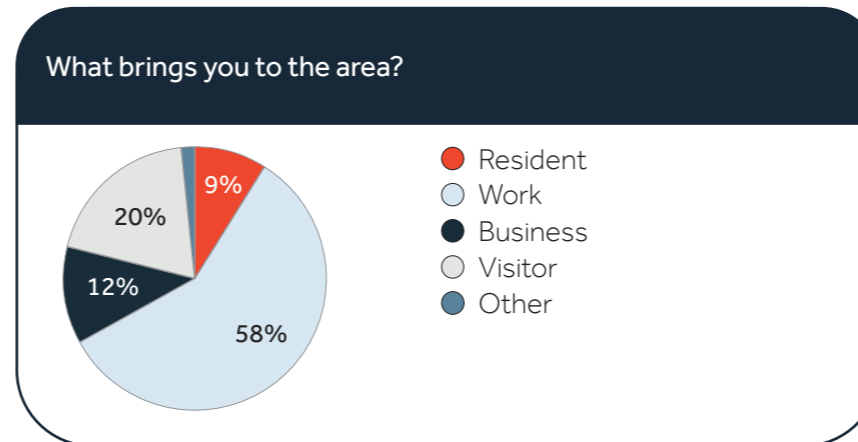
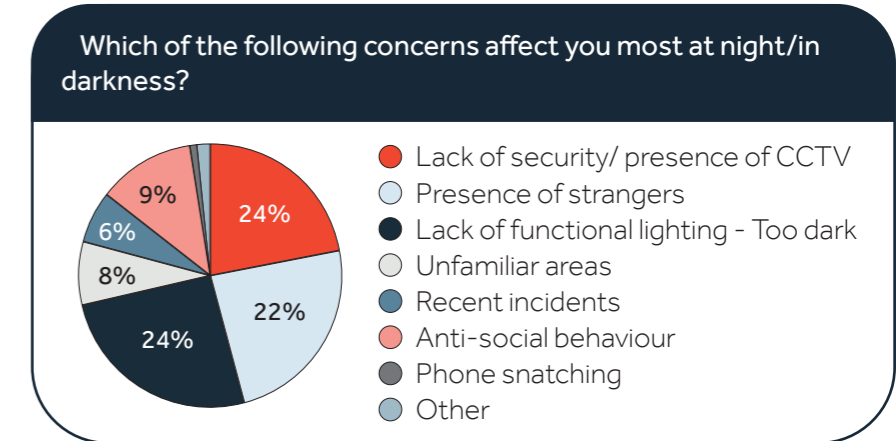
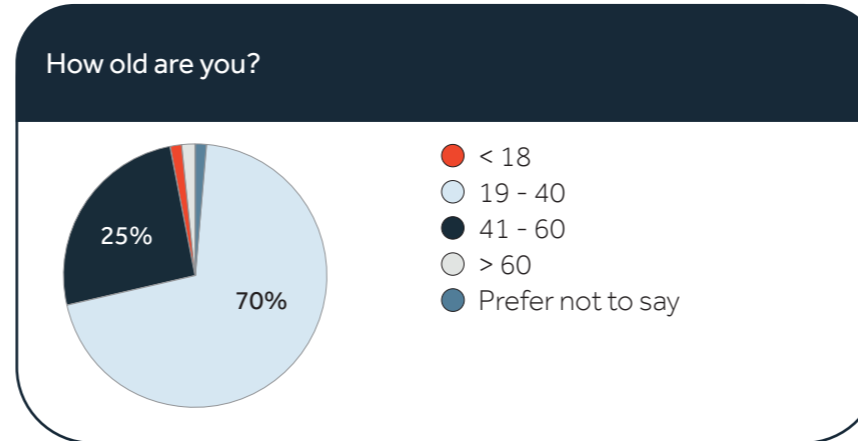
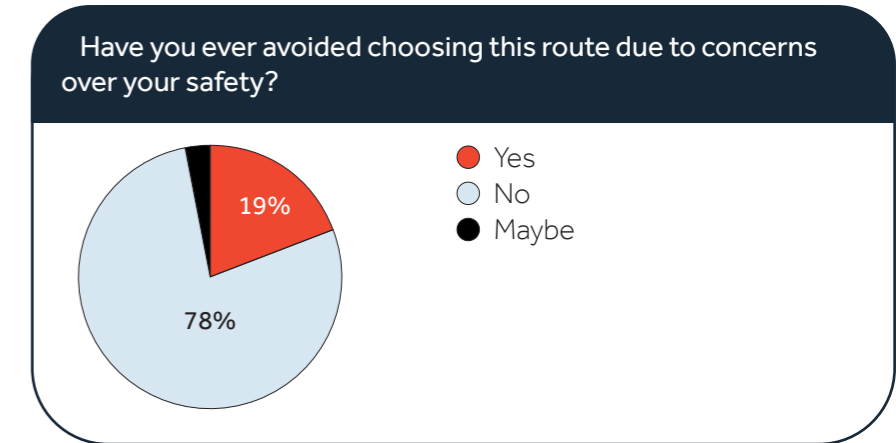
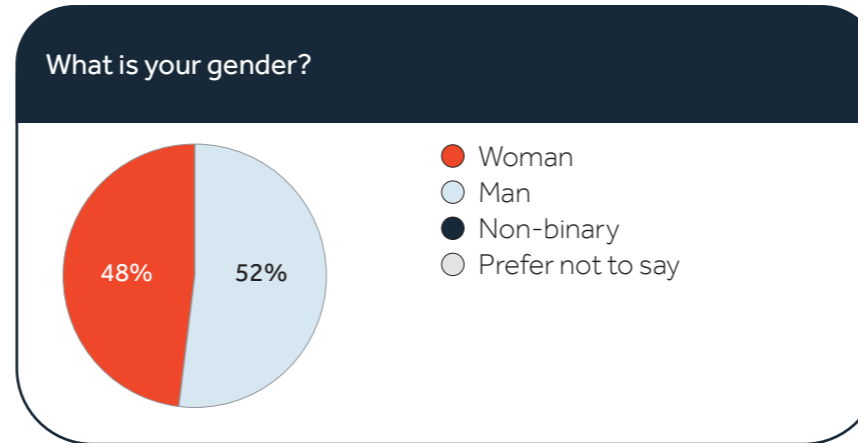
- The viaduct will be a key pedestrian route between the Thames and the new Museum of London. Therefore must make an impact as the gateway into the area.
- Both the City of London & FSQ BID would like to see an enhanced scheme for the Viaduct to improve pedestrian experience in both day/night-time conditions.
- Be sympathetic to the structure given its Grade II listing.
- Avoid unwanted glare and/or light pollution.
- Highlight the architectural elements of the two structures (Farringdon Street & Shoe Lane).
- Commemorate the original function of the structures over the river Fleet.
- Create a feeling of welcome and safety into the space, especially in the night-time condition.



INTRODUCTION & BRIEF

To determine the feeling of local users of the site a series of questions were developed and surveys were undertaken by both passers by to the site and also from businesses in close proximity to the Viaduct.

A diverse group of people were approached to offer a rounded impression of the site. The outcome of the survey outlines that there is a feeling that safety and improved visibility should be improved in the night-time environment together with an enhanced lighting scheme and clear wayfinding to provide a fully functioning feature to the neighbourhood and offer a true gateway into the City of London. A total of 70 people answered the on-site survey.



QUESTIONNAIRE ANALYSIS

Pillars		Social	Client (Pedestrians)	Technology	Place
Landscape	Lighting in the context of landscape design plays a vital role in enhancing the natural surroundings while maintaining ecological balance. For the heritage bridge gateway, the lighting design must integrate seamlessly with the landscape, respecting the topography and natural features of the area. A Future Ready approach would employ low-energy, biodiverse-sensitive lighting solutions, ensuring minimal disruption to local flora and fauna while creating an inviting atmosphere. Strategic placement of lighting can guide foot traffic along natural pathways, improve safety, and accentuate the connection between the built environment and nature.	High Impact: Enhances the public realm, improves well-being, and encourages social interactions through a well-lit, natural environment.	High Impact: Provides safe and aesthetically pleasing pathways for pedestrians, improving comfort and security.	Moderate Impact: While technology may not be the primary focus here, energy-efficient lighting and automation still play a role.	High Impact: Integrates lighting with the landscape, contributing to the identity and experience of the location.
Economics	A well-designed lighting scheme has the potential to enhance local businesses by encouraging greater footfall and increasing the appeal of the area. For the heritage bridge gateway, Future Ready economic principles focus on energy efficiency, operational sustainability, and long-term cost-effectiveness. By investing in smart lighting solutions that optimize energy usage, the design can deliver financial benefits for the city and local stakeholders. Additionally, the lighting design could attract visitors and stimulate economic growth by making the space more vibrant and engaging at night, promoting local commerce and cultural tourism.	Moderate Impact: Indirectly benefits society through economic uplift, but the focus is on financial sustainability.	Moderate Impact: Economic benefits may enhance pedestrian experiences through increased investment, though the focus is more on long-term costs.	High Impact: Smart lighting and energy-efficient technologies will drive cost savings and operational efficiency.	High Impact: Economic viability ensures the longevity and success of lighting schemes that enhance the attractiveness of the place.
Smart Places	The integration of smart lighting technology offers exciting opportunities to create a dynamic and responsive environment around the heritage bridge gateway. Future Ready lighting systems can adapt to real-time data, adjusting brightness levels based on pedestrian traffic, weather conditions, and time of day. Incorporating IoT sensors can also enhance safety by detecting movements or anomalies and adjusting light levels accordingly. This fusion of smart technology and lighting will not only reduce energy consumption but also create a connected and interactive public realm, making the space future-proof for generations to come.	High Impact: Smart lighting can create interactive and responsive environments, improving public engagement and experience.	High Impact: Adaptable lighting improves pedestrian safety and experience by responding to real-time conditions.	Very High Impact: Smart technology is at the core of this pillar, integrating IoT and adaptive lighting systems.	Moderate Impact: Smart lighting enhances the function of the place, but less emphasis on historical or cultural significance.
Heritage	Preserving the historical integrity of the heritage bridge while introducing modern lighting solutions requires a sensitive approach. A Future Ready lighting design for this gateway must respect the historic structures while enhancing their beauty and ensuring their legacy is celebrated. Carefully selected lighting fixtures, designed to be unobtrusive, can highlight the architectural details and craftsmanship of the bridge. Additionally, lighting can be used to tell the story of the area's history, with dynamic displays or subtle illuminations that evoke a sense of time and place, bridging the past with the future for all who pass through.	High Impact: Preserving and showcasing heritage through lighting can foster community pride and cultural engagement.	Moderate to High Impact: Creates an enriched experience for pedestrians by highlighting the historical aspects of the structure.	Moderate Impact: Technology must be discreet but effective in showcasing the heritage without overpowering it.	Very High Impact: Strong connection to place through storytelling, preserving history while making it relevant to future generations.
Summary	<p>Social: Landscape and Heritage have the highest impact, as both enhance public experience and community engagement.</p> <p>Client (Pedestrian): Landscape and Smart Places are key here, focusing on safety, navigation, and creating an inviting atmosphere.</p> <p>Technology: Smart Places and Economics are the pillars where technology plays a critical role, particularly with energy-efficient solutions and smart systems</p> <p>Place: Heritage and Landscape take priority, as they contribute significantly to preserving and enhancing the identity and historical value of the location.</p>				

Key	High Impact	Moderate Impact	Low Impact
-----	-------------	-----------------	------------

FUTURE READY WORKSHOP ANALYSIS

DAYTIME VIEW FROM FARRINGDON STREET



PROS:

- **Clear Visibility:** Natural light provides excellent visibility for examining the architecture, details, and surroundings of the bridge.
- **Safety:** Higher foot traffic and daylight offer a clear level of brightness at the entry and exits.
- **Legibility:** The materiality and elaborate features are more pronounced within the daylight providing an element of richness and grandeur to the gateway.

CONS:

- **Contrast:** High contrast from the structure shadowing the pavement below offering a central zone without daylight or artificial lighting
- **Safety:** Within the central section of the gateway entrances appear in darkness facial recognition is limited in this area.
- **Limited Aesthetic Appeal:** Although the deck and parapet offers a true visual gateway the area below feels cold and uninviting.

NIGHT TIME VIEW FROM FARRINGDON STREET



PROS:

- **Clear Visibility:** Artificial lighting offers a warmth and level of comfort drawing you into the space.
- **Safety:** Good quality of artificial lighting available on the road surface, offering a clear visual of traffic.
- **Legibility:** The column capitals within the structure are highlighted with the addition of the lanterns. The lanterns themselves are in-keeping with the tones and materiality of the space.

CONS:

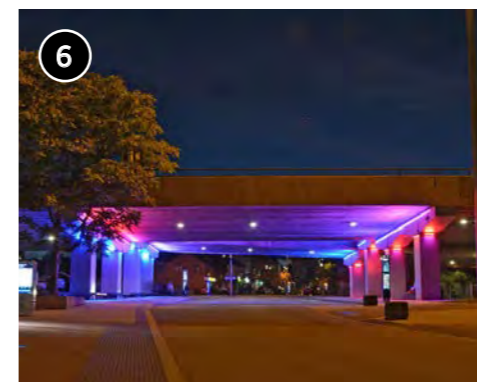
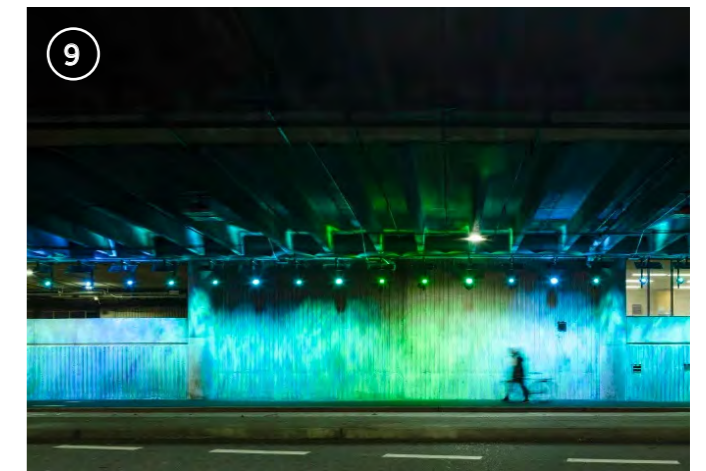
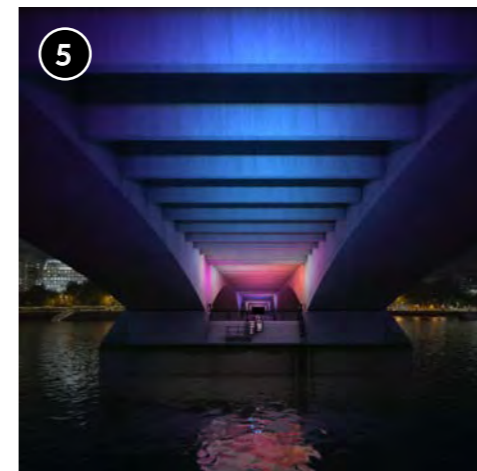
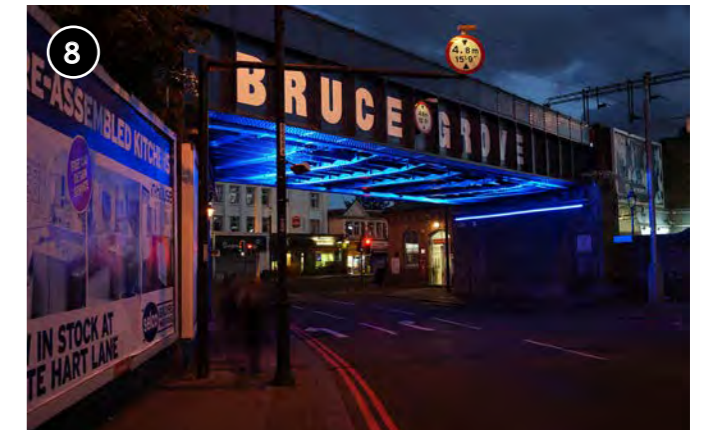
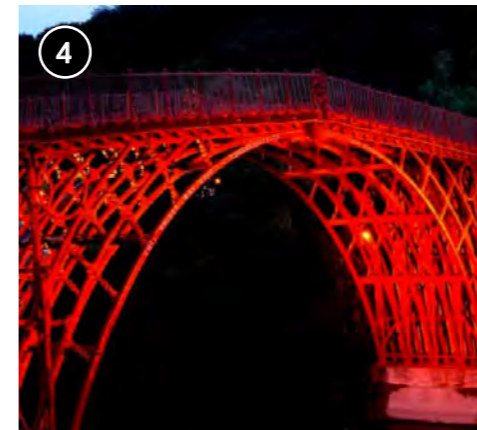
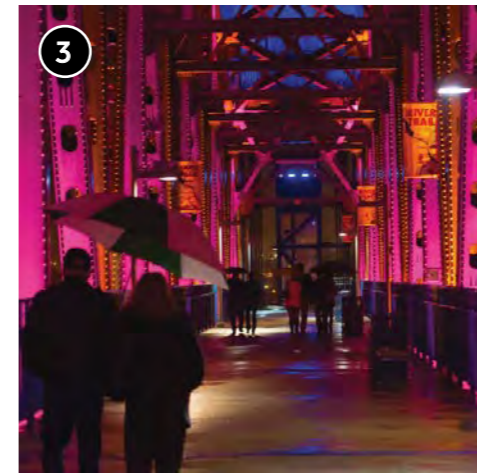
- **Contrast:** Due to the nature of the door openings the walkways are left with dark spaces to loiter and hide.
- **Safety:** Although there is a good level of light to the floor surface facial recognition and shadowing cause a problem.
- **Limited Aesthetic Appeal:** Nuances are lost in the darkness to the front face of the gateway, materials, colour and definition are lost.

OBSERVATIONS - SITE ANALYSIS

Bridges, underpasses and viaducts offer various functional elements and often features adornment on it's deck and/or parapet. The underpass of the bridge is often under-utilised and is only considered as a passing route. Due to this, these spaces are often dark, unpleasant and end up being a space which attracts anti-social behaviour and crime.

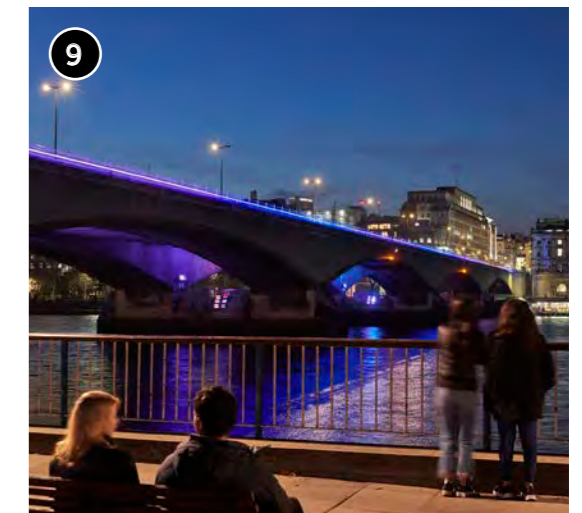
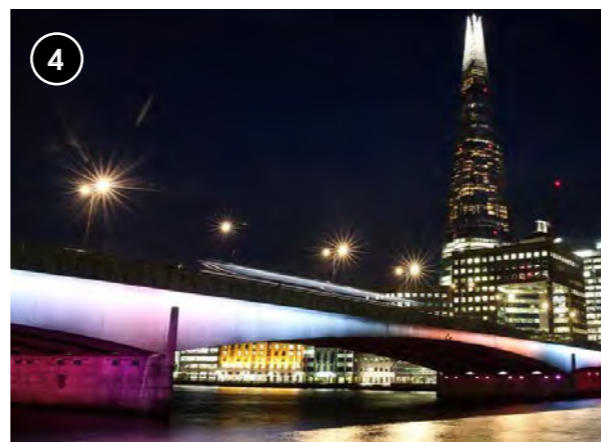
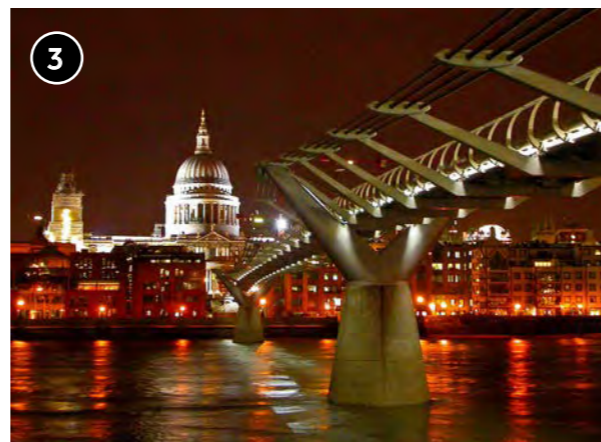
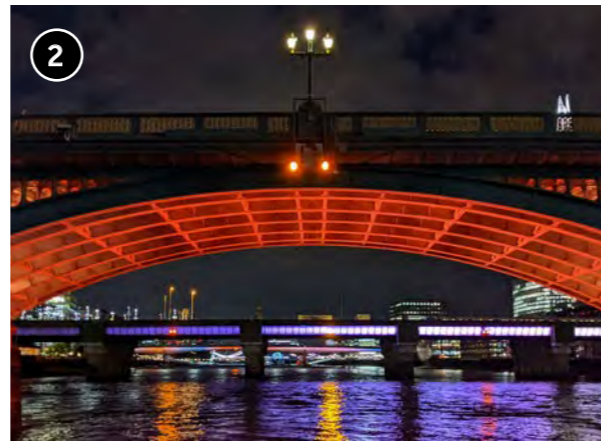
By lifting these areas with the careful use of light the space becomes desirable, feels safer and can reduce crime. They can also offer a true sense of place and act as a major gateway into neighbourhoods and cultural areas.

The structural elements beneath offer multiple layers and provide depth, texture and shadow when illuminated. When left in darkness these spaces can make you feel at unease due to the high contrast and lengthening of shadows at night. By using various layers of light, the contrast is limited without losing the depth and feeling of space.



1. The Iron Bridge, Villafranca de Cordoba, Spain.
2. Village Street Undercroft, Melbourne, Australia.
3. The Big Four Bridge, Indiana, USA.
4. The Iron Bridge, Shropshire.
5. Waterloo Bridge, London.
6. Gosford Street Underpass, Coventry.
7. Putney Bridge, London.
8. Haringey Bridge, London
9. Lonsdale Quay, North Vancouver, BC.

PRECEDENTS



London offers a multitude of bridges, undercrofts, viaducts and underpasses including 35 bridges which cross the Thames.

The illuminated river is a long-term lighting vision which currently features 9 of the Thames bridges within central London. These celebrate the structures as architectural, social and historical landmarks and provides a strong link across the political, financial and cultural centres of the capital.

The Illuminated river offers a subtle movement and sequences of integrated lighting, revealing the distinctive architectural styles and their relationship to the river itself. Orchestrated by New York based artist Leo Villareal together with 19 specialist teams to bring the artwork to life after dark.

Rather than flooding the river with light, it draws attention to the individuality of the bridges and their relationship across the Thames and into their individual neighbourhoods.

1. View along the River Thames and its illuminated river.
2. Southwark Bridge, London.
3. Millennium Bridge, London.
4. London Bridge, London.
5. Lambeth Bridge, London.
6. Golden Jubilee Bridge, London.
7. Hungerford & Golden Jubilee Bridges, London.
8. Westminster Bridge, London.
9. Waterloo Bridge, London.

LOCAL PRECEDENTS

REPRODUCTION SURFACE MOUNTED GLOBES UPDATED IN 2018 PROVIDE DECORATIVE LIGHTING AT THE BRIDGE DECK LEVEL AND ALSO HIGHLIGHT THE CITY OF LONDON SHIELD AND FOCAL POINT OF THE VIADUCT.



ALL LIGHTING EFFECTS ARE TO BE MIRRORED ON THE REVERSE SIDE OF THE VIADUCT.

REPRODUCTION SUSPENDED GLOBES UPDATED IN 2018 PROVIDE THE MAJORITY OF FUNCTIONAL LIGHTING IN THE SPACE AND ALSO OFFER A DECORATIVE FEATURE.

KEY:

- A EXISTING LIGHTING
- A PROPOSED LIGHTING

LETTERS REFER TO LUMINAIRE SPECIFICATION.

EXISTING LAYER OF LIGHT - FARRINGDON STREET VIEW

THE CITY OF LONDON COAT OF ARMS WHICH ADORNS THE GATEWAY IS ILLUMINATED BY TWO BUILDING-MOUNTED SPOTS, HIGHLIGHTING ITS HERITAGE AND IMPROVING NIGHT-TIME VISIBILITY. MOUNTED AT ADJACENT BUILDINGS.

MINIATURE POINT SOURCE LUMINAIRES CONCEALED WITHIN THE COLUMN CAPITALS TO CREATE DEPTH AND VISUAL INTEREST TO THE STRUCTURAL RIBS OF THE VIADUCT EXPRESSING THE FLOWING FORMS.

THE ELABORATE IRON DETAILS ARE SILHOUETTED BY THE WASHES OF LIGHT FROM WITHIN FRAMING THE COMPOSITION AND INVITING PEOPLE WITHIN.

ALL LIGHTING EFFECTS ARE TO BE MIRRORED ON THE REVERSE SIDE OF THE VIADUCT.

LINEAR LIGHTING IS USED TO ILLUMINATE THE DECORATIVE AND STRUCTURAL ELEMENTS OF THE SOFFIT, HIGHLIGHTING ARCHITECTURAL DETAILS AND ENHANCING SPATIAL DEFINITION.

THE HERITAGE GLOBE LUMINAIRES TO BE UPGRADED TO PROVIDE LOW-GLARE GENERAL ILLUMINATION, ENHANCING VISUAL COMFORT AND ENSURING SAFETY IN THE UNDER-BRIDGE AREA.

KEY:

- A EXISTING LIGHTING
- A PROPOSED LIGHTING

LETTERS REFER TO LUMINAIRE SPECIFICATION.

LINEAR WALLWASH LIGHT IS USED TO ACCENTUATE THE BRICK TEXTURE AND ENHANCE THE PASSENGERS' VISUAL EXPERIENCE BY ADDING VERTICAL ILLUMINANCE.



ENHANCED LAYERS OF LIGHT - FARRINGDON STREET VIEW



ALL LIGHTING EFFECTS ARE TO BE MIRRORED ON THE REVERSE SIDE OF THE VIADUCT.

THE HERITAGE GLOBE LUMINAIRES TO BE UPGRADED TO PROVIDE LOW-GLARE GENERAL ILLUMINATION, ENHANCING VISUAL COMFORT AND ENSURING SAFETY IN THE UNDER-BRIDGE AREA.

KEY:

- A EXISTING LIGHTING
- A PROPOSED LIGHTING

LETTERS REFER TO LUMINAIRE SPECIFICATION.

EXISTING LAYER OF LIGHT - BENEATH THE VIADUCT VIEW

LINEAR WALLWASH LIGHT IS USED TO ACCENTUATE THE BRICK TEXTURE AND ENHANCE THE PASSENGERS' VISUAL EXPERIENCE BY ADDING VERTICAL ILLUMINANCE.

MINIATURE POINT SOURCE LUMINAIRES CONCEALED WITHIN THE COLUMN CAPITALS TO CREATE DEPTH AND VISUAL INTEREST TO THE STRUCTURAL RIBS OF THE VIADUCT EXPRESSING THE FLOWING FORMS.

ALL LIGHTING EFFECTS ARE TO BE MIRRORED ON THE REVERSE SIDE OF THE VIADUCT.

THE ELABORATE IRON DETAILS ARE SILHOUETTED BY THE WASHES OF LIGHT FROM WITHIN FRAMING THE COMPOSITION AND INVITING PEOPLE WITHIN.

THE HERITAGE GLOBE LUMINAIRES TO BE UPGRADED TO PROVIDE LOW-GLARE GENERAL ILLUMINATION, ENHANCING VISUAL COMFORT AND ENSURING SAFETY IN THE UNDER-BRIDGE AREA.

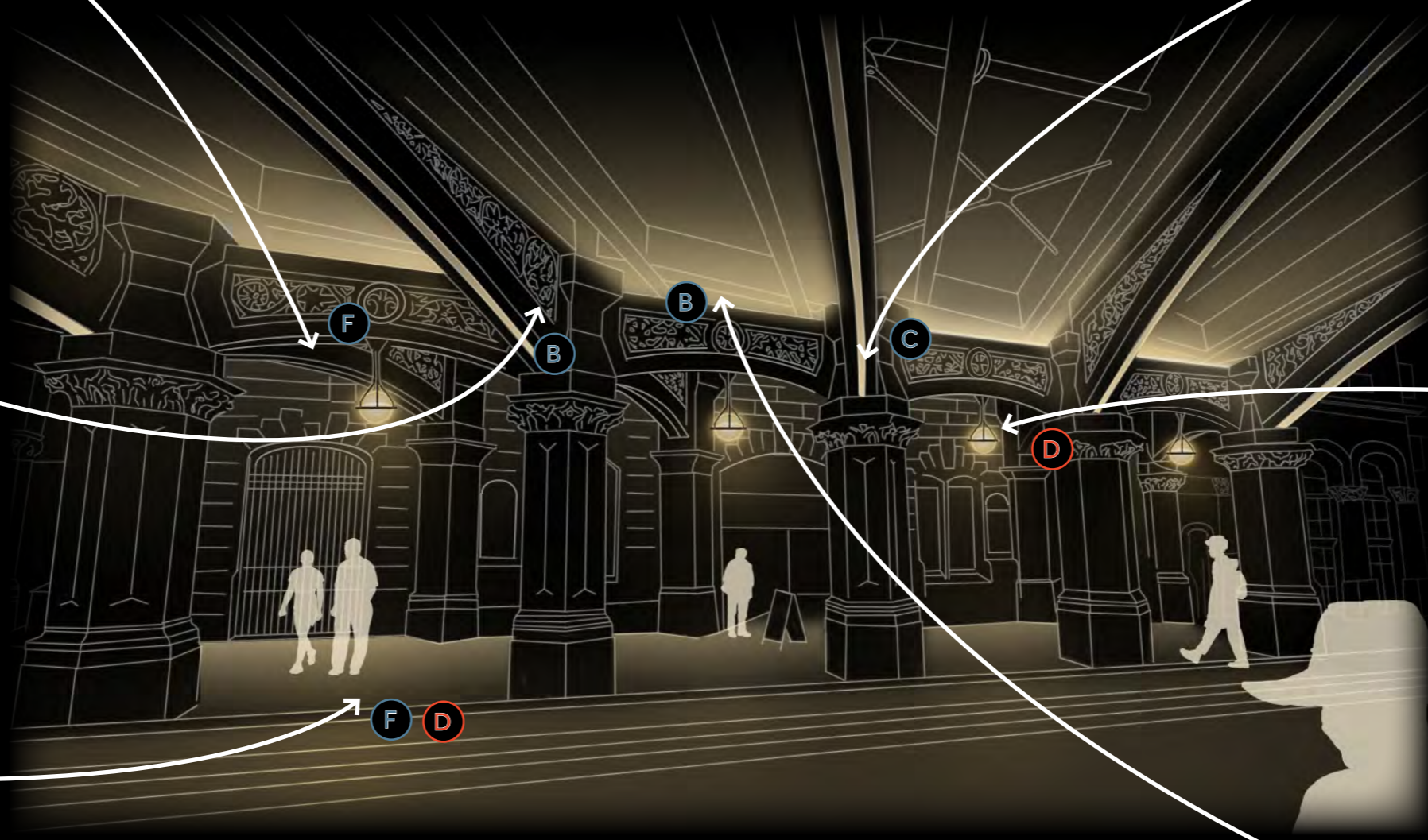
THE SURFACE OF THE WALKWAY THROUGH THE VIADUCT IS WASHED WITH A DELICATE WARMTH OF LIGHT PROVIDED BY BOTH THE GLOBES AND VERTICAL ILLUMINATION, PROVIDING A FEELING OF SAFETY.

LINEAR LIGHTING IS USED TO ILLUMINATE THE DECORATIVE AND STRUCTURAL ELEMENTS OF THE SOFFIT, HIGHLIGHTING ARCHITECTURAL DETAILS AND ENHANCING SPATIAL DEFINITION.

KEY:

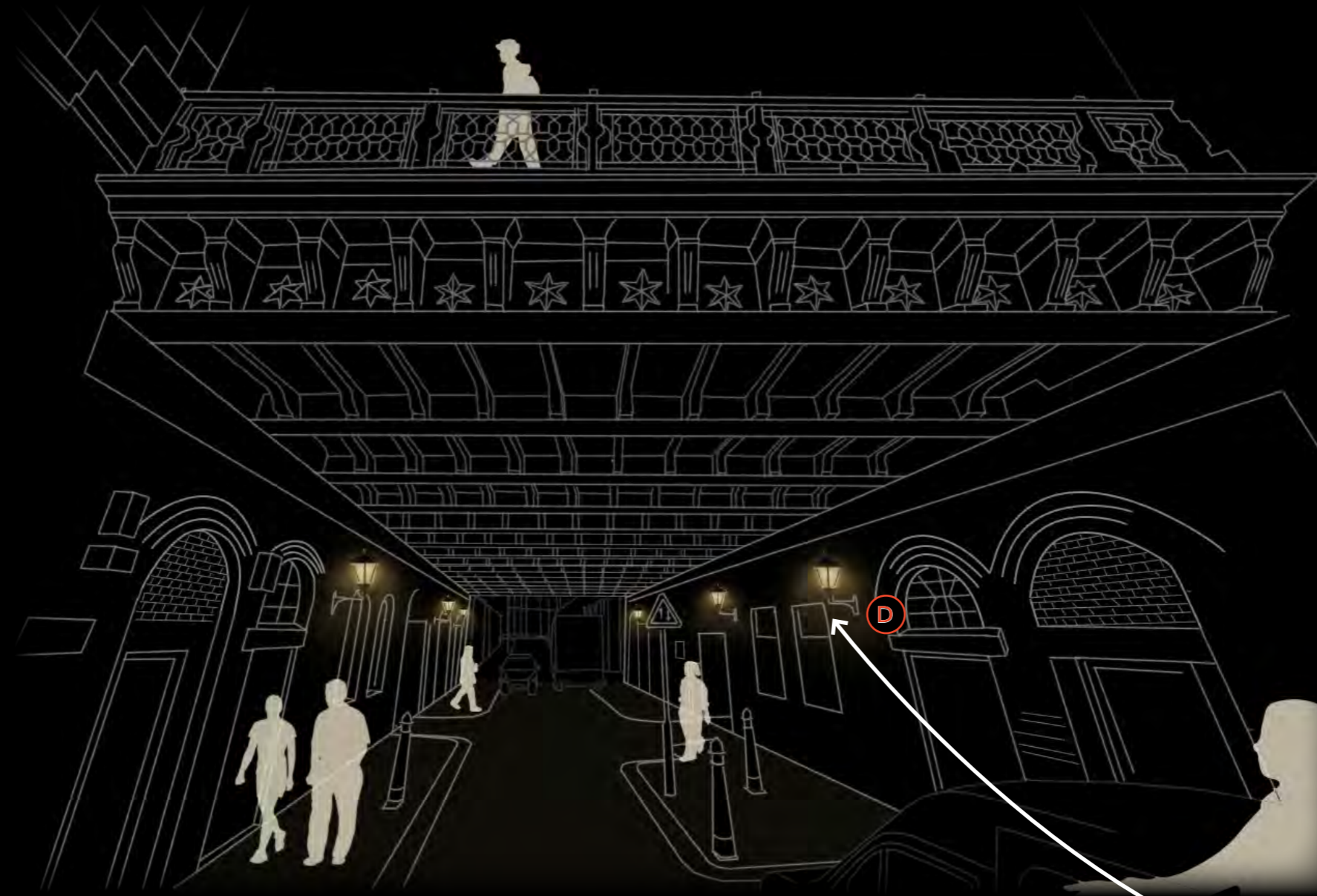
- (A)** EXISTING LIGHTING
- (A)** PROPOSED LIGHTING

LETTERS REFER TO LUMINAIRE SPECIFICATION.



ENHANCED LAYERS OF LIGHT - BENEATH THE VIADUCT VIEW

ALL LIGHTING EFFECTS ARE TO BE MIRRORED ON THE REVERSE SIDE OF THE VIADUCT/UNDERPASS.



KEY:

- (D)** EXISTING LIGHTING
- (A)** PROPOSED LIGHTING

LETTERS REFER TO LUMINAIRE SPECIFICATION.

THE HERITAGE LANTERN LUMINAIRES TO BE UPGRADED TO PROVIDE LOW-GLARE GENERAL ILLUMINATION, ENHANCING VISUAL COMFORT AND ENSURING SAFETY IN THE UNDER-BRIDGE AREA.

EXISTING LAYER OF LIGHT - SHOE LANE VIEW

ALL LIGHTING EFFECTS ARE TO BE MIRRORED ON THE REVERSE SIDE OF THE VIADUCT/UNDERPASS.

LINEAR LIGHTING IS HIDDEN WITHIN THE STRUCTURE TO ILLUMINATE THE DECORATIVE AND STRUCTURAL ELEMENTS OF THE SOFFIT, HIGHLIGHTING ARCHITECTURAL DETAILS AND ENHANCING SPATIAL DEFINITION.

LINEAR WALLWASH LIGHT IS USED TO ACCENTUATE THE BRICK TEXTURE AND ENHANCE THE PASSENGERS' VISUAL EXPERIENCE BY ADDING VERTICAL ILLUMINANCE.

THE HERITAGE LANTERN LUMINAIRES TO BE UPGRADED TO PROVIDE LOW-GLARE GENERAL ILLUMINATION, ENHANCING VISUAL COMFORT AND ENSURING SAFETY IN THE UNDER-BRIDGE AREA.

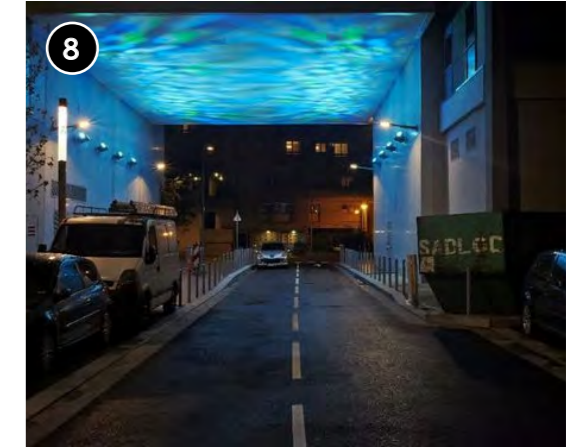
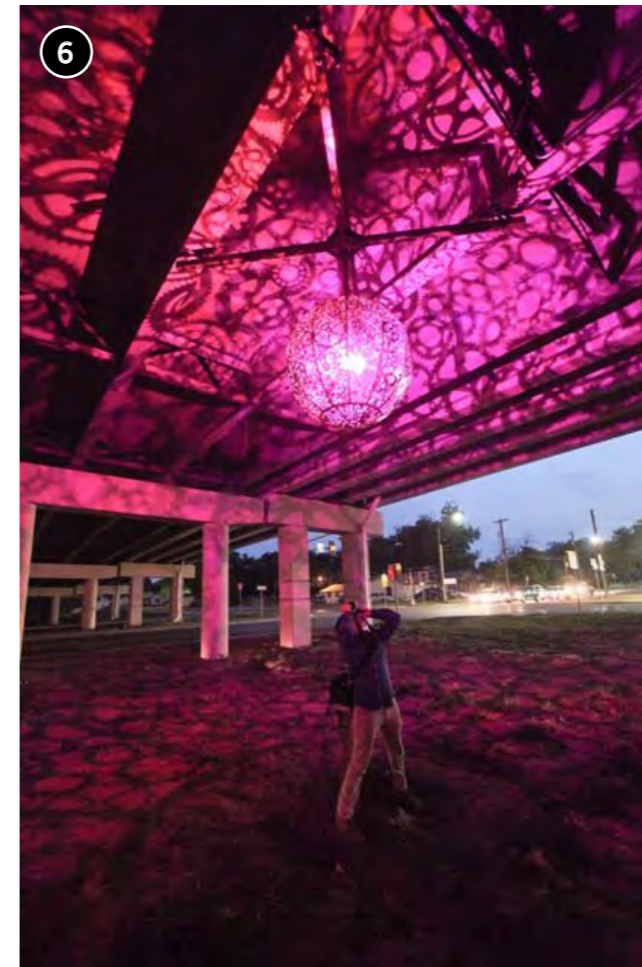
KEY:

(A) EXISTING LIGHTING

(B) PROPOSED LIGHTING

LETTERS REFER TO LUMINAIRE SPECIFICATION.

ENHANCED LAYERS OF LIGHT - SHOE LANE VIEW



Effect lighting or dynamic lighting can offer significant changes both physically and psychologically within a space. It can transport you to a different time or space and can conjure changes in feeling through choices in colour, texture and movement.

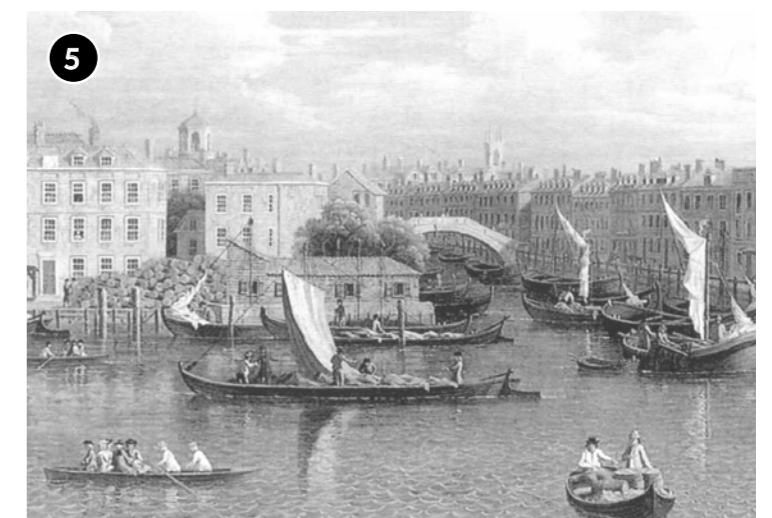
The feeling of being immersed in coloured light is something quite special it can instantly evoke a positive mood and can respond to tell a story without the need for words.

By choosing to utilising a dynamic effect to the pedestrian walkway at certain times of the day this acts as a pivotal moment in time. An additional layer of interest which invites people for multiple visits.

Consider the Eiffel Tower, a structure which offers a base layer of architectural lighting which emphasises its form and offers a key focal point on the skyline. This then dramatically comes alive for five minutes every hour and offers a completely different dynamic visual to the skyline.

1. Memory of the Land, Shenzhen, China.
2. LightRails, Birmingham, Alabama.
3. Jiangnan District, China.
4. Interactive Art, TeamLab, London.
5. The Time Tunnel, Gothenburg.
6. Ballroom Luminoso, San Antonio, Texas.
7. Musee du Quai Branly, France.
8. Porche, 2 rue du Général Julien, Épinay sur Seine, France.
9. Lights in Alingsås, 2022, Sweden.

EFFECT LIGHTING



Effect lighting is often seen at its most successful when it has a strong link to the site. Whether this is through a sense of place, its history or simply revealing another facet of the structure, connection is key.

The Holborn Viaduct has an abundance of connections to pull from, a rich tapestry of tales to tell from over the years.

Whilst the base layer of light offers a rich tone and identifies the ornate architectural elements, lifts the flowing structure and provides safe passage through.

The effect lighting can peel back the years and transport the visitors to a place in time before the River Fleet was diverted below street level and flowed freely, using light to bathe you in the ebb and flow of the river and helping to move you forward through the grand gateway and on to your journey ahead.

1. Holborn Viaduct from Farringdon Street.
2. The culverted River Fleet within the sewer tunnels.
3. Building the Holborn Viaduct 1860s London.
4. Fleet Ditch.
5. The River Fleet.

EFFECT LIGHTING - CONCEPT



EXISTING LAYER OF LIGHT - BENEATH THE VIADUCT VIEW



ENHANCED LAYERS OF LIGHT - BENEATH THE VIADUCT VIEW

LINEAR WALLWASH LUMINAIRES CHANGES TO MATCH THE SHIFT IN COLOUR AND ENGULFS THE VERTICAL SURFACE IN WAVES OF BLUE LIGHT PROVIDING A DRAMATIC BACKDROP.

MINIATURE POINT SOURCE LUMINAIRES CONCEALED WITHIN THE COLUMN CAPITALS SHIFT WITH THE GLOBES TO PROVIDE A COOL HIGHLIGHT ALONG THE IRON RIB STRUCTURE ABOVE FRAMING THE BLUE TONES WITHIN.

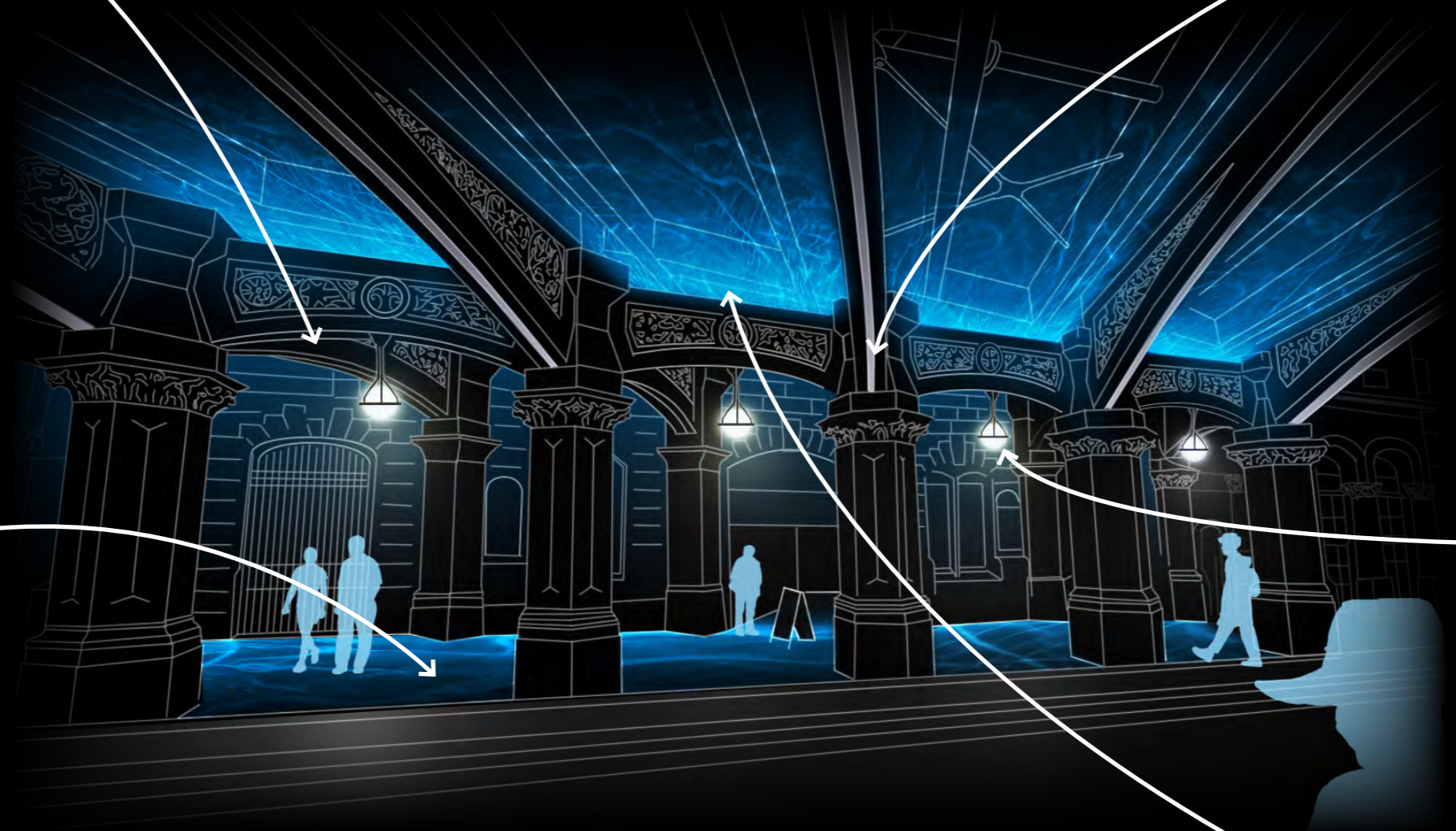
ALL LIGHTING EFFECTS ARE TO BE MIRRORED ON THE REVERSE SIDE OF THE VIADUCT.

THE SURFACE OF THE WALKWAY THROUGH THE VIADUCT IS WASHED STATIC SUBTLE RIPPLE PATTERN PROVIDED BY CONCEALED PROJECTION BATHING THE GROUND AND PEOPLE IN COLOURED LIGHT AND PATTERN.

THE HERITAGE GLOBE LUMINAIRES TO SHIFT IN COLOUR TEMPERATURE TO A COOLER LIGHT TO COMPLIMENT THE SURROUNDING COOL WATER EFFECT.

THE WATER EFFECT IS LIMITED TO THE INTERNAL SPACES ALLOWING THE UPPER DECK AND STRUCTURE TO CREATE A WARM CROWN ABOVE.

LINEAR LIGHTING SHIFTS IN STATIC COLOUR AND CREATES WASHES IN BLUE TO CREATE A DYNAMIC RIVER REFLECTION ABOVE.



DYNAMIC LAYERS OF LIGHT - BENEATH THE VIADUCT VIEW

TIME: SUNRISE - DUSK



GLOBE PENDANTS @ 50%

TIME: DUSK - SUNSET



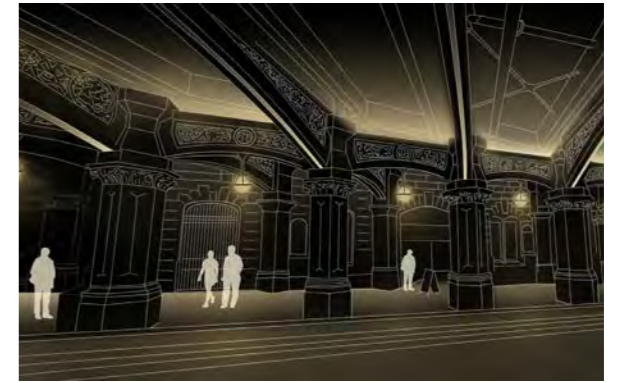
BASE LAYERS - FADE UP TO 100%

TIME: 19:00 - 19:15



COLOUR CHANGE EFFECT LIGHTING (STATIC)

TIME: 19:15 - 20:00



BASE LAYERS @ 100%

TIME: 21:15 - 22:00



BASE LAYERS @ 100%

TIME: 21:00 - 21:15



COLOUR CHANGE EFFECT LIGHTING (STATIC)

TIME: 20:15 - 21:00



BASE LAYERS @ 100%

TIME: 20:00 - 20:15



COLOUR CHANGE EFFECT LIGHTING (STATIC)

TIME: 22:00 - 22:15



COLOUR CHANGE EFFECT LIGHTING (STATIC)

TIME: 22:15 - 23:00



BASE LAYERS @ 100%

TIME: 23:00 - 23:15



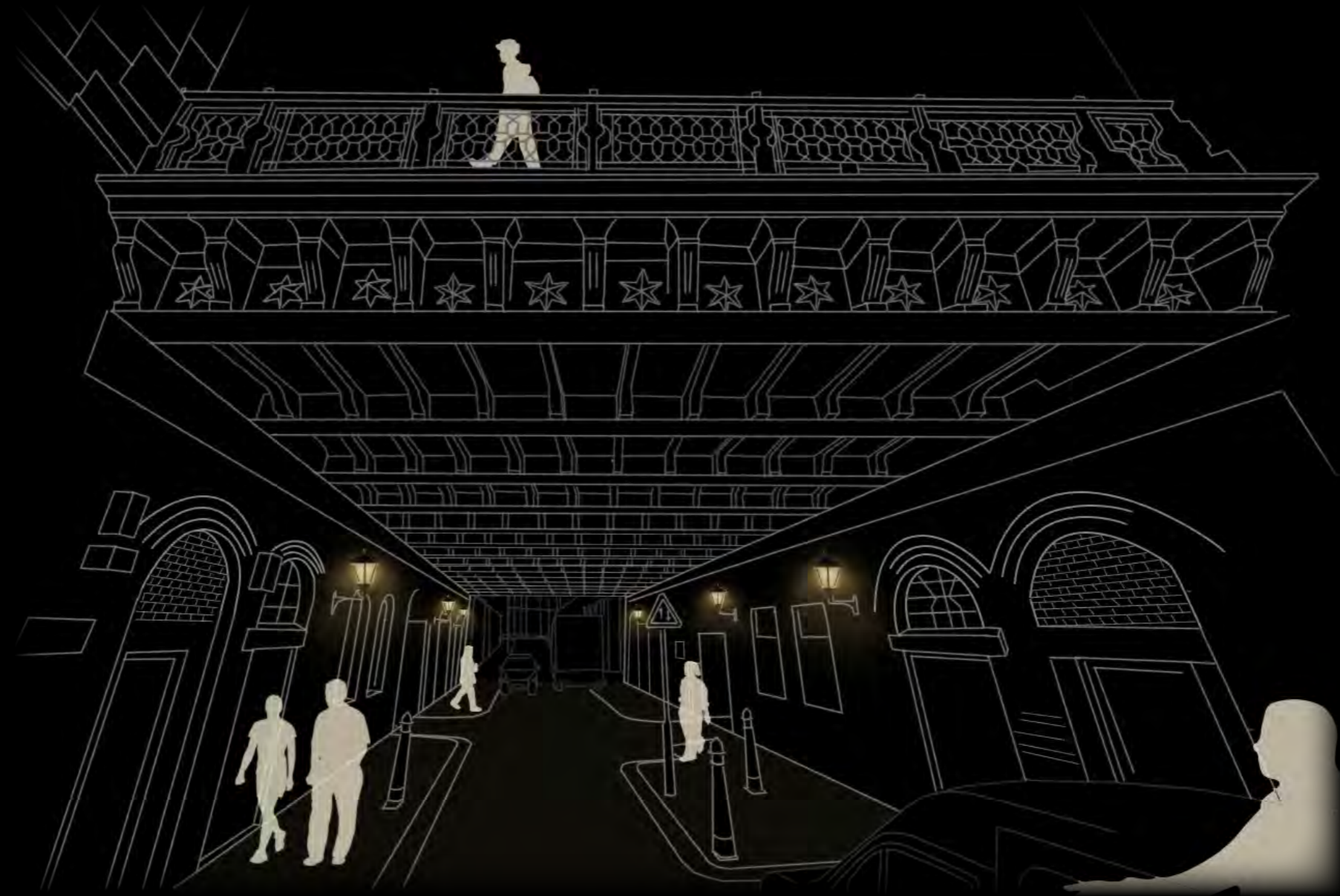
COLOUR CHANGE EFFECT LIGHTING (STATIC)

TIME: 23:15 - CURFEW

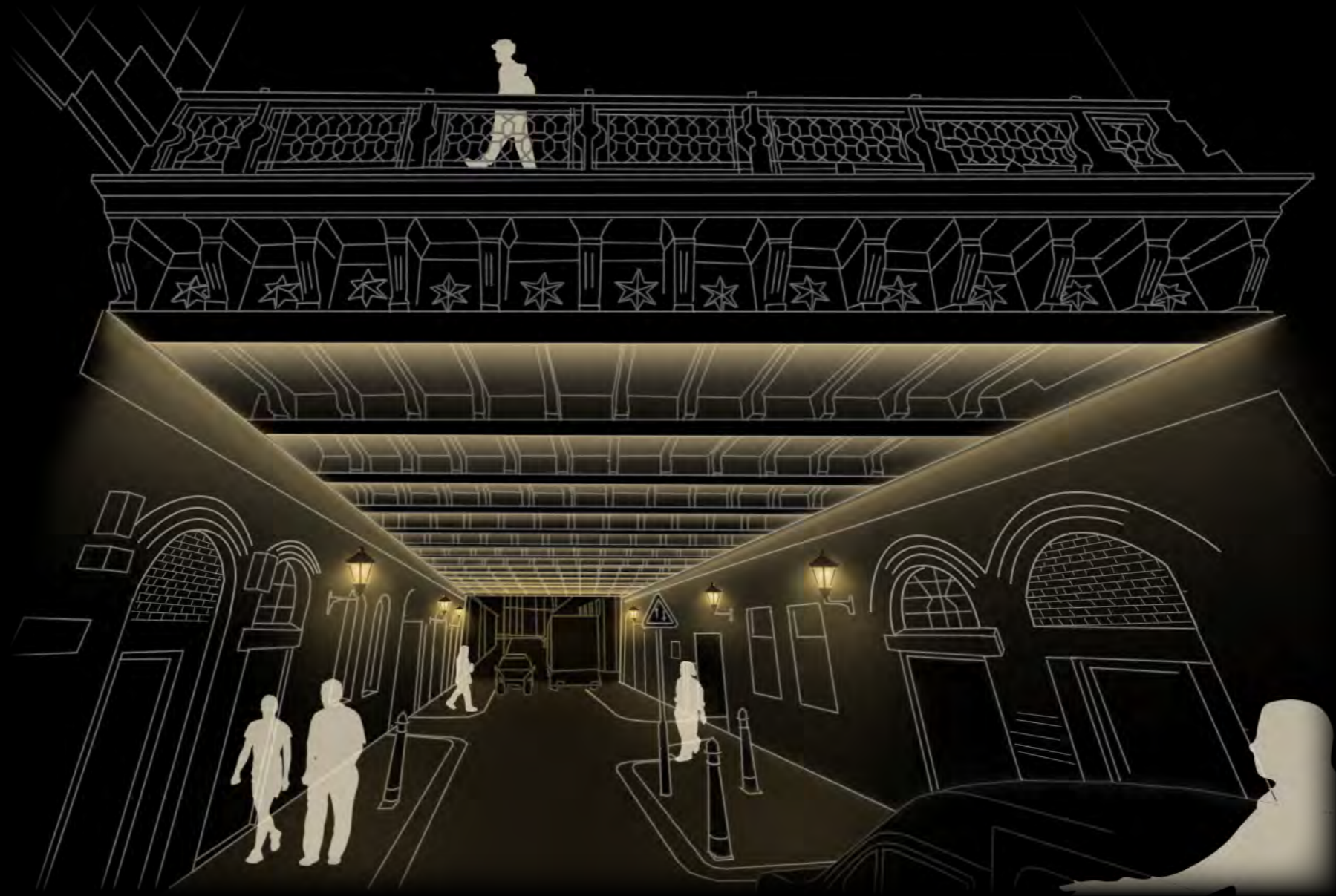


FADE TO GLOBE @ 100% | BASE @ 50%

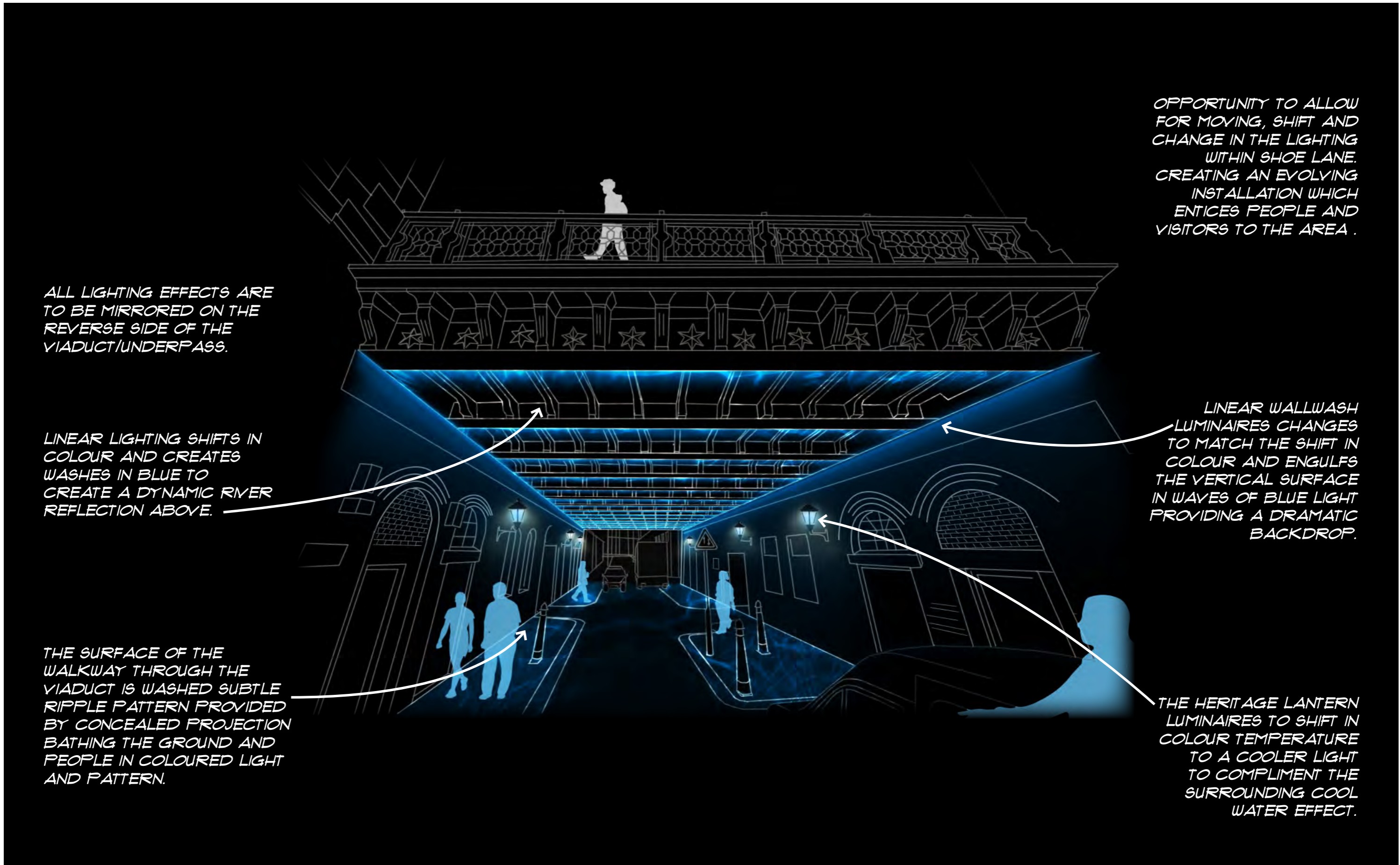
INDICATIVE LIGHTING CONTROL - FARRINGDON STREET



EXISTING LAYER OF LIGHT - SHOE LANE VIEW



ENHANCED LAYERS OF LIGHT - SHOE LANE VIEW



ALL LIGHTING EFFECTS ARE TO BE MIRRORED ON THE REVERSE SIDE OF THE VIADUCT/UNDERPASS.

LINEAR LIGHTING SHIFTS IN COLOUR AND CREATES WASHES IN BLUE TO CREATE A DYNAMIC RIVER REFLECTION ABOVE.

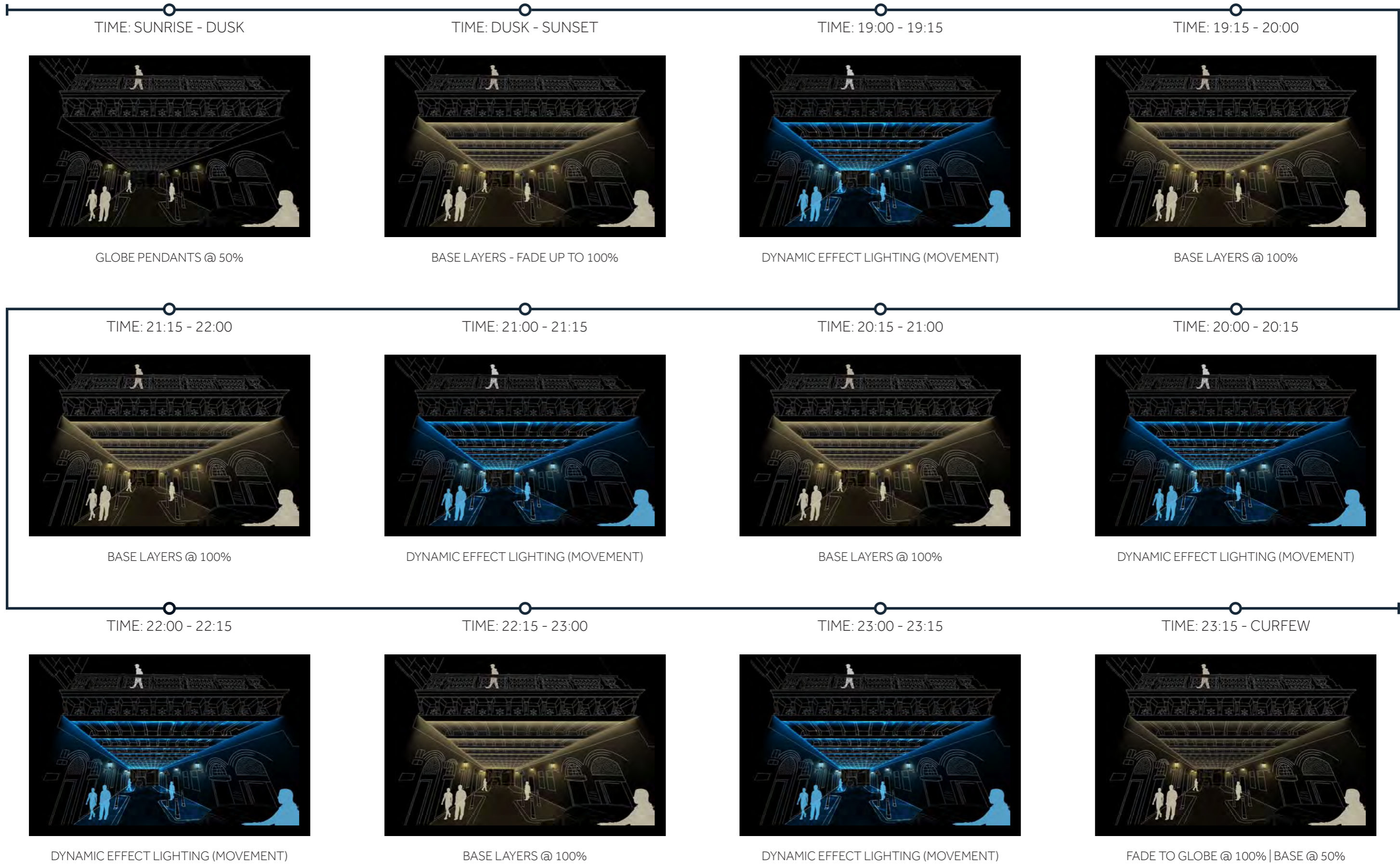
THE SURFACE OF THE WALKWAY THROUGH THE VIADUCT IS WASHED SUBTLE RIPPLE PATTERN PROVIDED BY CONCEALED PROJECTION BATHING THE GROUND AND PEOPLE IN COLOURED LIGHT AND PATTERN.

OPPORTUNITY TO ALLOW FOR MOVING, SHIFT AND CHANGE IN THE LIGHTING WITHIN SHOE LANE. CREATING AN EVOLVING INSTALLATION WHICH ENTICES PEOPLE AND VISITORS TO THE AREA .

LINEAR WALLWASH LUMINAIRES CHANGES TO MATCH THE SHIFT IN COLOUR AND ENGULFS THE VERTICAL SURFACE IN WAVES OF BLUE LIGHT PROVIDING A DRAMATIC BACKDROP.

THE HERITAGE LANTERN LUMINAIRES TO SHIFT IN COLOUR TEMPERATURE TO A COOLER LIGHT TO COMPLIMENT THE SURROUNDING COOL WATER EFFECT.

DYNAMIC LAYERS OF LIGHT - SHOE LANE VIEW



INDICATIVE LIGHTING CONTROL - SHOE LANE

By utilising a scheme which uses colour change technology from its inception it allows for the opportunity for change.

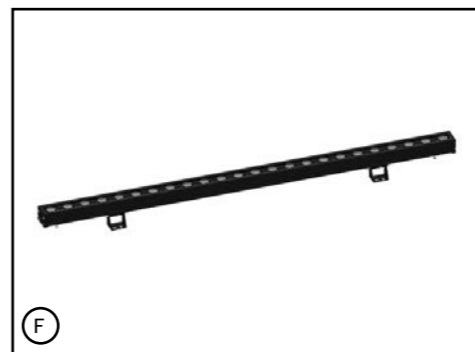
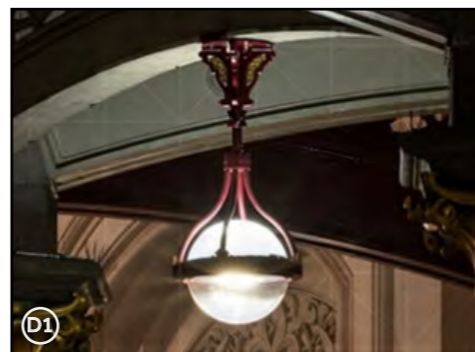
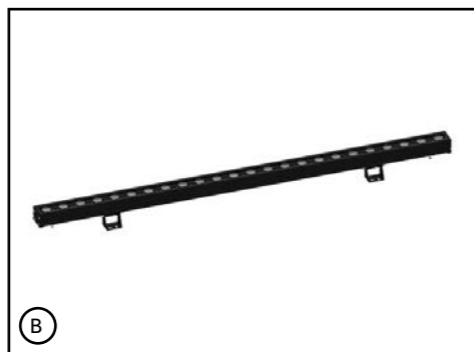
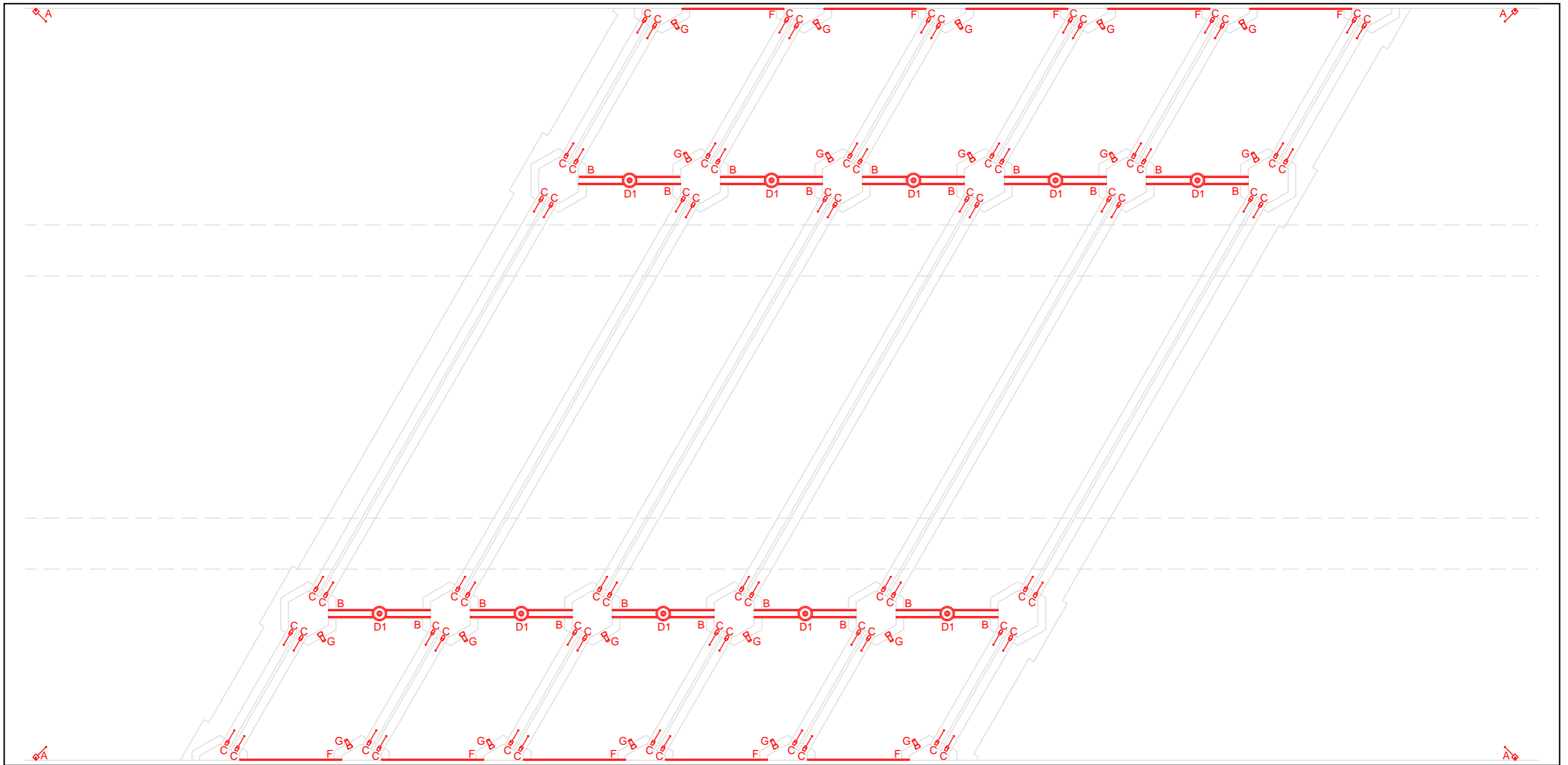
The change could be simple, minimal and understated or it could have the opposite effect and be bold, rich and thought provoking if used and curated in the correct manner.

A great example of the importance of colour change would be the potential for city wide collaboration. Through collaboration and intelligent colour systems the opportunity is available to literally 'paint the town red' or blue, or green or pink.

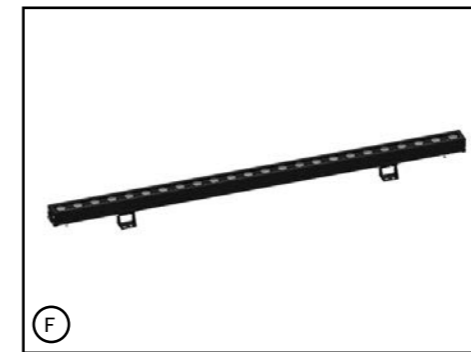
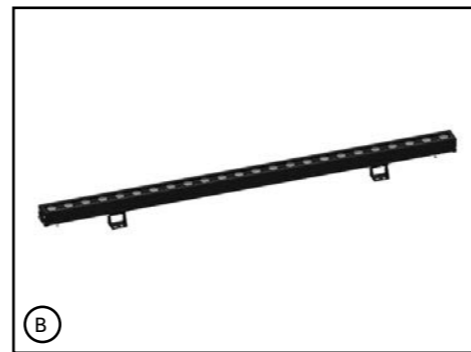
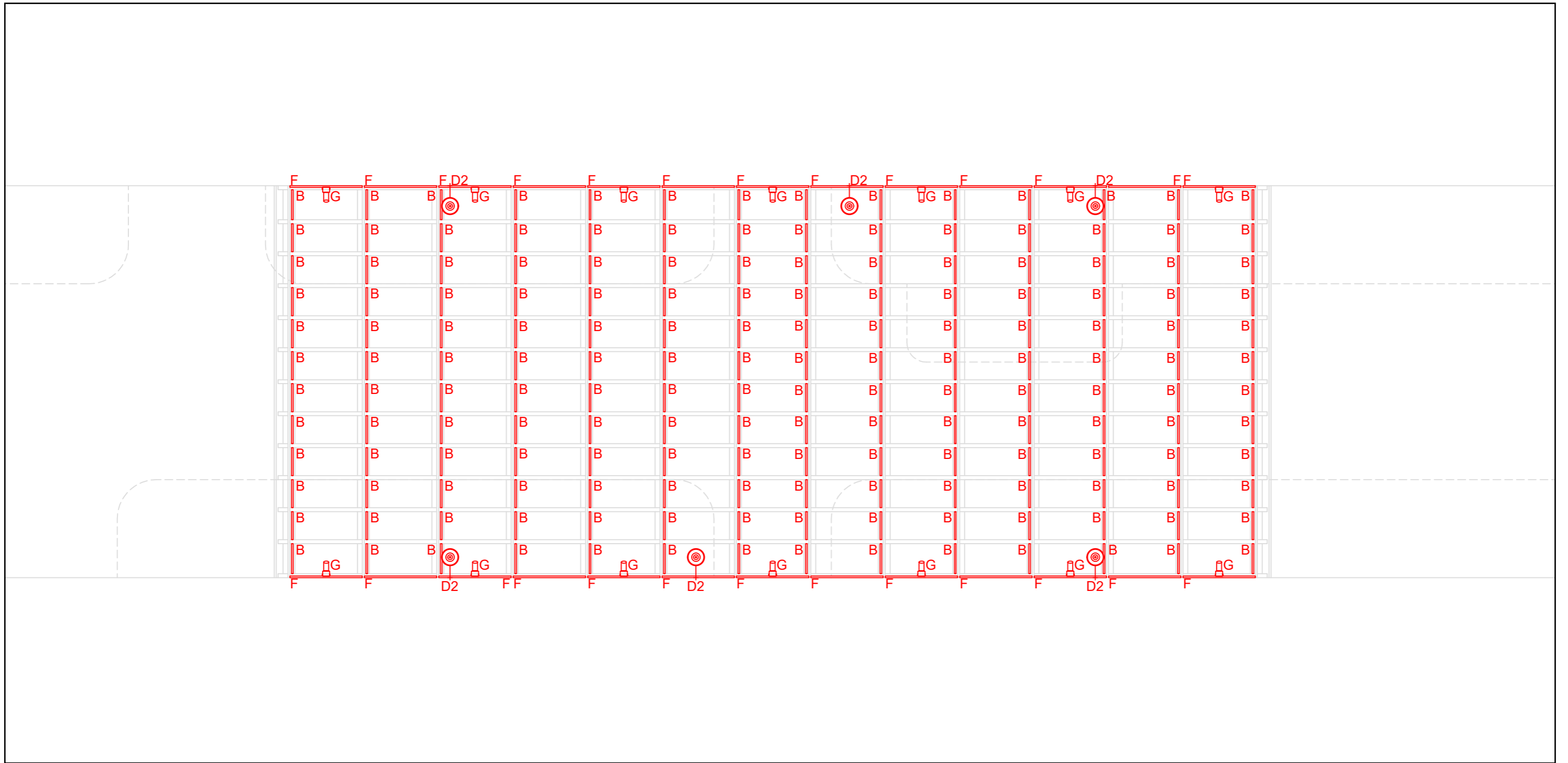
Many significant structures all over the world have joined together through the use of coloured light to support worthy causes, celebrate their culture or to express events or milestone. As an example shown to the right. Pink could be used to express the Cities support of breast cancer awareness month.




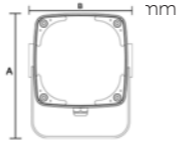

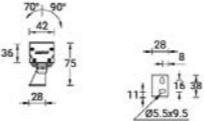

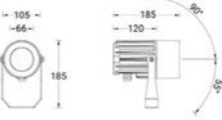

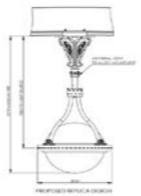

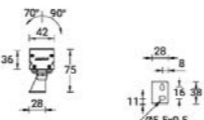

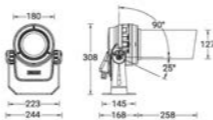
LIGHTING OPPORTUNITIES - CITY WIDE COLLABORATION



INDICATIVE LIGHTING LAYOUT - FARRINGDON STREET



INDICATIVE LIGHTING LAYOUT - SHOE LANE

Ref.	Description & Location	Luminaire Image	Manufacturer & Product Name	Luminaire Dimensions	Lamp & Wattage	Luminaire Lumens	CCT (K)	CRI	IP Rating	Luminaire Finish	Control Protocol	Fixing Method
A	Surface mounted adjustable spotlight, located at adjacent building to cross light City of London Crest		DW Windsor Group Pulsar Fira Pro		LED 30W	1259lm	2700K - TBD following mock-up test	>80	IP 66	RAL TBC To match surface finish	DALI	Bracket mounted to adjacent building facade. Installation, cable route and final fixing method to be coordinated with Historic England.
B	Surface mounted concealed linear source within structure to wash curved soffit with light. Potential option for colour change version if/or required.		DW Windsor Group Ligman Aldo	42 x 75 x L (mm) 	LED 24W	3294lm	2700K or RGBW - TBD following mock-up test	>80	IP 67	RAL TBC To match surface finish	DALI/DMX	Bracket mounted to steel beam and concealed from view. Installation, cable route and final fixing method to be coordinated with Historic England.
C	Surface mounted adjustable spotlights, concealed within decorative column capitals to enhance structural rib feature above. Potential option for colour change version if/or required.		DW Windsor Group Ligman Odessa	Ø66 x 185mm 	LED 20W	1703lm	TUNEABLE WHITE or RGBW - TBD following mock-up test	>80	IP 66	RAL TBC To match surface finish	DALI/DMX	Bracket mounted to column capital and concealed from view. Installation, cable route and final fixing method to be coordinated with Historic England.
D1 D2	Existing reproduction globes to be refurbished to provide enhanced glare control and offer soft upwards light to soffit above.		DW Windsor Group Upgrade to existing fixture		LED 35W	TBC	TUNEABLE WHITE - TBD following mock-up test	>80	TBC	RAL TBC To match surface finish	DALI	No change to existing mounting location or method.
F	Linear source mounted within abutment detail to allow for vertical illumination to brick wall and provide base level of light at walkways. Potential option for colour change version if/or required.		DW Windsor Group Ligman Aldo	42 x 75 x L (mm) 	LED 24W	3294lm	2700K or RGBW - TBD following mock-up test	>80	IP 67	RAL TBC To match surface finish	DALI/DMX	Bracket mounted within abutment detail. Installation, cable route and final fixing method to be coordinated with Historic England.
G	Surface mounted gobo effect lighting to mimic water ripple effect to ground surface. Glass colour gobo (size M) to be developed for project.		DW Windsor Group Ligman Quantum	Ø180 x 308 x 426 (mm) 	LED 44W	2508lm	4000K - TBD following mock-up test	>80	IP66	RAL TBC To match surface finish	DALI/DMX	Bracket mounted to column capital and concealed as much as possible from view. Installation, cable route and final fixing method to be coordinated with Historic England.
NOTE:	All fittings are indicative. Mock-up tests and calculations are required to ensure appropriate luminaires are chosen prior to installation, together with all accessories, brackets and louvres.											

INDICATIVE LUMINAIRE SPECIFICATION

Following sign-off of the lighting opportunities, the external lighting scheme will be developed further to allow for site tests, mock-ups, workshops and desktop studies.

Due to the importance of the heritage structure careful considerations are required to ensure the correct specification, placement and cabling are treated with the utmost sensitivity, in conjunction with Historic England.

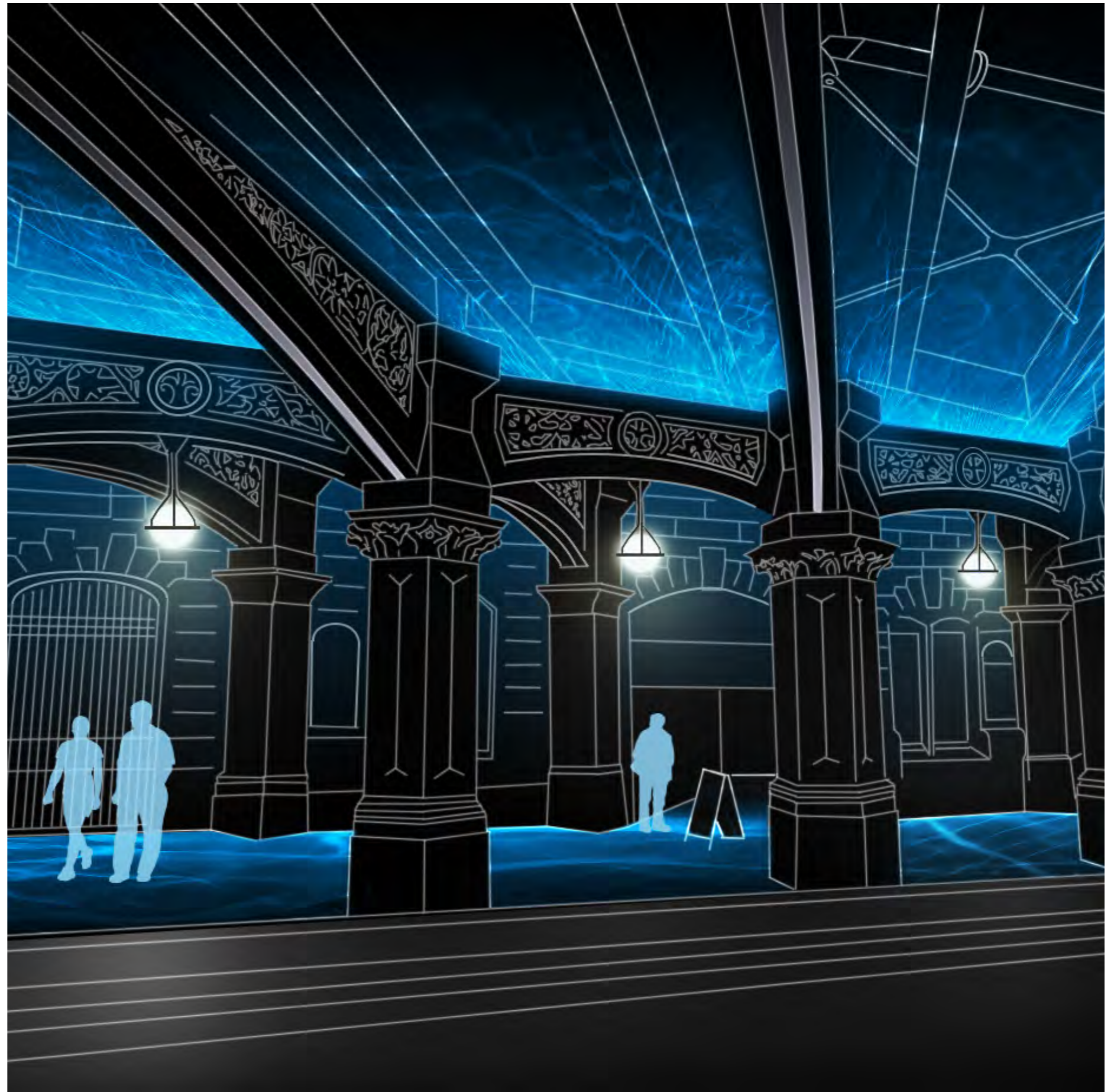
Final luminaire selection will depend on the results of on-site mock-up tests.

These test will include but are not limited to:

- Colour temperature and colour options
- Scale of luminaires
- Location of luminaire
- Availability of mounting location
- Testing effect lighting with different patterns and placement
- Coordination with relevant stakeholders and manufacturers

Once the test have been undertaken and approved the team can produce all relevant information for the next stage.

Information is required on the current electrical infrastructure to ensure all of the identified proposals can be achieved and future proofed moving forward.



NEXT STEPS

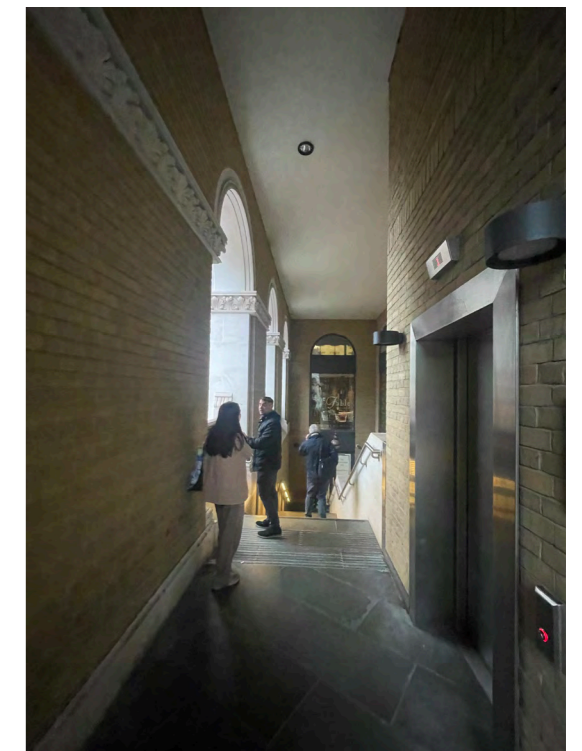
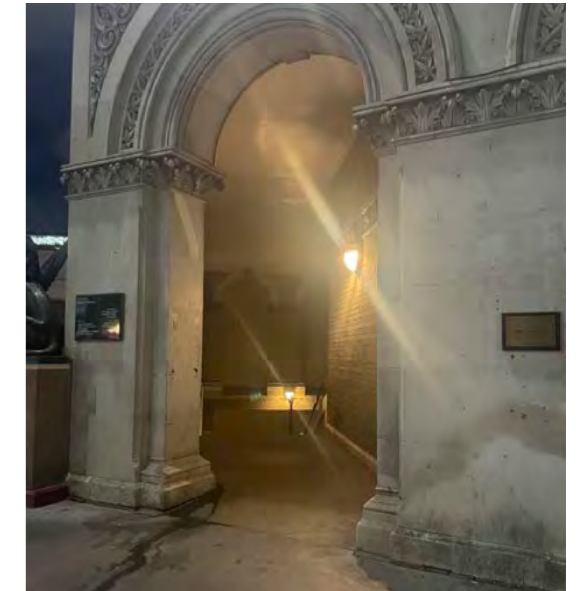
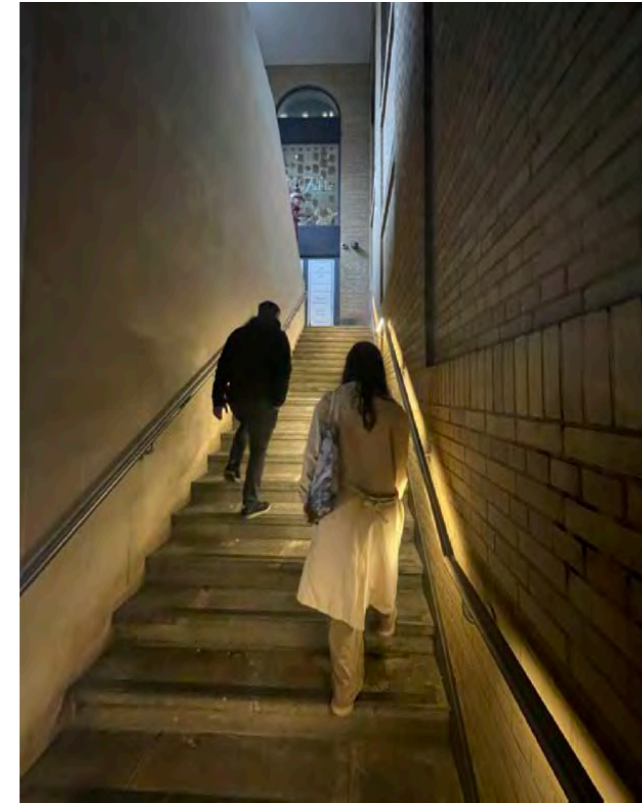
Further to responses and comments received at the time of the questionnaire, together with our site analysis visit it is noted that although better lighting is required to the viaduct itself, it would also be beneficial to consider the four connecting pavilions as a separate brief with specific focus on the pedestrian connection between the upper and lower levels.

Within the two refurbished pavilions there is a good quality of light on the ground surface due to new integrated handrail lighting and wall mounted fixtures. Whereas within the original structures lighting is limited to wall mounted bulkhead fittings.

To answer some of the raised concerns and create a safe and enticing pedestrian experience. Some initial design interventions are listed below:

- Express entrances through internal illumination.
- Additional vertical illumination within the spaces to create a more inviting environment.
- Dedicated lighting to enhance the mural within one of the pavilions.
- Identify and enhance architectural elements such as the arched openings to enhance the facade.
- Reintroduce and refurbish existing globe fixtures at landing points.
- Create vertical interest to the facade and this will provide a backdrop for the upper level sculptures.
- Highlight the delicate features and sculptural elements within the facade stonework.

By utilising some key elements the asset together with its connecting structures will create a holistic scheme which identifies this as a true gateway into the City of London and one which celebrates its rich history.



ADJACENT LIGHTING OPPORTUNITIES



Edinburgh

7 Lochside View
Edinburgh
EH12 9DH

Glasgow

110 Queens St
Glasgow
G1 3BX

Manchester

8 First St
Manchester
M15 4RP

London

WSP House
70 Chancery Lane
London WC2A 1AF

WSP.com

