

7.2 1&3 Station Row (S6&S7)

1&3 STATION ROW (S6&S7) PROJECT OVERVIEW



VISION

The brief for 1&3 Station Row is to provide two modern, sustainable commercial science buildings that extend the existing commercial development of Cambridge Square, while supporting the wider masterplan as it develops to the north. To this end a number of key principles were identified at the outset as being significant design drivers. These included:

- The importance of the buildings on the eastern edge of the masterplan.
- The buildings as the composition of two new streets and link passages.
- A strong sense of materiality to complement the masterplan.
- Windows rather than curtain walls to provide an appropriate 'human scale' experience.

CONTEXT

These design principles reflect a wider trend in urban laboratories, which call for a more responsive and considered attitude to the building's environment. These include:

- The trend in commercial science buildings to be part of communities.
- A holistic approach to sustainability.
- Market desire for flexible/collaboration space.
- Class leading laboratory specification with added amenities.



Illustrative view of 1&3 Station Row looking north up Station Row.

1&3 STATION ROW (S6&S7) PROJECT OVERVIEW

LOCAL CONTEXT

1&3 Station Row have been designed to reflect and enhance the local context, with particular reference to the following:

- The accompanying masterplan design principles.
- The emerging built environment, particularly in how it relates to the eastern edge, the railway and the Fen landscape beyond.
- The emerging design for future development to the north.
- The existing and proposed landscaping and public urban environment, as detailed in this document.

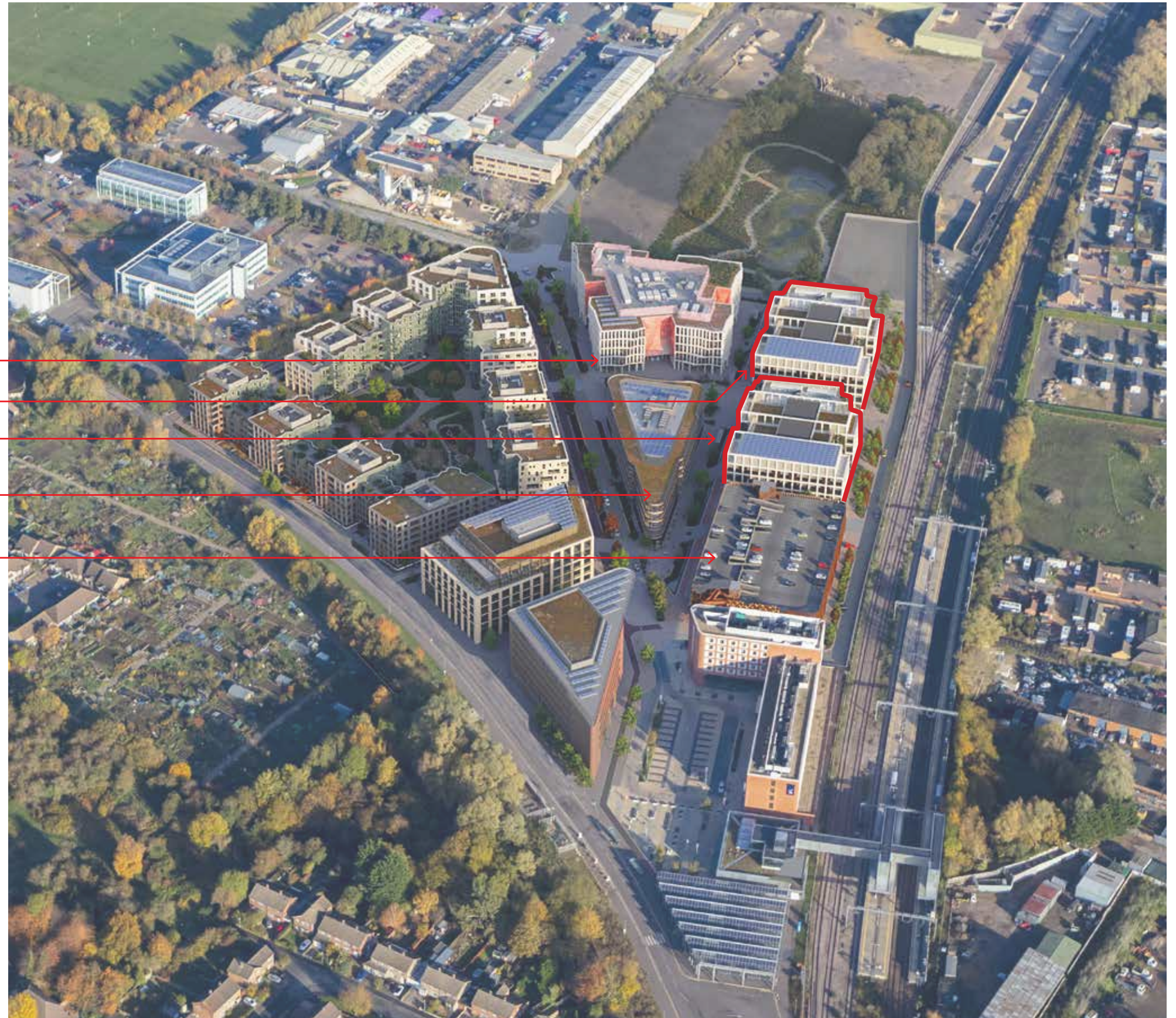
Future office/laboratory (S9)

3 Station Row (S7)

1 Station Row (S6)

Future office/laboratory

Mobility Hub (S5)



Illustrative view of 3 Station Row looking south.

Illustrative aerial view of the masterplan showing 1&3 Station Row in context.

1&3 STATION ROW (S6&S7) PROJECT OVERVIEW



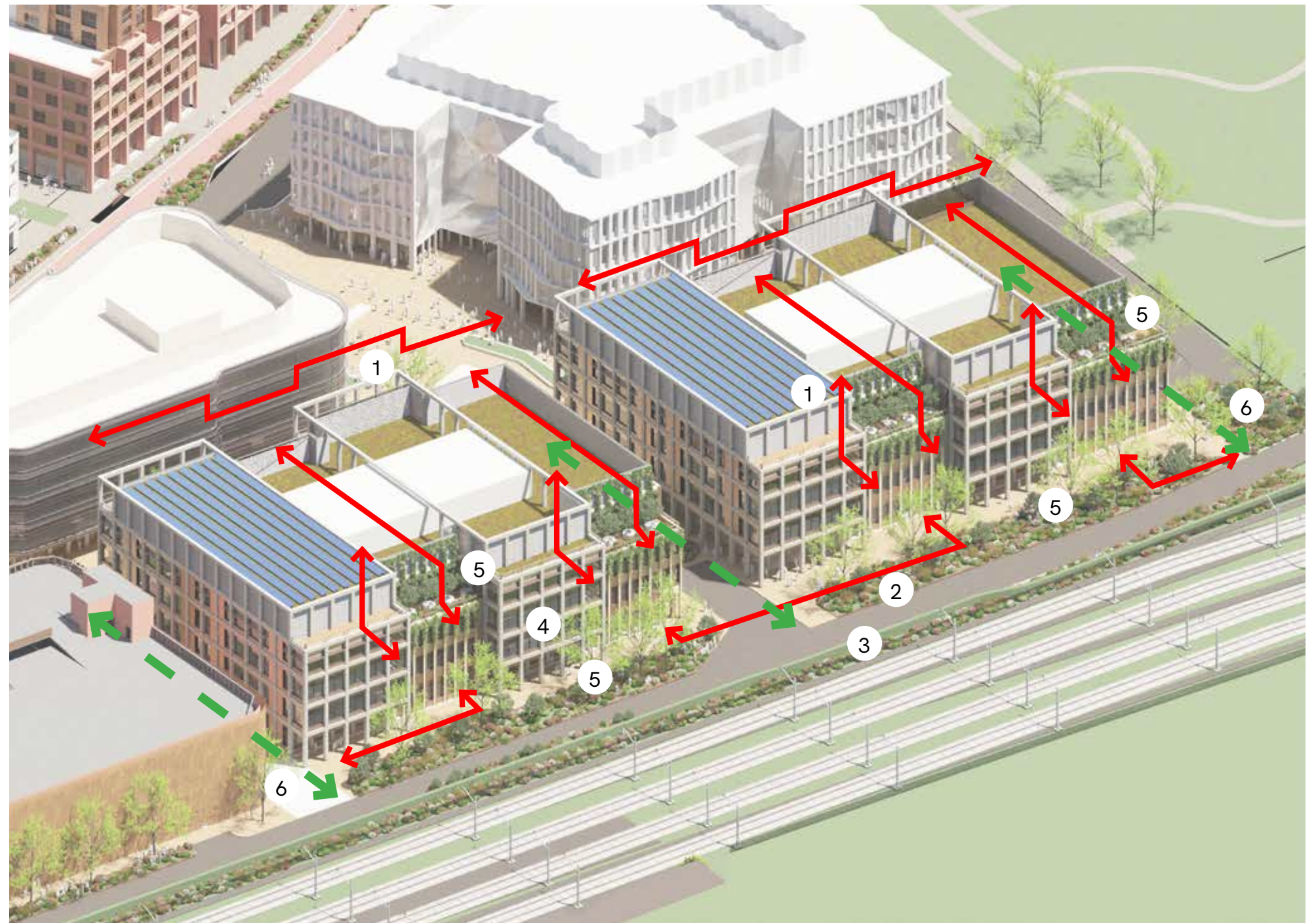
TOWNSCAPE

The design of 1&3 Station Row, and the development of the masterplan in general, has sought to respond positively to the key townscape principles as defined in the *North East Cambridge, Landscape, Character and Visual Impact Appraisal*, as referred to in the *Draft Area Action Plan*. This is demonstrated in the following:

1. The roofline is articulated through significant changes in plane, height and building materials across the facades of S6 and S7. The architectural fingers further break down the building mass.
2. Variable setbacks exist across the articulated facade of both S6 and S7. The buildings step both in plan and in elevation.
3. The setback of the facade line behind Cowley Road (south) to the eastern edge ensures a low-level boundary between the site and the railway, rather than a more obtrusive barrier, with significant greening softening the eastern edge.
4. A similar palette enhances the character of the development and legibility of the site. A rhythm of vertical expression along the building's elevations help to break down the bulk while retaining a strong identity.
5. Areas for landscaped planting have been identified both at street and terrace level, with generous greening opportunities provided to the eastern edge specifically.
6. Dividing the site into legible building plots creates green links that can be appropriately landscaped.

The sensitive eastern edge has been carefully considered with regards to the areas of landscape focus and the architectural treatment of the edge.

All these have been considered to avoid an abrupt transition between development, railway line and countryside beyond.



Illustrative axonometric of 1&3 Station Row showing key design principles.

1&3 STATION ROW (S6&S7) PROJECT OVERVIEW



TOWNSCAPE

One key townscape principle, as defined in the *North East Cambridge, Landscape, Character and Visual Impact Appraisal*, concerns the impact on the eastern edge.

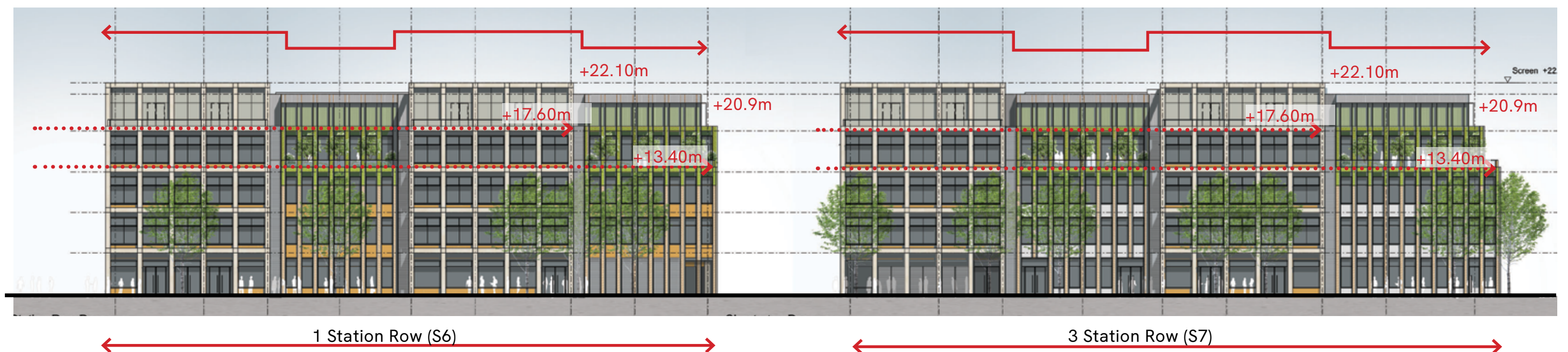
Through significant study, an articulated approach of the building form, behind a softened and landscape edge, has been adopted. This includes:

- Articulated fingers with heights corresponding to the laboratory MEP plant strategy.
- A stepping in plan between S6 and S7 to enable significant and varied landscaping to soften the eastern edge.
- Greening of terraces to further break down the mass and material bulk of the buildings.
- A change in material colour on the eastern terraces to further provide a visual contrast throughout the year, regardless of the planting.

Terraces on level 4 →
Terraces on level 3 →
Screening trees →



Early model of 1&3 Station Row showing the articulated roofscape and terraces facing east.



Elevation facing east along Cowley Road South with green glazed brick terraces on level 3

1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT

PROPOSED FORM AND MASSING

The form and mass of 1&3 Station Row have been developed through the pre-application consultation period to reflect the wider masterplan principles. Key amendments include:

- The stepping in plan and section to mediate between the triangle site, the eastern edge and the Fen landscape beyond.
- The stepping out of both 1&3 Station Row from the line of the mobility hub makes the entrances and building frontages legible when viewed along Station Row.
- The articulated roofscape provides multiple terrace levels, allowing light and views of the sky while also providing multilevel external amenity space for the occupiers.
- The considerable MEP plant associated with the laboratories is entirely screened behind a continuation of the articulated facades, and has been considered as part of the overall composition.
- The bulk and scale have been broken down through a sense of rhythm and street frontage, with the buildings perceived as a terraced row rather than two singular elements.



Illustrative view of Station Row looking north with 1 Station Row in the foreground.



Junction of Station Row Passage and Cowley Road South.



Junction of Cowley Road and Station Row.

1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT

DESIGN EVOLUTION

The accompanying illustrations demonstrate the design development, focusing on the impact along the eastern edge. These significant enhancements include:

- The development of the architecture/materiality to enhance the identity as a series of distinct 'fingers'.
- Inset entrances to improve legibility along Station Row.
- Alternating grids between the different building blocks, enhanced through different material selection.
- Setback terraces to break down the building form.
- Reduction in height along the eastern edge, particularly to S7 and its prominent aspect from the north-east.

In addition, the stepping of the building plots has allowed significant landscaping to be developed in meaningful clusters along the railway line, softening the visual impact from both near and far.



Early render with limited material palette.



Early render with metal infills.



Early massing with additional storey to 3 Station Row – ground plus 5 storeys.

1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



FURTHER DEVELOPMENT OF THE EASTERN EDGE

Following the workshop on 12 May 2022, the team reviewed the impact of adjusting the height of the fingers in line with the variables discussed. The purpose of the exercise was to demonstrate whether greater height differentiation between the elements would have a positive impact.

To summarise, eight options were suggested based on three different variables. The three variables were:

How far back should any additional height go?

Option A – limit the additional height just to grid line E in plan, ie closer to the eastern edge.

Option B – extend the additional height back in plan to grid line C, ie closer to Station Row.

How high should any architectural feature go?

Two options were explored:

Option A – an additional 500mm

Option B – an additional 1500mm

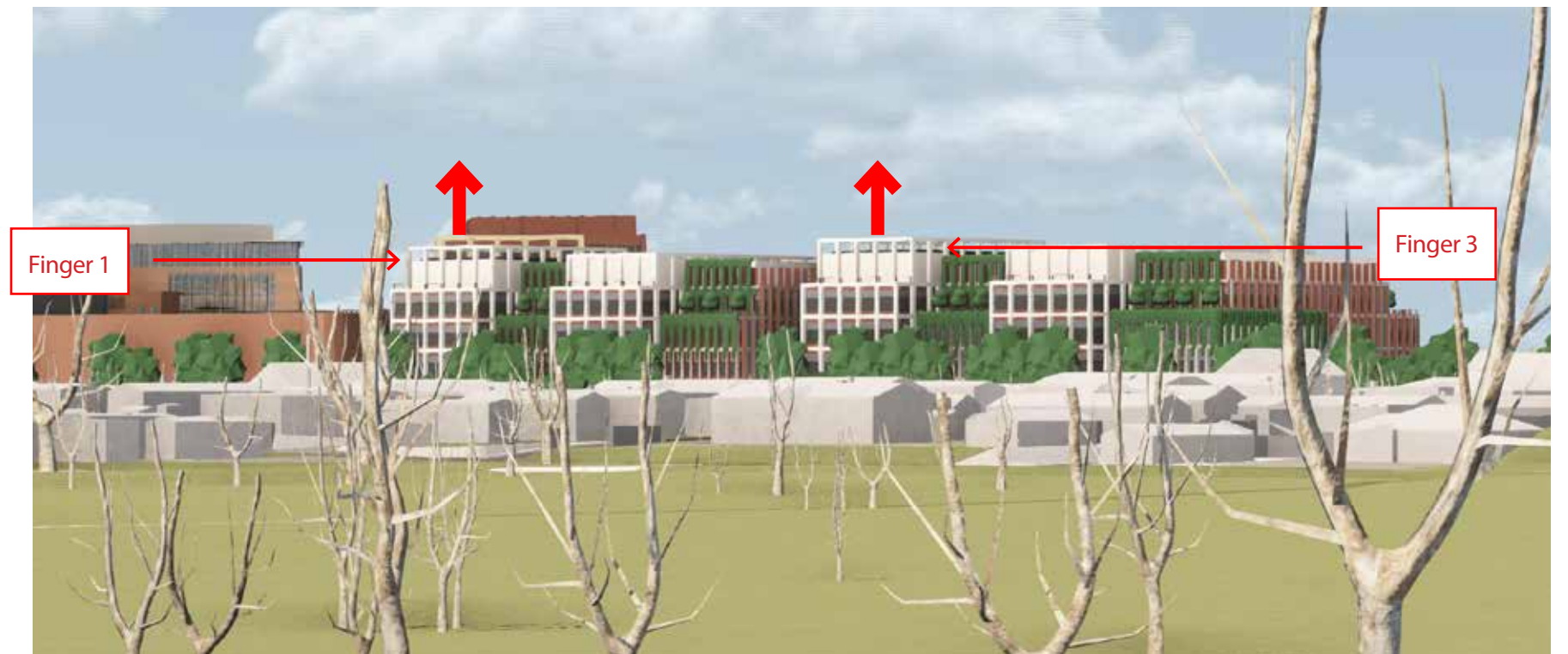
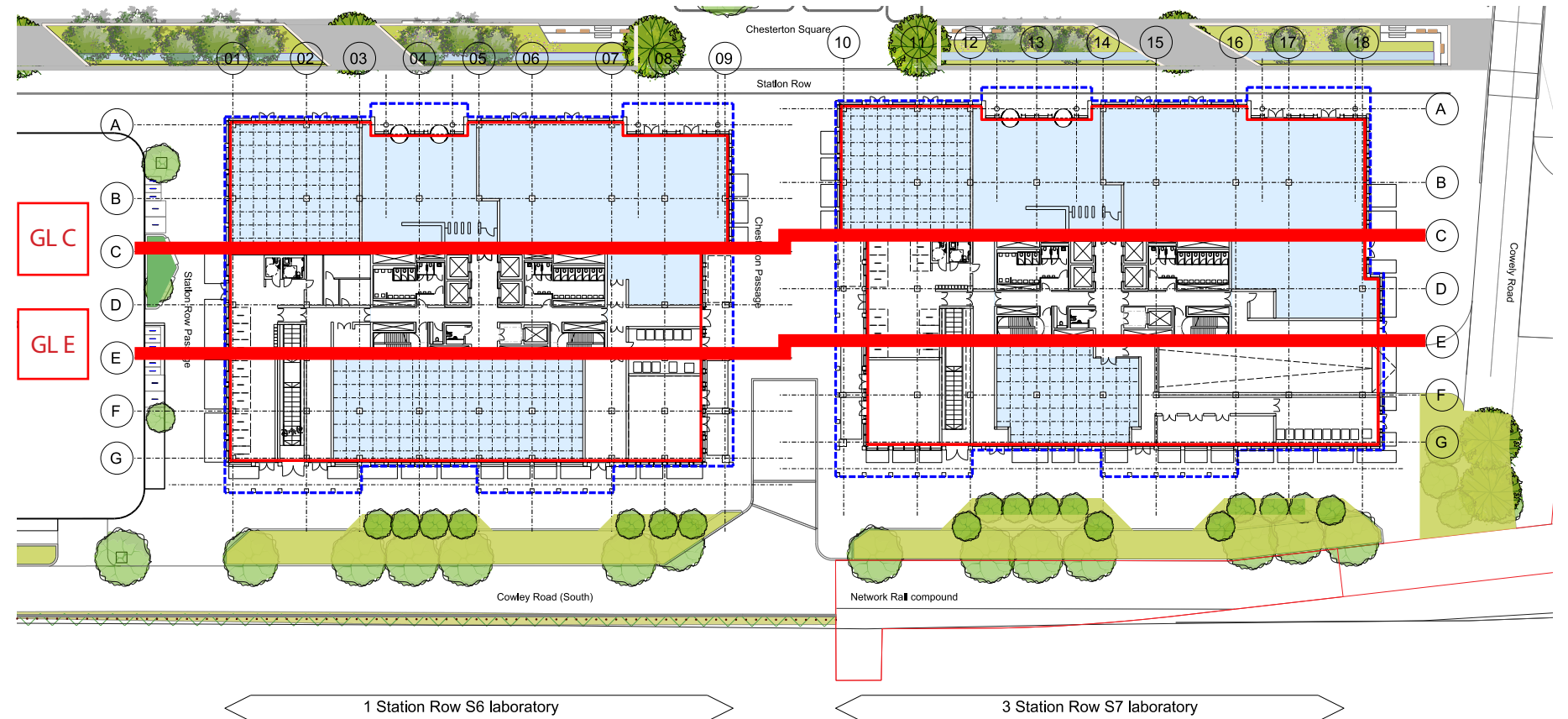
Any additional height was considered to be more akin to an additional storey.

Should any additional height be on all fingers?

Two options were explored:

Option A – increased height to extend across all fingers

Option B – increased height limited to fingers 1&3, ie the first element of each building, reading left to right.



1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



FURTHER DEVELOPMENT OF THE EASTERN EDGE

The eight options explored from key receptors with VuCity were as follows:

Option A (GL E)_500mm



Option A (GL E)_1500mm



Option A (GL E)_500mm fingers 1&3 only



Option A (GL E)_1500mm fingers 1&3 only



Option B (GL C)_500mm



Option B (GL C)_1500mm



Option B (GL C)_500mm fingers 1&3 only



Option B (GL C)_1500mm fingers 1&3 only



1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



VIEW 08 BASE POSITION

The eight options have been tested in the VuCity LVIA long view, as well as an indicative view from across the railway (Make render).



Screenshot of VuCity LVIA long view.

1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



VIEW 08 OPTION A 1500MM

Option A 1500mm is included in this report as this reflects the most visually significant change from the base position.



Screenshot of VuCity LVIA long view.

1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



VIEW 08 OPTION A 1500MM 1&3 FINGERS ONLY

The collective view of the team is that from the long view, the amendments in height are negligible and are not as successful as the greening in 'breaking up' the facade. To this end, it is believed that the greening, accompanied with the change in material to the terrace level of a glazed green brick behind, is more effective in creating greater articulation.



Screenshot of VuCity LVIA long view.

1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



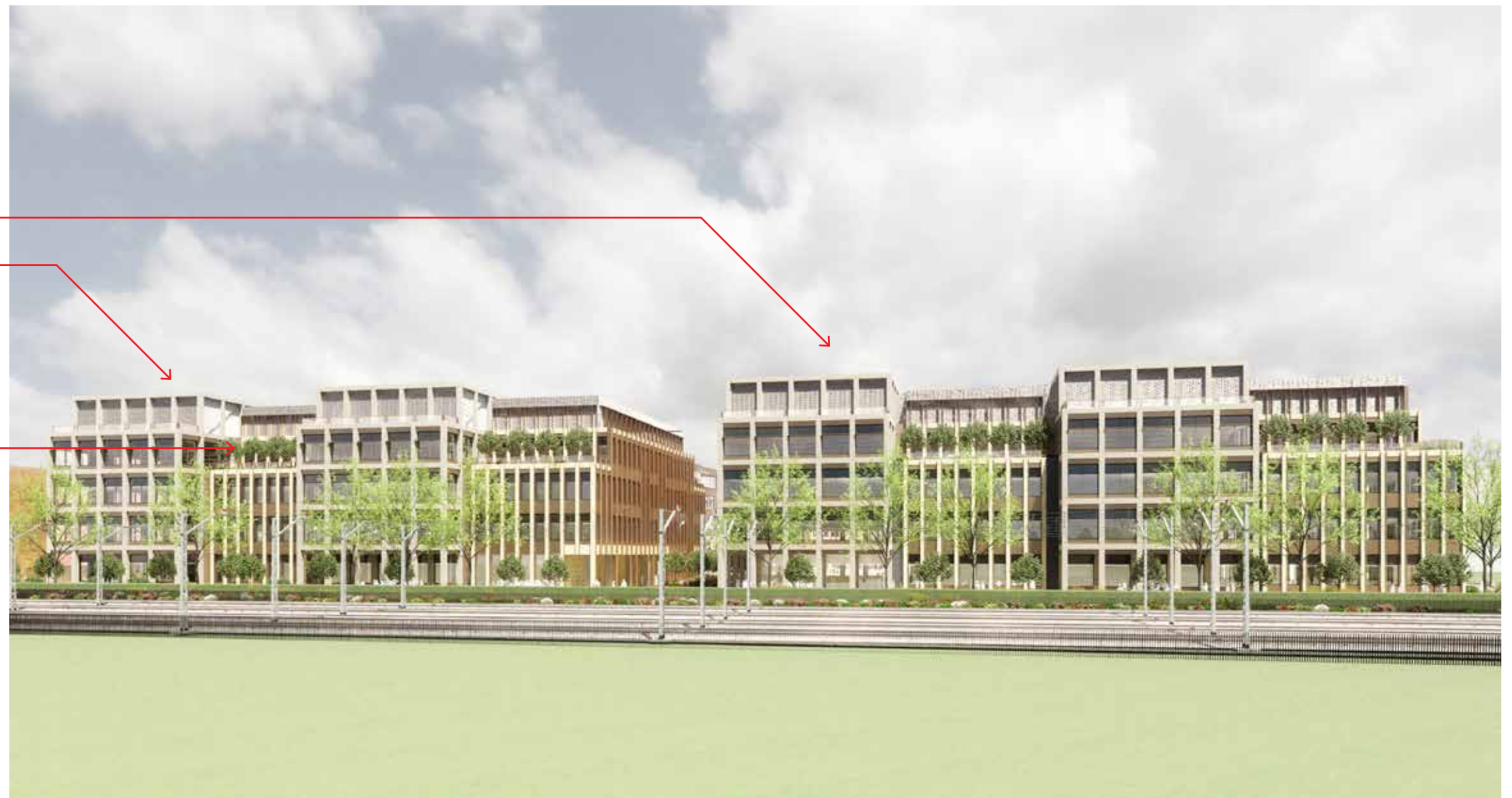
MAKE RENDER BASE POSITION – NO GREENERY

A closer view to view 08 was considered for the impact immediately adjacent to the railway.

3 Station Row (S7)

1 Station Row (S6)

No greening to terracing, either in material finish or landscaping, other than ornamental trees in planters.



Illustrative render from the eastern edge.

1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT

MAKE RENDER OPTION A 1500MM

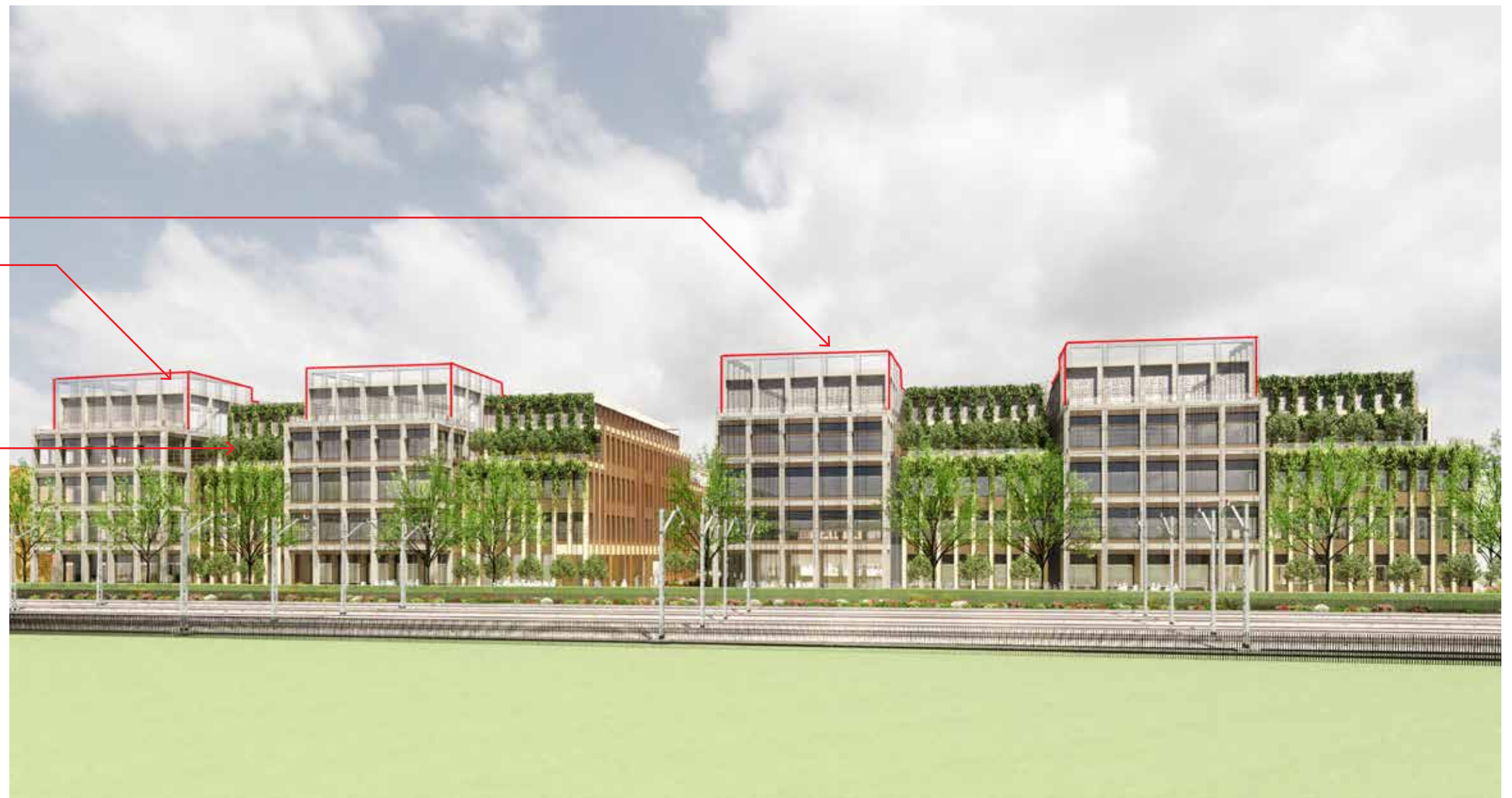
The collective view of the team with regards to the closer view, is that while the additional height is more noticeable, an already considerable amount of articulation exists from this distance. Indeed, any additional height could be seen as being detrimental, especially to residents who live adjacent to the railway.

3 Station Row (S7)

1 Station Row (S6)

Significant greening to terracing, both in material finish and landscaping.

Including small shrubs at terrace edges with cascading habit in raised planters. Climbing plants include vines (70% evergreen) tied to steel cables that help them grow on the facade in raised planters.



Illustrative render from the eastern edge with additional height option outlined in red.

1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



ILLUSTRATIVE MAKE RENDER WITH ADDITIONAL TERRACED PLANTING SHOWN



1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



**ILLUSTRATIVE MAKE RENDER WITH HANGING/CLIMBING PLANTING REMOVED
TO SHOW THE IMPACT OF THE GLAZED GREEN BRICK FACADE**



1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



ILLUSTRATIVE MAKE RENDER WITH ADDITIONAL TERRACED PLANTING SHOWN



1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



**ILLUSTRATIVE MAKE RENDER WITH HANGING/CLIMBING PLANTING REMOVED
TO SHOW THE IMPACT OF THE GLAZED GREEN BRICK FACADE**



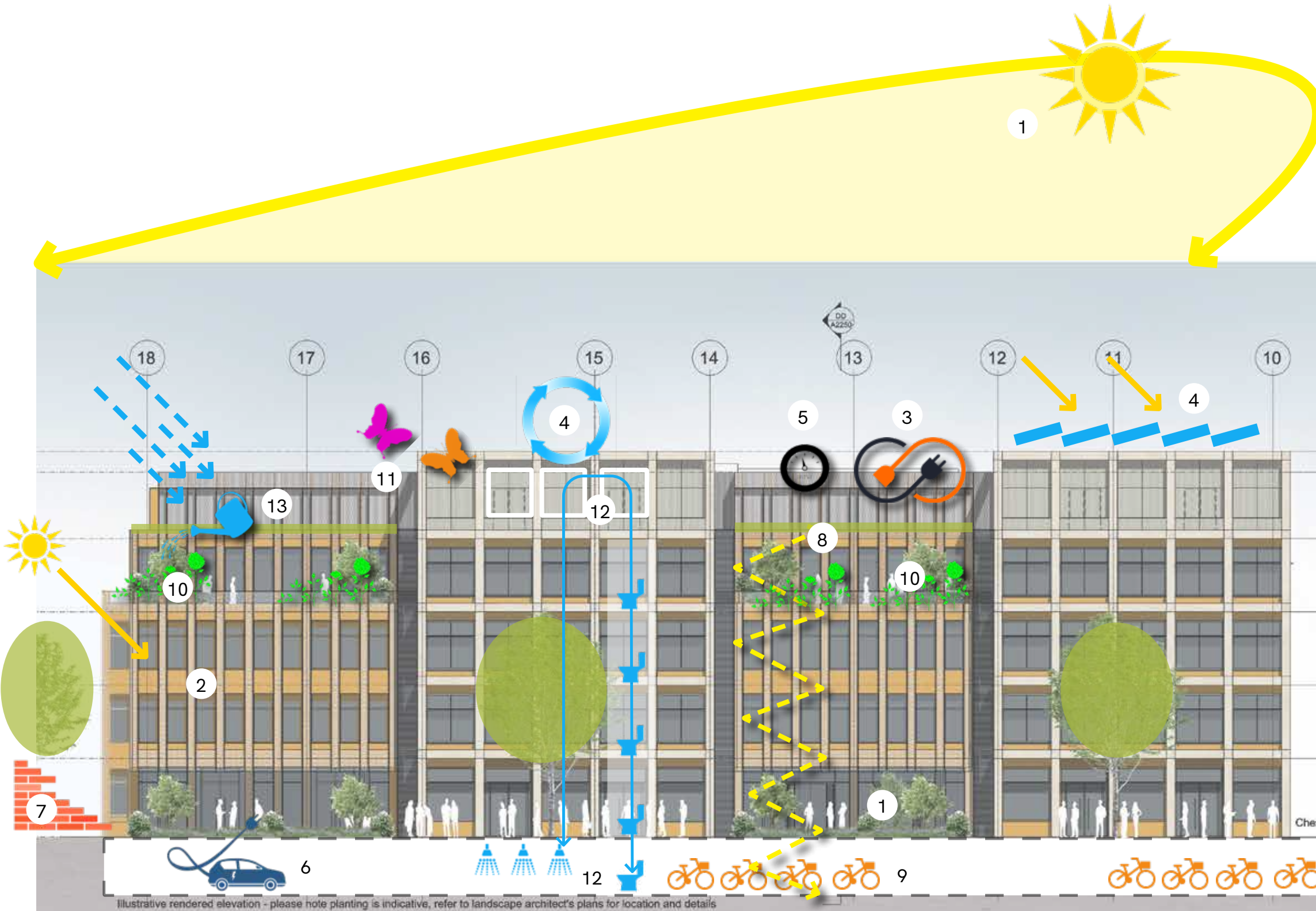
1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT

ENVIRONMENTAL ASSESSMENT

The environmental strategy has been developed in line with the *Cambridge North Sustainability Strategy* and the *Five Capitals* framework.

- Physical capital
- Social capital
- Economic capital
- Human capital
- Natural capital

1. The building's mass has been carefully considered to maximise the amount of natural shading through deep reveals, inset entrance areas and colonnaded pedestrian spaces.
2. The building fabric has been designed with a high thermal performance, the size and orientation of windows has been designed to minimise solar gain and heat loss.
3. Consideration of low and zero carbon technologies has led to the inclusion of an all-electric system.
4. Air source heat pumps and PVs provide renewable energy.
5. Smart meters record both energy and water usage.
6. Electric vehicle charging is included in the basement.
7. Risk assessed materials for robustness and resistance have been chosen to withstand environmental change due to climate change.
8. The primary staircase has been strategically positioned to promote an active lifestyle.
9. Sufficient cycle storage and changing facilities.
10. Green amenity roof.
11. Brown biodiverse roof.
12. Water efficiency has been increased through reduced flow rates in showers and WCs.
13. Rainwater recycling to be considered in detail design for irrigation.



Illustrative diagram of 3 Station Row (S7) highlighting key environmental principles. 1 Station Row (S6) follows an identical approach.

1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT



AREAS AND DISTRIBUTION OF USES

1&3 Station Row is comprised of the following uses and distribution of areas.

1 Station Row (S6)

Total GEA 11,407m²/122,784ft²
Excludes basement. Includes level 04 internal plant.
Total GIA 10,720m²/115,389ft²
Excludes basement. Includes level 04 internal plant.

Level 3 terrace 280m²/3,014ft²





3 Station Row (S7)

Total GEA 12,061m²/129,823ft²
Excludes basement. Includes level 04 internal plant.
Total GIA 11,345m²/122,116ft²
Excludes basement. Includes level 04 internal plant.

Level 3 terrace 336m²/3,617ft²

Combined basement

Total GEA 7,796m²/82,942ft²
Total GIA 7,392m²/79,567ft²
117 car parking spaces in basement.

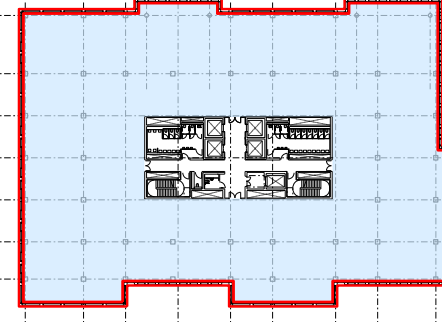
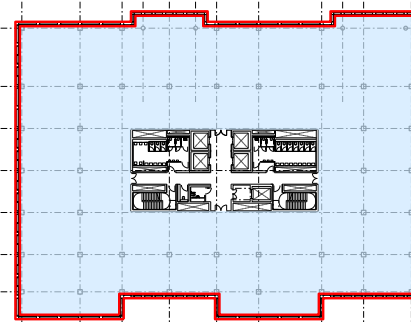
	LABORATORY TOTAL GIA	17,538m ² /188,777ft ²
	RECEPTION GIA	472m ² /5,081ft ²
	RETAIL GIA	1,168m ² /12,572ft ²
	FUTURE ACTIVATION SPACE	518m ² /5,576ft ²

1 Station Row S6

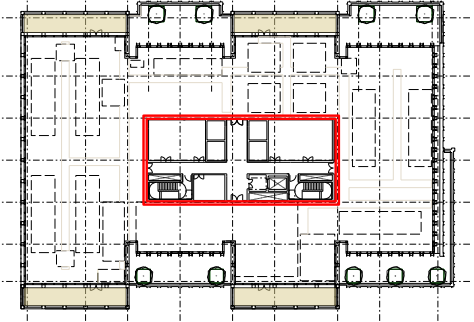
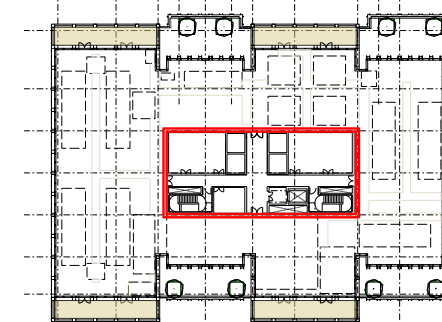
3 Station Row S7

1 Station Row S6

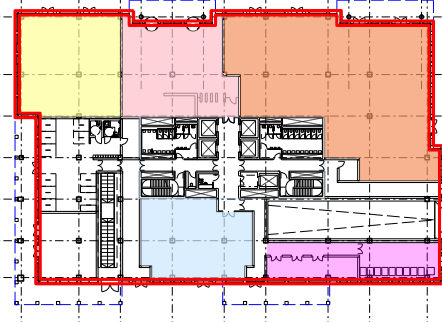
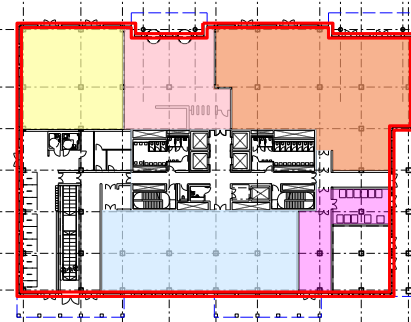
3 Station Row S7



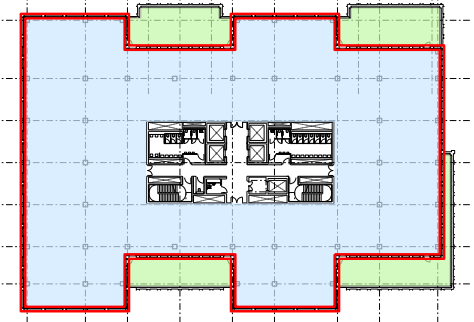
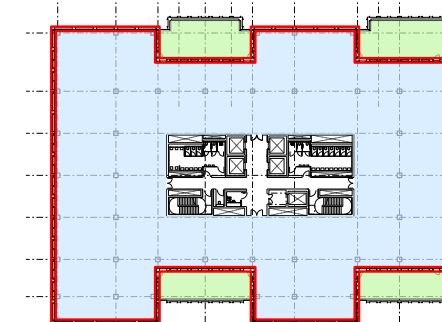
Level 01



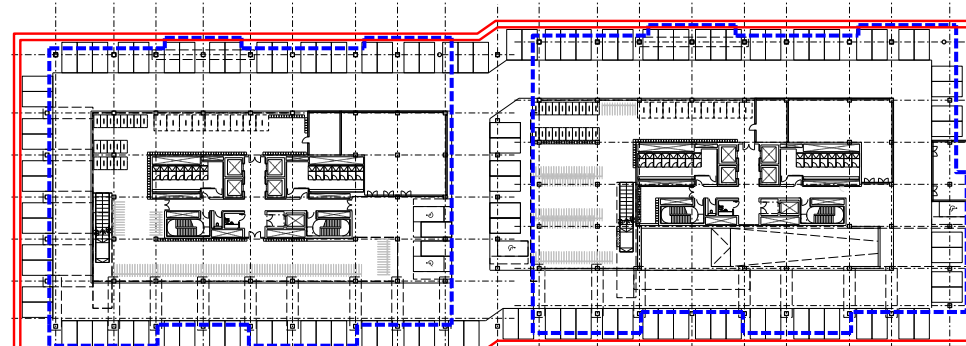
Roof level with biodiverse



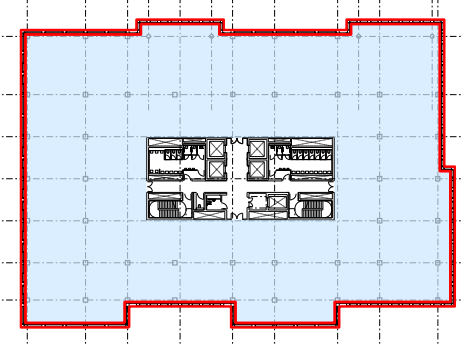
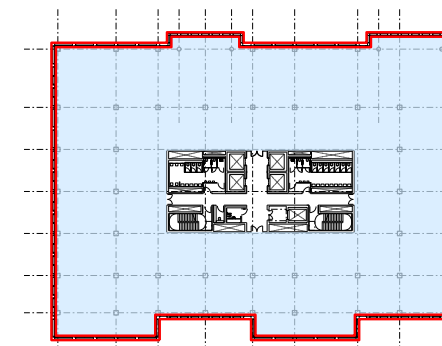
Ground floor



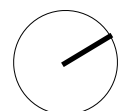
Level 03 with terrace



Combined basement



Level 02

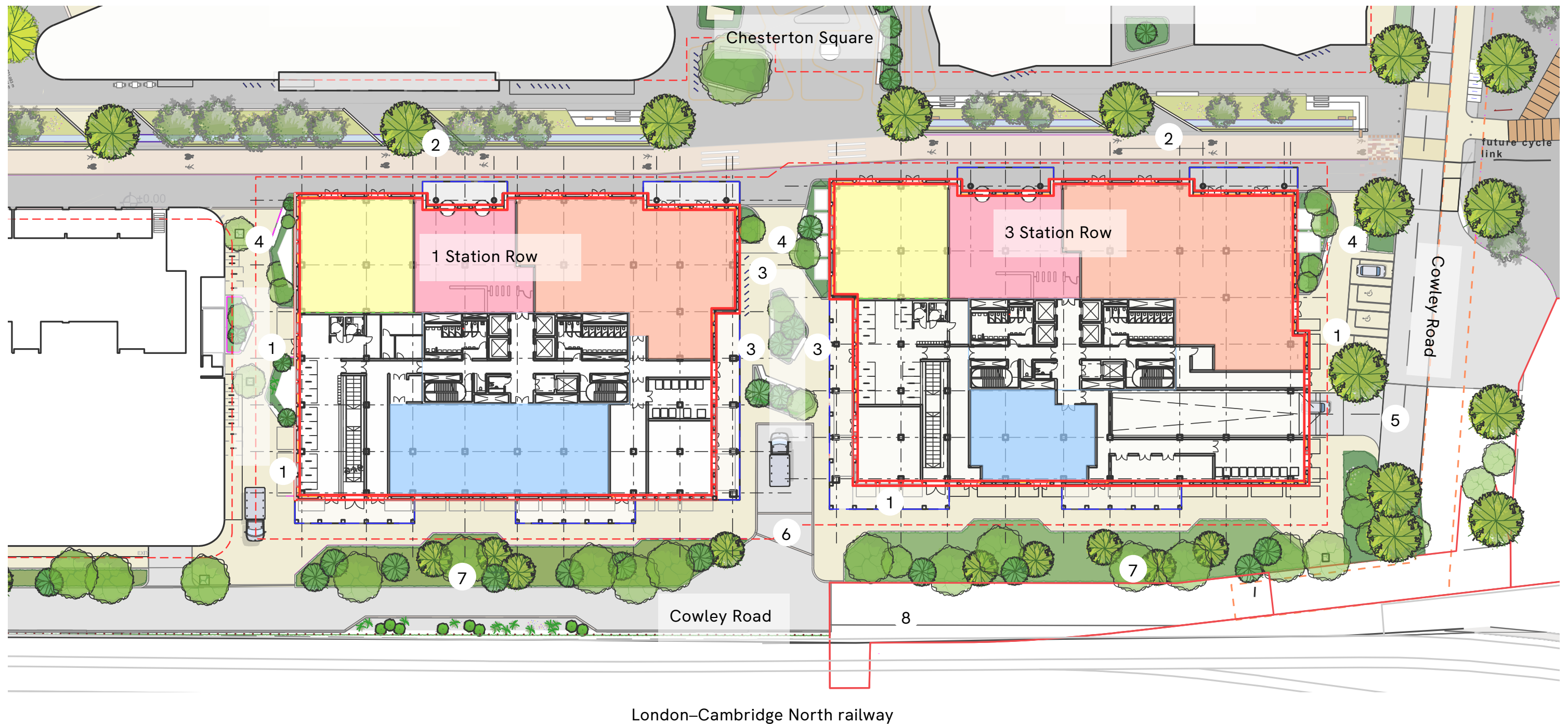
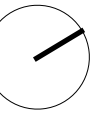


1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT

SITE PLAN AND LANDSCAPE

The landscape around 1&3 Station Row has been developed in collaboration with the key masterplan principles. Careful consideration has been given to ensure technical requirements, such as basement ventilation and building services, have been fully integrated into the respective character areas.

1. Perimeter floor ventilation grills around building perimeter provide basement ventilation.
2. 'Bridges' across at the swale at key pedestrian desire lines to main entrances.
3. Visitor cycle parking around perimeter.
4. Pocket parks and landscaped corridors.
5. Vehicle entrance to combined basement parking.
6. Shared delivery turning bay.
7. Significant line of screening trees between the pedestrian pathway and the road/railway.
8. Network Rail Compound maintained with access off Cowley Road.



1&3 STATION ROW (S6&S7) GENERAL ARRANGEMENT

COMBINED BASEMENT FLOOR PLAN

The combined basement level to 1&3 Station Row is a naturally ventilated space for both car and cycle parking.

It also contains cycle welfare facilities and plant space, and is served by the main cores.

1. Two-way vehicle ramp 1:10 with transitions
2. Cycle ramp 1:4 with landings

