Great Northern Warehouse, Manchester

FACADE LIGHTING STRATEGY

NOVEMBER 2022
STATUS: FOR INFORMATION

Great Northern Warehouse

Facade Lighting Strategy

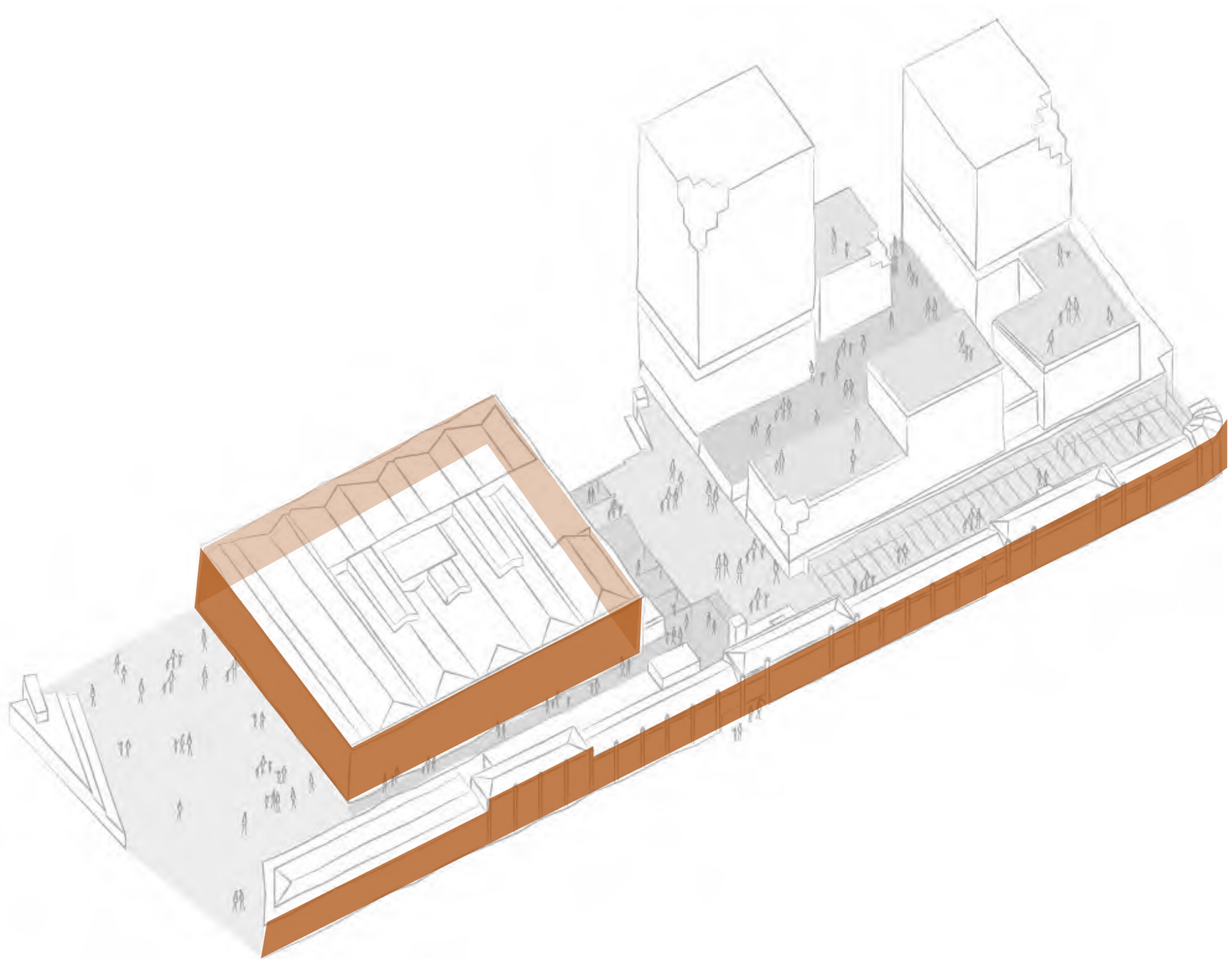


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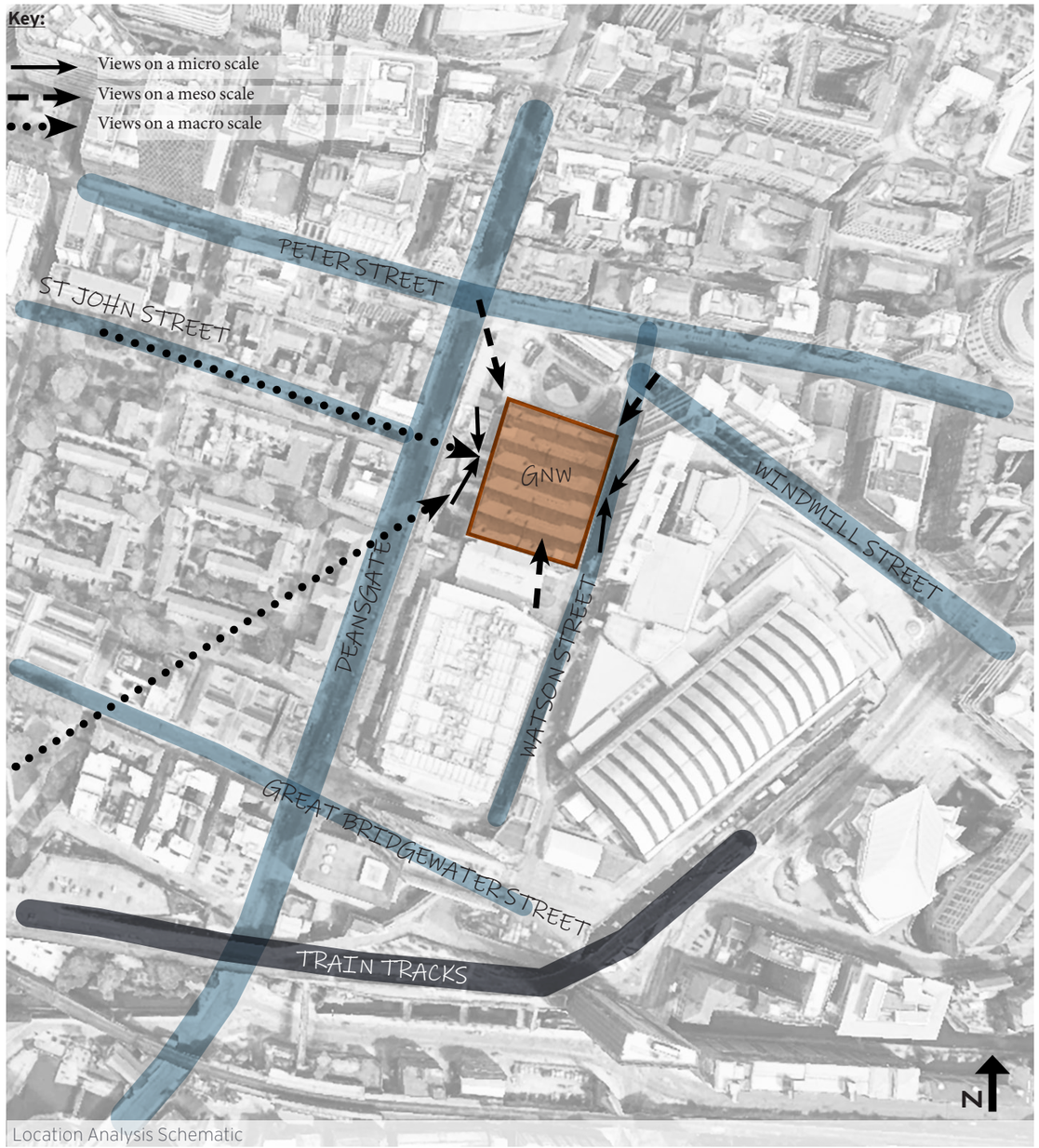
LB_1090_LR_01_Facade Lighting Strategy

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1. Great Northern Warehouse

1.1 Building Location, Visibility and Character



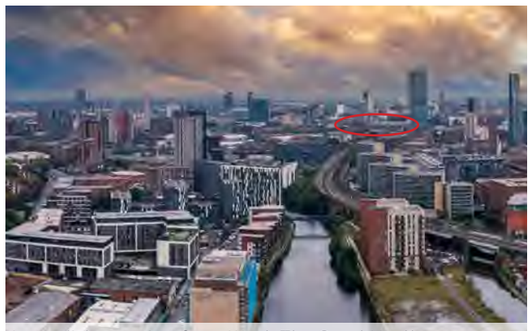
Location Analysis Schematic

Building Location, Visibility and Character

Great Northern Warehouse is located in the heart of Manchester with good and quick connections to the train station and city centre via various modes of transport. The new development will reveal and make accessible all of the four facades of the Grade II* listed building. The north and south facades have a similar window modulation with solid brick panels expressing the corners of the Warehouse. These are currently used for advertising banners. The north facade is also the main entrance to the building. Open views from the square allow to appreciate it in its entirety.

The east and west facades differ from the other with a different window modulation but are also accessible through significantly narrower streets where full views are restricted. On a micro scale visitors can appreciate the ground floor detailing and frontages.

On a macro scale the top band of the building with its iconic lettering is visible from further away.


Long distance view from West. The Great Northern Warehouse is a visible element in Manchester's skyline

View down Dean Street. The bridge connection between the warehouse and Deansgate terraces building, the new lift core along with the narrow street make full views of the Western facade restricted. Retail frontages on ground floor would provide an indirect light gradient wash to the warehouse facade.



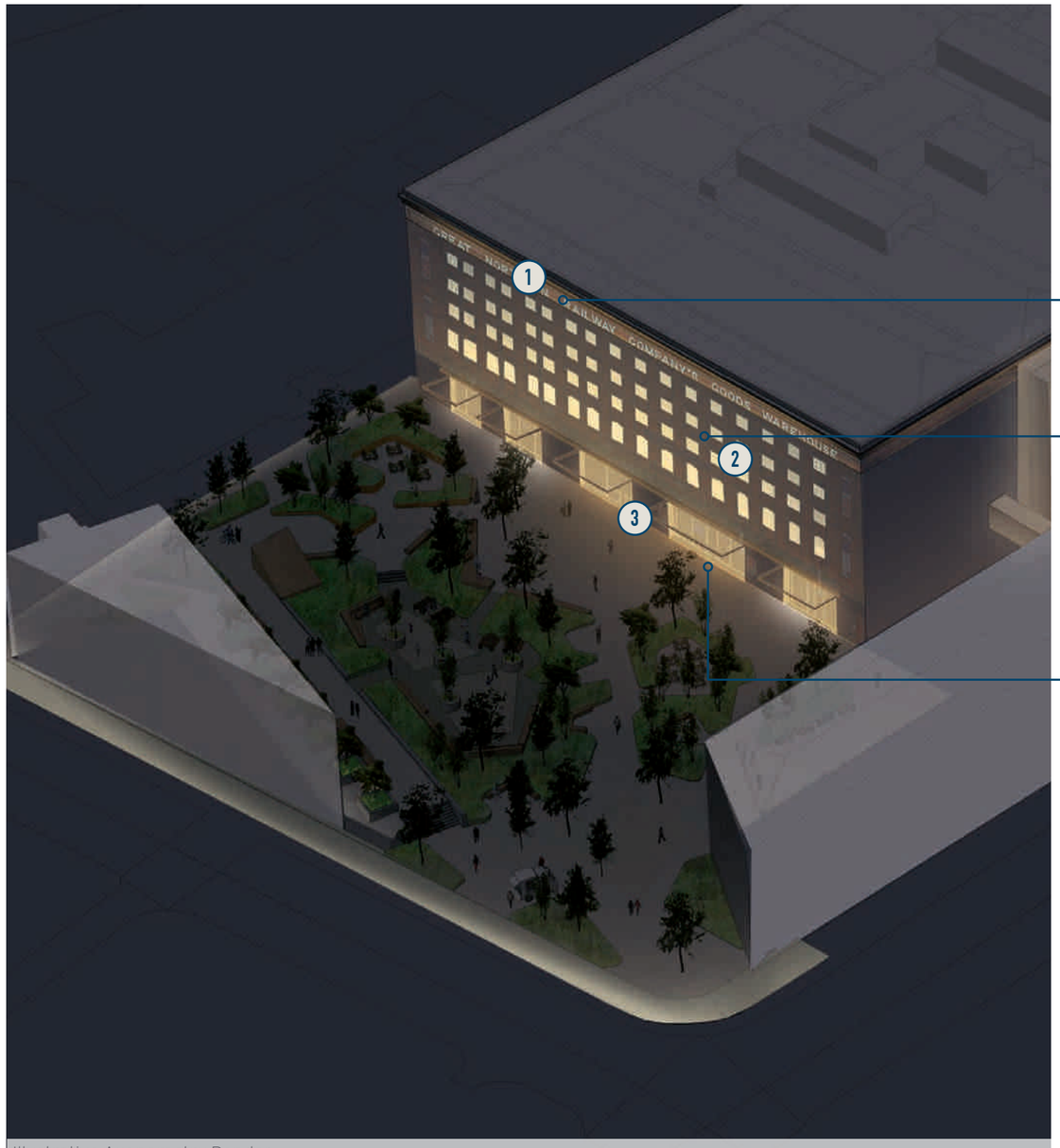
View down Watson Street. The narrow street restricts frontal views of the Eastern facade. Retail frontages on ground floor would activate the ground floor elevation and together with the existing street lighting would contribute to a comfortable atmosphere and a soft glow onto the facade. Key consideration is the high rise residential building on the opposite side of the street.



View from the Viaduct platform. Wide open space allows for a full view of the facade which has an active presence in the space. The facade meets ground access on two levels - Watson Street on the east and the viaduct podium on the west.



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Illustrative Axonometry Render

Lighting Objectives

The lighting strategy intent for the Great Northern Warehouse is to reveal the key architectural characteristics of the building and create a recognisable elevation to serve as a backdrop to the square and various destinations of the development's public realm.

Create a soft uplighting effect to the lettering marking the crown band along the building perimeter.

Illuminate the facade surface with a soft light wash. A gradual decrease of light towards the sides and top would create a natural transition between illuminated and non-illuminated surfaces. Balanced subtle effect to keep focus at ground level and retain human scale.

The ground floor is activated by occupancy lighting from the retail and hospitality units. Additional activation to support the atmosphere can be achieved through illuminating the reveals and highlighting the architectural detailing on the facade.



Illuminating the top cornice to mark the height of the building and highlight its silhouette

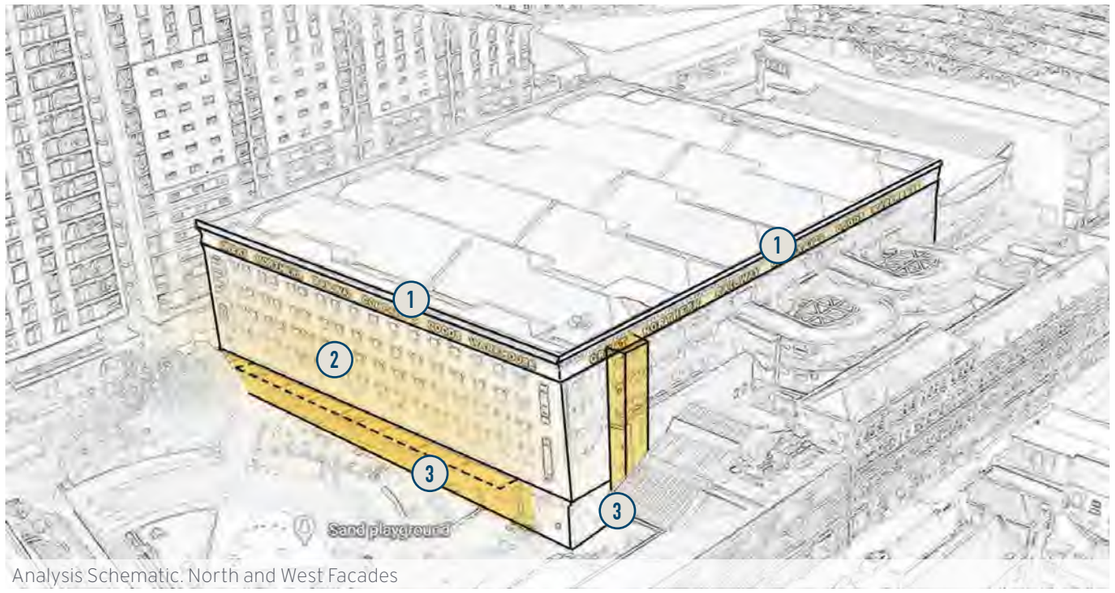


Soft light wash to the facade surface. Occupancy lighting from the upper offices additionally contributes to the facade activation.

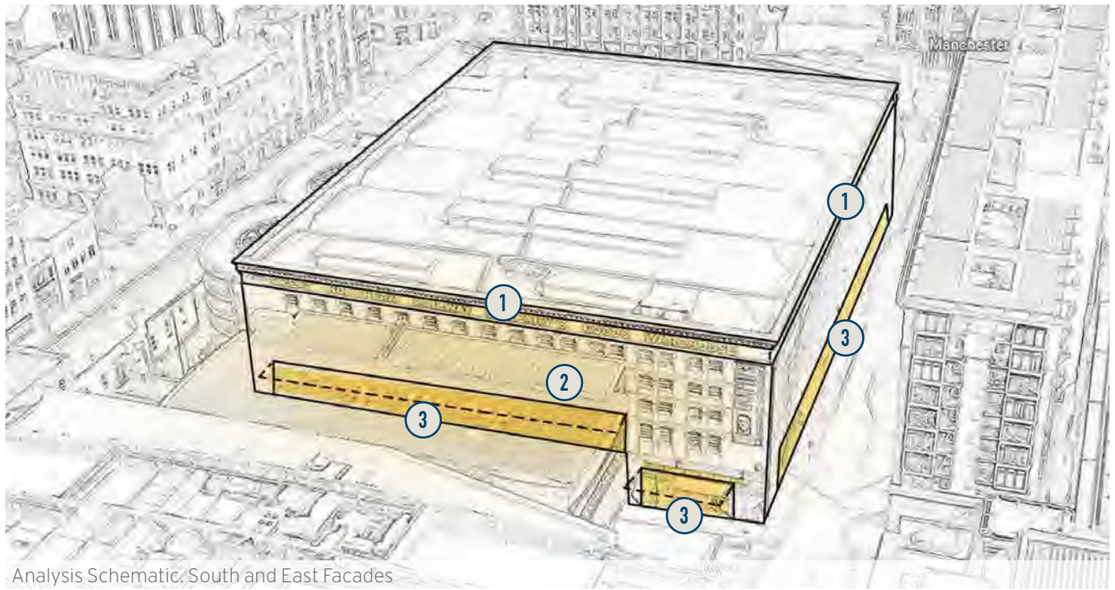


Activated ground floor to attract visitors and bring down the scale of the facade to human level.

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Analysis Schematic. North and West Facades



Analysis Schematic. South and East Facades

Lighting Design Intent

The choice of applying the lighting design strategies to the facades is dictated by the visibility and accessibility of each facade.

A soft facade wash will be applied only to the south and north facades where long distance views allow for them to be seen in their entirety.

On the east and west facades occupancy and street level amenity lighting are expected to produce a soft glow being picked up by the warehouse elevations. No additional lighting is proposed to the facade above the ground floor.

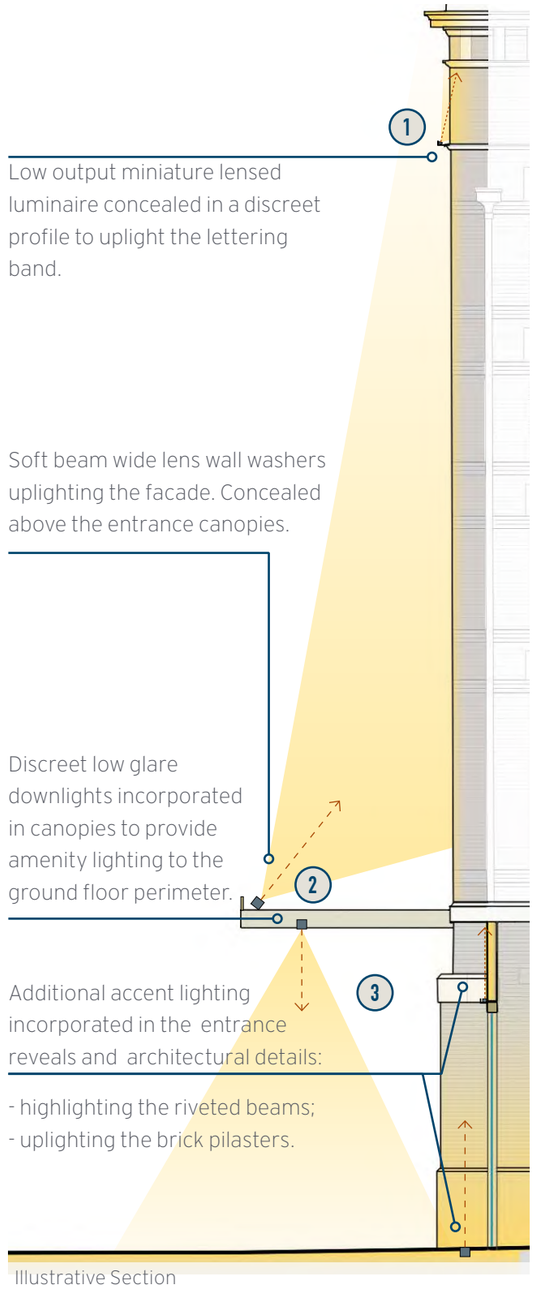
The lettering band at the top, however, is illuminated consistently on all sides due to its visibility. In order to reduce excessive product use we'd suggest applying lighting only to the area with lettering. Selecting a simple but robust low output fitting would help meet sustainability goals while providing the intended soft highlight without overpowering or over illuminating the brickwork.

It is expected that the bright lettering in contrast with the dark red brick background would pick up a good amount of light.

A consistent treatment of the ground floor entrances at all four facades is also proposed to activate these elevations at human scale.

This includes:

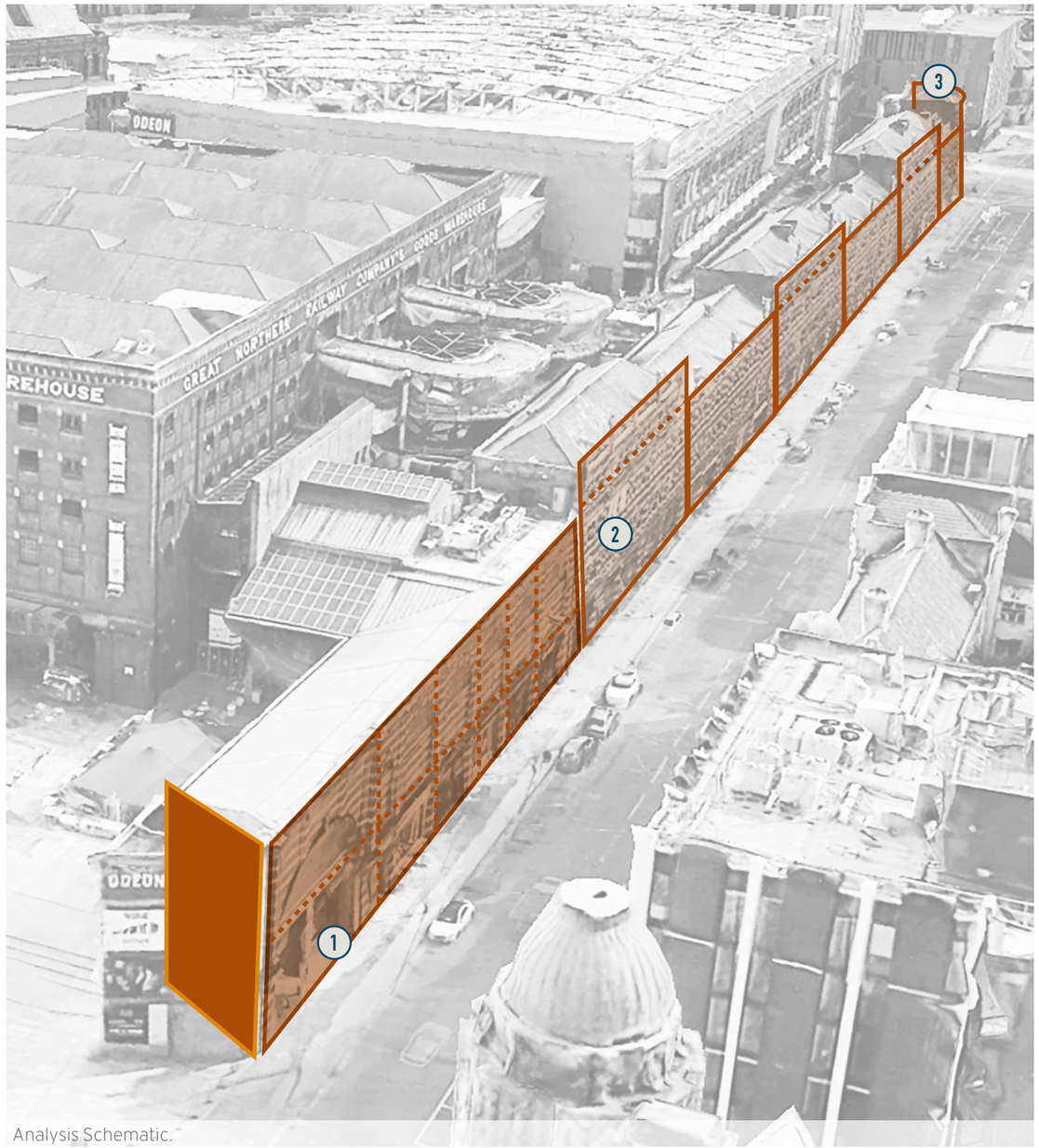
- uplighting the deep door reveals;
- uplighting the riveted beam lintels marking each ground floor entrance;
- downlighting integrated in the canopies (south and north facades) to support the horizontal amenity light levels at entrances.



Illustrative Section

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2.1 Building Location, Visibility and Character



Analysis Schematic.

Building Location, Visibility and Character

Deansgate terraces' listed facade consists of two distinct parts:

- An ornamented part with arches towards the North end;

- A long south part with tall sections creating rhythm and interest along the span of the facade. The last tall section curves around the corner and marks the entrance to the mews

The facade columns are expressed as pilasters creating a motif repeated along both parts. Together with the consistent brick finish it binds the entire elevation together.

The facade will be opened up through the middle via two of the existing arches to realize the intended connection through Alport Street.

Currently there is street lighting along Deansgate which should be reviewed and evaluated in terms of glare and light spill in the context of the proposed facade lighting.

The building's ground floor currently hosts many businesses whose illuminated shop fronts are part of the night time image of the facade.

Entrance arch at the North end of the facade. Characterised by deep reveals. Signage in the semi-circular tympanum



Pilasters mark the rhythm of the facade along its full length. I the first section of the facade a smaller arch reveal with a tympanum graphic.



Short and tall sections of the facade create a secondary rhythm that frames the building's silhouette. At the South end the elevation terminates with a round section that leads towards Deansgate mews.



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Illustrative Elevation Render



Illuminated ground floor reveals and occupancy lighting help activate the ground floor.



The vertical faces between the columns are illuminated to create lightness and indicate the silhouette of the building vertically.

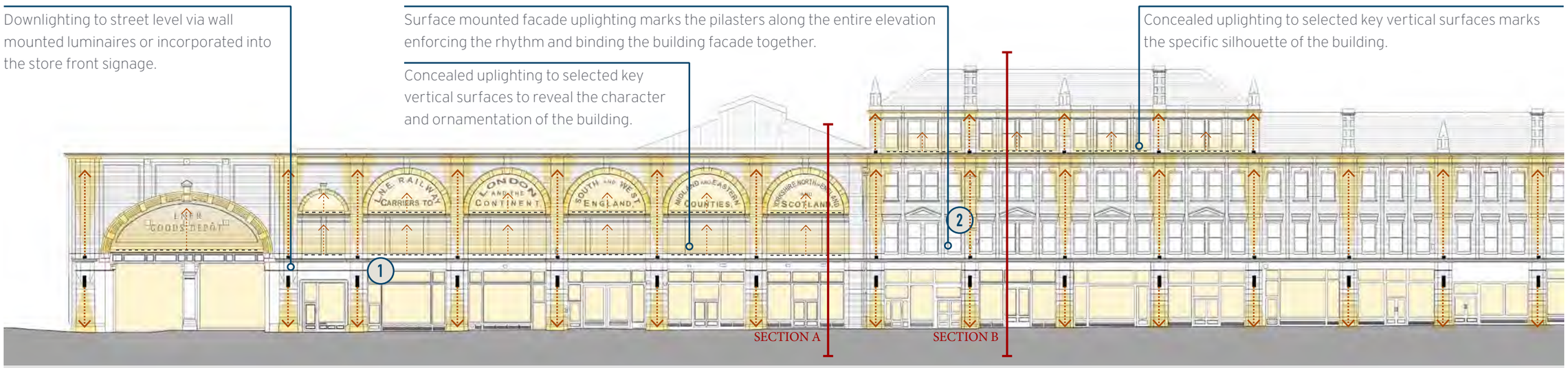


Rhythm through the lighting of the pilasters. Being a consistent element along the entire facade they would help read the elevation as a whole and would guide the sight along the street.

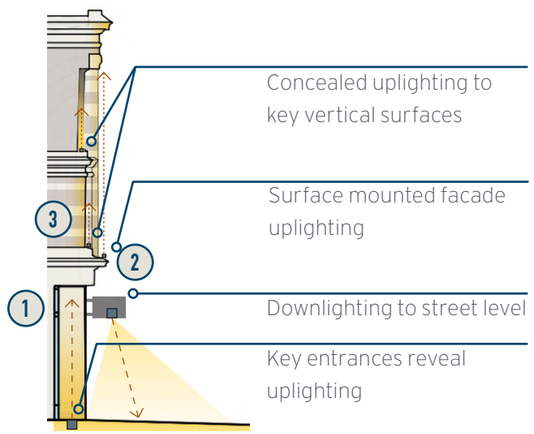
Lighting Objectives

The proposed lighting design strategy aims to create a unified silhouette of the facade that outlines the key characteristics of the architecture and highlights selected signage and ornamentation.

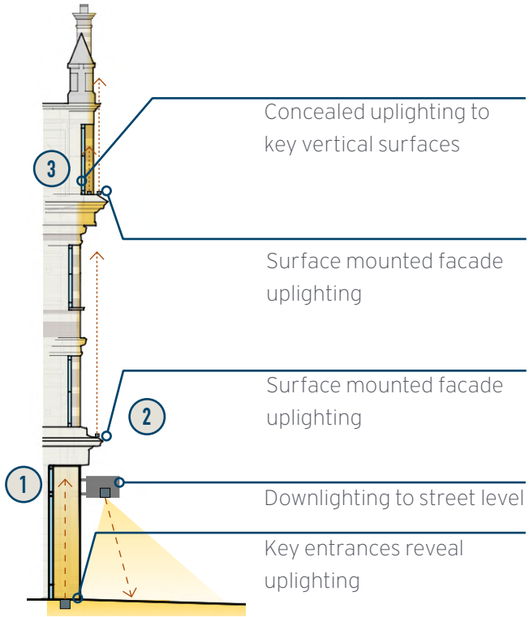
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Illustrative Elevation Render



Illustrative Section A



Illustrative Section B

Lighting Design Intent

In order to visually unify the building's elevation the scheme suggest the use of discrete uplighting aimed at the pilasters that frame the facade bays. These elements consistently appear along the entire elevation and create the primary rhythm of the facade.

Using luminaires with precise oval shaped narrow optics would help control any light spill. Their effect would be picked up by the overhanging cornice decoration framing the crown of the building.

In line with these uplights signage integrated downlighting will support street light levels in front of the retail units without adding visual clutter.

The secondary rhythm of Deansgate Terraces Victorian facade consisting of the larger 3- and 4-floor tall sections is expressed through softly illuminating the additional level.

On the northern side of the West facade the building is decorated with arches and metal detailing which is highlighted using discrete grazing details at the bottom of each arch.

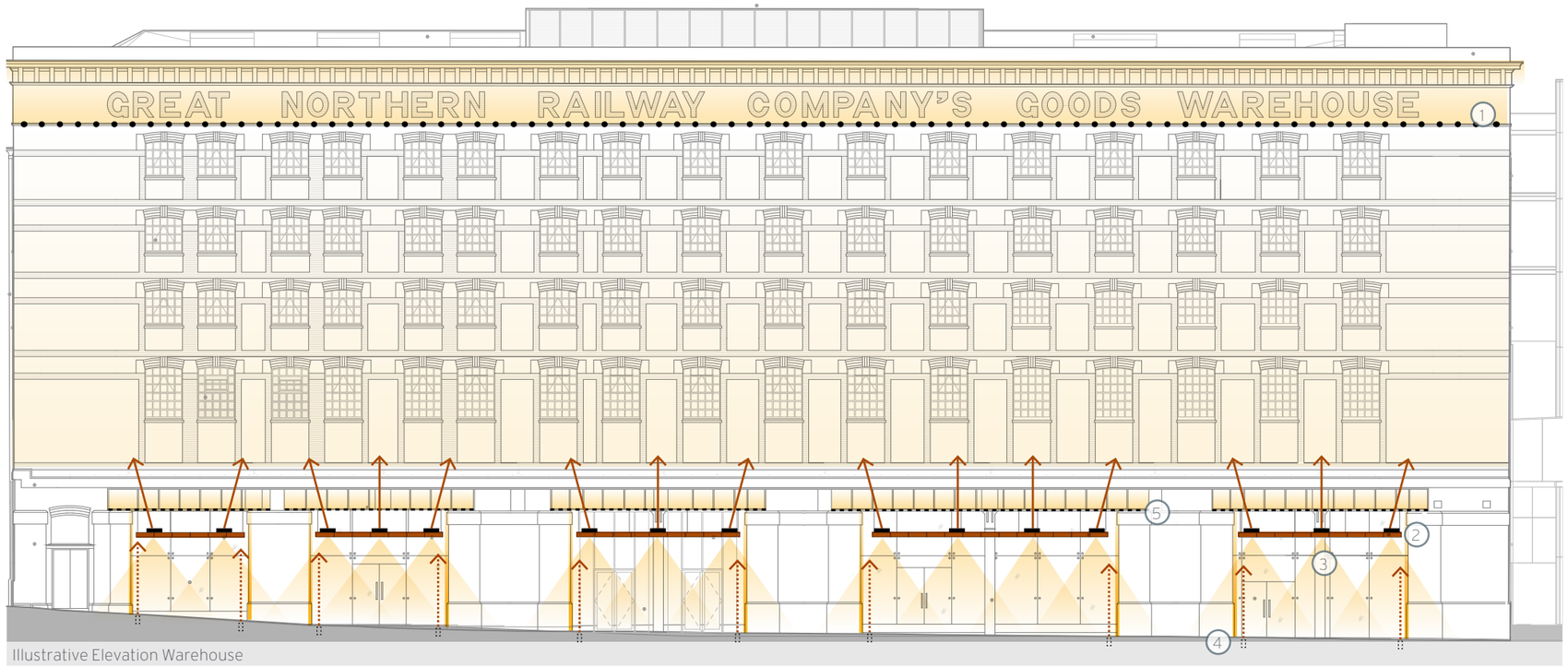
Similar to the Warehouse the key entrance connection to the new Alport and Dean streets is marked by reveal uplighting that draws views and visitors in towards the newly developed public realm spaces inside.

All facade details will be developed to reuse existing fixing point locations where possible or apply a non-intrusive method of installation to preserve the facade's integrity. All details will be concealed from view or will discretely blend in with the facade.

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3. Lighting Solutions

3.1 Product Palette



Illustrative Elevation Warehouse



Illustrative Elevation Deansgate

1



Miniature modular LED fitting

2700K CCT, min CRI80
~500lm/m; 4W/m, dimmable

2



Soft LED floodlight with high quality optics and glare reducing accessories

2700K CCT, min CRI80
750lm; 12W, dimmable

3



Low glare downlights integrated into canopy design

3000K CCT, min CRI90
800lm; 13W, dimmable

4



In-ground uplight

2700K CCT, min CRI90
500lm; 7W, dimmable with narrow beam distribution

5



Linear LED luminaire to be integrated in lighting details

2700K CCT, min CRI90
300lm/m; 10W/m, dimmable

6



Discrete uplight

2700K CCT, min CRI90
500lm; 7W, dimmable with wide elliptical beam

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Inspiring Light

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