

Mayfield, Manchester/ Lighting Strategy/ 25/11/16

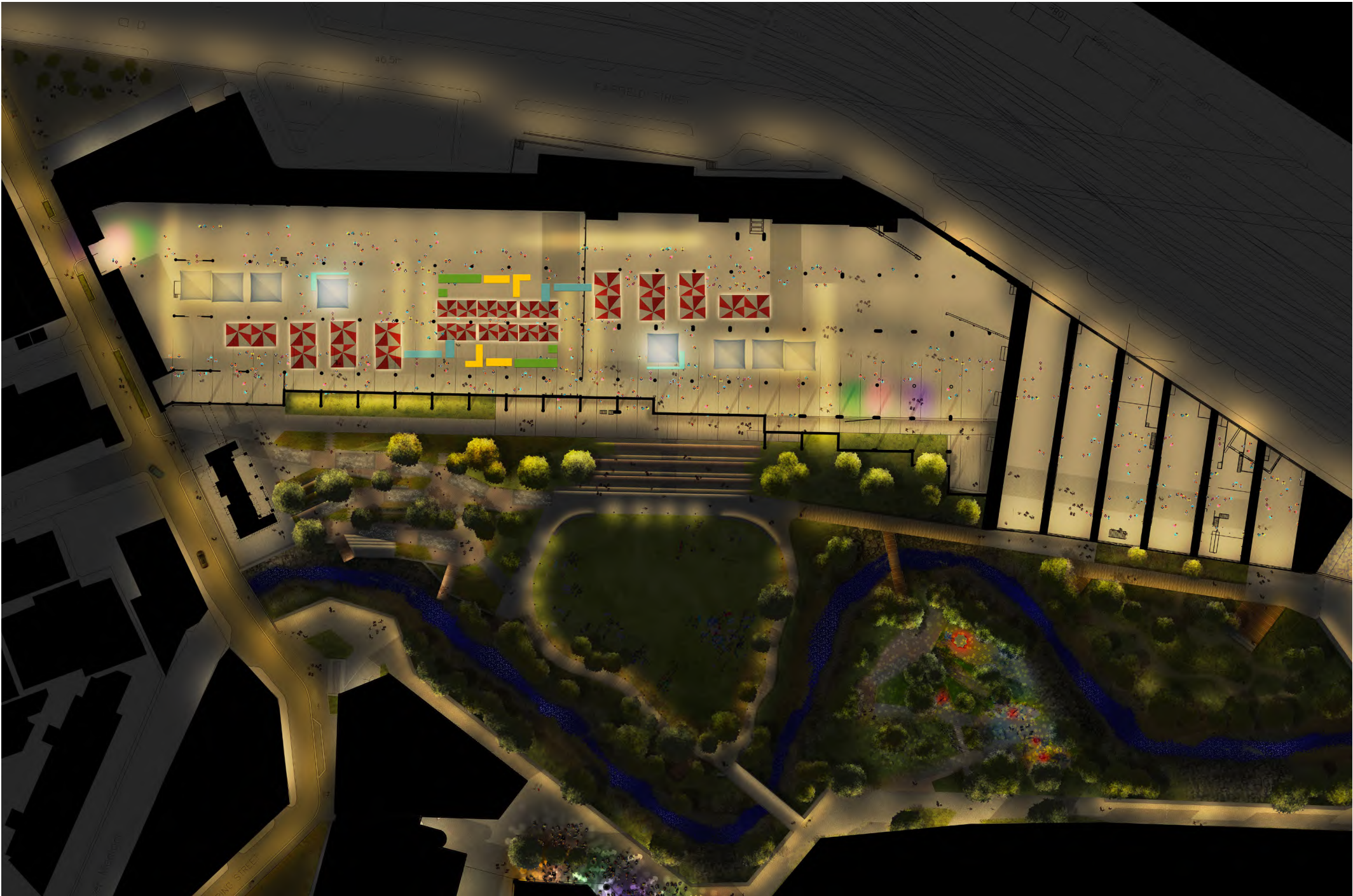


Introduction/

This report has been prepared for U+I by Spiers + Major to set out a high-level lighting strategy for Mayfield., Manchester. Detailed lighting proposals will be brought forward within the context of this strategy.

This document aims to create a coherent approach and to emphasise the unique character of Mayfield within the wider context of the City of Manchester.

It also indicates potential light levels, colour temperatures and indicative mounting heights by way of design guidance.

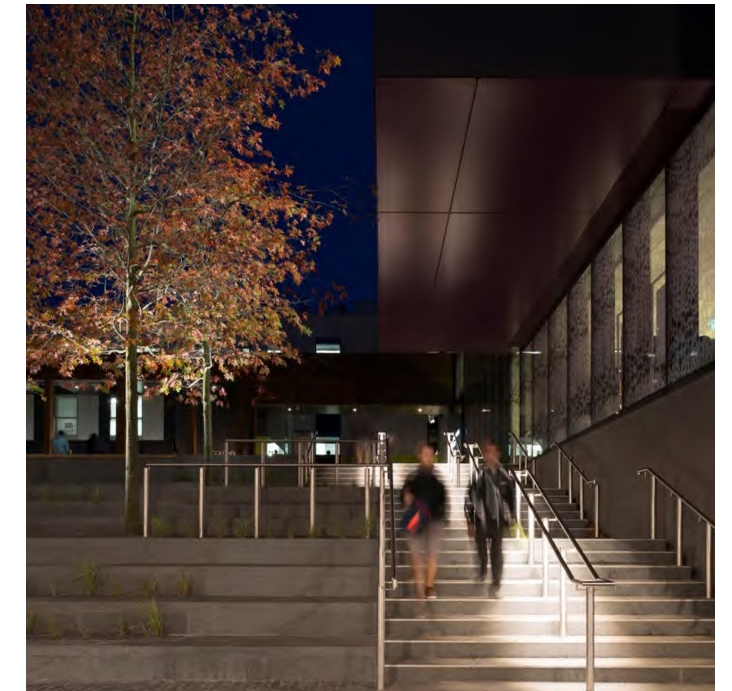
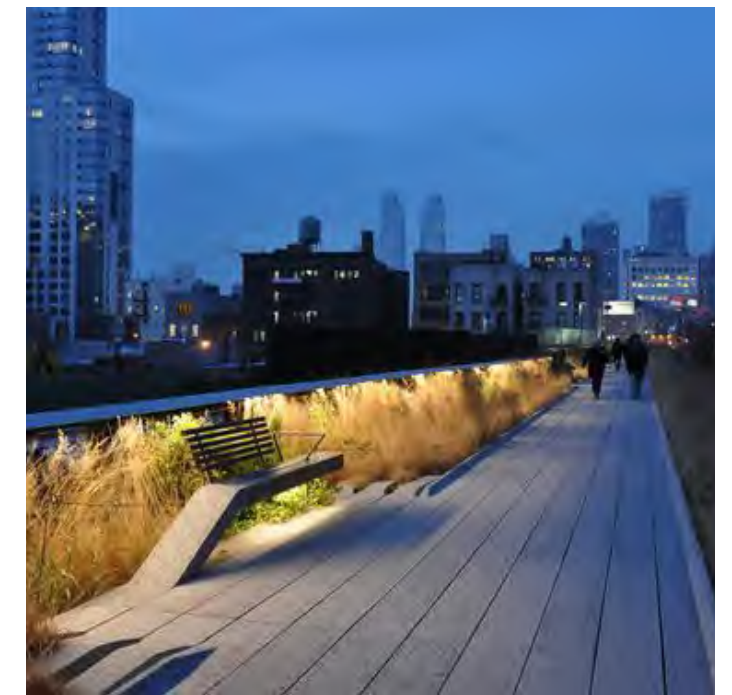


Introduction/ Approach

The lighting strategy has been developed to meet a number of key objectives for the illumination of the five main public spaces and their connecting routes.

The vision aims to achieve the following key objectives for the lighting design:

- Create a safe, secure and accessible environment after dark.
- Develop a specific identity and character for Mayfield 'after dark' to help provide a memorable and inspiring experience for all those that use the site.
- Retain existing qualities of light to celebrate the railway heritage of the site.
- Help intuitive wayfinding by creating a legible environment at night to encourage the positive movement of pedestrians through the various spaces and routes.
- Create places for visitors to dwell within the various parks in Mayfield.
- Minimise adverse impacts on local flora and fauna.
- Utilise passive as well as active light sources to reduce energy consumption.
- Minimise light pollution and light trespass into the residential premises.
- Support the night-time economy by creating an inviting atmosphere after dark to support Mayfield as a destination in Manchester.
- Create a sense of intimacy and familiarity for visitors, workers and residents of Mayfield and adjacent neighbourhoods.
- Develop a flexible lighting scheme to suit the dynamic nature of the campus and provide support for various opportunities in the Depot Park for hosting events, activities and festivals e.g. 'Manchester Light Festival'.
- Blend Mayfield with the wider urban context of Manchester to ensure the development is welcome and accessible to all.
- Ensure the design is inclusive so Mayfield will be accessible to all after dark.



Context/

Context/ Manchester

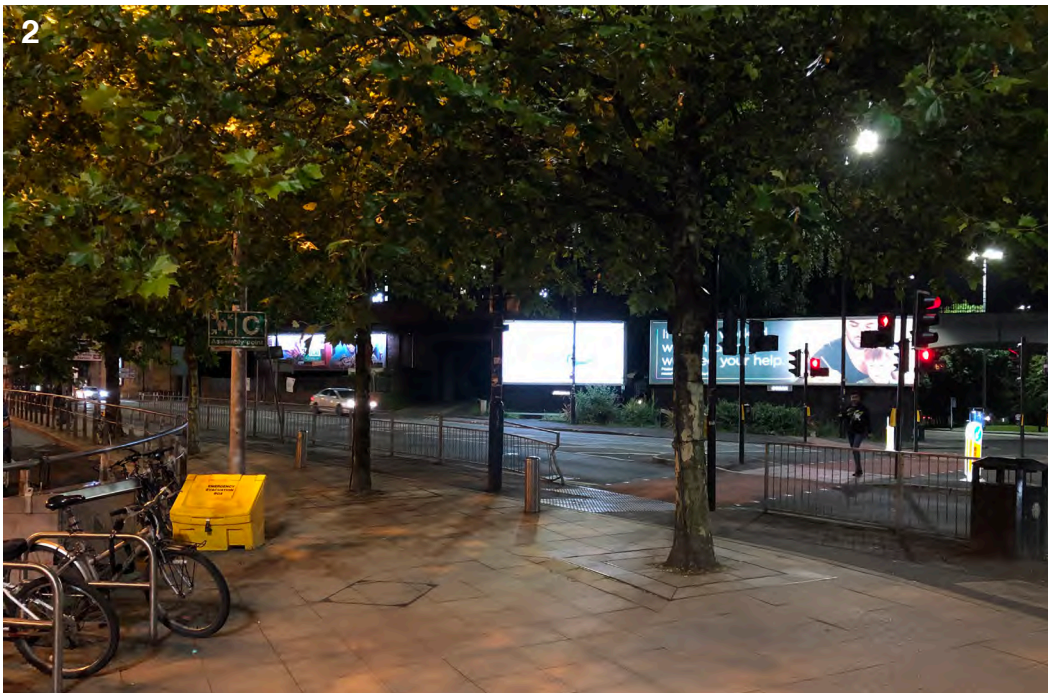
he cityscape after dark is a juxtaposition of various types of street, architectural, occupancy and other forms of urban light. Mayfield must be seen in the context of this wider context. The lighting for the new development should therefore seamlessly integrate with the public lighting of the City of Manchester. The lighting should help support pedestrian movement between Piccadilly Station to the north and Ardwick to the south. Harmonising illumination levels will be key to successful integration. However, this Lighting Strategy also aims to develop a distinct character for Mayfield after dark by creating differentiation with the surrounding cityscape. This can be achieved through considering the colour tone of the white light. The adjacent urban area is mainly lit with a warm to neutral to cool white light (<4000K). It is therefore suggested that the Mayfield estate is illuminated by a much warmer white light (< 3000K) to help distinguish the estate from the wider area and help create a warmer and more inviting ambience which will help support the commercial, retail and residential mix.



Context/ Mayfield



- 1. Piccadilly Station
- 2. Taxi Drop Off
- 3. Wyre Street
- 4. Fairfield Street
- 5. Temperance Street



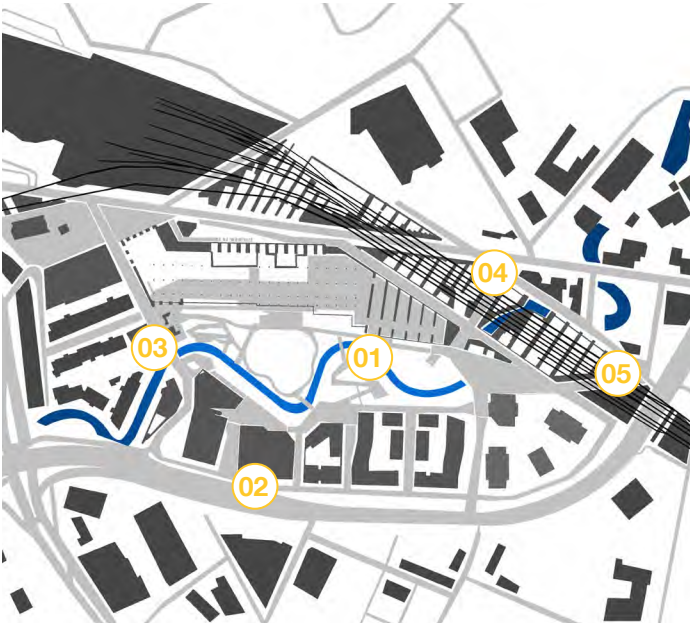
Context/ Mayfield



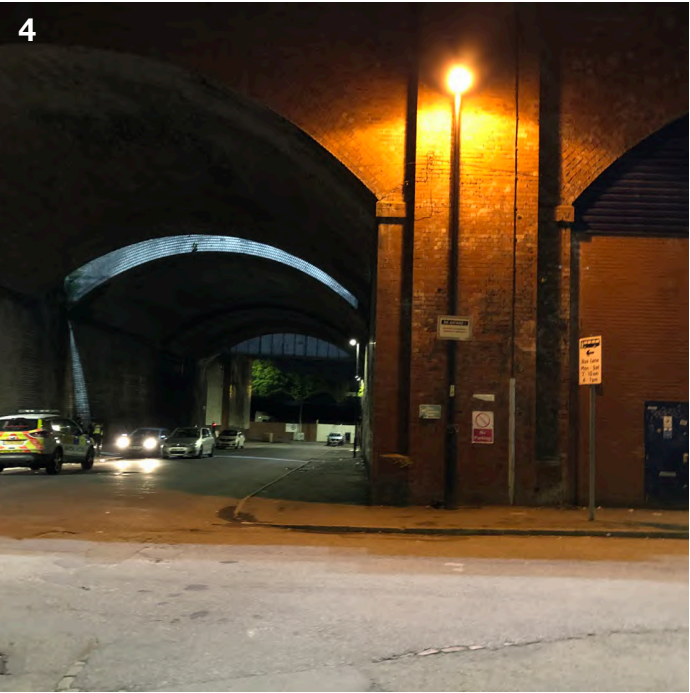
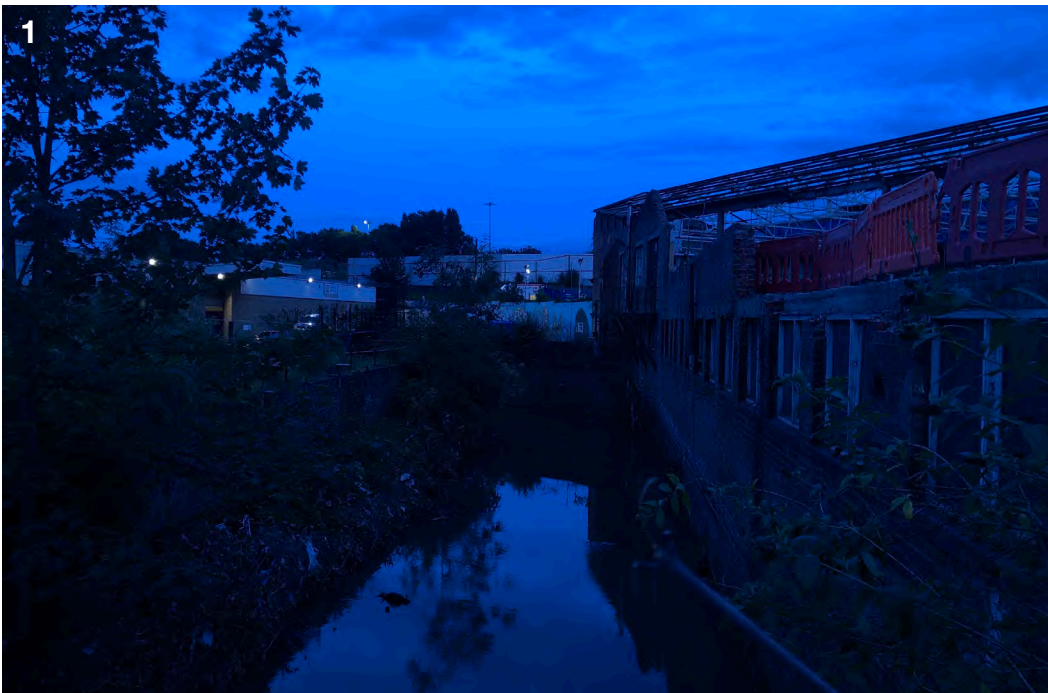
- 1. Star + Garter
- 2. Viaduct
- 3. Depot
- 4. Vaults (Interior)
- 5. Vaults (Exterior)



Context/ Mayfield

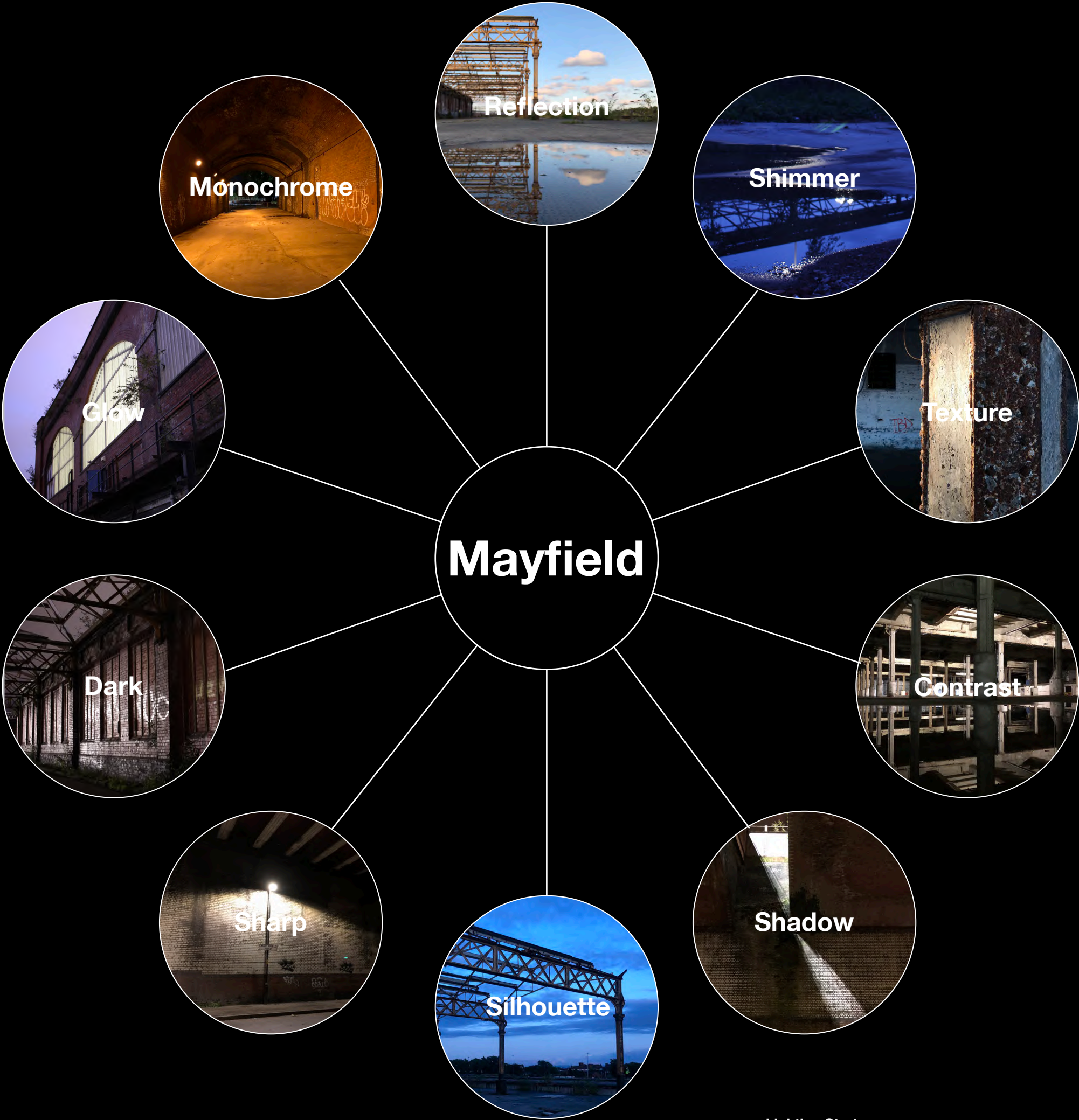


- 1. River Medlock
- 2. Baring Street
- 3. Mancunian Way
- 4. Hoyle Street
- 5. Chapelfield Road



Context/ Existing Qualities

The current lighting to the site has distinct qualities. The Lighting Strategy envisages that these qualities can be both an inspiration to future lighting schemes and reinforce the memory of the railway and industrial heritage.



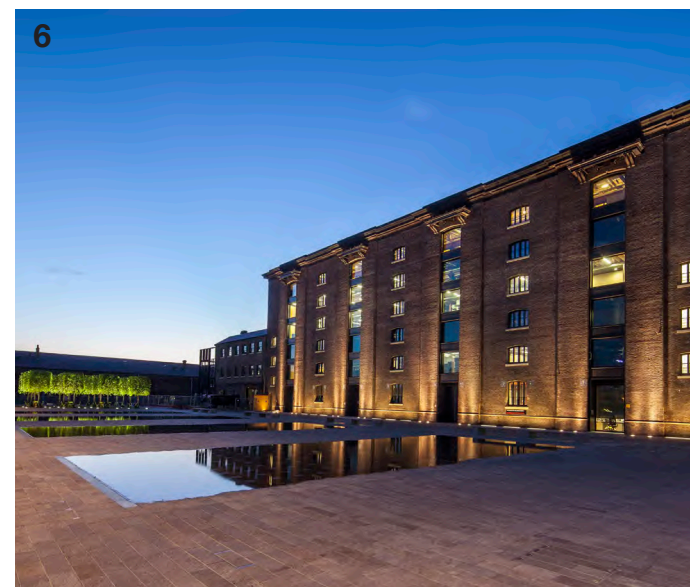
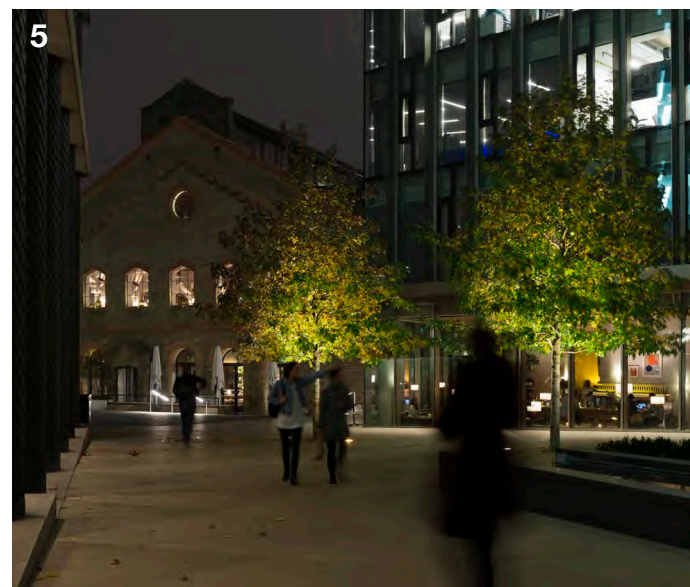
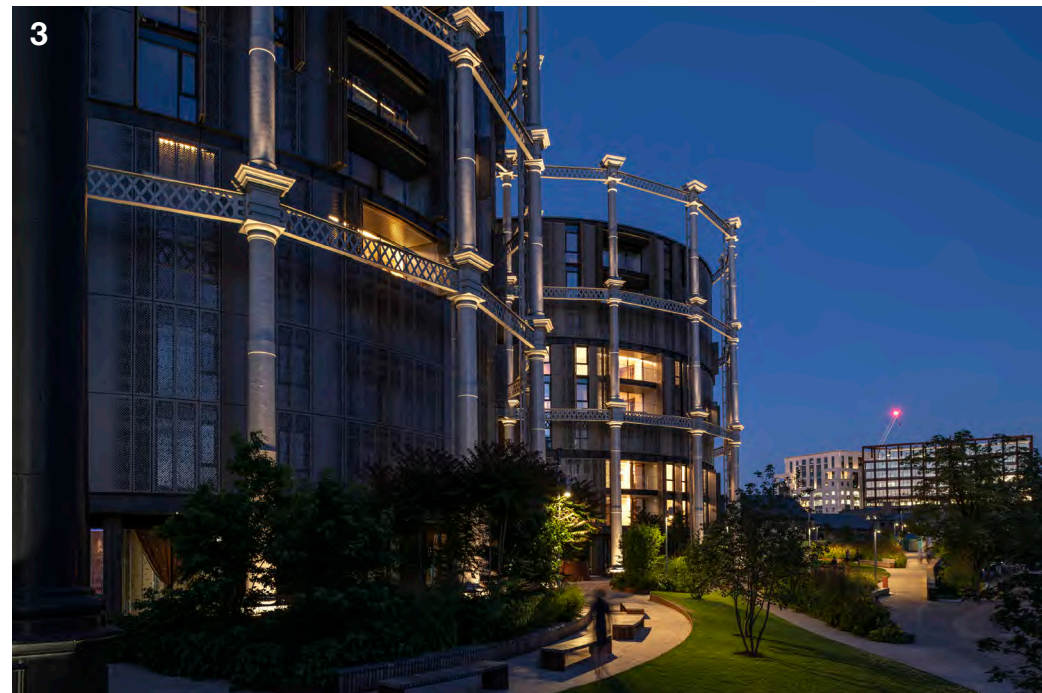
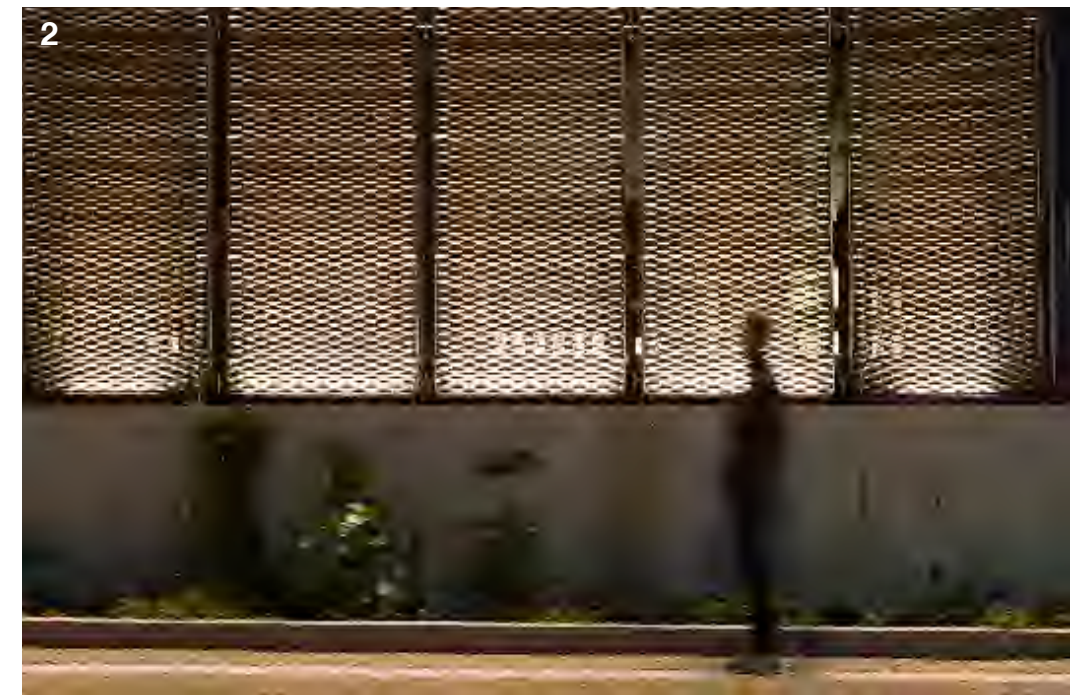
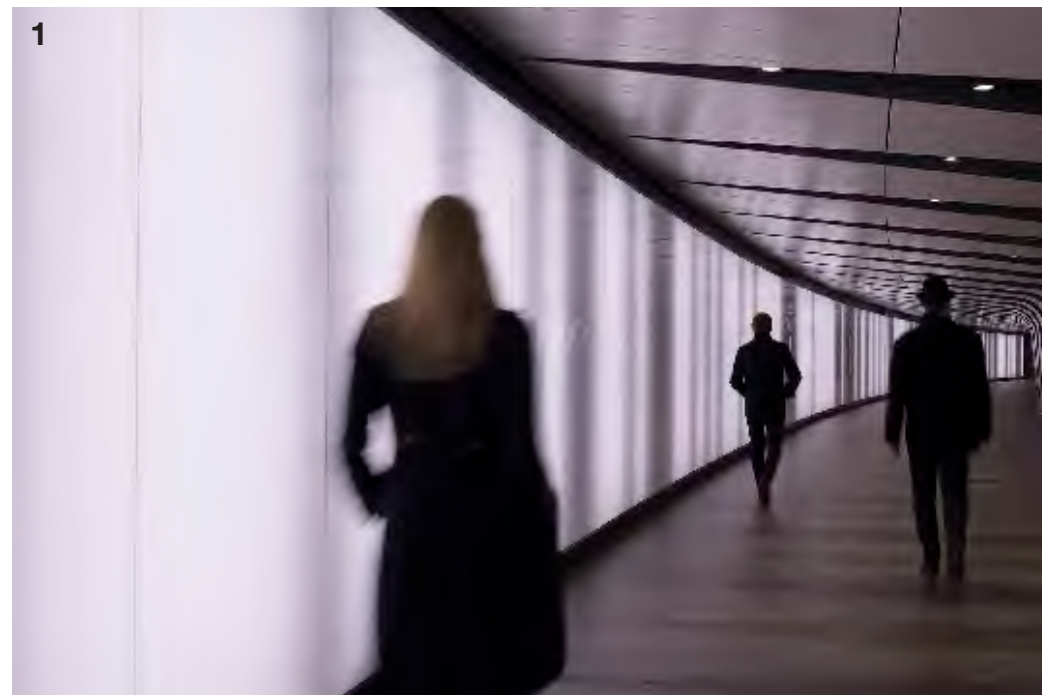
Precedents/

Precedents/

Precedents/ King's Cross London

The lighting scheme to King's Cross provides a positive precedent for Mayfield. The following lighting elements are considered successful:

1. There is sufficient illumination at a human scale.
2. The illumination focuses on the richness of textures of the varied architecture within King's Cross and so creates visual interests after dark.
3. Spill light has been carefully considered to avoid light trespass into residential premises.
4. Lighting helps create intimate spaces after dark.
5. Strategic landscape elements such as trees and art objects are illuminated to support the legibility of space.
6. Architectural lighting to the industrial heritage buildings helps establish a unique identity at night.
7. Water features with integrated lighting helps provide animation to key spaces.

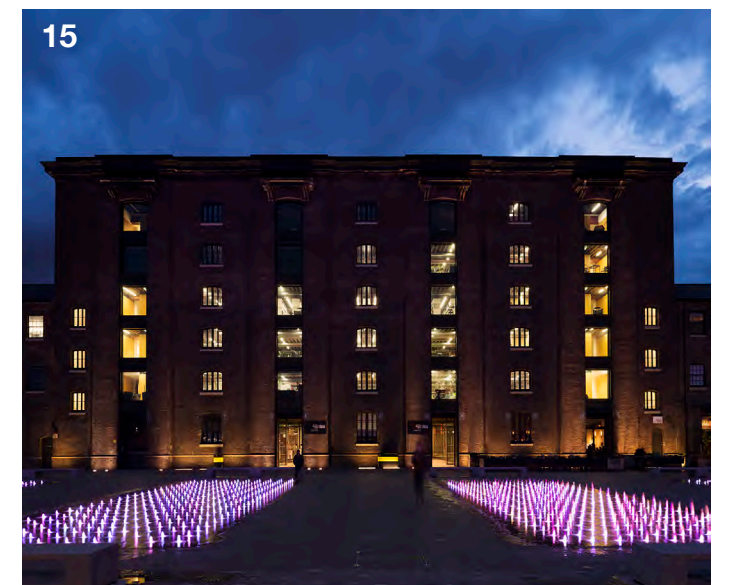
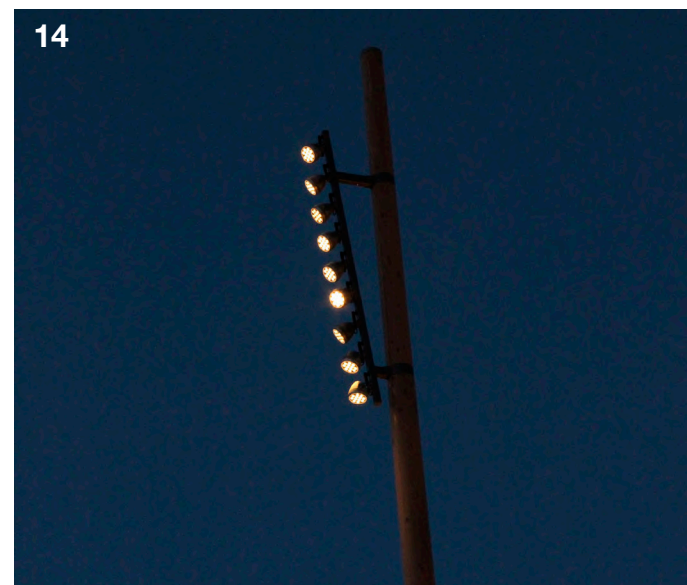
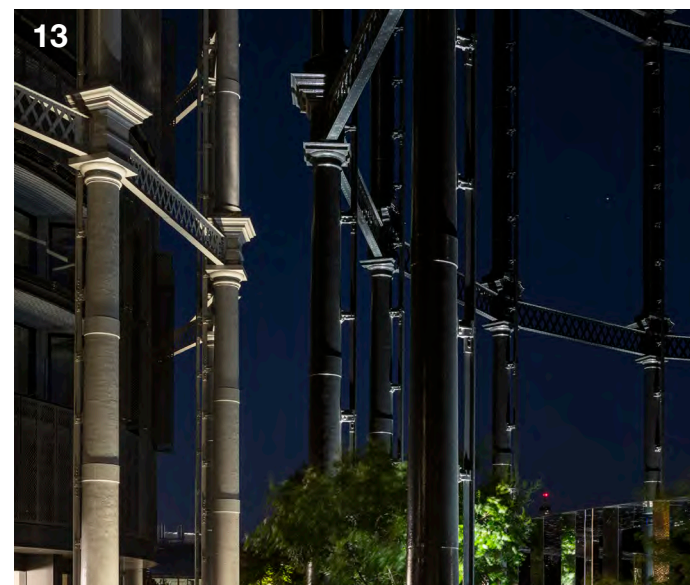
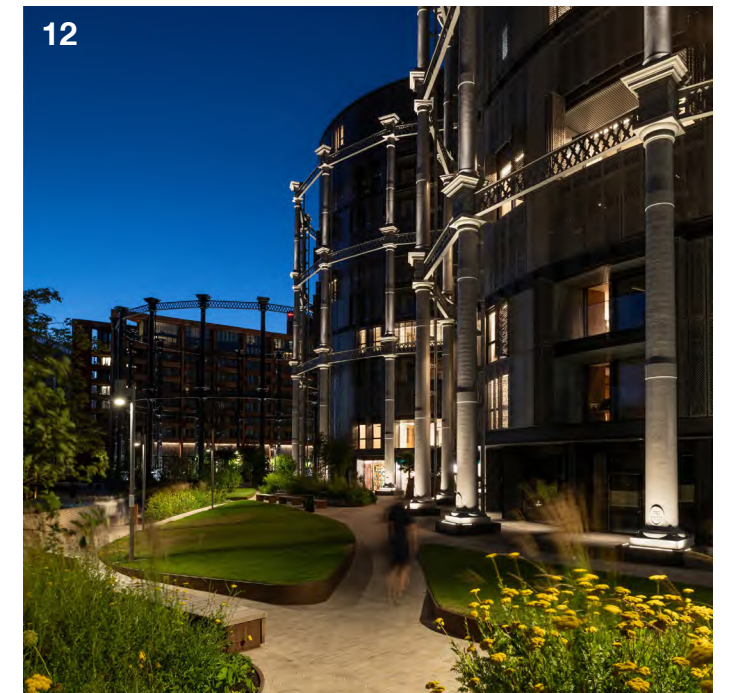
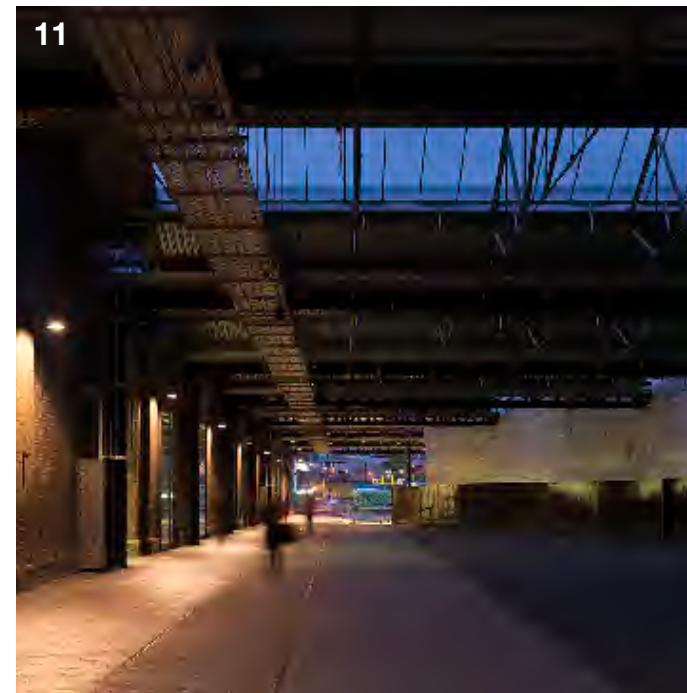
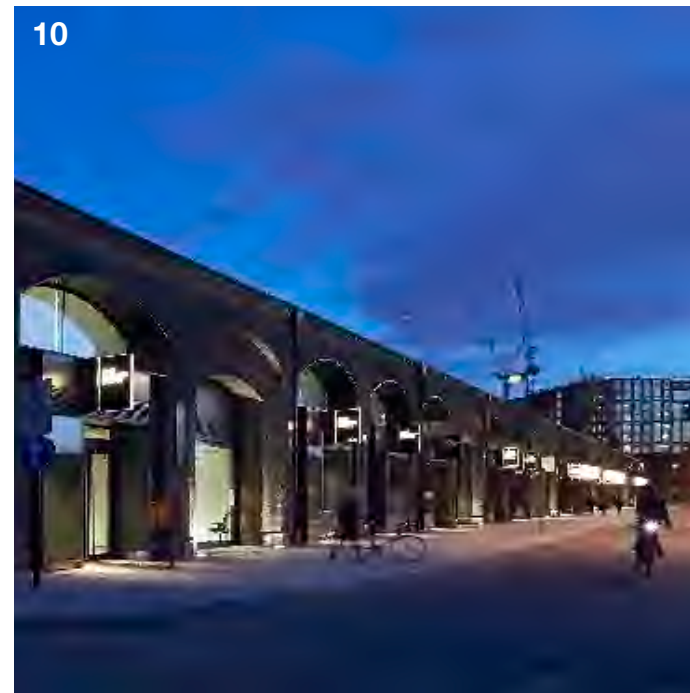


Precedents/ King's Cross London

8. The canal is left unlit to avoid light pollution into the water and to protect the bat corridor.
9. A cooler tone of white light is used to illuminate the way-finding totems which contrasts with the warmer light of the surroundings.
10. Wall-mounted signage incorporates downlights to provide visual interest.
11. Where possible fixtures are mounted onto buildings rather than columns to help minimise clutter.
12. Fixtures have been located to maximise views towards significant buildings such as the Gasholders.
13. The various lighting schemes have been designed to complement each other and therefore the experience of the public space is improved.

The following lighting elements are considered less successful:

14. There is a wide range of lighting equipment on site.
15. The water features require high maintenance.



Precedents/ Jubilee Gardens London

The lighting scheme to the Jubilee Gardens provides positive and negative precedents for Mayfield. The following lighting elements are considered successful:

1. The scheme uses a minimal palette of robust equipment.
2. Lighting to the paths spills onto the large lawn areas avoiding the need for additional illumination.

The following lighting elements are considered less successful:

3. The park lacks feature lighting therefore the ambience is a little bland and flat.
4. There is no variation in lighting techniques between playarea and pathways.
5. The singular lighting methodology does not create a unique character after dark.



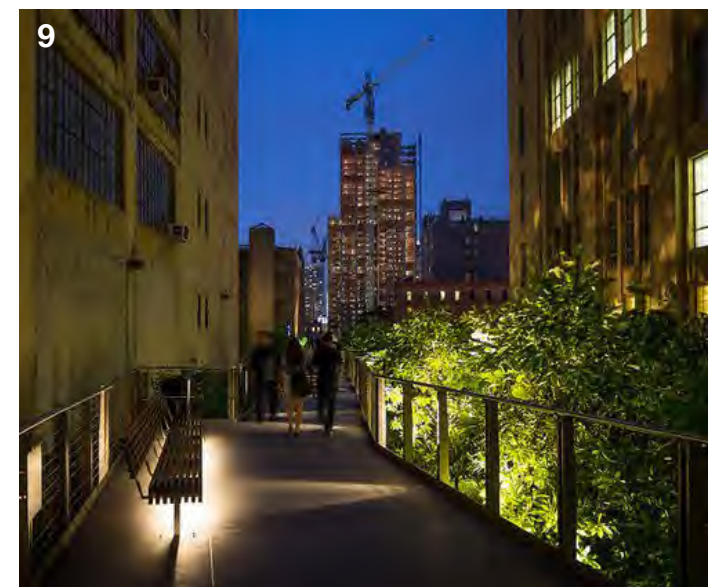
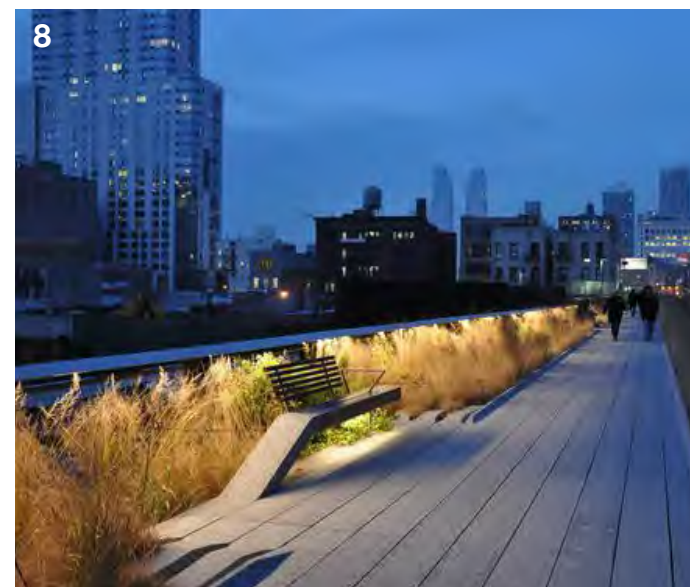
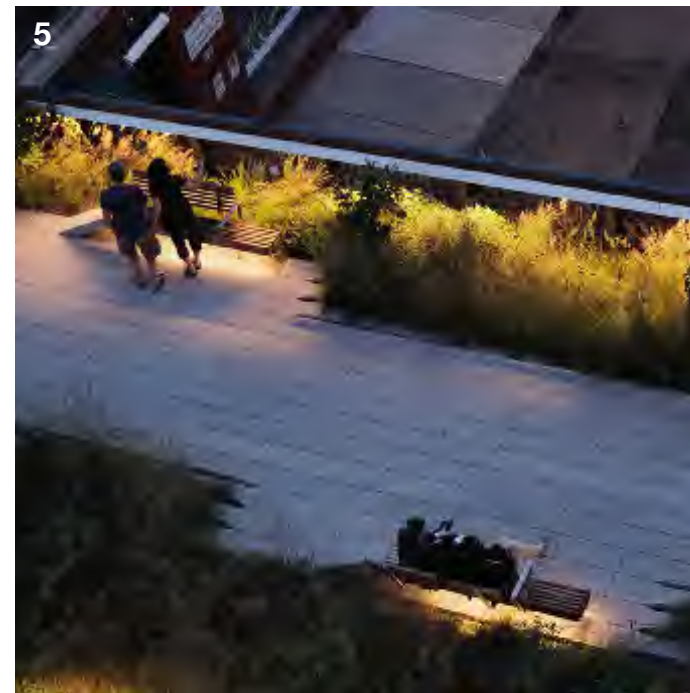
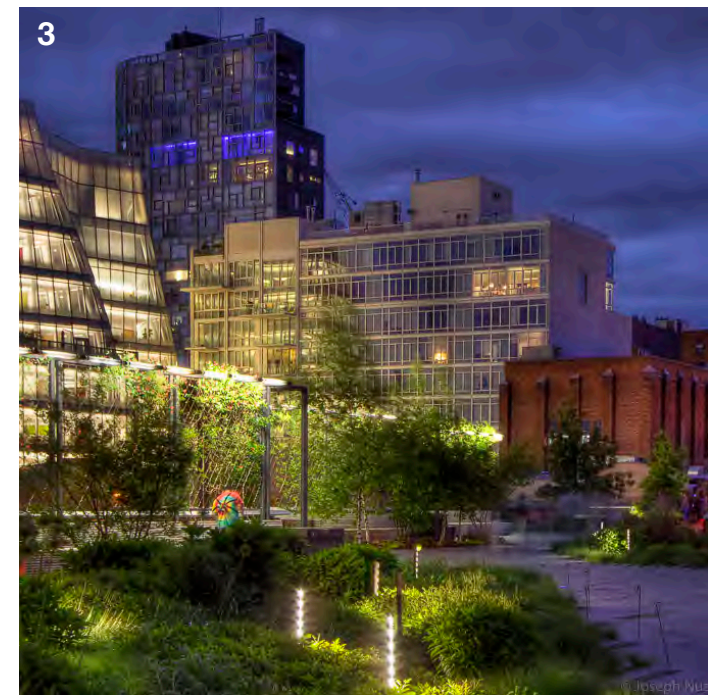
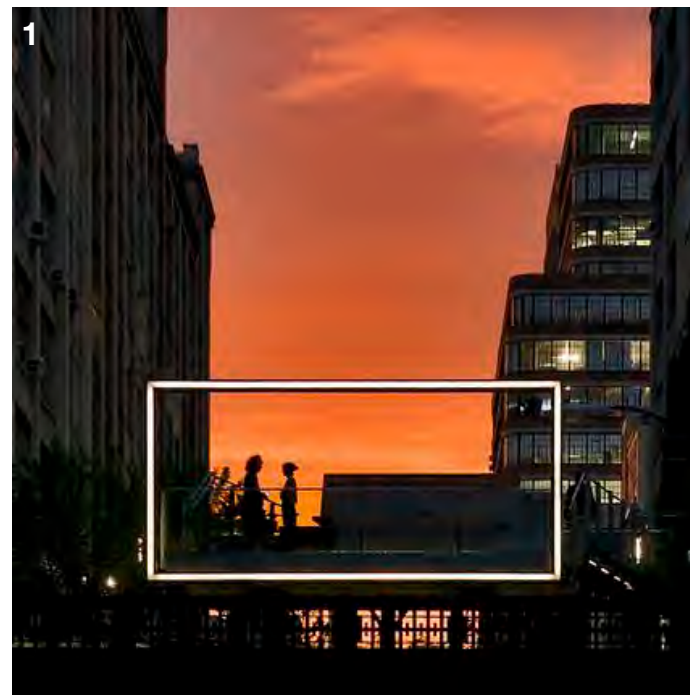
Precedents/ High Line Park New York

The lighting scheme to the High Line provides positive precedent for Mayfield. The following lighting elements are considered successful:

1. Key nodes in the park are accentuated to create visual interest.
2. The scheme utilises a simple palette of robust equipment.
3. Bollards with directional fixtures illuminate only specific planting.
4. The lighting around seating areas illuminates people.
5. The light is not focussed on the routes but onto the adjacent landscape.
6. The low mounting height of the equipment produces a human scale.
7. Light and darkness are used to create vistas

The following lighting elements are considered less successful:

8. The continuous handrail lighting can be difficult to maintain.
9. Directional fixtures can cause light trespass into residential premises.



Strategy/

Strategy/ Design Issues

A successful lighting scheme is achieved by carefully balancing a range of issues. The following should be considered in respect of the further lighting design for Mayfield:

1 Sustainability

A sustainable approach to lighting design aims to ensure that an appropriate balance is achieved between the social and economic benefits that light can bring while minimising the impact on the environment. This can be achieved by precisely aiming the light towards surfaces to minimise spill light. Good optical control can direct the light towards the ground plane and reduce light trespass into the residential premises and light spill up into the sky. A campus-wide lighting control system can help manage energy use on both a diurnal and seasonal basis. By example, the illumination of trees in Fairfield Forecourt and Valley Park can relate to the amount of foliage i.e. more light in the summer and less in the winter.

2 Safety

The lighting must be designed to help maintain a safe environment at all times. Potential hazards such as the stairs in front of the Depot Park, or ramps within the Valley Park should be positively lit. The illumination to potential conflict areas such as Baring Street should also be considered. Here pedestrians are entering and exiting the Park while potentially encountering moving vehicles which have the potential for conflicts to occur. Passive lighting techniques could also be considered, by example, contrasting landscape materials can help define steps and other trip hazards by day and night on the ramps within Valley Park.

3 Security

The lighting should help improve the sense of security throughout the estate by creating a legible space without excessive contrast and glare which can inhibit adaptation. While the lighting must support both natural and active surveillance (e.g. CCTV) the design should not be solely driven by the technical requirements of cameras as this may have an adverse influence on the ambience after dark. Adequate and balanced vertical illumination will not only help to create the appropriate atmosphere but will also support facial recognition and modelling of people. This in turn will help passive surveillance after dark. By example, lighting the wall at the ramp behind the Pub, leading up to the platform park can provide an intimate atmosphere while also providing sufficient levels of vertical illumination to see faces.

4 Accessibility

The lighting aims to be inclusive and support access to Mayfield for all, through creating improved legibility, assisting with wayfinding and by supporting people with disabilities – in particular, those with visual impairments. Inclusive lighting design should avoid areas of high contrast, control shadows and avoid excessive glare from direct or reflected light sources. It is crucial that the internal spaces at street-level such as entrance lobbies or retail frontages are considered in conjunction with the public realm lighting. By example, the internal lighting to the Depot should be balanced with the lighting within Valley Park. Coordinated internal and external lighting will also help to create a more accessible and welcoming space after dark.

5 Economy

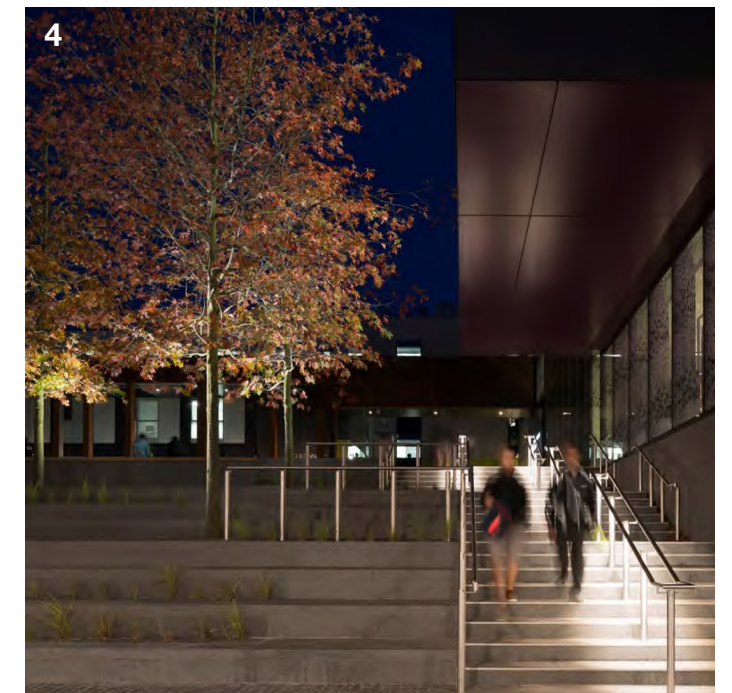
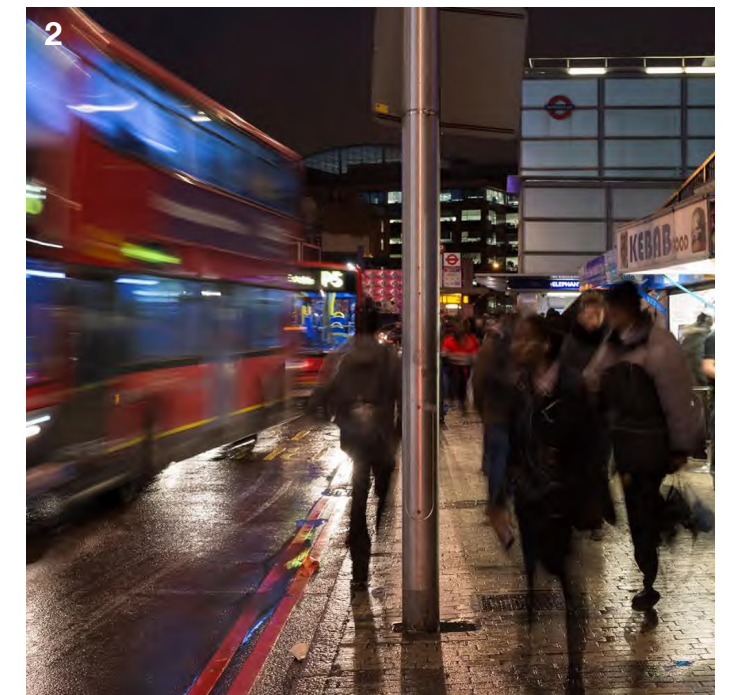
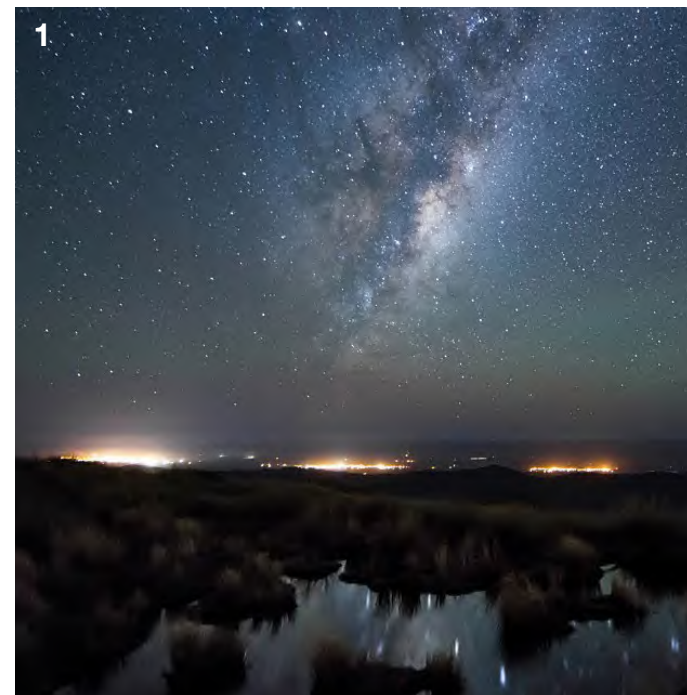
Mayfield will be a very busy area after dark, particularly in the winter months. The bars, restaurants and other retail offers can turn Mayfield into an after-dark destination within Manchester. Lighting can support this activity by creating a welcoming atmosphere and a safe and secure environment.

6 Flexibility

Mayfield has the ongoing potential to host several events. The public realm lighting should be flexible to suit particular events within an accessible and user-friendly control system. Lighting control will allow the permanent lighting installation to either change in intensity or completely switch off. Along with the control system, a provision of power and data infrastructures is recommended in the open spaces to support temporary lighting equipment for events.

7 Maintenance

One of the benefits of modern LED lighting controlled by a site-wide control system is a potential reduction in maintenance costs. LED's will help reduce energy costs over time and the long life of the new sources means will help reduce lamp replacement including the cost of the associated labour and access. A cleaning regime will still be required and of course like all electronics LED can also go wrong, in particular devices like drivers and power sources.



Strategy/ Public Realm

The lighting strategy encourages the visual extension of the public realm by including public accessible interiors spaces of the buildings. Blending the interior and exterior spaces after dark will create visually larger spaces. It also encourages movement between buildings and landscape. By example, the interior lighting to the Depot Park will affect how the landscape ambience of Valley Park. Therefore it is recommended to utilise a dynamic white light solution for the Depot. During the day a cooler tone of light will blend in with the daylight while after dark a warmer light will be more inviting and suitable for the ambience of Mayfield.

1 Public realm after dark

Routes and space form the public realm after dark

2 Extended public realm

The public realm can be extended after dark into interior spaces such as lobbies and the depot it saves. The extension will improve the after-dark experience



Strategy/ Legibility

During daylight hours, people use various buildings, artworks and landscape features to build a mental map of their surroundings. This helps them to orientate themselves and navigate through the sequences of spaces, thereby gaining an understanding of their immediate environment and its relationship to the wider context. After dark many of these visual signs disappear as a result of being unlit. Without careful planning, the environment can become illegible with skewed spatial hierarchies that create disorientation, creating a sense of unease. It is largely left to artificial light and its contrasts with natural darkness to inform the interpretation of the different spaces at night. By developing a considered and consistent approach to the lighting of key elements such as routes, entrances into and out of the various parks, potential artworks, etc., light can play a crucial role in supporting legibility and accessibility across the estate. An analysis has been carried out that considers the lighting treatment to the following elements. When lit they will contribute to the after-dark legibility of Mayfield.

1. Vistas

Promoting views across the various parks will help enhance the prominence of illuminated meeting places and landmarks such as the Depot Park and Ticket Hall. This, in turn, will help support way-finding and promote movement. Balanced light levels and considered locations of lighting equipment promote views. Fixture location is especially important to enhance vistas across the Valley Park. Positively illuminated visual stops will help improve feelings of safety and security. End views are especially important to draw pedestrians through the railway arches. Aerial views of residents and workers in the tall buildings surrounding Valley Park should also be considered. The illumination of the public realm can provide pleasant views for residents while also supporting passive surveillance. Finally, there are magnificent views from the platforms of Piccadilly station and incoming trains. From here the historic 'wall' of the depot is visible. Therefore this wall provides a good opportunity to showcase Mayfield to Manchester.

2. Routes

The lighting of the various pedestrian, cycle and vehicle routes should be positive and designed to promote free movement between the various open spaces, assist with way-finding and deter anti-social behaviour. The lighting should be carefully designed to provide adequate light levels without compromising on the ambience. This considered approach is especially important for the railway arches along Fairfield Street.

3. Open Spaces

The masterplanning team identifies four distinct open spaces or parks in the Mayfield development; Fairfield Forecourt, Platform Park, Depot Park and the Valley Park. Lighting to these will help emphasise the different characters and create a sense of invitation. The ambition of the masterplan is to help create 'destinations' after dark. Vertical illumination is important to create a destination as it supports social interaction between people by improving facial recognition after dark. It is also important to create visual end views for the connecting routes leading towards the open spaces.

4. Arrival and Entrances

A series of entry points or gateways into the site exist which should be artistically highlighted to make them visible while also providing a positively illuminated threshold into Mayfield. Care should be taken to avoid over-illumination of thresholds which could give the impression of entering a campus-like environment. Instead the entrances should welcome all. By example the arches by Piccadilly Station could act as a welcoming beacon to Mayfield.

5. Nodes

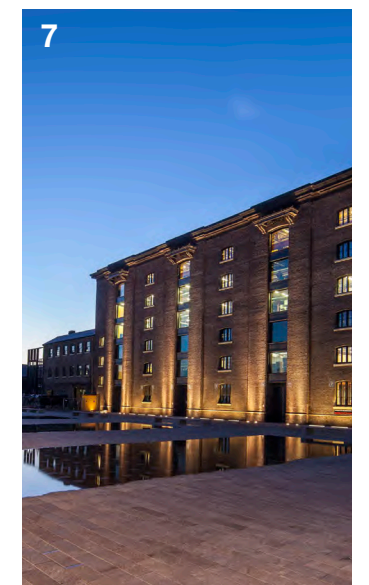
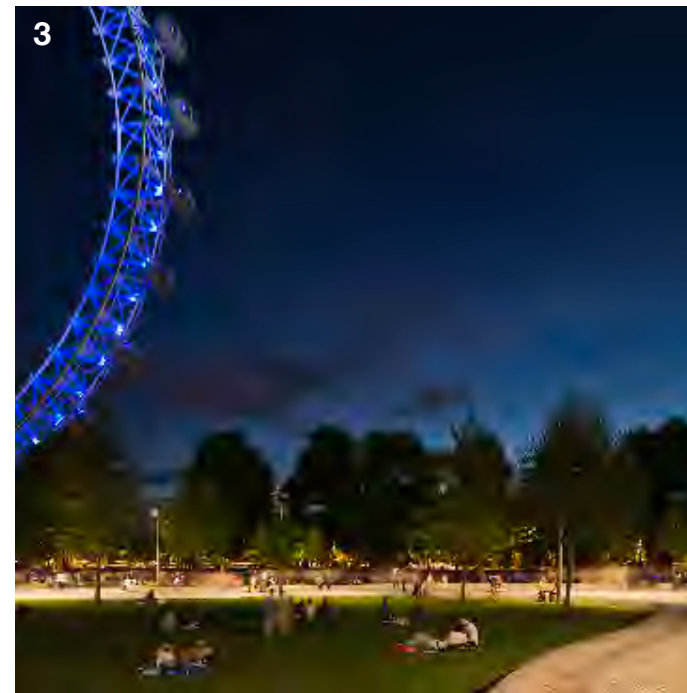
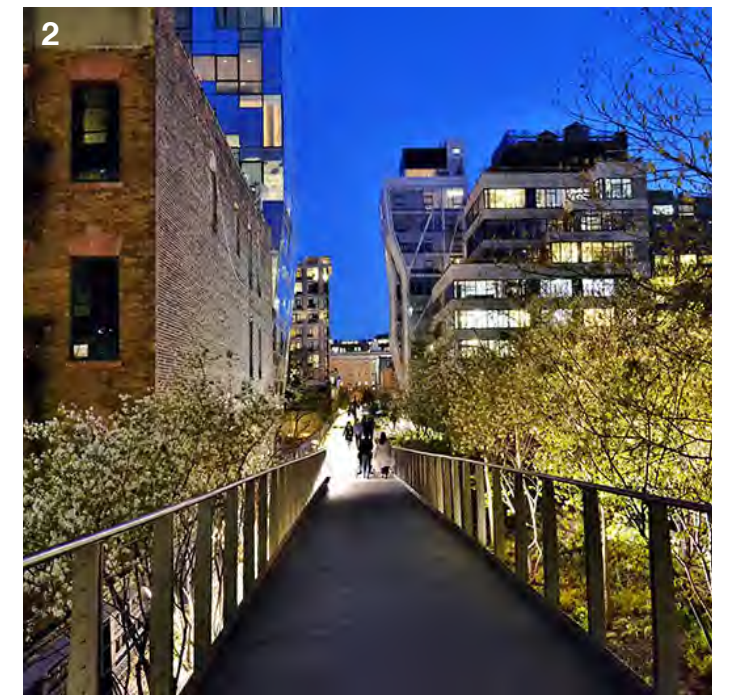
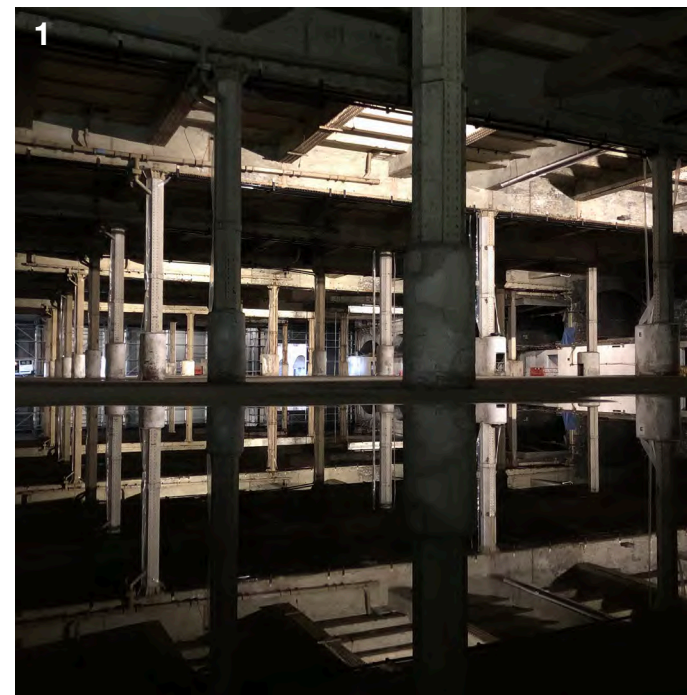
Locations such as key intersections of paths are examples of 'nodes'. People can make a decision on which direction to take on their route. The introduction of vertical illumination at these points will make them identifiable from afar and help to provide visual markers and interim destinations along routes supporting way-finding and improving perceptions of security. The lighting of nodes should support the nature of activities within Mayfield and help enhance and reveal the form, colour, and texture of the public realm encouraging pedestrian movement through these areas. By example nodes along the Riverside Walkway will help draw pedestrians from the Mancunian Way through perpendicular routes.

6. Dwell Spaces

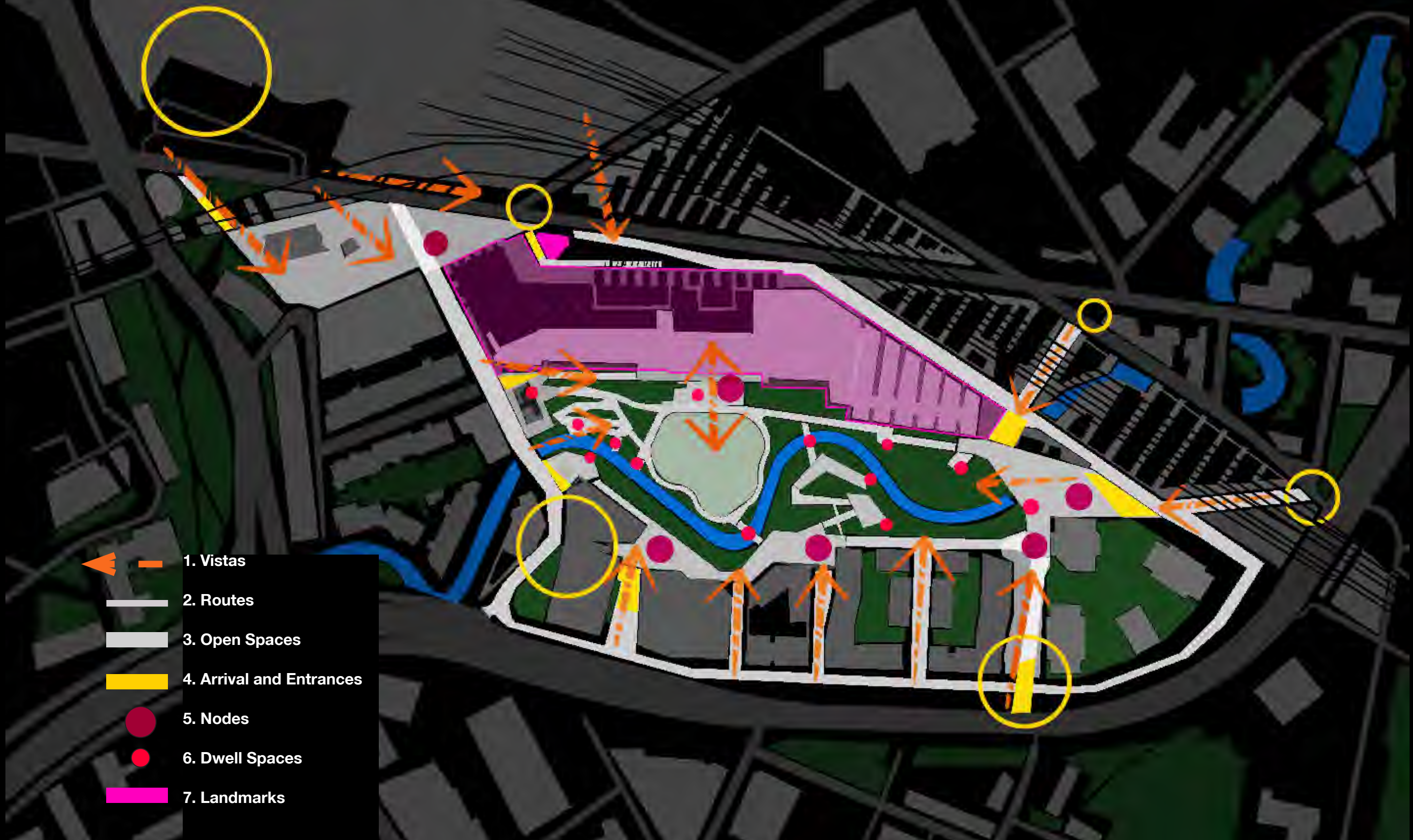
The lighting to these areas should encourage social interaction and visitors to pause and dwell when crossing through Mayfield. By example, the bridges and various viewing platforms across the Medlock River can provide a moment to pause so that visitors can enjoy the natural landscape of the park. Intimate lighting to the seating area in front of the Depot Park can create dwell time and so support the F+B and retail inside the Depot.

7. Landmarks

A landmark serves as a point of reference that people observe and use to orient themselves. The illumination of existing historical landmarks such as the Star and Garter Pub, the Ticket Hall and the Depot itself will highlight the heritage of the Mayfield. By contrast certain architectural features, or open spaces can also function as landmarks if properly illuminated. Spaces such as the Fairfield Forecourt, the various railway arches and the boardwalks through Valley Park should be illuminated in a unique way enhancing their prominence which will, in turn, enhance the character of the area and help promote a welcoming image after dark.



Strategy/ Legibility



Strategy/ The Park

At the heart of the Mayfield development is a sequence of open spaces or parks. After dark, each park will have its unique lighting character to create rich and adventurous experiences for pedestrians. Equally, the lighting should have similarities to make the park distinctively 'Mayfield.' Creating a strict fixture palette for the development will help to unify all areas.

1. Fairfield Forecourt

Fairfield Forecourt is the park between Piccadilly Station and Mayfield and so acts as a connecting hub. There are opportunities for a theatrical approach for the illumination to create an experience for pedestrians. An artistic lighting intervention will create a welcoming ambience as well as help to draw people towards the other areas of the development.

2. Platform Park

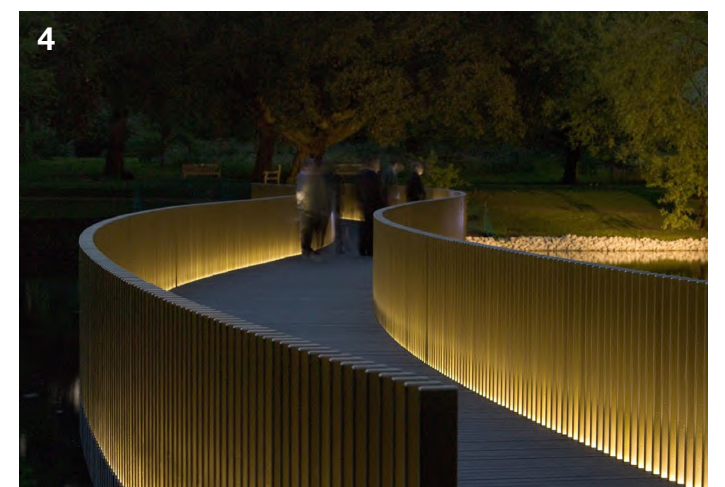
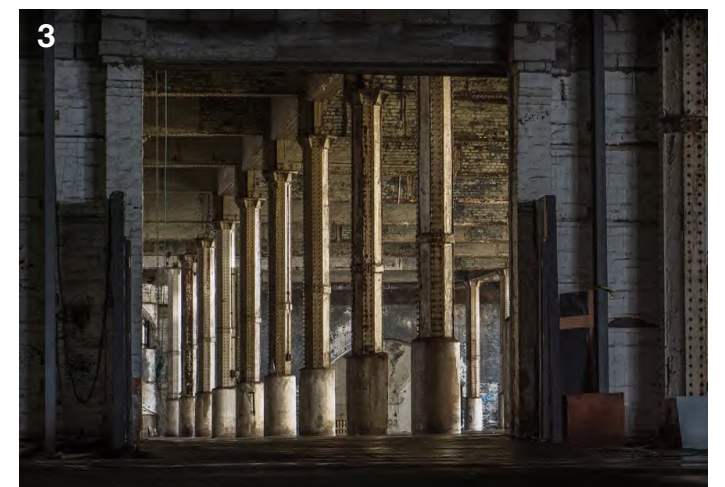
The newly formed Platform Park links several buildings together. The masterplan describes the park as an elevated garden overlooking the Valley Park below. The vegetation in the garden should be actively illuminated to emphasise the natural character against the new buildings and historical platform. The lit vegetation will help encourage people to meander through the gardens between the buildings. Locating fixtures at low level will help support the views out across the Valley park.

3. Depot Park

The masterplan envisages the Valley Park to extend within the former railway depot to blur the boundaries between inside and outside. After dark, the illumination could support the fluidity of different spaces by using similar colour temperatures by example. To minimise light pollution fixtures should aim inwards turning the iron columns into silhouette when seen from Valley Park. The illumination should highlight the historic architecture by showing its structural rhythm of columns and beams.

4. Valley Park

The park is an environmentally sensitive area. At night, the river Medlock provides a fly corridor for bats. Therefore the lighting design should be sympathetic to the ecology. Lighting should be kept at low levels and aimed away from the river. Low-level lighting will naturally create intimate spaces. By example, light can be subtly integrated into rocks to illuminated seating areas without over-lighting the adjacent landscape. Silhouettes and shadow patterns can express the richness of textures and forms of the vegetation.



Strategy/ Layers

The architectural masterplan defines four 'Layers' as conceptual planes articulating vertical relationships within the framework. After dark, this approach offers the opportunity to create a coherent visual lighting effect across Mayfield. The following are the key layers:

1. New Urban Grain

The new building massings define the fourth layer. The new urban grain layer refers to the new buildings. After dark these structures are characterised by occupancy lighting. Site-wide guidelines should be developed to ensure minimal light pollution and visual coherence.

2. Platform Layer

The upper landscape defines the third layer. Lighting at the platform level can support views out over the Park and other areas of Mayfield. Integrated equipment located at low level ensures minimal obstruction to views and reduces potential glare.

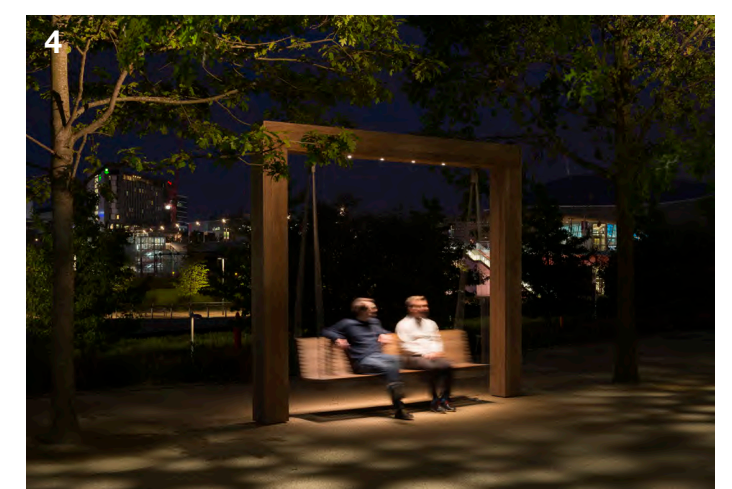
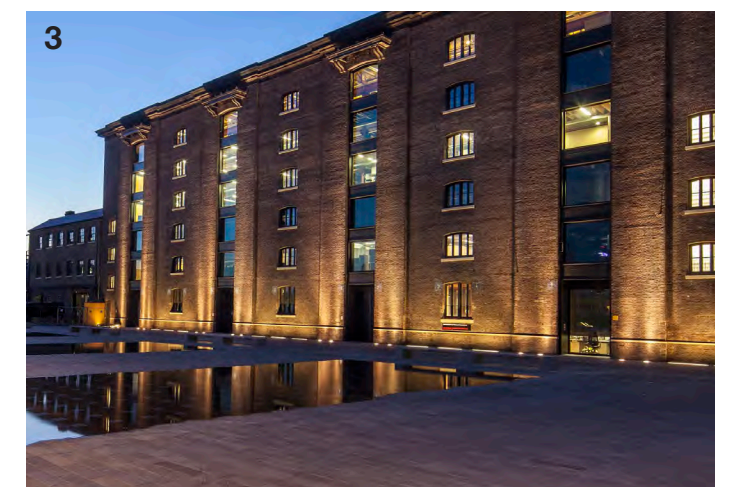
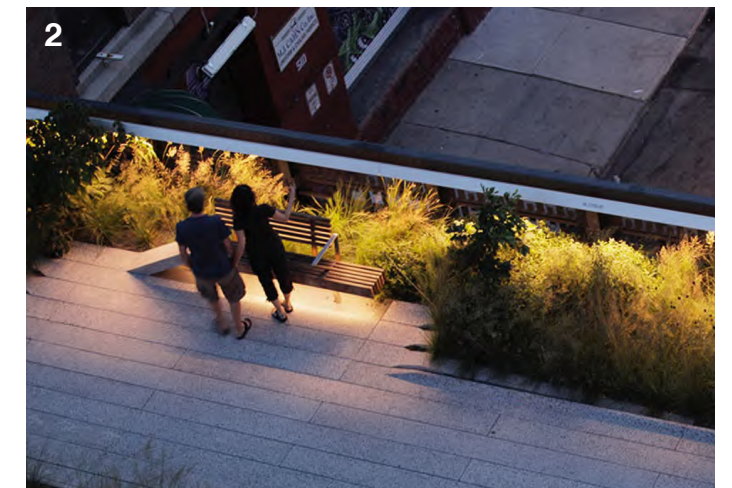
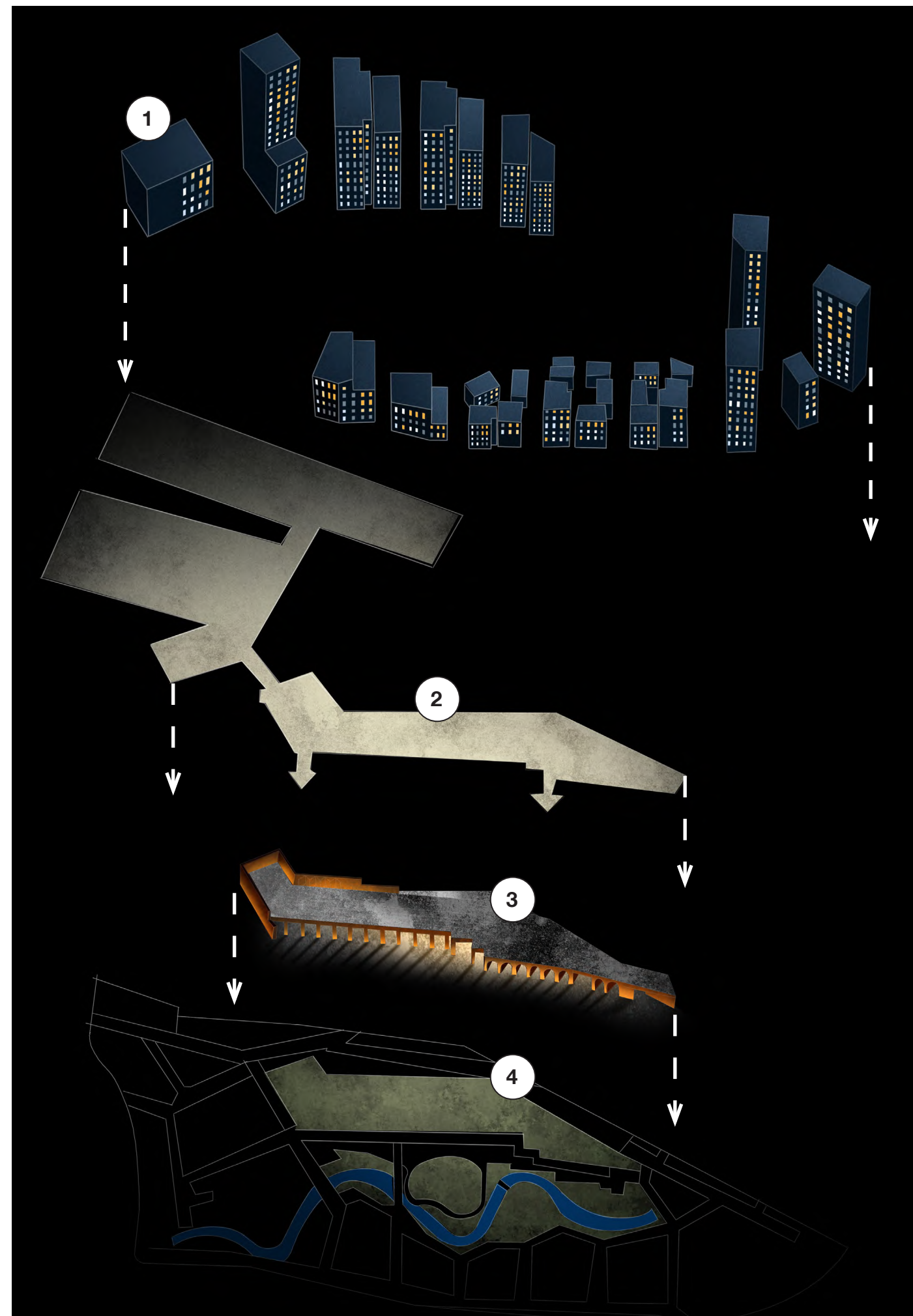
Similar to the multi-layered landscape strategy, future lighting schemes should be encouraged to blend interior and exterior illumination to create a homeogenous fluid public realm without hard-defined thresholds.

3. Historic Layer

Historical buildings define the second layer. Lighting can reveal and enhance architectural textures such as old brick walls or iron columns. Illumination to these surfaces will provide visual interest as well as supporting legibility. Lighting the various historic structures as well as those which refer to Mayfield's past will help create a unique character.

4. Multi-Level Park

The park and its multi-level landscape define the first layer. Lighting to the landscape will not only create a unique atmosphere for Mayfield; it will also guide people through the campus.



Strategy/ Typical Section



Strategy/ Light+Darkness

Light and darkness will need to be carefully balanced to support the visitor experience and help promote a legible environment. Too much contrast can create problems making the routes and open spaces feel unsafe. Differences in levels of illumination can produce a very dramatic environment. However, this can result in high contrast and potentially cause glare and visual discomfort. Equally, if the illumination is too even, the environment can appear visually flat and dull. This strategy aims to balance the light levels whilst maintaining a visually interesting environment. It aims to follow the recommended light levels and classification outlines in BS 5489-1:2013 for all principal routes.

Conflict Areas		-	$E_{AV} 30lx$	-	$0.4 U_o$
Main Routes		P1	$E_{AV} 15lx$	$E_{MIN} 5.0lx$	-
Secondary Routes		P2	$E_{AV} 10lx$	$E_{MIN} 3.0lx$	-
Tertiary Routes		P3	$E_{AV} 7.5lx$	$E_{MIN} 1.5lx$	-
Dwell Space		-	$E_{AV} 5.0lx$	-	-
Stairs/Steps		-	$E_{AV} 30lx$	-	$0.4 U_o$

Vertical Illumination

The introduction of vertical illumination will help add depth and enhance the context of each space and route supporting both legibility and intuitive wayfinding. A base layer of illumination is proposed along all routes to define each path using levels in line with their respective horizontal illuminance. An enhanced layer of illumination is proposed within open spaces such as Fairfield Foecourt and the Depot Park in order to help define the spatial characteristics of these areas. An active layer of illumination will function to highlight key landmarks, landscape elements and building entrances among other elements.

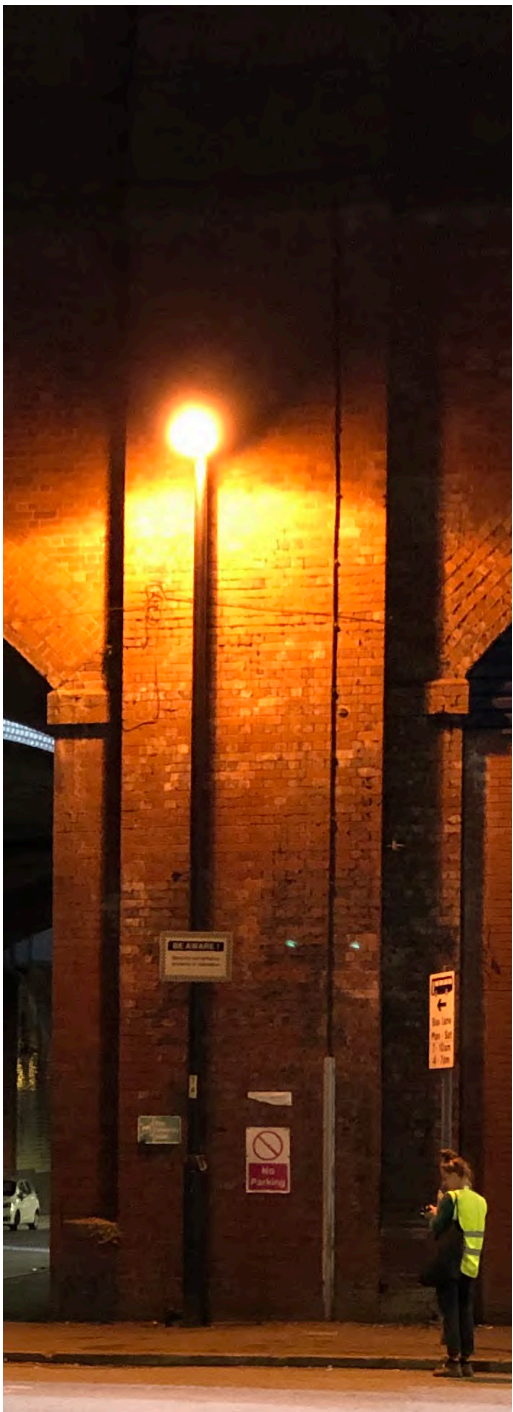
Glare

Glare is caused by excessive levels of contrast and the direct visibility of unshielded light sources. This can result in visual discomfort and temporary visual disability. It can also cause serious problems for people with visual impairments. Glare can be reduced by balancing levels, of illuminance and luminance, selecting appropriate mounting locations for equipment and through the proper optical control of light fixtures. The Lighting Strategy aims to help minimise glare by mounting fixtures with a soft distribution at a human scale.



Strategy/ Colour Temperature

Images on the right indicate the approximate colour temperatures currently on site and adjacent to Mayfield



<6500K

4000K / 3000K

3000K / 2700K

1800K / Amber

Strategy/ Colour Temperature

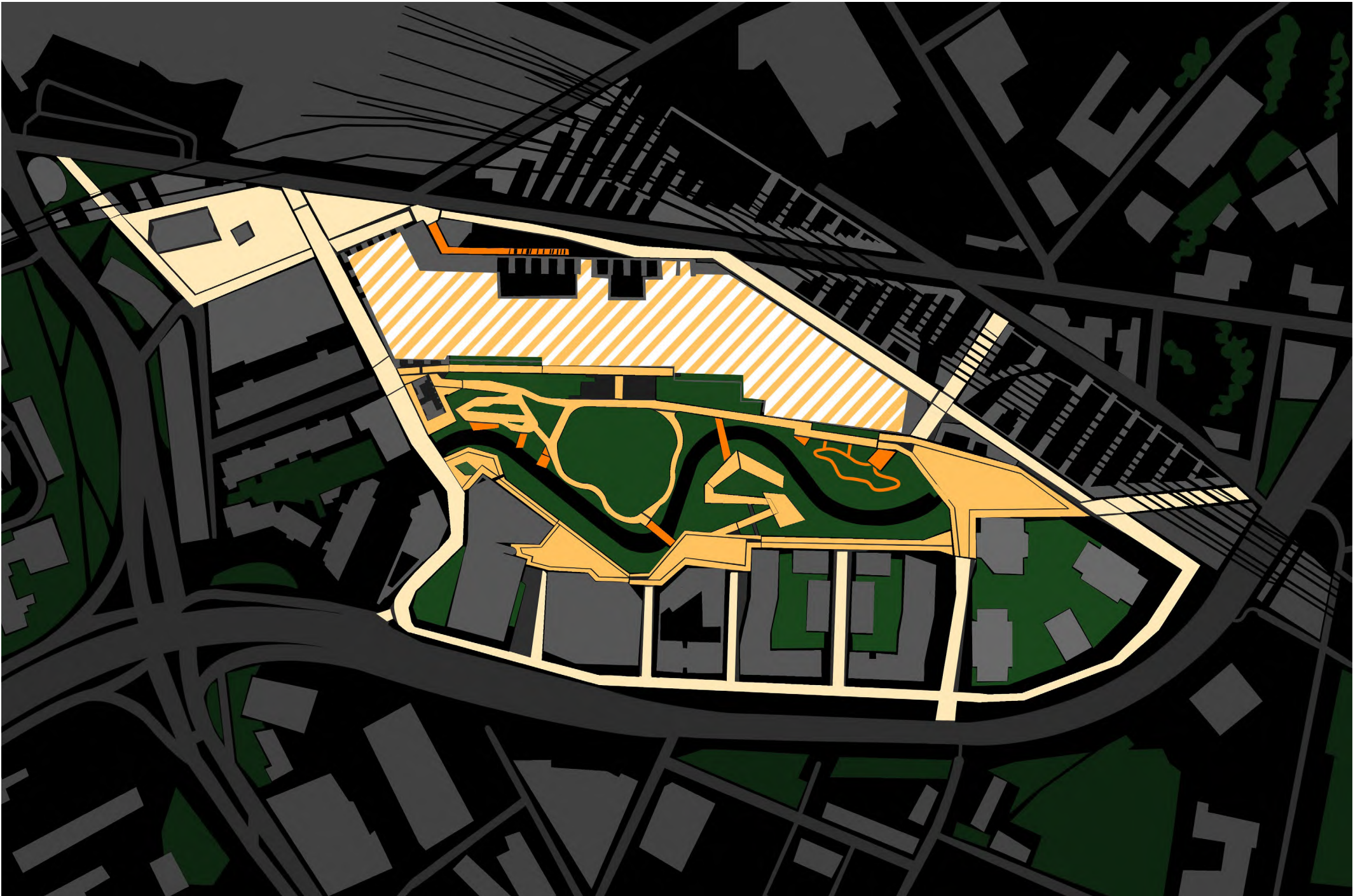
Along with the light intensity, the lit environment is a composition of various colours of light. Different shades of white will help emphasise the specific colours of landscape and building materials. By example, if a tree is lit by a cooler tone of white the leaves will look greener, depending on the colour rendering properties of the source.

Office lighting is predominantly neutral white (4000K). After dark, this colour appears to be cooler. Especially when seen against residential occupancy, which is usually warmer. A warmer white light should be used for the lighting of the public realm to create a welcoming ambience. The Lighting strategy envisages the following colour temperatures in Mayfield:

Dynamic White		2700K - 5000K	> 90cri
Neutral Warm White		3000K	> 80cri
Warm White		2700K	> 80cri
Super Warm		2200K	> 80cri

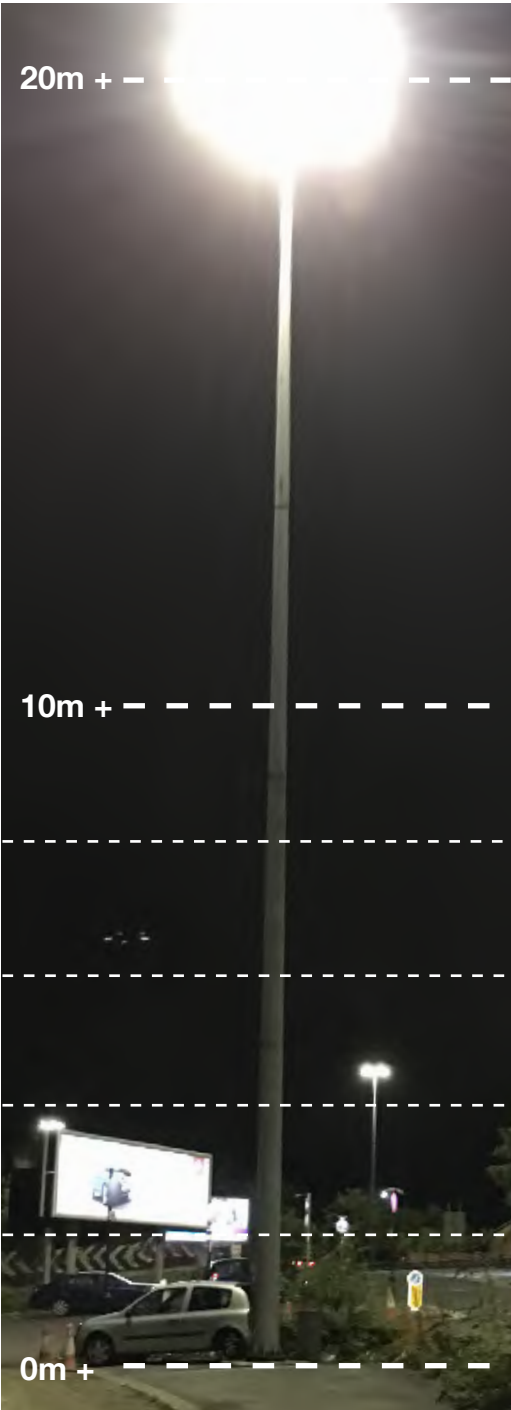
Dynamic white

The interior lighting to the Depot Park will affect how the landscape ambience of Valley Park is experienced. Therefore it is recommended to utilise a dynamic white light solution for the Depot. During the day a cooler tone of light will blend in with the daylight while after dark a warmer light will be more inviting and suitable for the ambience of Mayfield.



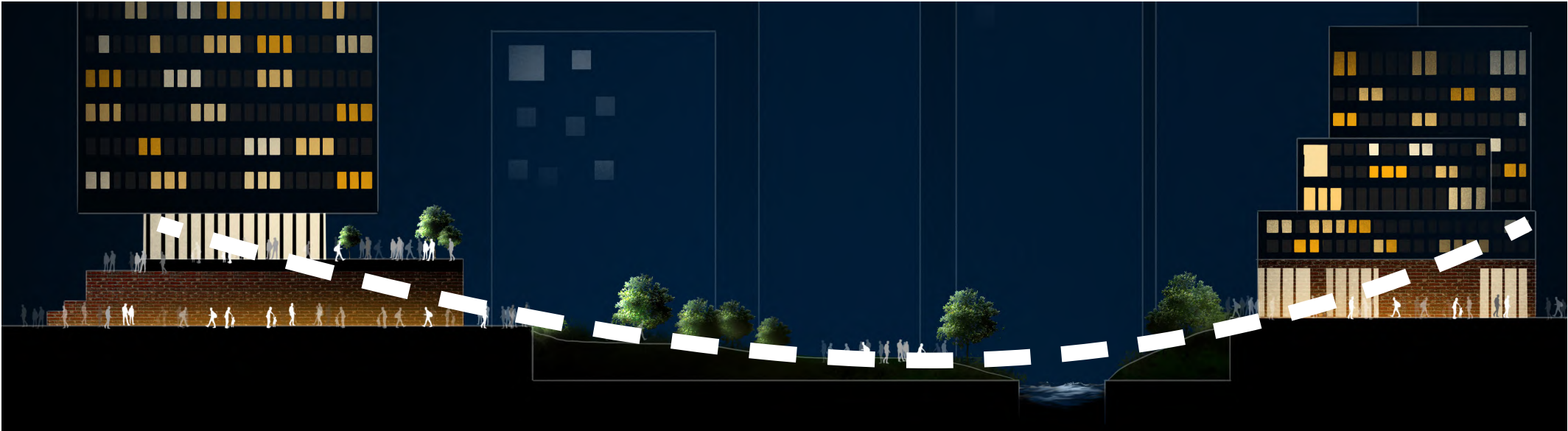
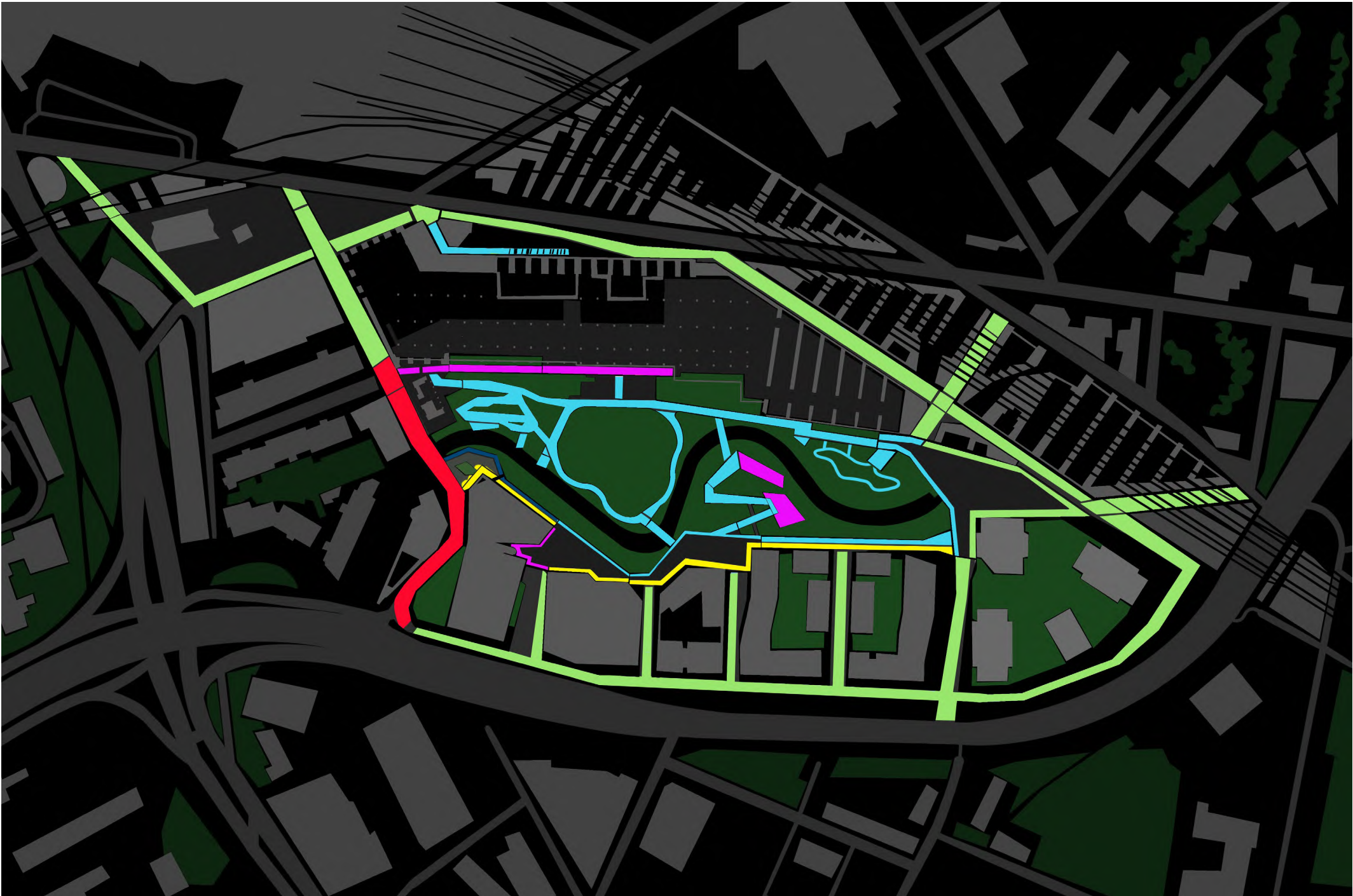
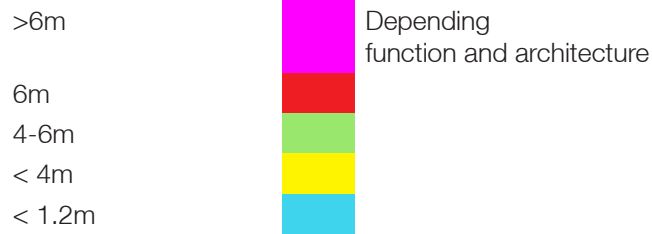
Strategy/ Adjacent Scale

Images on the right indicate the approximate mounting height of luminaires adjacent to Mayfield



Strategy/ Scale

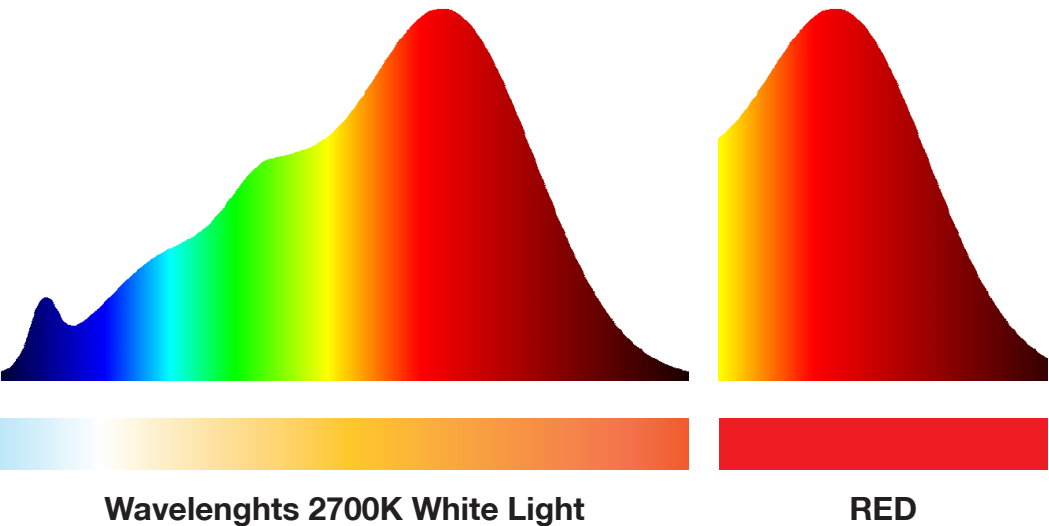
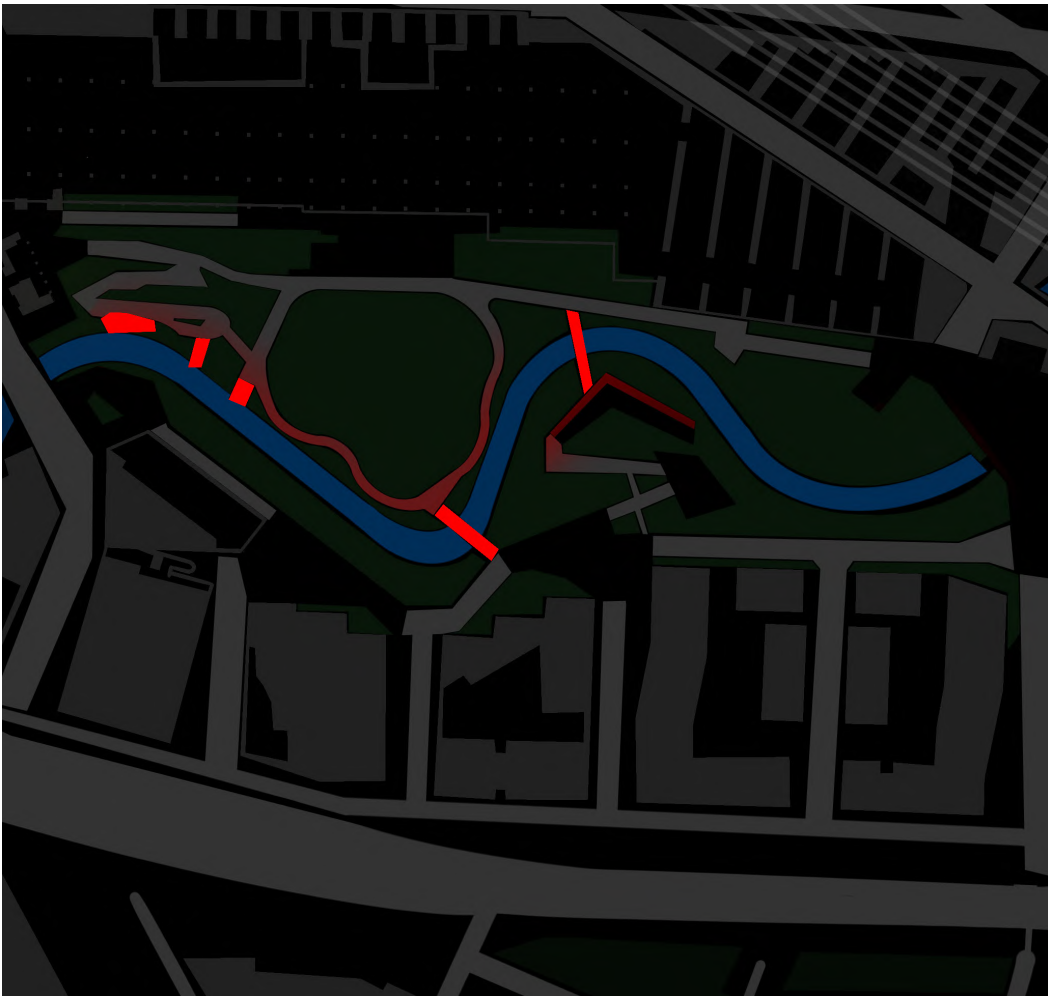
The scale of the lighting should be sympathetic to the route or space which it is illuminating with respect to the intended user and their requirements. A variety of mounting heights are proposed across Mayfield to differentiate routes and help create intimate areas. The proposed mounting heights have been informed by the immediate surroundings which feature a wide variety of luminaire heights and styles. Pedestrianised routes should feature appropriately sized luminaires mounted at a human scale creating a more welcoming environment while enhancing views where required. Along the Valley, Park equipment should be mounted at low height to promote views out over the landscape. The strategy envisages the following mounting heights for Mayfield:



Strategy/ Ecology

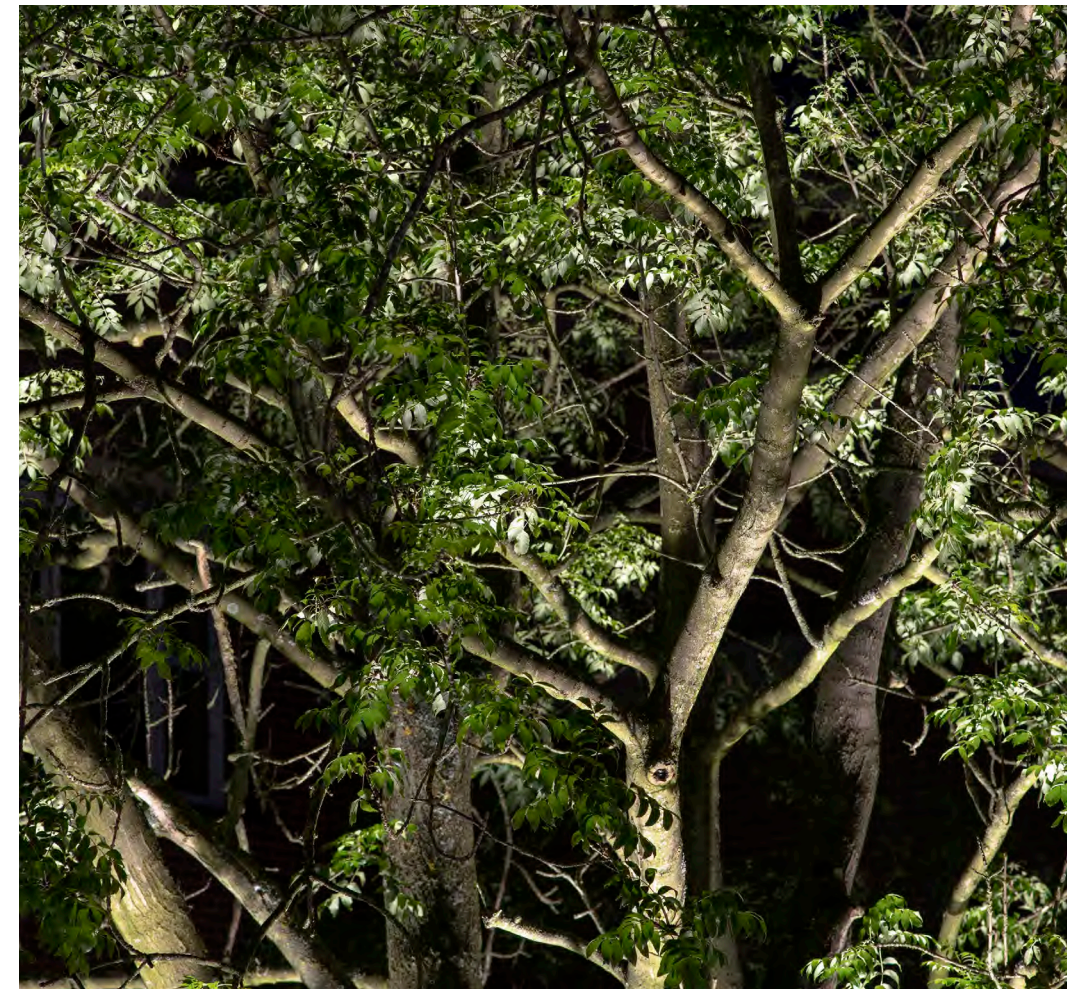
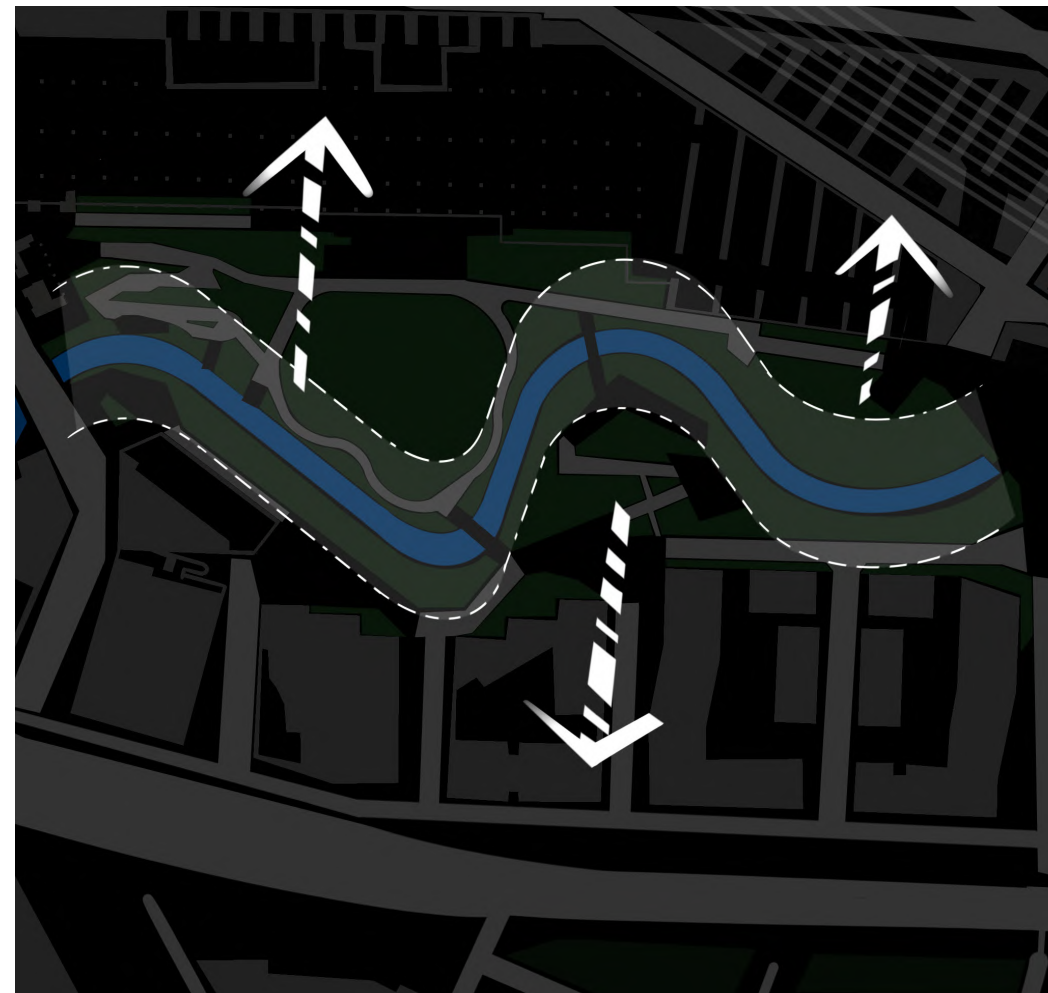
Artificial light can have a negative impact on flora and fauna, the majority of which require darkness at night. Currently the river is a corridor for bats within the Valley Park. It is the aspiration to retain and enhance ecological corridors after dark. This will require a sensitive and considered approach to the lighting. The following guidelines should be considered:

- Consider areas such as the viewing platforms in the park where lighting could be switched off or dimmed down after an agreed ‘curfew’ to help reduce the impact on wildlife.
- Consider how colour temperature and the wavelength of the light can help reduce adverse impacts on wildlife in the ecological zones of the park.
- Utilise colour-changing technology within the fixtures close to river, such as on the bridges, to alter white light to red light of a suitable spectrum during flight times of bats.



Strategy/ Ecology

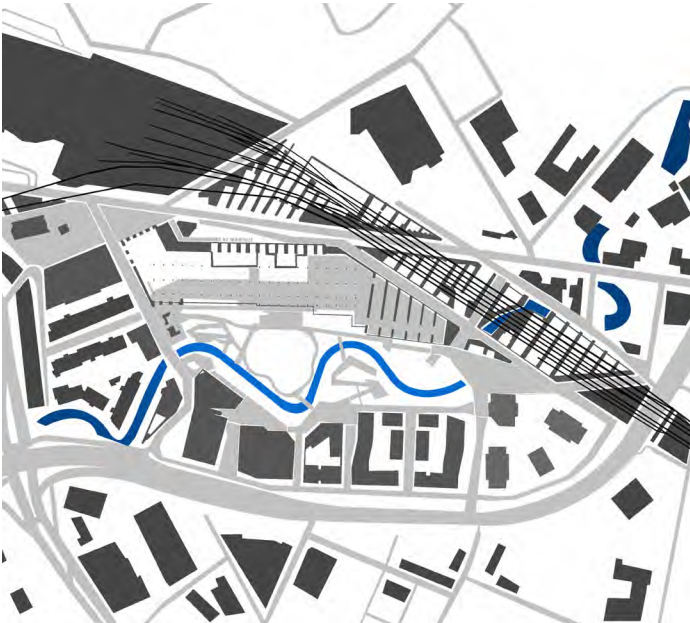
- Direct light away from the river and towards the buildings to reduce light pollution.
- Employ reduced lighting levels along the boardwalks and riverwalk.
- Avoid light spill into ecological areas such as the Valley Park, particularly the river, by using controlled directional lighting and low mounting heights.



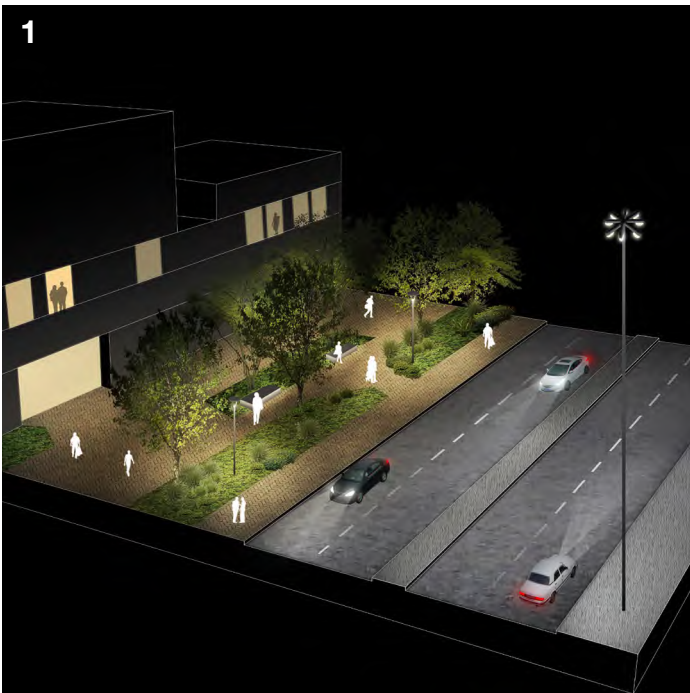
Specifics/

Spec

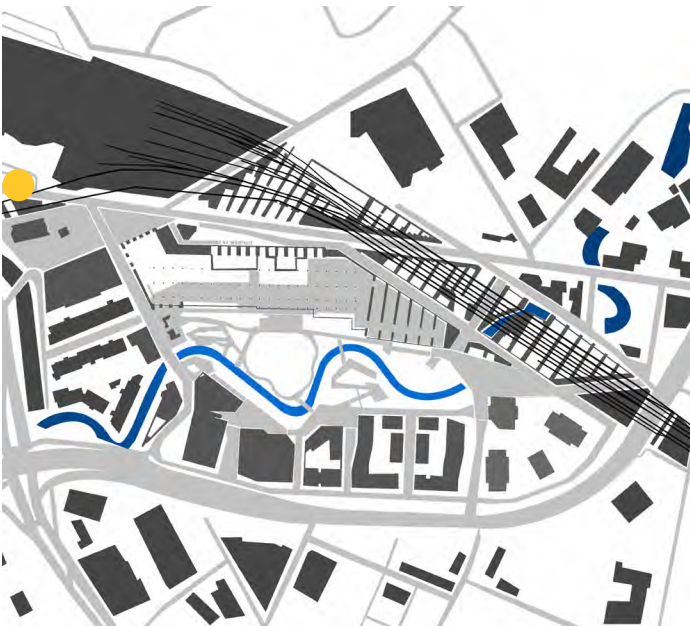
Specifics/



- 1. Mancunian Way
- 2. Fairfield Court
- 3. Baring Street
- 4. Depot Park
- 5. Platform Park
- 6. Platform Park (view 2)
- 7. Entrances
- 8. Entrances (View 2)
- 9. Valley Park



Specifics/ Entrances

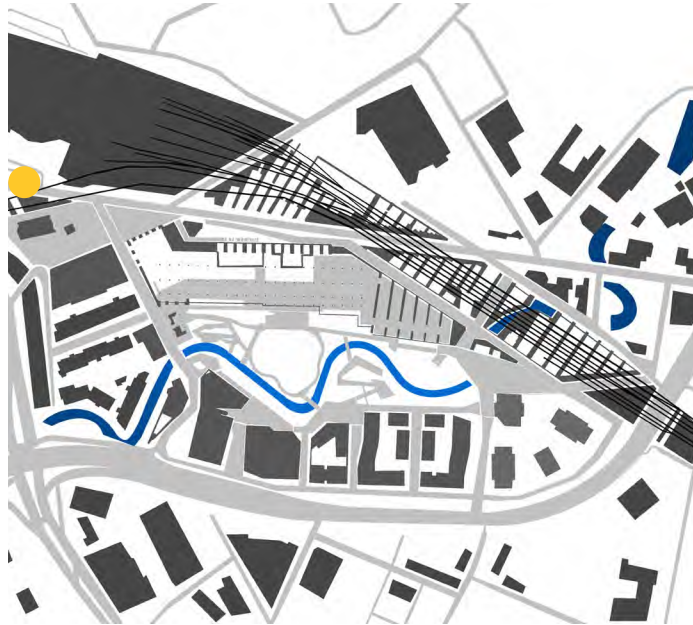


The Lighting Strategy envisages the following lighting approach for the various key entrances or gateways into the development:

- 1. Illuminate walls of tunnels and arches to create a welcoming ambience for passers-by and visitors to Mayfield.

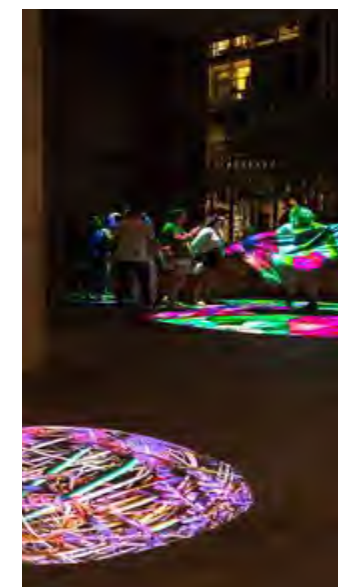


Specifics/ Entrances Arches

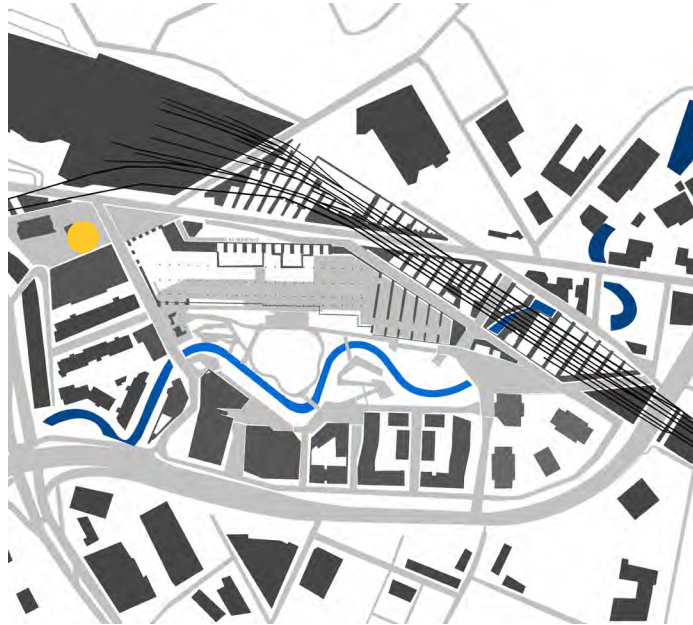


The Lighting Strategy envisages the following approach to the various key entrances or gateways into the development:

1. Illuminate walls of tunnels and arches to create a welcoming ambience for passers-by and visitors to Mayfield.
2. Utilise passive light sources to create an interesting visual shimmer of reflections and colour.
3. Articulate the various entrances to help the movement of pedestrians through Mayfield.
4. Utilise entrances as an artistic indicator for the Mayfield campus.



Specifics/ Fairfield Forecourt

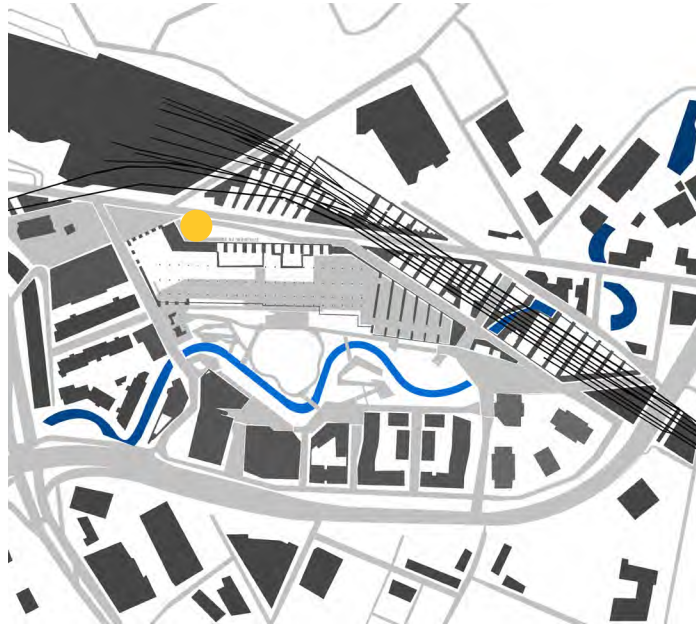


The Lighting Strategy envisages the following approach for Fairfield Forecourt:

1. Encourage pedestrian movement from Piccadilly station towards the campus by illuminating the railway arches positively.
2. Create a legible space after dark by illuminating artworks, landscape items and the ticket hall façade vertically.
3. Provide illumination on a human scale to promote the Fairfield Forecourt as a pedestrian space.
4. Integrate lighting equipment within the landscape and architectural elements to minimise the clutter of lamp posts.
5. Animate the Forecourt via a theatrical experience for pedestrians to promote social interaction and celebrate the unique character of Mayfield.
6. Utilise passive light sources within the paving to create an interesting visual shimmer of reflections.

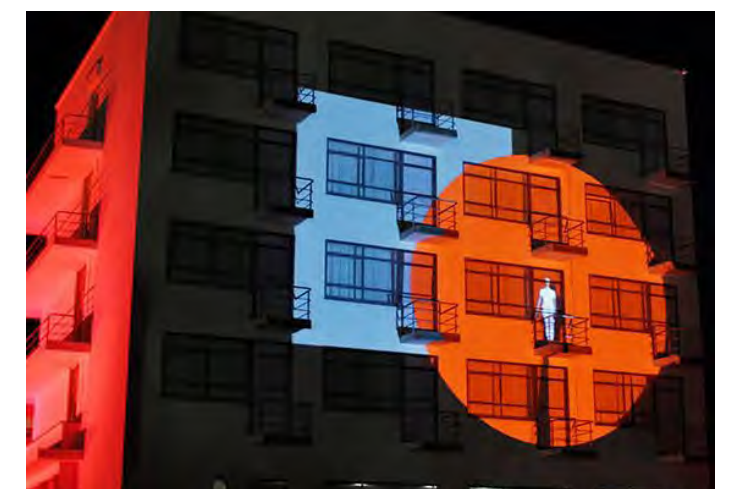


Specifics/ Entrances Pub

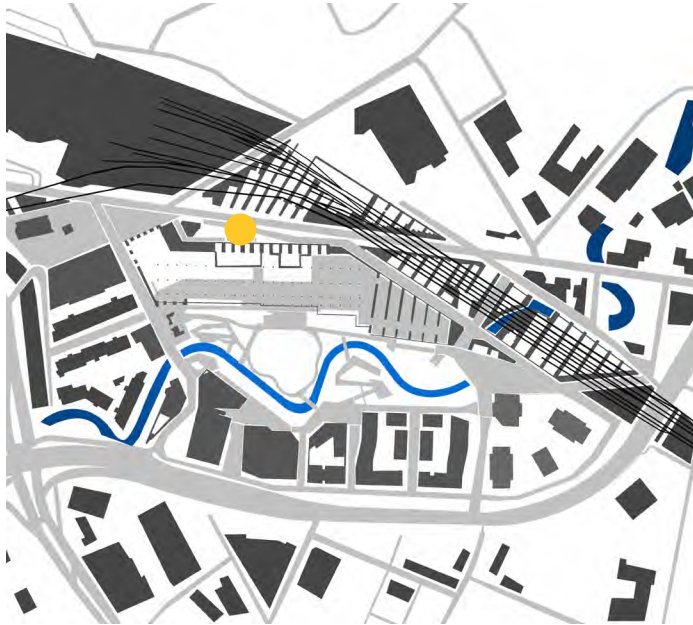


The Lighting Strategy envisages the following approach for the various key entrances or gateways into the development:

1. Celebrate after dark landmarks by illuminating historic facades of by example the Ticket Hall and Star and Garter Pub.
2. Create a dynamic lighting feature to generate public interest and provide an artistic platform for various events.
3. Utilise entrances as an artistic indicator for the Mayfield campus.

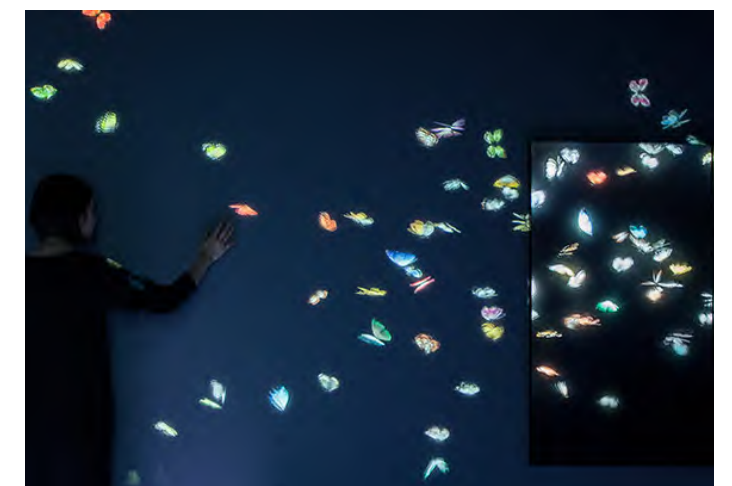
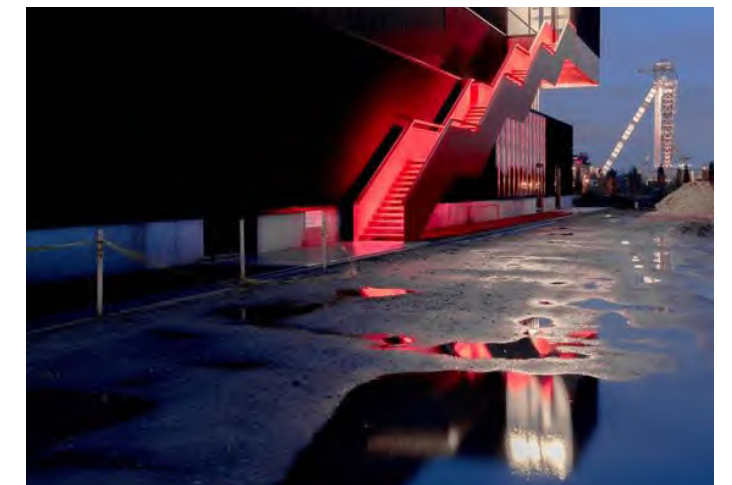


Specifics/ Entrances Ramp

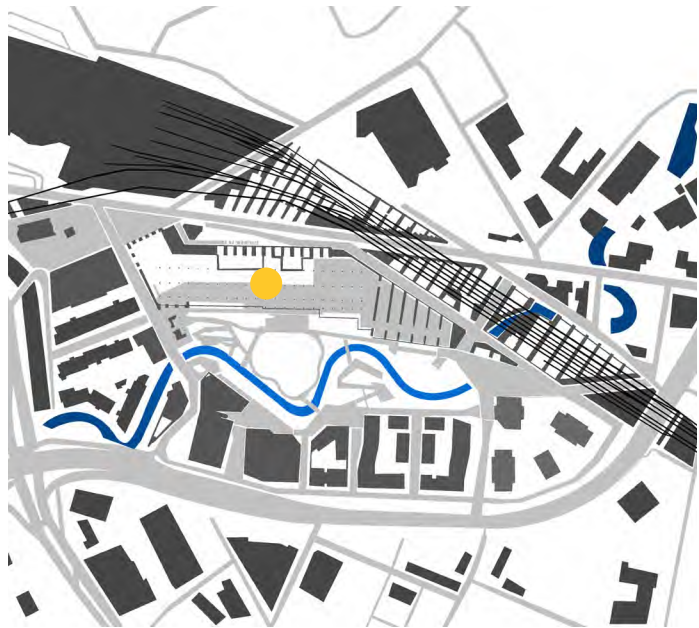


The Lighting Strategy envisages the following approach for the various key entrances or gateways into the development:

1. Celebrate after dark landmarks by illuminating historic facades of by example the Ticket Hall and Star and Garter Pub.
2. Illuminate walls of tunnels and arches to create a welcoming ambience for passers-by and visitors to Mayfield.
3. Create a dynamic lighting feature to generate public interest and provide an artistic platform for various events.

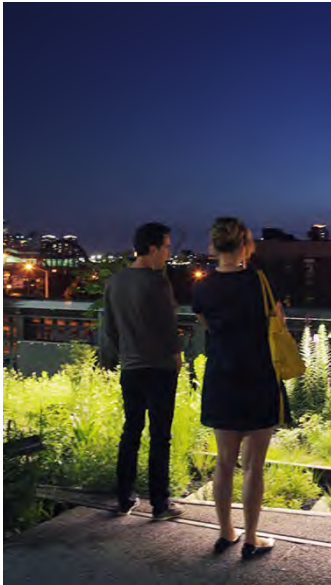


Specifics/ Platform Park

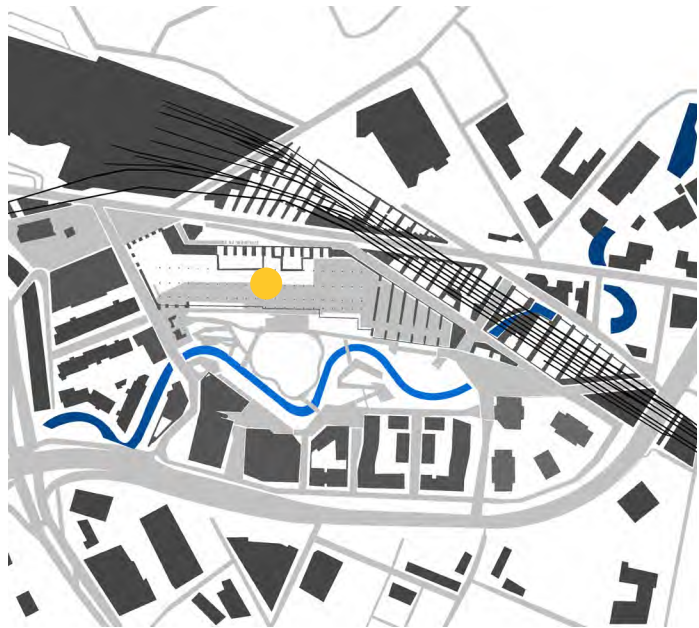


The Lighting Strategy envisages the following approach for the Platform Park:

- 1. Promote views over Valley Park by utilising low mounting heights for fixtures.
- 2. Illuminate the building cores within the interiors to support intuitive wayfinding.
- 3. Develop guidelines for retail and office illumination to reduce glare, light trespass and improve the ambience of the Platform Park after dark.
- 4. Balance interior against the exterior light levels to create visual continuity and a low contrast threshold.



Specifics/ Platform Park

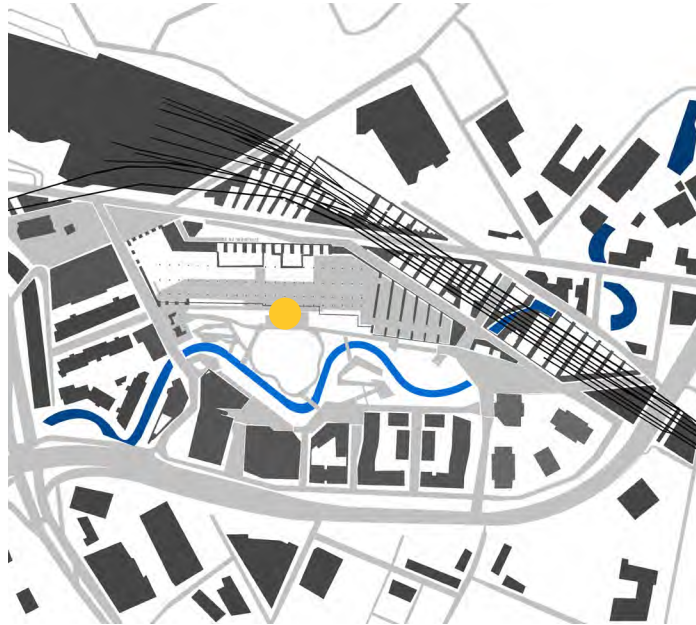


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- 1. Promote views over Valley Park by utilising low mounting heights for fixtures.
- 2. Illuminate the building cores within the interiors to support intuitive wayfinding.
- 3. Develop guidelines for retail and office illumination to reduce glare, light trespass and improve the ambience of the Platform Park after dark.
- 4. Balance interior against the exterior light levels to create visual continuity and a low contrast threshold.
- 5. Integrate lighting within street furniture to create social places for people to meet after dark.

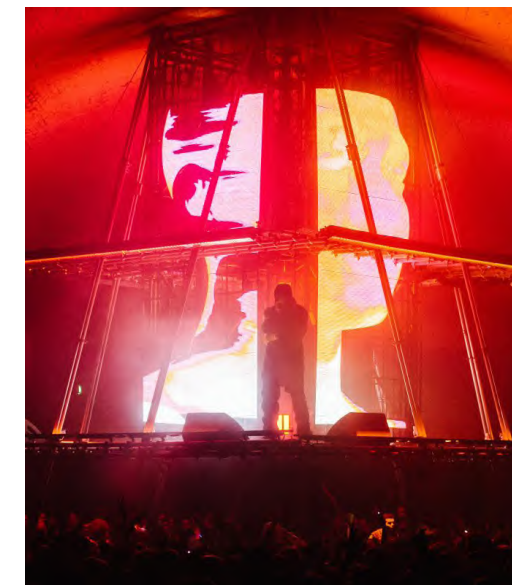


Specifics/ Depot Park

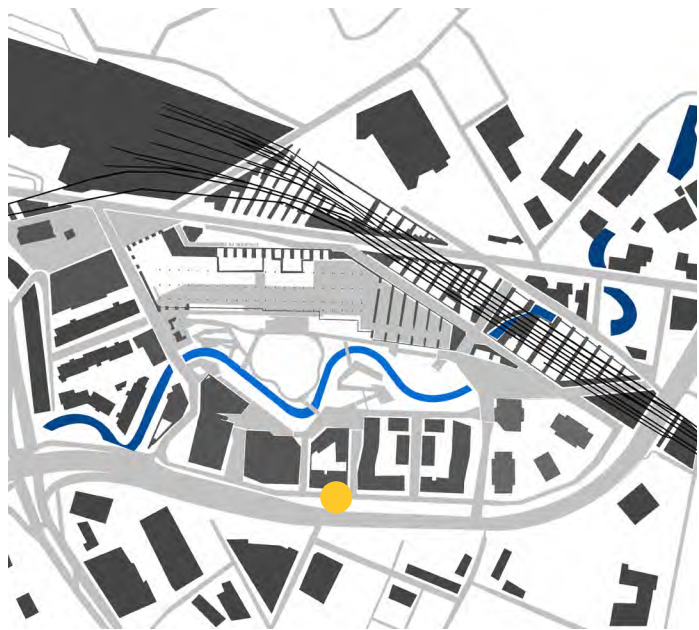


The Lighting Strategy envisages the following approach to the Depot Park:

1. Illuminate the historic steel structure of the Depot dramatically to create an accessible permeable space.
2. Utilise dynamic white lighting and diurnally changing technology to illuminate the Depot appropriately at different times of the day.
3. Aim light inwards and place historic columns into silhouettes to avoid light spill into the Valley Park.
4. Balance interior against the exterior light levels to create visual continuity between the Depot and Park in front.
5. Avoid a hard threshold between the Depot and Valley Park by blending illumination techniques used in interior and exterior.
6. Develop guidelines for retail illumination to reduce glare, light trespass and improve the ambience of the Depot after dark.



Specifics/ Mancunian Way

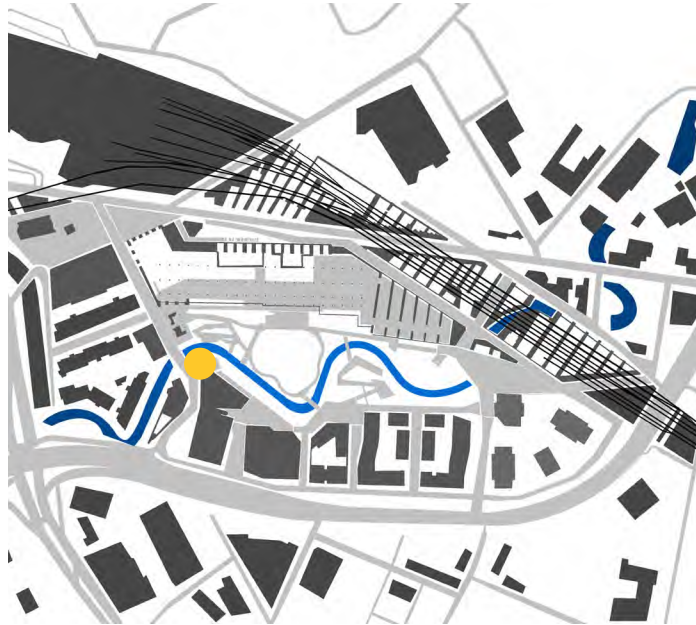


The Lighting Strategy envisages the following approach to Mancunian Way:

1. Provide illumination to the vehicle, cycle and pedestrian routes on a human scale as a balance to the high-level lighting.
2. Alter the road-way fixtures to improve the light distribution to motorway and reduce light trespass into residential premises.
3. Integrate lighting into street furniture to help improve the pedestrian experience and after dark.
4. Increase illumination levels at junctions leading into Mayfield to create a welcoming ambience.
5. Illuminate the back walls of interior building lobbies and entrances to support the legibility and intuitive way-finding.

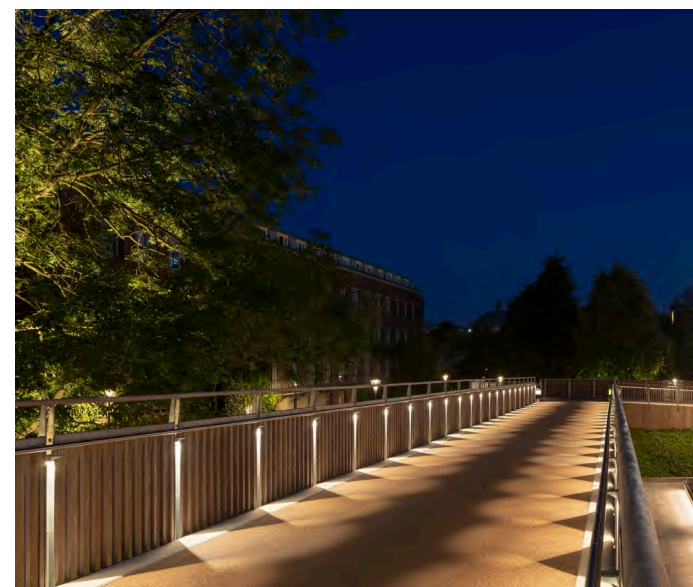


Specifics/ Baring Street



The Lighting Strategy envisages the following approach to Baring Street:

1. Provide functional lighting to pedestrian and cycle routes to help reduce conflicts.
2. Support intuitive way-finding by providing vertical illumination.
3. Utilise excellent optical control and aim fixtures away from the Valley Park to minimise light spill into the Medlock River.
4. Illuminate sculptural artworks or other prominent landscape elements to create an inviting ambience and support pedestrian movement throughout Mayfield.
5. Develop guidelines for office illumination to reduce glare and light pollution.
6. Integrate fixtures within landscape elements such as railings to minimise clutter and promote views across Valley Park towards the Depot.



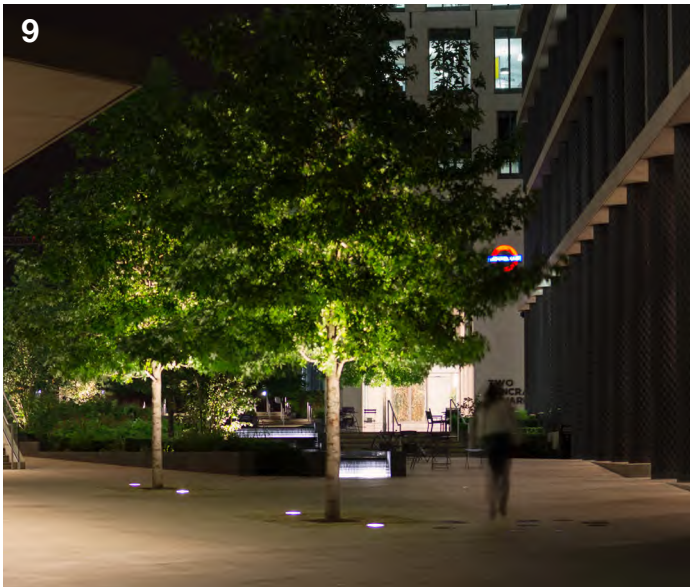
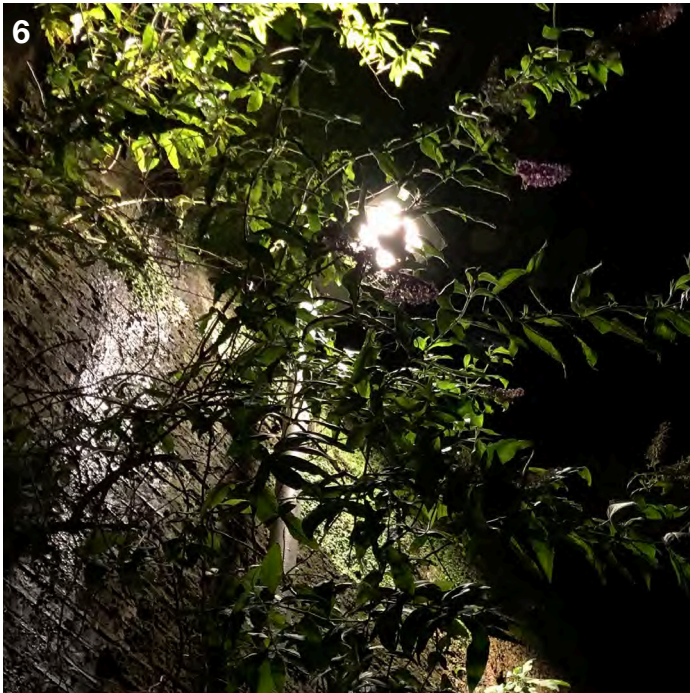
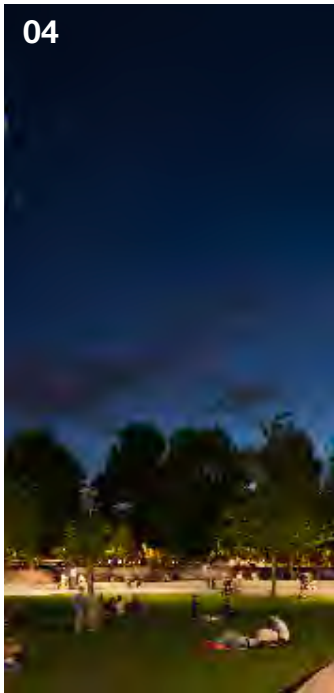
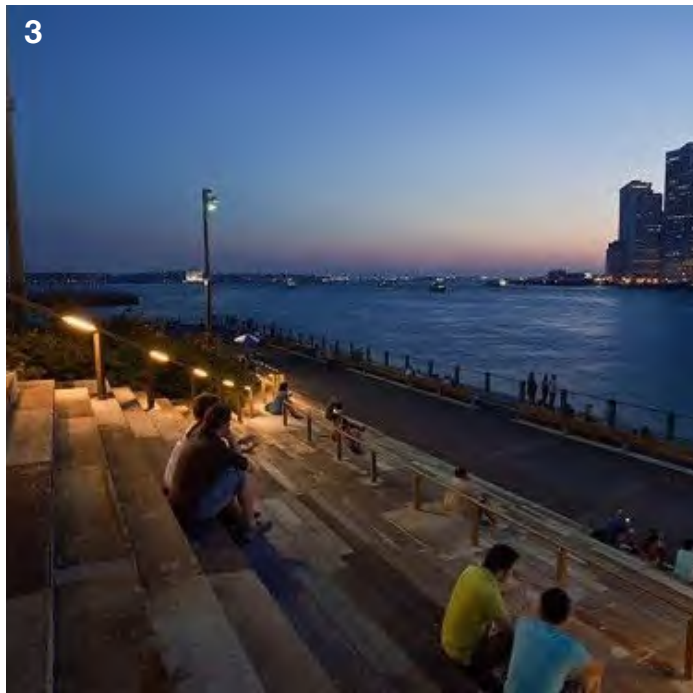
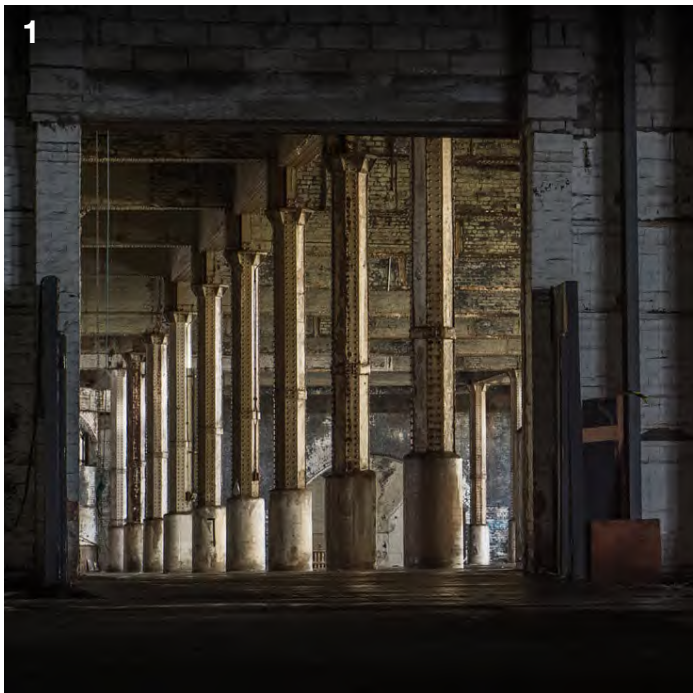
Valley Park/

Valley

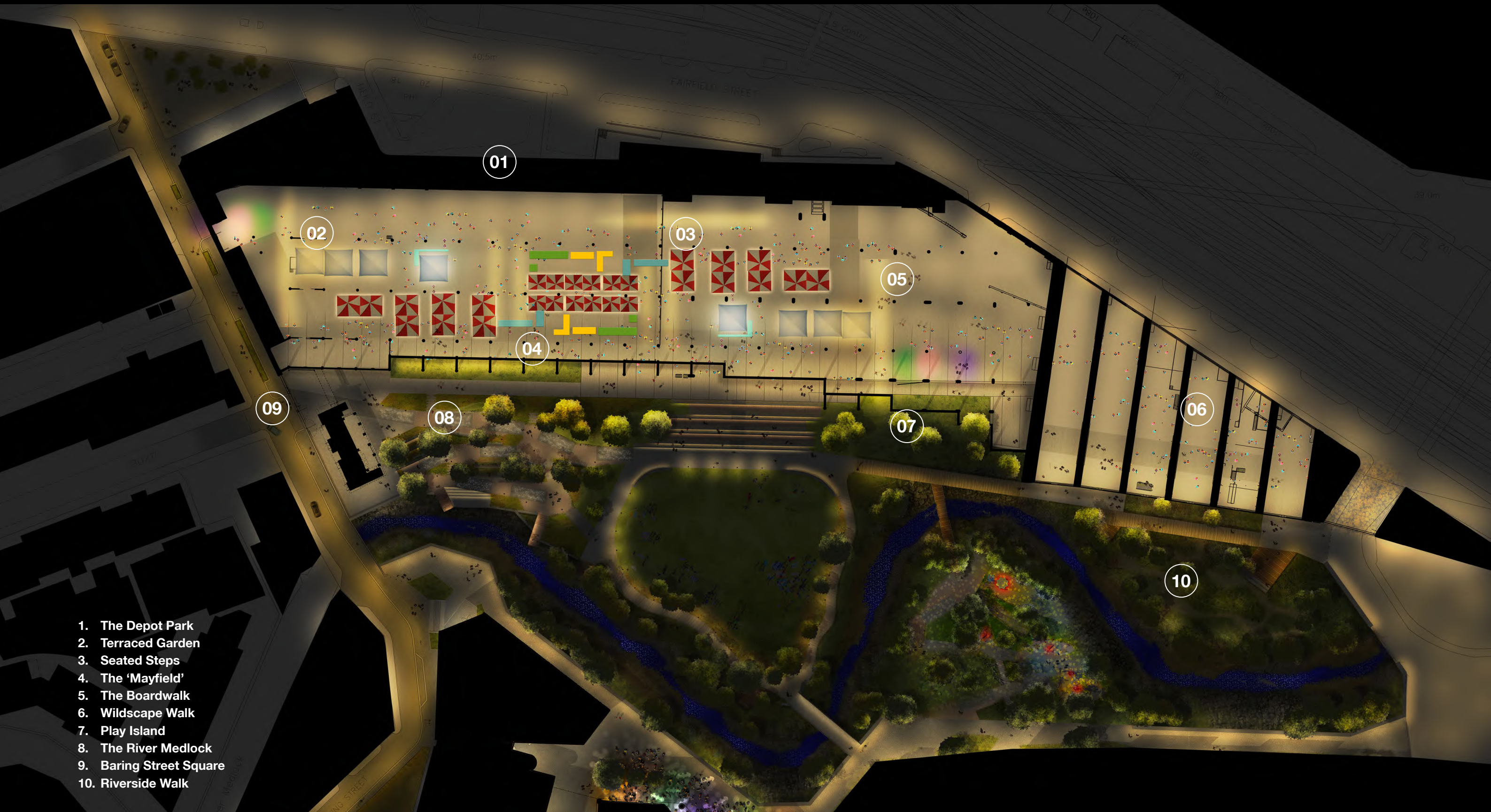
Valley Park/ Sequence of Spaces

The Valley Park consists of a series of connecting spaces. After dark the light aims to create individual characters for each space while using a similar equipment pallet.

- 1. The Depot Park
- 2. Terraced Garden
- 3. Seated Steps
- 4. The 'Mayfield'
- 5. The Boardwalk
- 6. Wildscape Walk
- 7. Play Island
- 8. The River Medlock
- 9. Baring Street Square
- 10. Riverside Walk
- 11. Cultrual Square



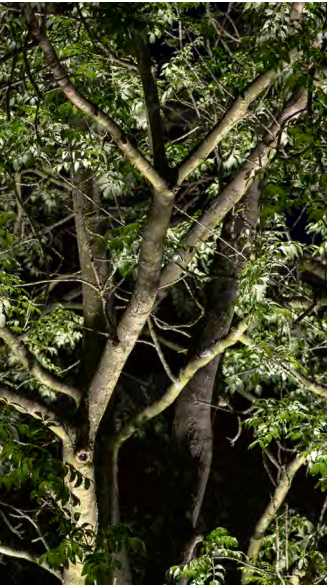
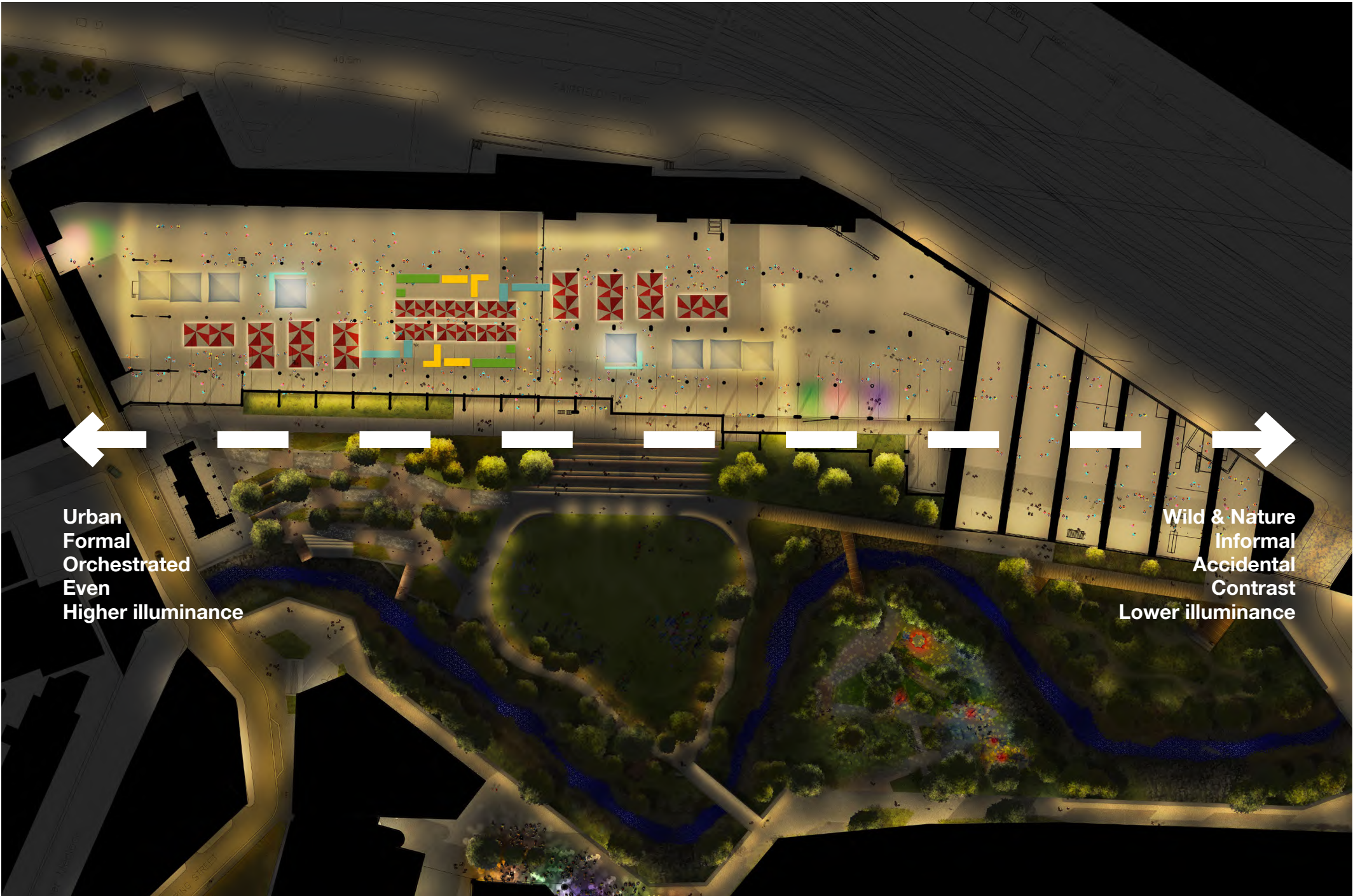
Valley Park/ Sequence of Spaces



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5. The Boardwalk
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7. Play Island
8. The River Medlock
9. Baring Street Square
10. Riverside Walk

Valley Park/ Character

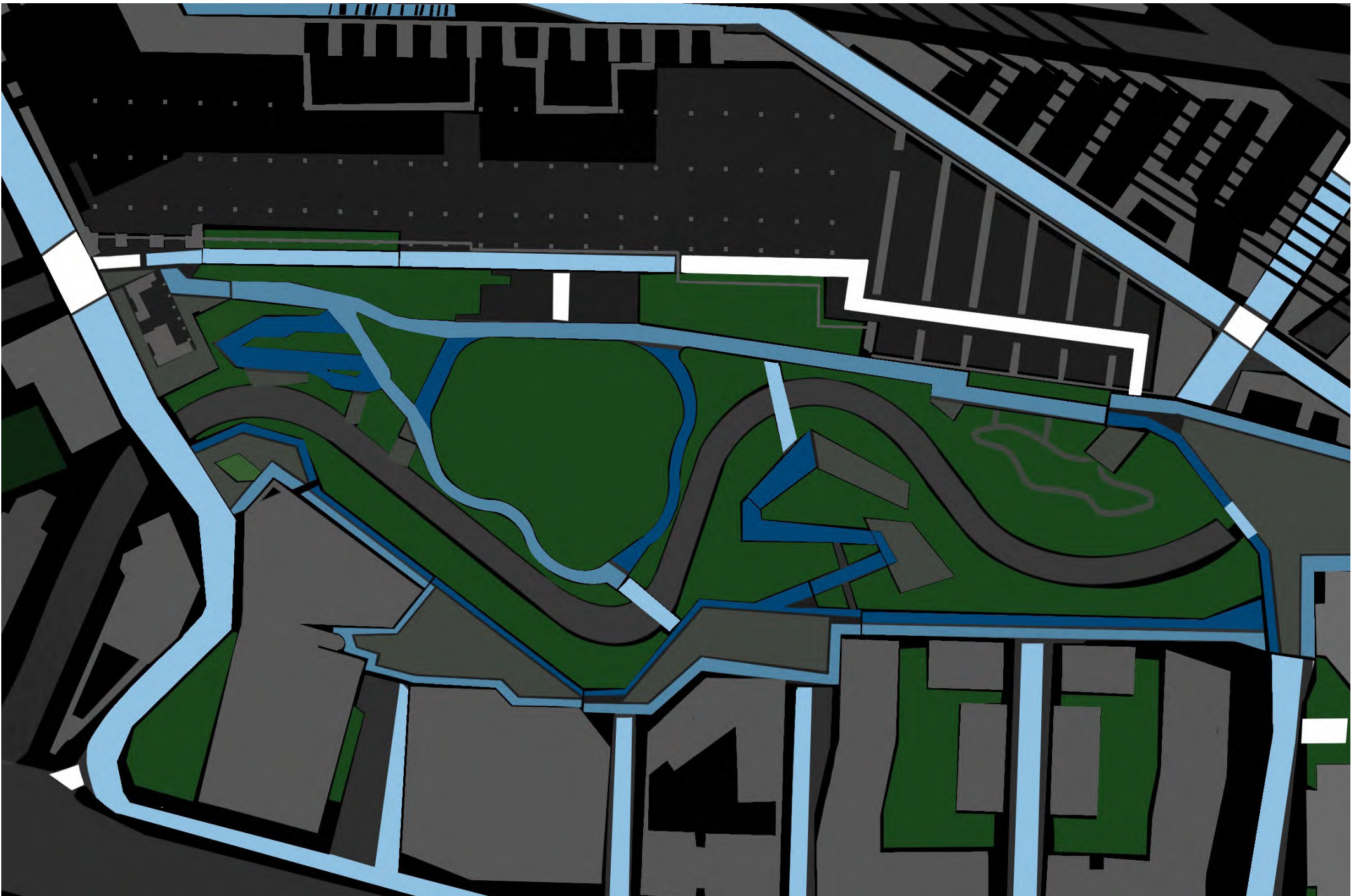
The landscape design of the western half of the Valley will be more formal while the eastern half will have a wilder and natural character. The lighting will follow suit and employ different light qualities to emphasise the different characters.



Valley Park/ Light and Dark

The following light levels and classification as defined by BS 5489-1:2013 are suggested for the routes in Valley Park:

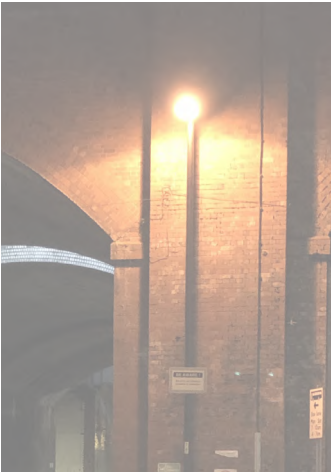
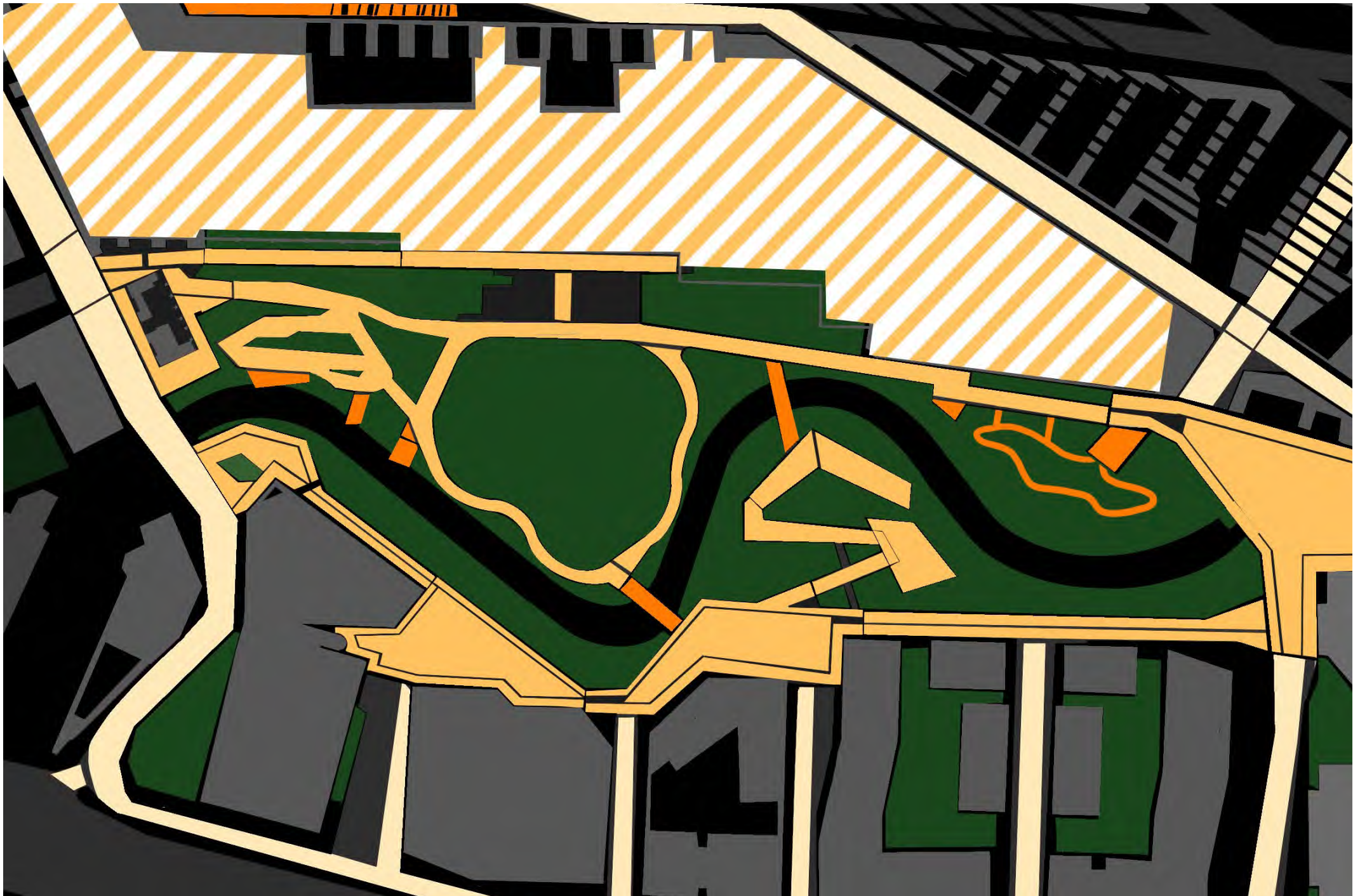
Conflict Areas	-	E_{AV} 30lx	-	0.4 U_o
Main Routes	P1	E_{AV} 15lx	E_{MIN} 5.0lx	-
Secondary Routes	P2	E_{AV} 10lx	E_{MIN} 3.0lx	-
Tertiary Routes	P3	E_{AV} 7.5lx	E_{MIN} 1.5lx	-
Dwell Space	-	E_{AV} 5.0lx	-	-
Stairs/Steps	-	E_{AV} 30lx	-	0.4 U_o



Valley Park/ Colour Temperature

The following colour temperatures are suggested for Valley Park:

Neutral Warm White	3000K	> 80cri
Warm White	2700K	> 80cri
Super Warm	2200K	> 80cri



Valley Park/ Objectives

The Lighting strategy envisages the following approach to the illumination of Valley Park:

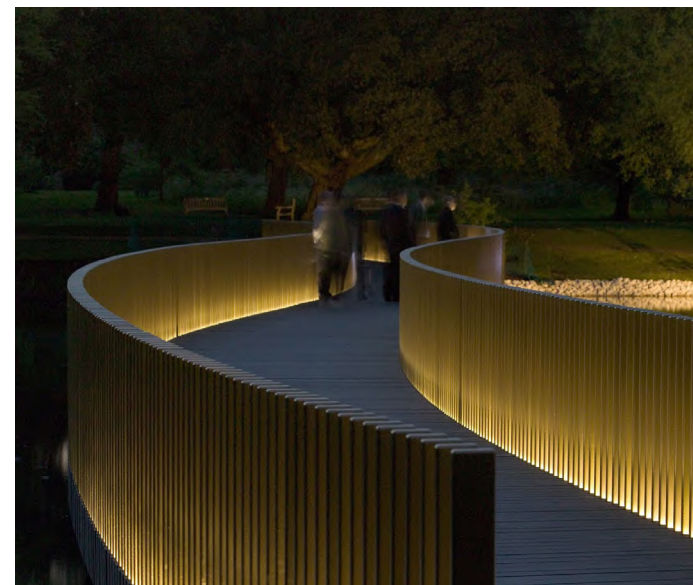
1. Consider the ecological sensitivity of the park by minimising the impact of artificial light on flora and fauna.
2. Integrate lighting into furniture and landscape elements to minimise clutter.
3. Create intimate spaces for people to meet and socialise in the park.
4. Minimise light trespass into adjacent residential premises.
5. Utilise passive light sources within the paving to create an interesting visual shimmer of reflections.
6. Balance interior against the exterior light levels to create visual continuity between the Depot and the Valley Park.
7. Avoid a hard threshold between the Depot and Valley Park by blending illumination techniques used in interior and exterior.
8. Utilise lanterns with a glowing appearance to guide pedestrians through the park.
9. Illuminate away from the River Medlock to minimise the impact on ecology.
10. Create silhouettes of trees against the interior lighting of the arches to provide visual depths to the park.
11. Provide intimate lighting to the large steps in front of the Depot to create an inviting ambience for pedestrians.
12. Articulate play areas by utilising theatrical lighting techniques.



Valley Park/ Arches

The Lighting Strategy envisages the following approach to the illumination of Valley Park:

1. Consider the ecological sensitivity of the park by minimising the impact of artificial light on flora and fauna.
2. Integrate lighting into furniture and landscape elements to minimise clutter.
3. Create intimate spaces for people to meet and socialise in the park.
4. Minimise light trespass into adjacent residential premises.
5. Utilise passive light sources within the paving to create an interesting visual shimmer of reflections.
6. Balance interior against the exterior light levels to create visual continuity between the Depot and the Valley Park.
7. Avoid a hard threshold between the Depot and Valley Park by blending illumination techniques used in interior and exterior.
8. Utilise lanterns with a glowing appearance to guide pedestrians through the park.
9. Illuminate away from the River Medlock to minimise the impact on ecology.
10. Create silhouettes of trees against the interior lighting of the arches to provide visual depths to the park.
11. Provide intimate lighting to the large steps in front of the Depot to create an inviting ambience for pedestrians.
12. Articulate play areas by utilising theatrical lighting techniques.



Valley Park/ West End/ Urban



Valley Park/ East End/ Nature

