

5 **Design proposals - Platform and canopy**

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Design proposals - Platform and canopy

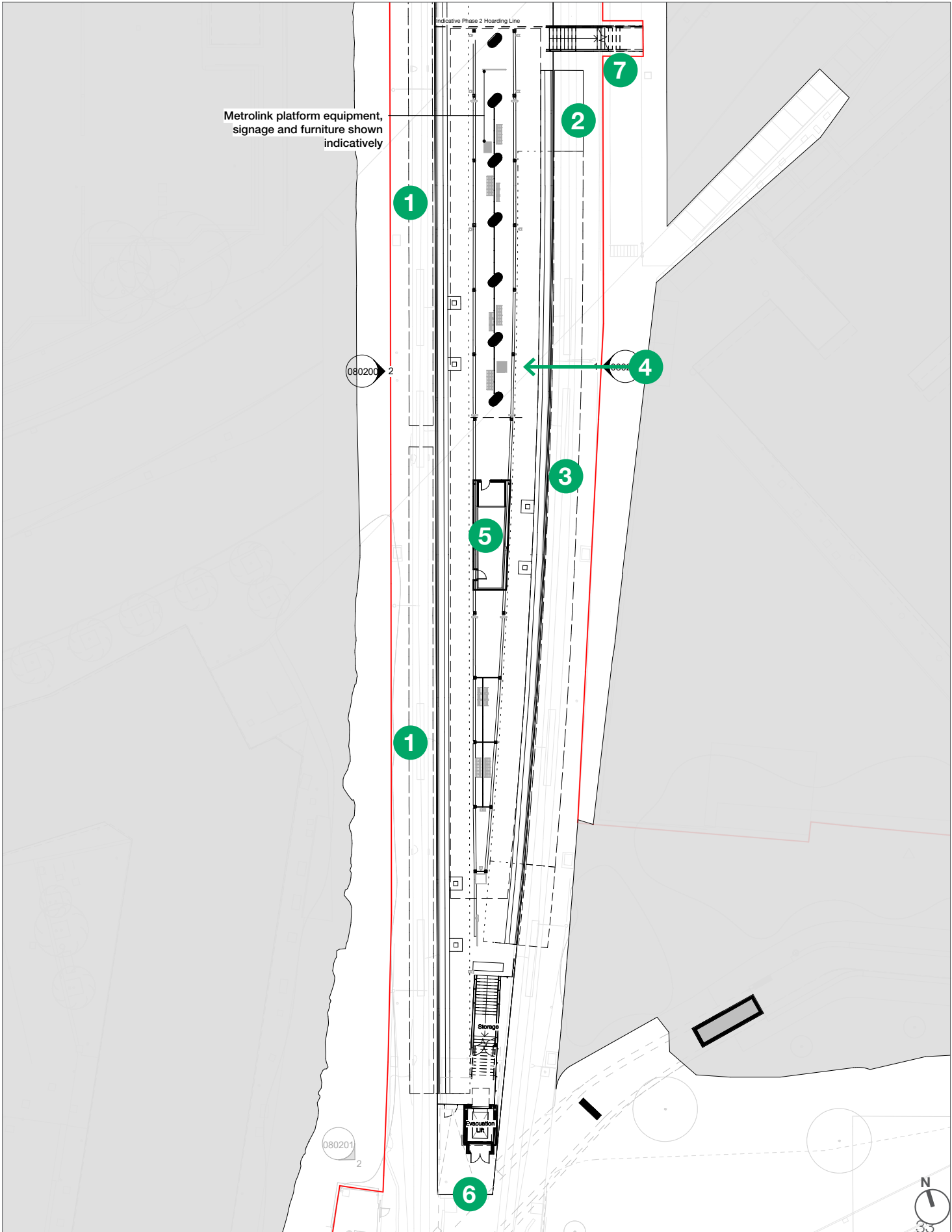
5.1

GA plan - Platform level

The upgrades to the platform environment will largely revolve around the finishes, and there is no intention to significantly change how the platform currently operates. Boarding areas have been defined for 1no. double tram to use the eastern platform, and 2no. double trams to the western platform.

Platform surface finishes will be replaced and upgraded with flat and tactile paving, with a neutral palette. New framed glazed screens are proposed to bays along the centre of the Platform, providing shelter for users and opportunity for signage and advertisement. Furniture and equipment layouts have been reviewed within the design stage and will be updated. Final positions will be refined through the details design stages with the specialist Light Rail consultant.

- 1
- Western platform and track to accommodate 2 no. 60m trams
- 2
- Eastern platform shortened to enable for improved vertical circulation (Phase 2 works)
- 3
- Eastern platform and track to accommodate 1 no. 76m tram
- 4
- Renewed platform surfaces, equipment, furniture, lighting and signage
- 5
- Stop Equipment Room (SER) retained with new plant-room extension and all wrapped in new envelope
- 6
- Proposed Southern crossing bridge
- 7
- Proposed Northern temporary stair



5

Design proposals - Platform and canopy

5.2

GA plan - Canopy level

The canopy combines solid and glazed sections across the length of the platform. Solid sections to the North are introduced as the canopy extends below Angouleme Way, so less open to natural light and more prone to dirt which would require a frequent cleaning regime. Glazing is introduced to the canopy covering further South, outside of the Angouleme Way footprint, creating a more open environment and user experience.

The canopy to the North stops at the proposed hoarding line for the construction of the Phase 2 work. The ambition is to extend the canopy further North to the vertical circulation structure within the Phase 2 design to create a continuous shelter from the future interchange.

- 1

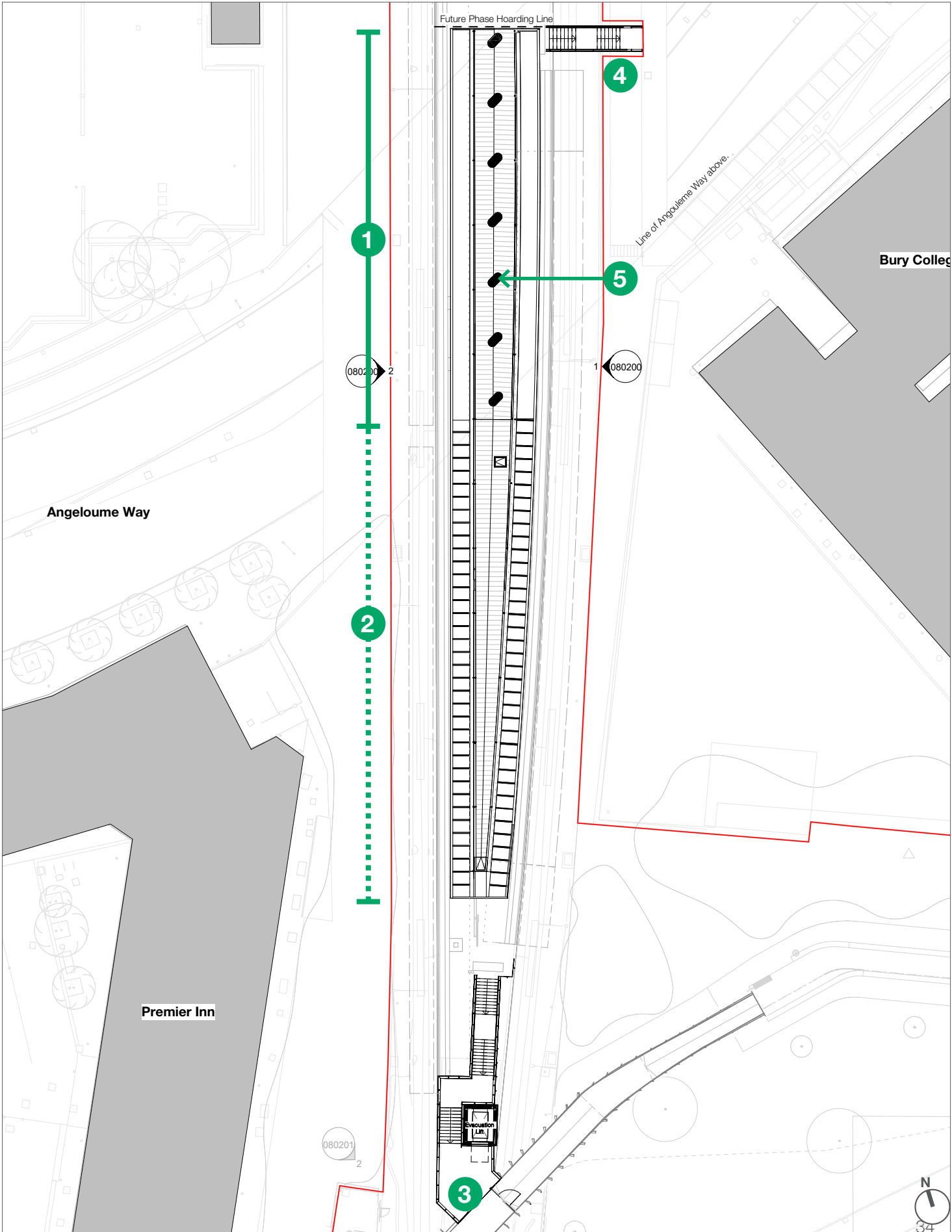
Renewed canopy covering with solid wings underneath Angouleme Way
- 2

Renewed canopy covering with glazed wings to southern end of canopy
- 3

Proposed Southern crossing bridge
- 4

Proposed Northern temporary stair
- 5

Existing columns supporting Angouleme Way



5

Design proposals - Platform and canopy

5.3

Canopy strategy

- 1

Aluminium Cladding Panel - Dark Grey PPC Finish
- 2

Aluminium Fascia Cladding Panel - Dark Grey PPC Finish
- 3

Perforated Aluminium Cladding Panel - Dark Grey PPC Finish
- 4

Metal Standing Seam Roof - Dark Grey
- 5

Metal Maintenance Access Walkway - Galvanised
- 6

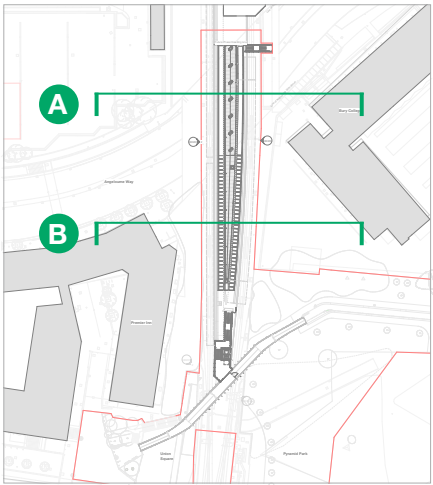
Recessed Lighting Unit
- 7

Paint to existing Bridge Column
- 8

Aluminium Cladding Panel Yellow PPC Finish
- 9

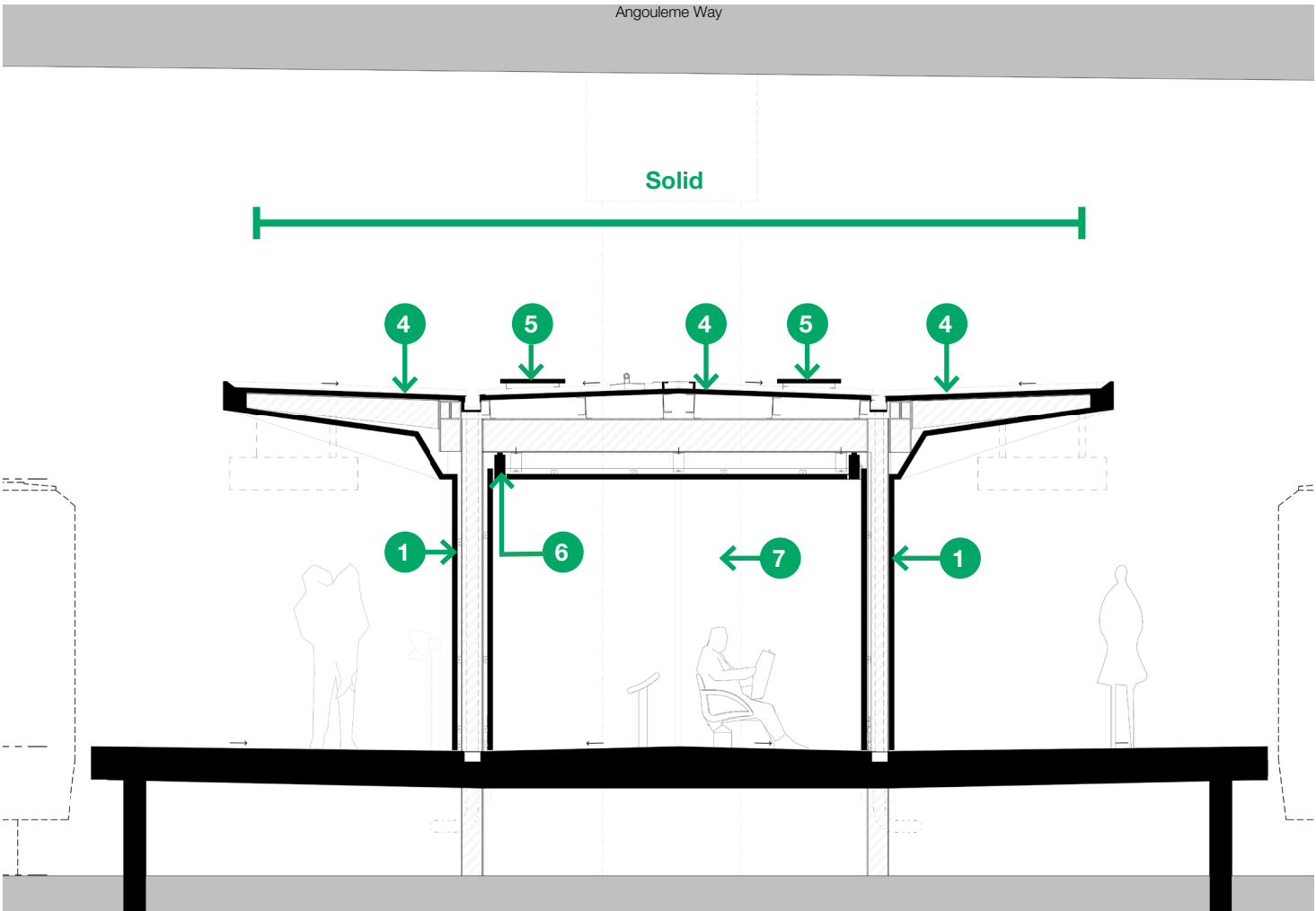
Glazed Canopy Covering - Clear
- 10

Glazed Screen with Metal Frame - Dark Grey PPC Finish



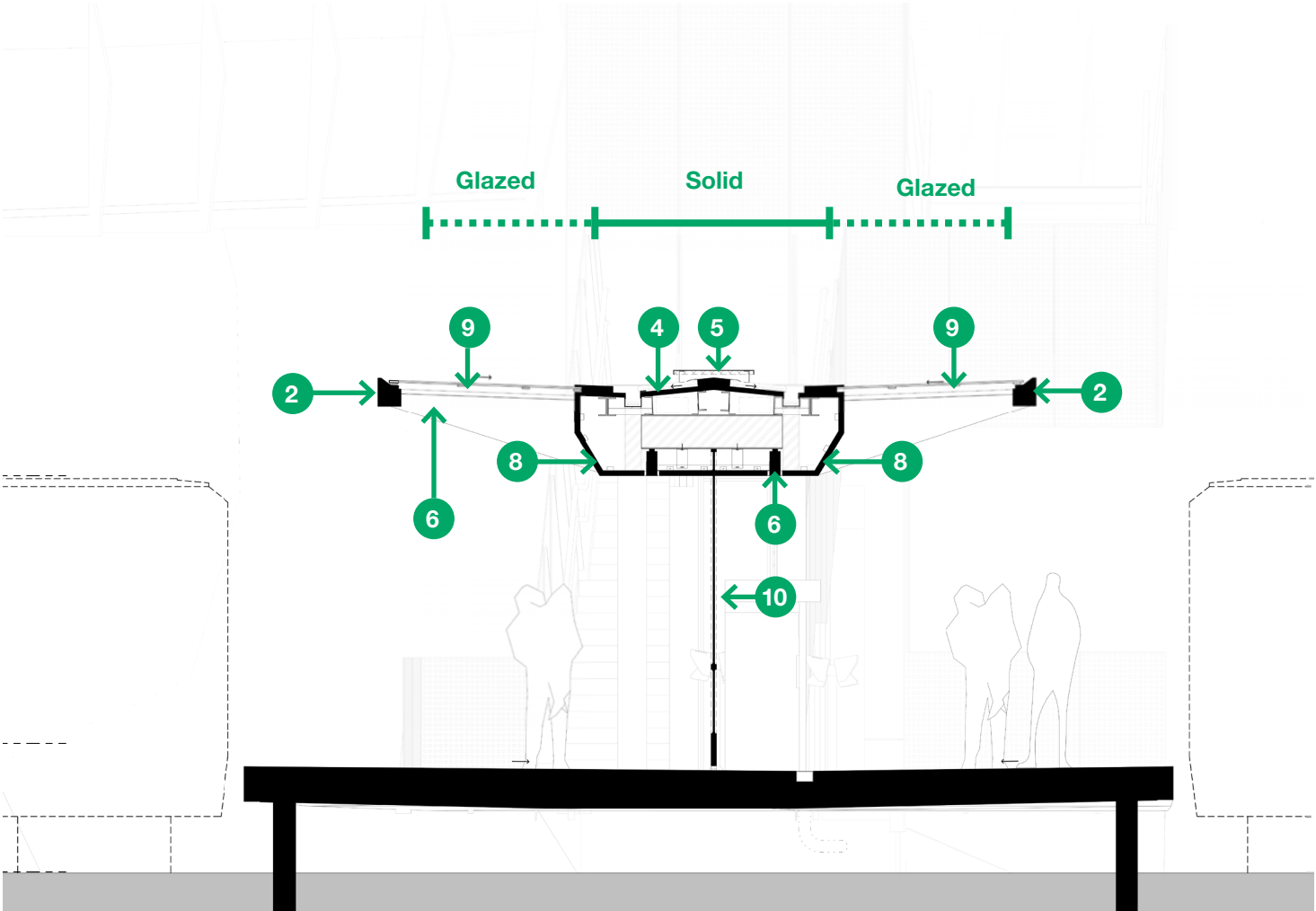
A

Solid Canopy
Renewed canopy covering with solid wings underneath Angouleme Way



B

Glazed Canopy
Renewed canopy covering with glazed wings to southern end of canopy



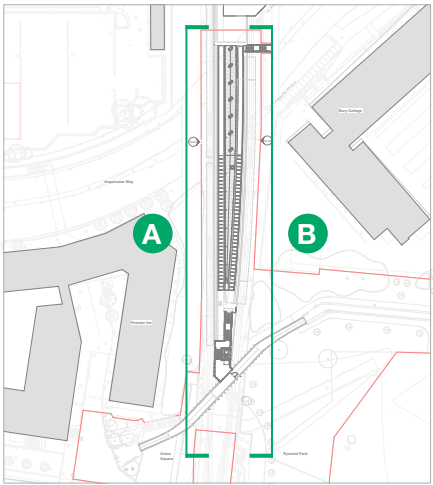
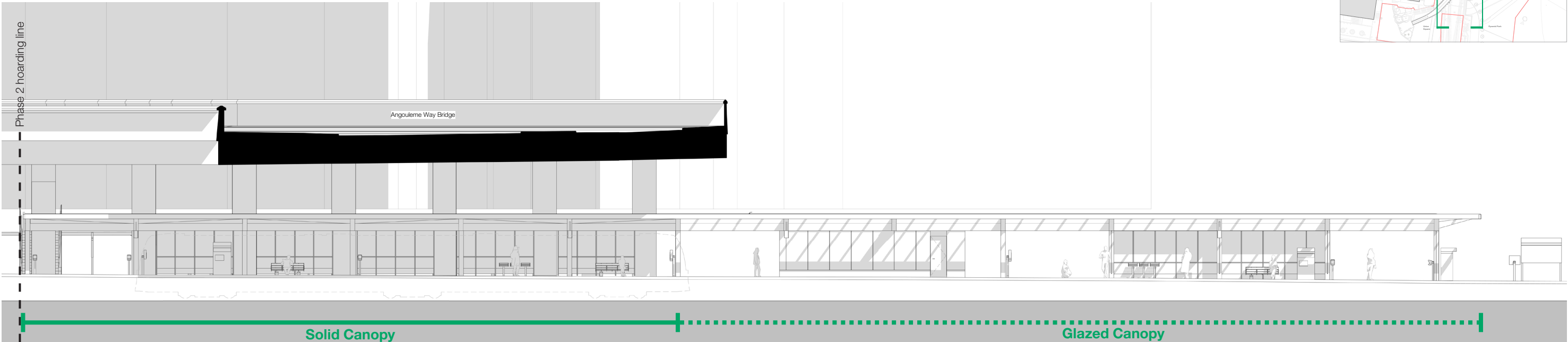
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Design proposals - Platform and canopy

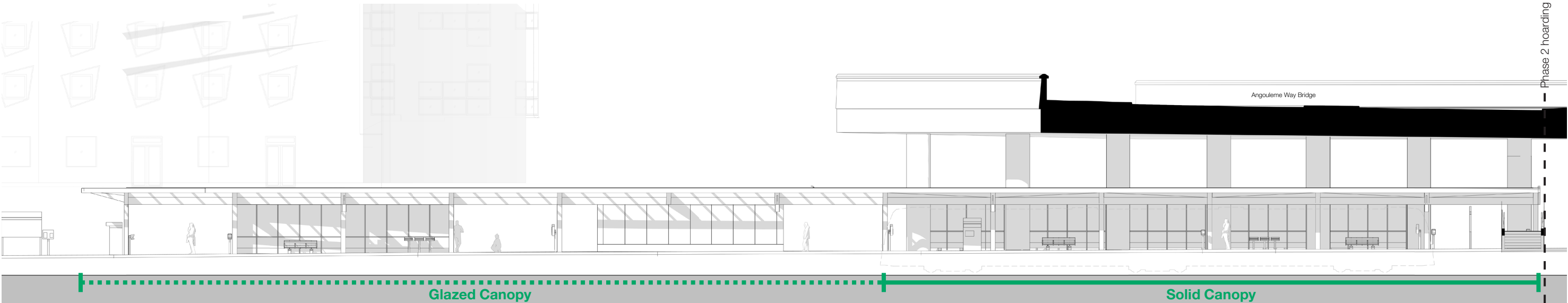
5.4

Proposed platform elevations

A Elevation Facing West



B Elevation Facing East



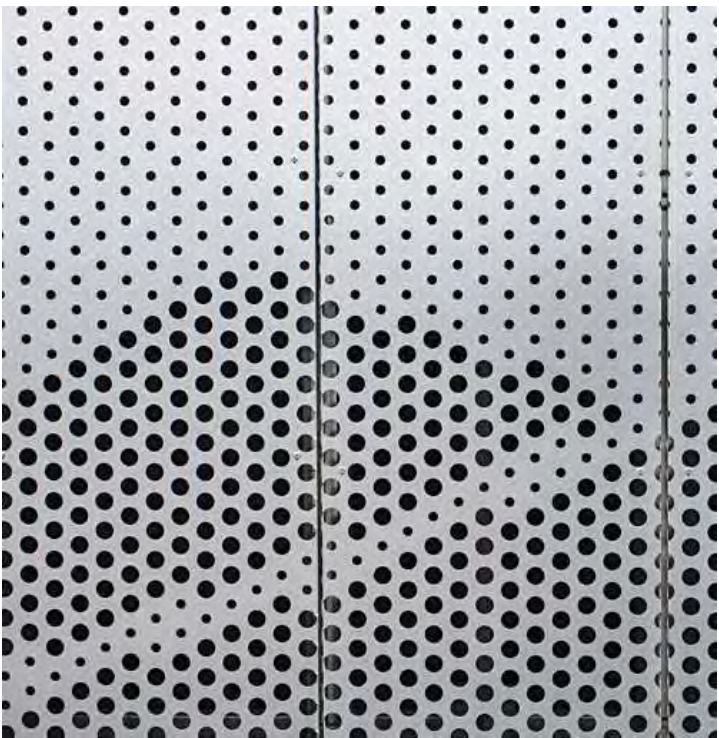
5 Design proposals - Platform and canopy

5.5 Materiality and tone

The design team have explored various options for the platform and canopy materiality. The technical nature of the platform environment supporting public transport operations brings with it various technical considerations including clear passenger signage and ticketing facilities, creating a safe and comfortable environment for passengers, alongside servicing and maintenance regimes. Within that, there was a desire to develop a canopy form that introduced a new architectural language that elevated the quality of the platforms, acknowledging this may be the first point of experience of Bury for users of the Metrolink, gives the platform it's own identity whilst also integrating into a wider network brand.

For the canopy structures a primary PPC metal finish with elements of glazing satisfies these requirements. Across the platform surface, concrete paving will be able to meet the technical requirements whilst also ensure a level of robustness and quality.

Elements of the branding and yellow colour, will integrate the platforms into the Metrolink identity.



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Design proposals - Platform and canopy

5.6

Bay study - North of platform

The upgrades to the platform and canopy aim to maintain the primary vertical and horizontal structure where possible. Trimming back and re-modifying the profile of the primary ‘wings’ creates more streamlined appearance and reduces the extent of canopy coverage. This improves openness and in turn reduces the use of materials.

We have introduced cladding, to the primary structure and soffit, to enhance visual appeal. A combination of glazed and solid panels repeat in the bay design, allowing for animation and articulation. Canopy wings are solid under Angouleme Way and are clad in PPC aluminium. This uses a combination of solid and perforated panels to provide variation and texture. Additionally, this ties into the language of the stair and bridge, which are also perforated in places. The depth to the edge of the canopy is reduced and recessed strip lighting is integrated into the soffit. Glazed screens with metal framing provide separation to the platforms, whilst allowing visual connection.

Coordinating platform equipment with the canopy will reduce clutter and improve functionality. Tactile paving and platform markings are upgraded. Opportunities for wayfinding to the platform areas will be tested with TfGM through the next design of stage.

- 1
- Aluminium Cladding Panel - Dark Grey PPC Finish

2

3

4

5

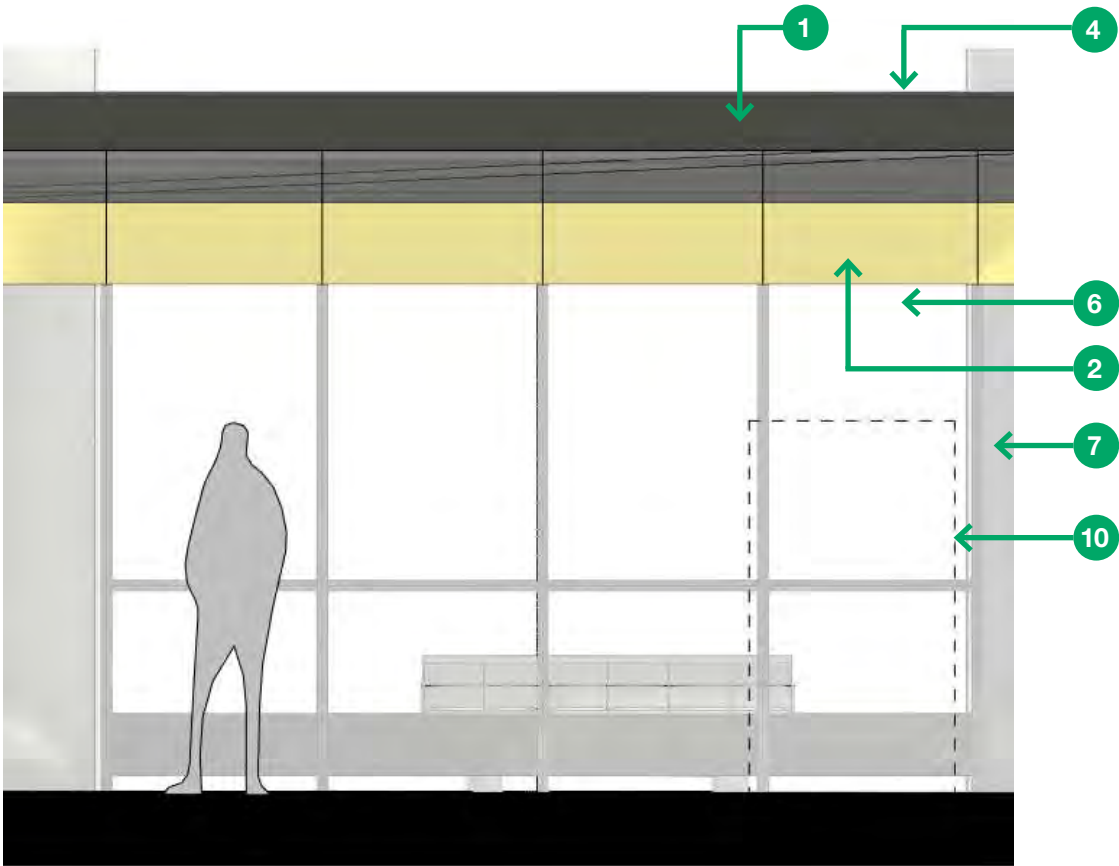
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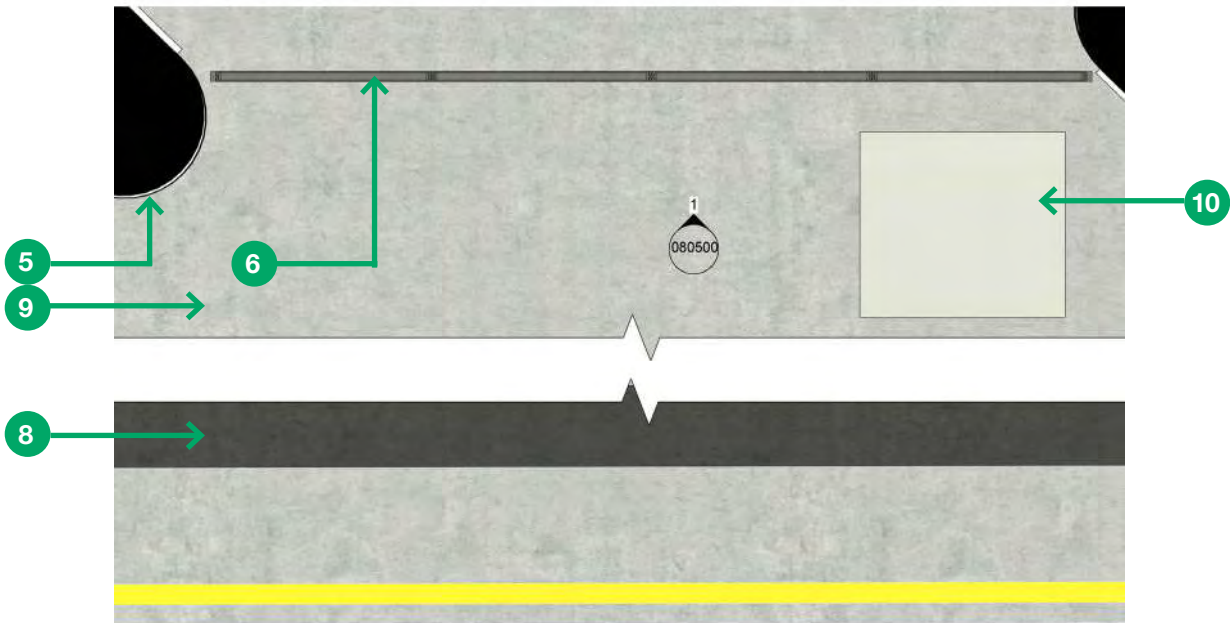
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9

10



Platform Elevation



Platform Plan

5

5.7

Design proposals - Platform and canopy

Bay study - South of platform

The Southern platform canopy follows the reverse principles to the northern area. The ‘wings’ of the canopy to the southern end of the canopy are glazed for variety and lightness. Here the PPC aluminium cladding is coloured yellow in some areas to express the form and tie into the Metrolink brand.

Screens with metal framing provide separation to the platforms, whilst allowing visual connection. There are also solid areas where the SER room is retained with a new plant-room extension. This is wrapped in new envelope clad in PPC aluminium.

Similarly to the north end of the platform, coordinating the platform equipment with the canopy will reduce clutter and improve functionality. Tactile paving and platform markings are upgraded. Opportunities for wayfinding to the platform areas will be tested with TfGM through the next design of stage.

- 1

Aluminium Cladding Panel - Dark Grey PPC Finish
- 2

Aluminium Cladding Panel - Yellow PPC Finish
- 3

Aluminium Fascia Cladding Panel - Dark Grey PPC Finish
- 4

Metal Standing Seam Roof - Dark Grey
- 5

Glazed Canopy Cover - Clear
- 6

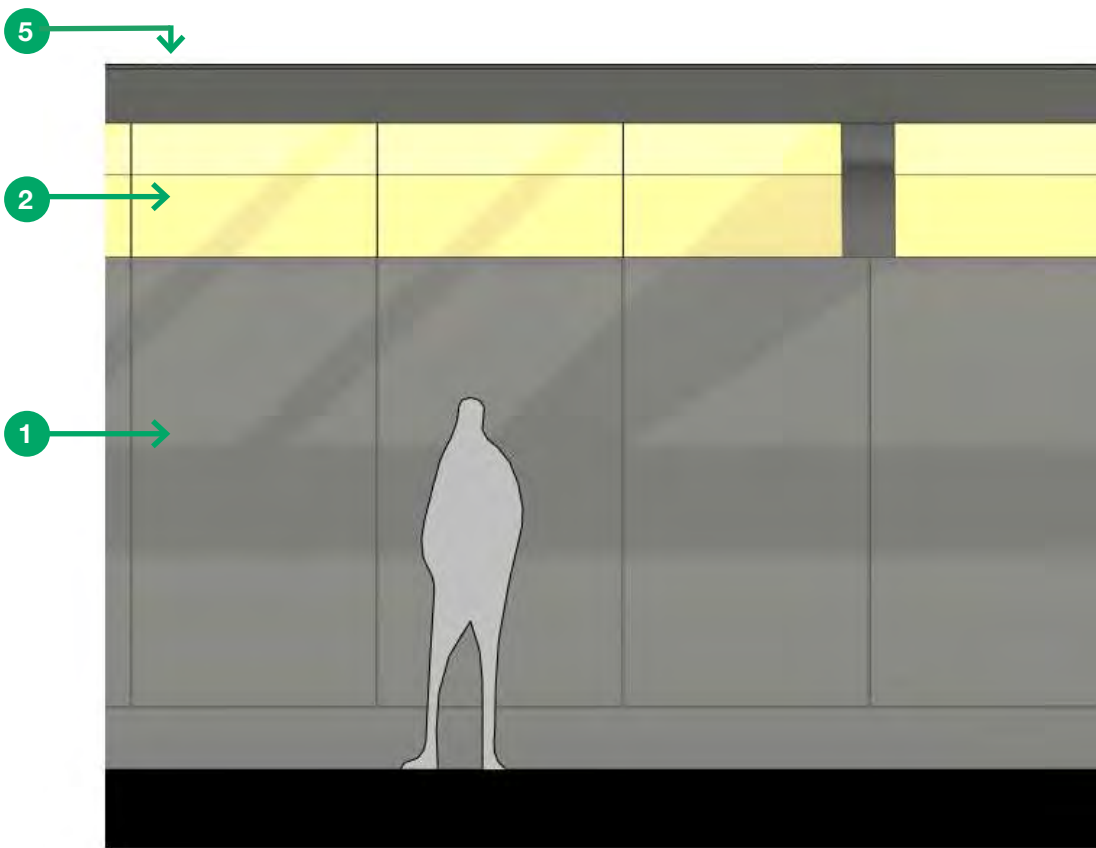
Glazed Screen with Metal Frame - Dark Grey PPC Finish
- 7

Paint to Existing Bridge Column
- 8

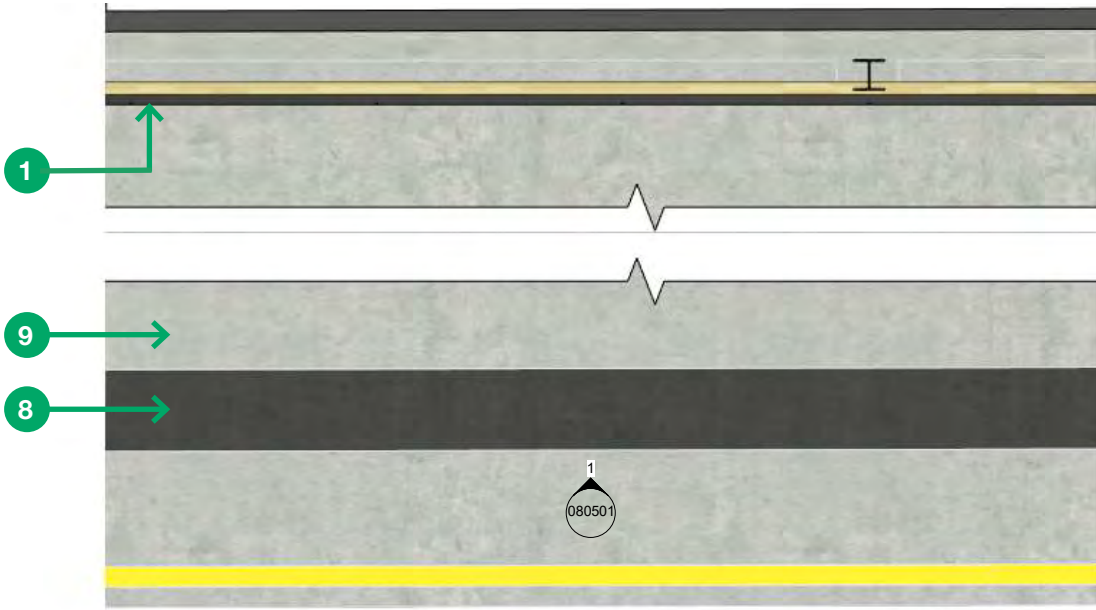
Tactile Paving Flag - Dark Grey
- 9

Paving Flag - Light Grey
- 10

Metrolink Platform equipment, signage and furniture shown indicatively



Stop Equipment Room Elevation



Stop Equipment Room Plan - Platform Level

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Design proposals - Platform and canopy

5.8

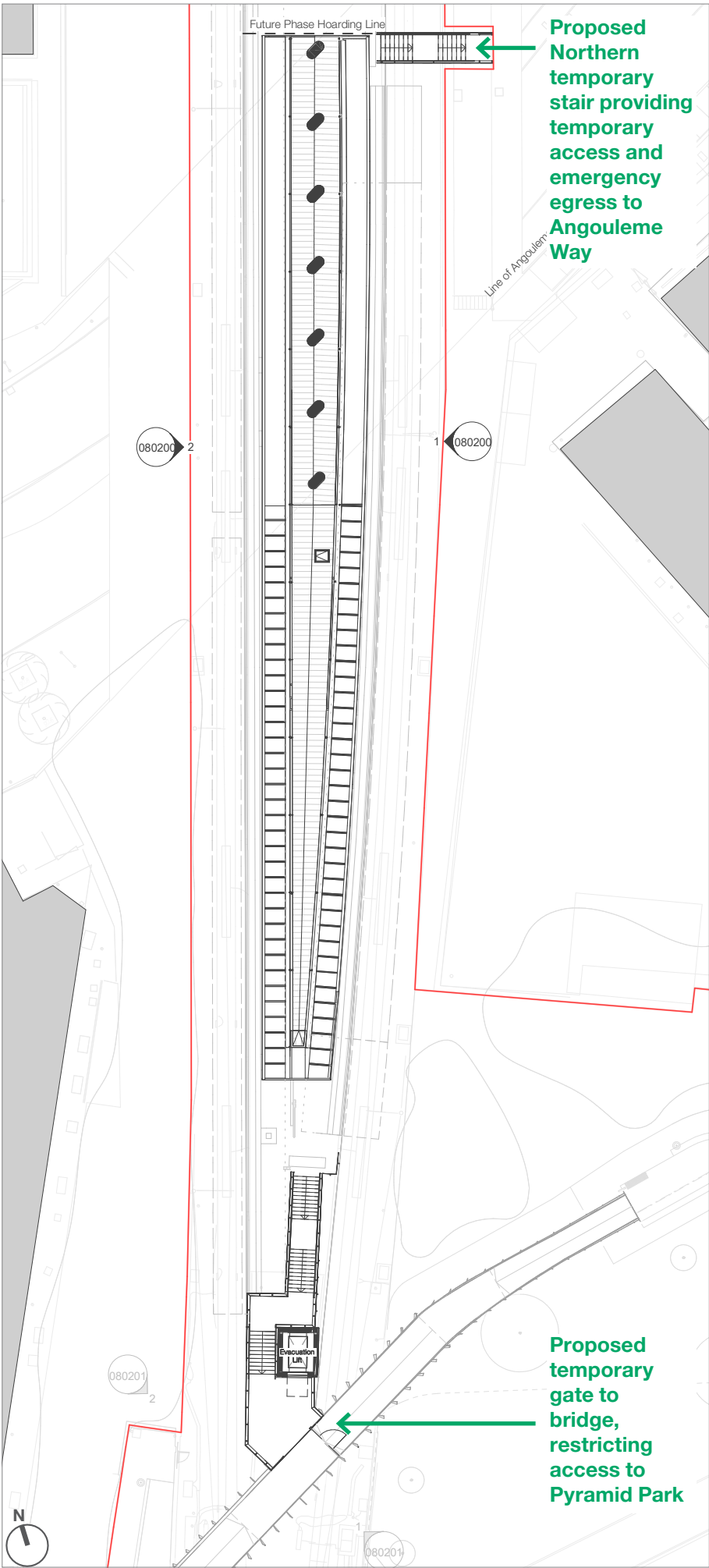
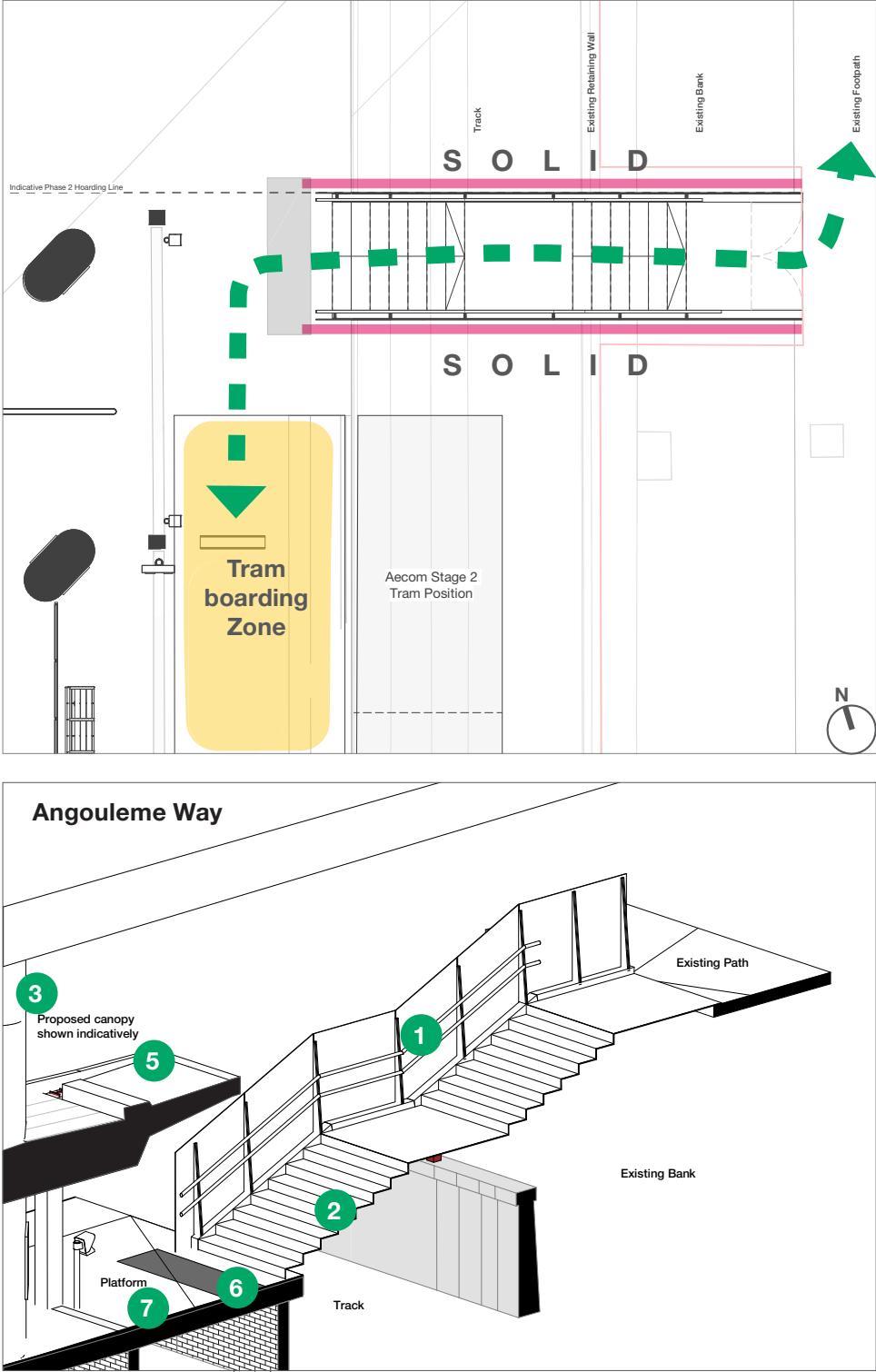
Temporary access

Proposed Northern temporary stair
During the Phase 1 improvement works, access to the existing interchange concourse will be blocked. Two new exits will be created as a substitute during this phase . These are a stair at the North of the platform and a stair in the South of the platform. The stair to the north of the platform will provide temporary pedestrian access from Angouleme Way to Metrolink Platform with improved lighting.

Proposed temporary security gate to bridge
There will be a temporary gate to the bridge to block access to Pyramid Park.

Phase 2 for the Interchange/Metrolink stop improvements will be detailed under a separate application.

- 1
- Metal Staircase with Solid Balustrade and Vertical Supports - Dark Grey PPC
- 2
- Bonded Grit Floor Finish to stair
- 3
- Paint to Existing Bridge Column
- 4
- Aluminium Fascia Cladding Panel - Dark Grey PPC Finish
- 5
- Metal Standing Seam Roof to - Dark Grey
- 6
- Tactile Paving Flag - Dark Grey
- 7
- Paving Flag - Light Grey

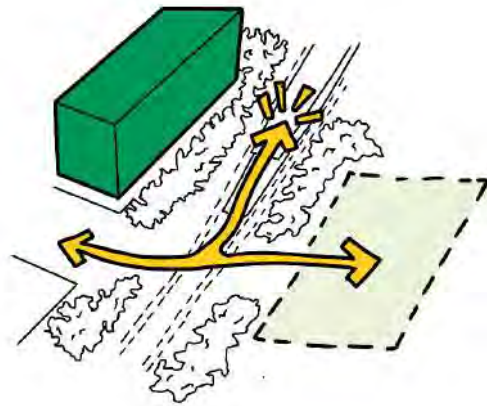


6 **Design principles - Southern access footbridge and footpath links**

6 Design principles - Southern access footbridge and footpath links

6.1 Design drivers

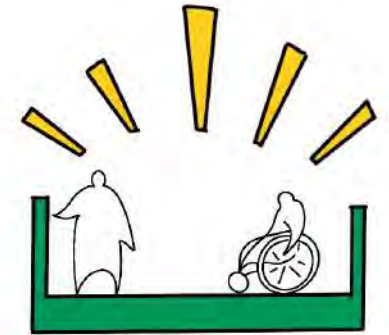
The ambition to create a pedestrian footbridge align with the wider principles that are driving the redevelopment of Bury Interchange and the Southern Access. With design at its heart, the improved user experience sits central whilst improving access and future East-West connections south of Bury town centre. The challenge set by TfGM to the design team to is ensure this is an exemplary new piece of infrastructure for Bury. Supporting these aspirations are the technical considerations and requirements that ensure this is a robust, well used and loved bridge throughout it's life, and materially efficient to minimise embodied carbon.



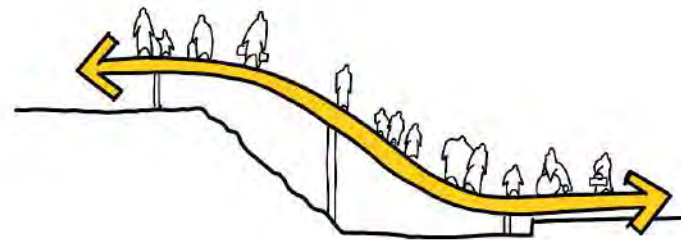
Opportunity to create a link between existing and future communities and provide a gateway to the new Interchange



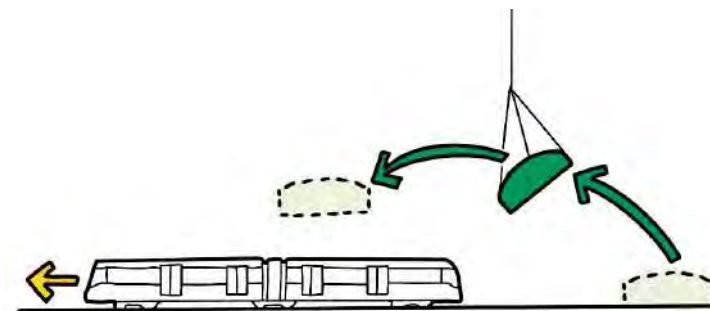
A place specific response that integrates into the local context and enhances the urban identity of Bury



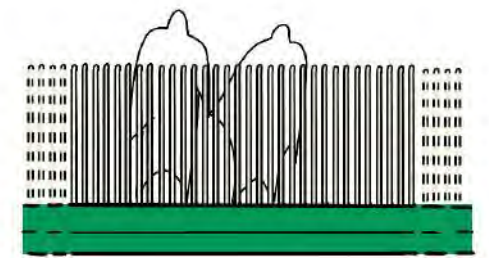
An exemplary bridge with generous proportions that is well lit, providing a high quality, safe and convenient experience for users



Robust to manage capacity both in a meanwhile condition during construction of the interchange and as a permanent access to Metrolink



The footbridge should minimise impact on Metrolink operations during construction



Efficient structural solution openness where possible to maximise carbon efficiency and views to surrounding context

6

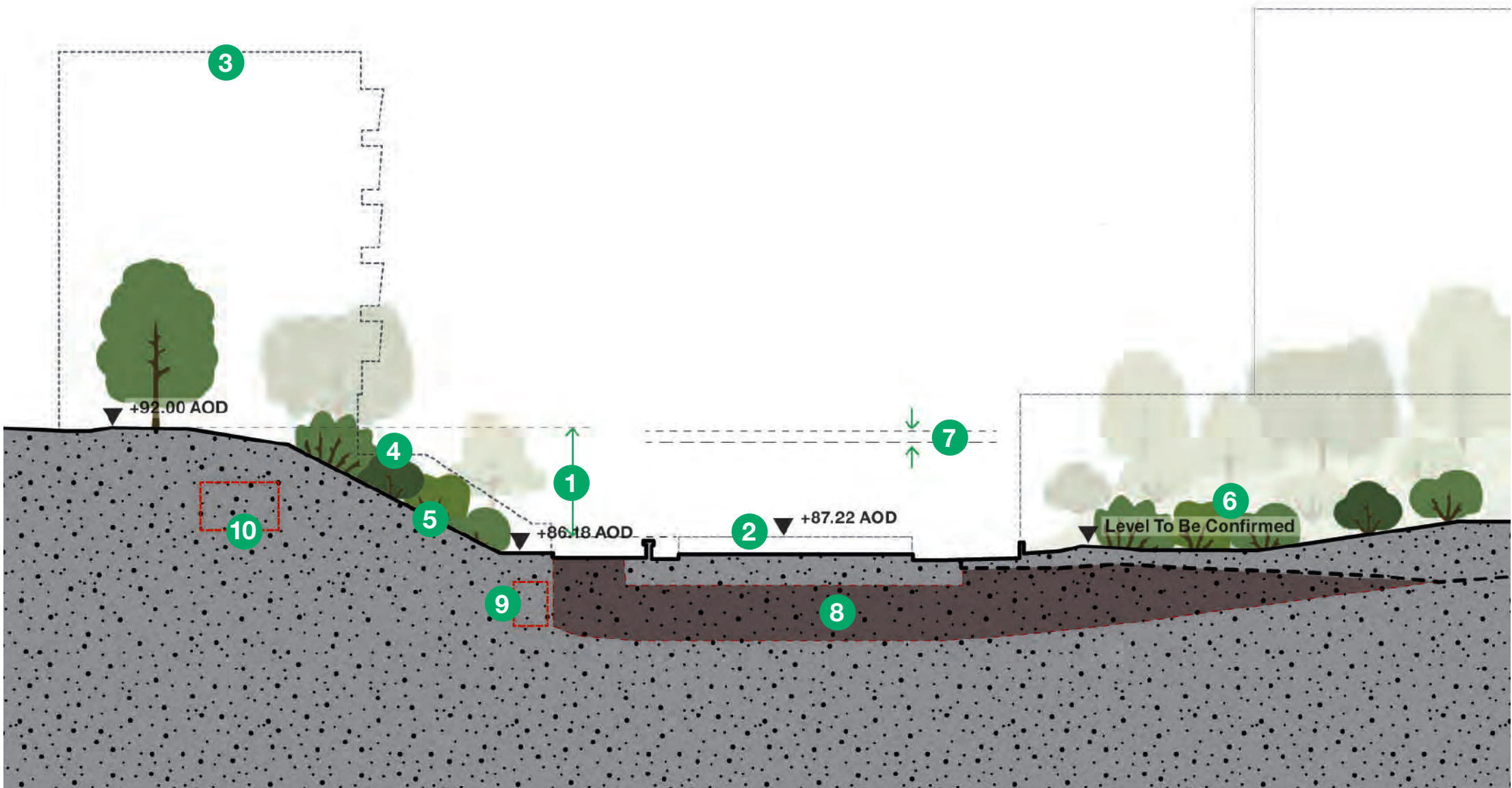
Design principles - Southern access footbridge and footpath links

6.2

Design constraints and considerations

The key requirements for the bridge set by TfGM included a free spanning structure across the tracks, improved landing point and integration at Pyramid Park. The abutment height at Union Square is around the height of the OLE above the track, suggesting a minimal rise would be sufficient. The existing infrastructure below the track is a key consideration for the abutments and bridge support structures. The existing condition of Pyramid Park as a heavily vegetated environment with challenging topography, also present constraints, yet helps define the landing point in this area. The future bridge structure will need to provide a route to the ground levels proposals in the Pyramid Park land remediation strategy (LPA ref. 70903/Full) to ensure access through the site.

- 1
- Circa 5-6m level change between Union Square and platform level
- 2
- Platform level and interface with Metrolink constraints
- 3
- Interface with adjacent buildings (Premier Inn, Townside and Q-Parks etc.)
- 4
- Existing vegetation to western embankment
- 5
- Below ground retaining structures to embankment
- 6
- Interface with existing Pyramid Park and proposed land remediation works (LPA ref. 70903/Full)
- 7
- Existing / future OLE (Overhead Line Equipment) heights and required off sets / Hazard Zones (to include OLE Poles)
- 8
- Infill of existing subway
- 9
- Pumping room to subway
- 10
- Possible below ground attenuation tank and other below ground utilities / constraints



6

Design principles - Southern access footbridge and footpath links

6.3

Footbridge layout principles

Our approach to the bridge layout is led first by working with the existing levels at the abutments in Union Square and Pyramid Park. By landing at a similar height in Pyramid Park (at the remediation level), there is an opportunity to integrate a path within a sympathetic landscaping scheme.

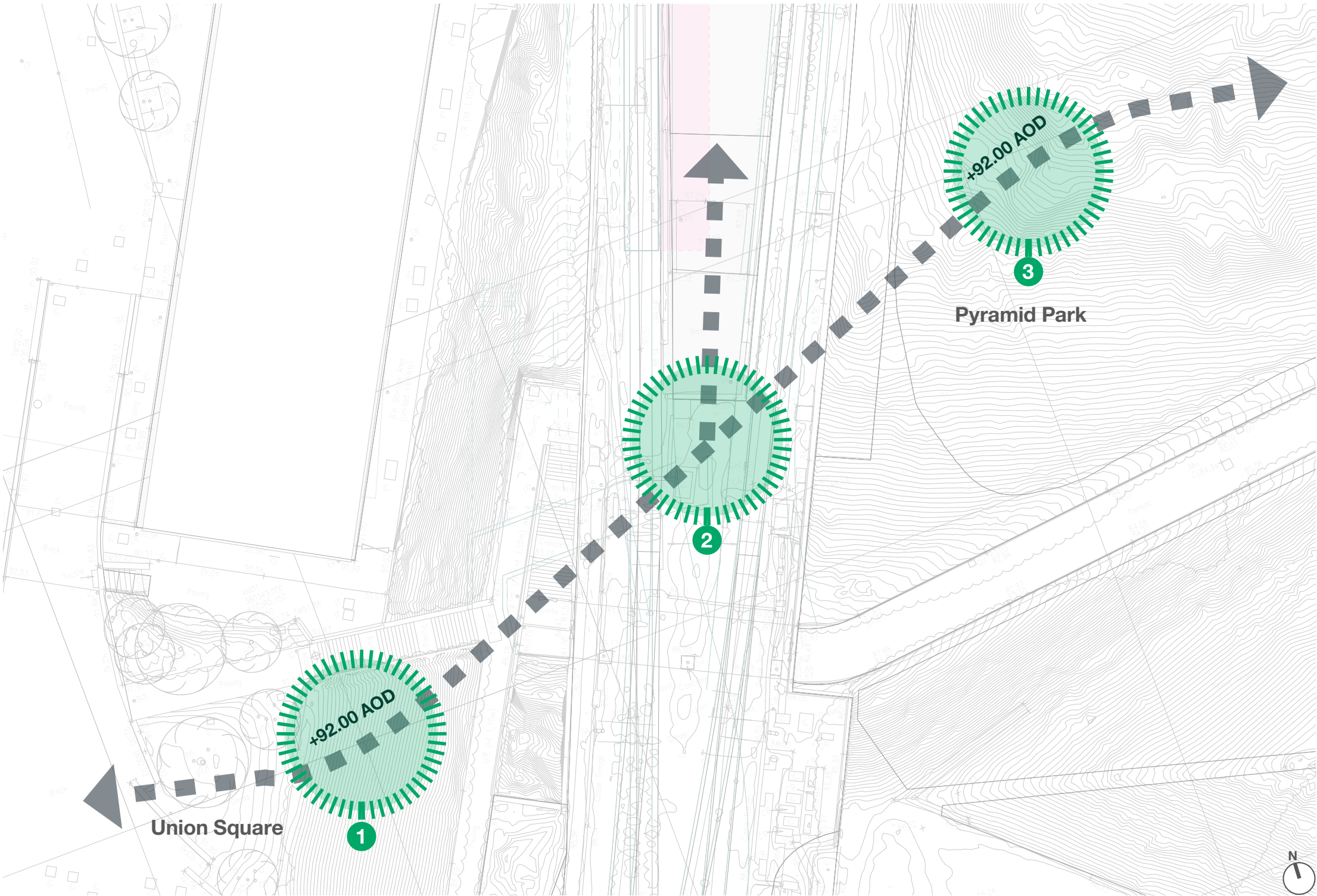
Access to the platform is from an opening at the centre of the bridge with a new lift and stair circulation core.

- 1

Level access to bridge using existing levels Union Square
- 2

New access lift and stair connecting the bridge to the South of the metrolink platform.
- 3

Proposed interface with Pyramid Park to utilise existing levels simplify built structure with new landscaping intervention



6

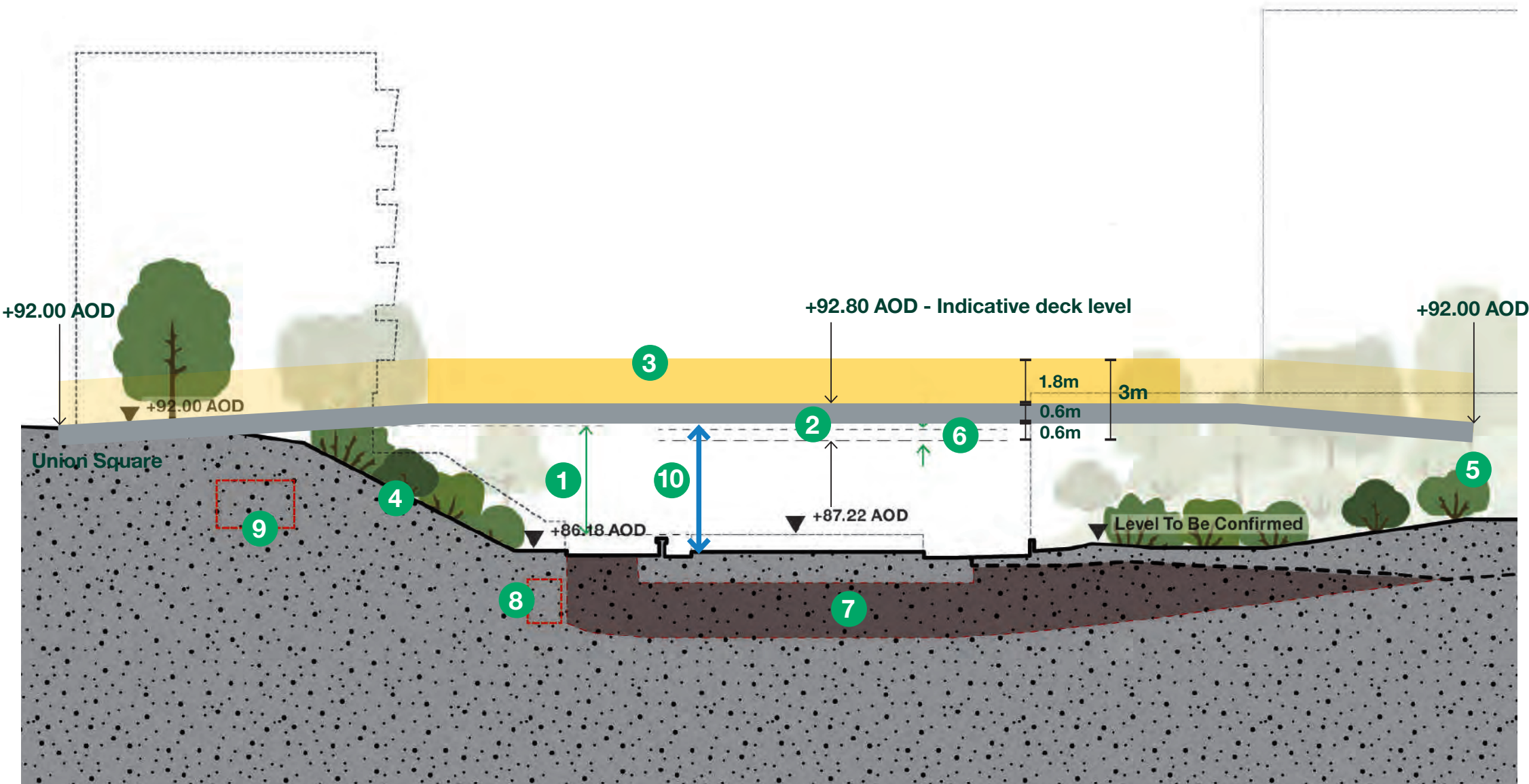
Design principles - Southern access footbridge and footpath links

6.3

Footbridge layout principles

There is a rise and fall of 800mm across the length of the footbridge. These principles were established at the outset to ensure sufficient clearance from the OLE for current and future rail / Metrolink provisions. A requirement for solidity to the bridge balustrade over the electrified Metrolink tramlines, has been factored into the proposals. The new connection between Union Square and Pyramid Park facilitates the infill of the existing subway that runs below the track, which has been closed for over 10 years and is prone to water pooling. From the bridge abutment at Pyramid Park, the landscaped route will gently descend in Pyramid Park to a level of +86.550 AOD, as defined in the proposed land remediation works (Planning ref: PP-12991258)

- 1
- Circa 5-6m level change between Union Square and platform level
- 2
- Free spanning bridge over rail corridor to suit TfGM requirements
- 3
- Solid balustrade over metrolink line
- 4
- Retaining structures to embankment
- 5
- Interface with existing Pyramid Park and proposed land remediation works (LPA ref. 70903/Full)
- 6
- Existing / future OLE heights and required off sets / Hazard Zones (to include OLE Poles)
- 7
- Infill of existing subway
- 8
- Pumping room to subway
- 9
- Possible below ground attenuation tank and other below ground utilities / constraints
- 10
- Clear height from track to underside of bridge structure to meet TfGM requirements



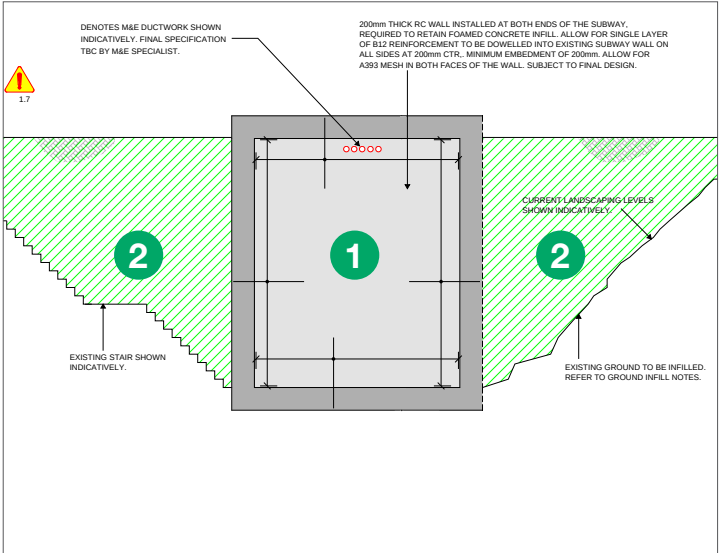
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Design principles - Southern access footbridge and footpath links

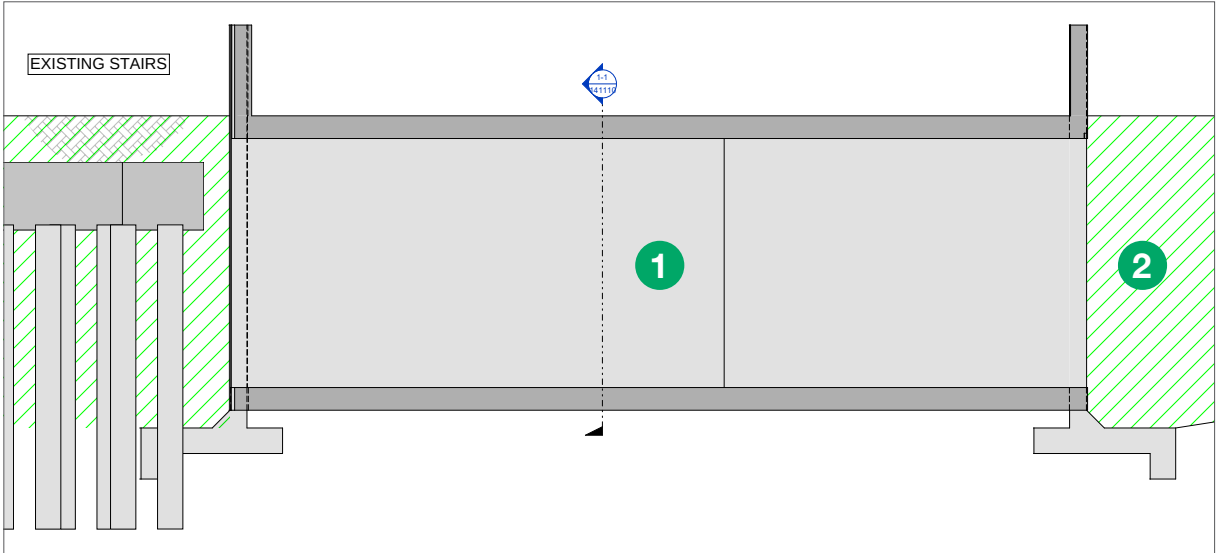
6.4

Track subway infill - Landscape / Structural strategy

The technical design of the subway infill has been led by Structural and Civil Engineer, Renaissance. Foamed concrete is proposed for the infill with provisions for ductwork to allow for existing services to be routed to the track and Pyramid Park. The ground at either side of the subway will be in-filled to an agreed level and planted with grasses to Pyramid Park, and wildflower planting to the western embankment. Further detail is captured within the landscaping architect information.



Cross-section by Renaissance



Cross-section by Renaissance



Plan drawing by Oobe

- 1
- Foamed concrete infill within retaining structures of subway
- 2
- Ground infill to redefine levels

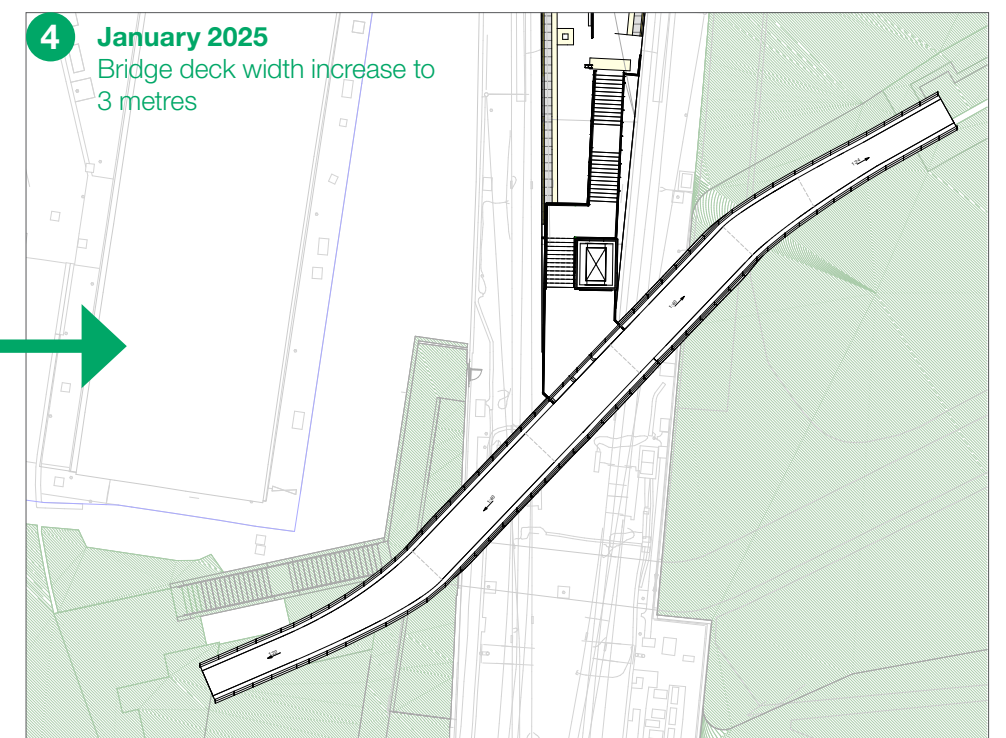
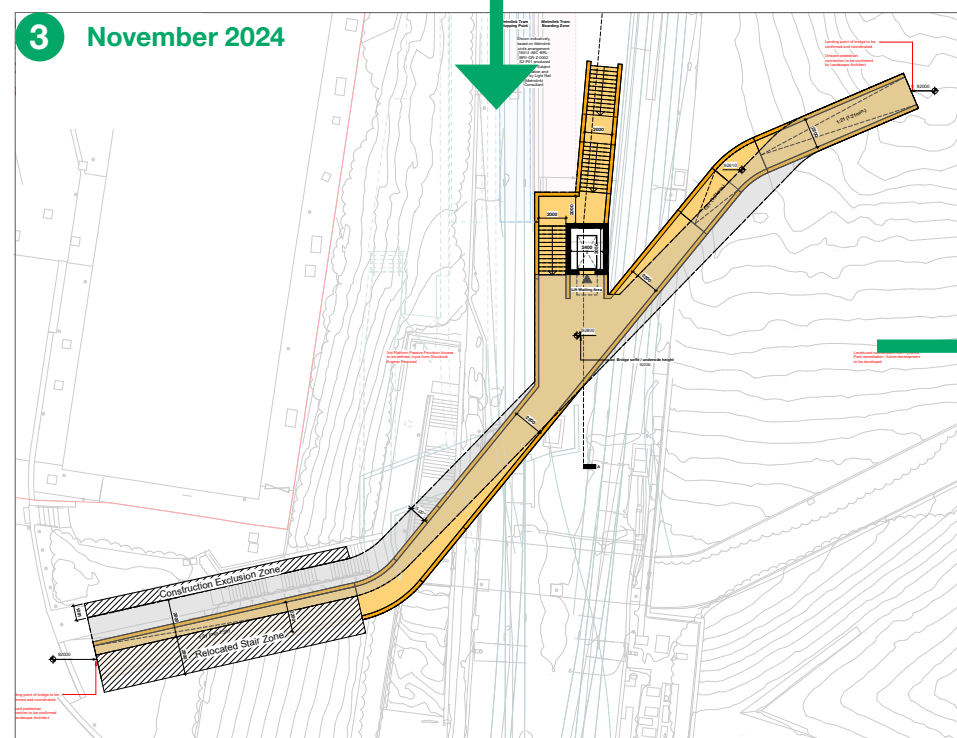
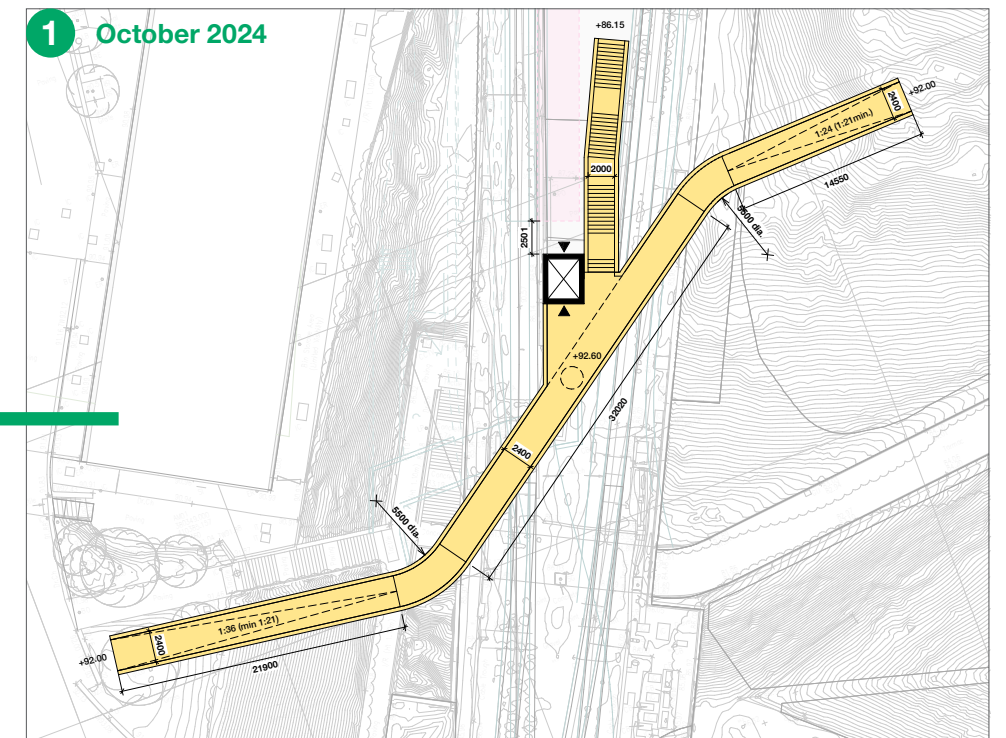
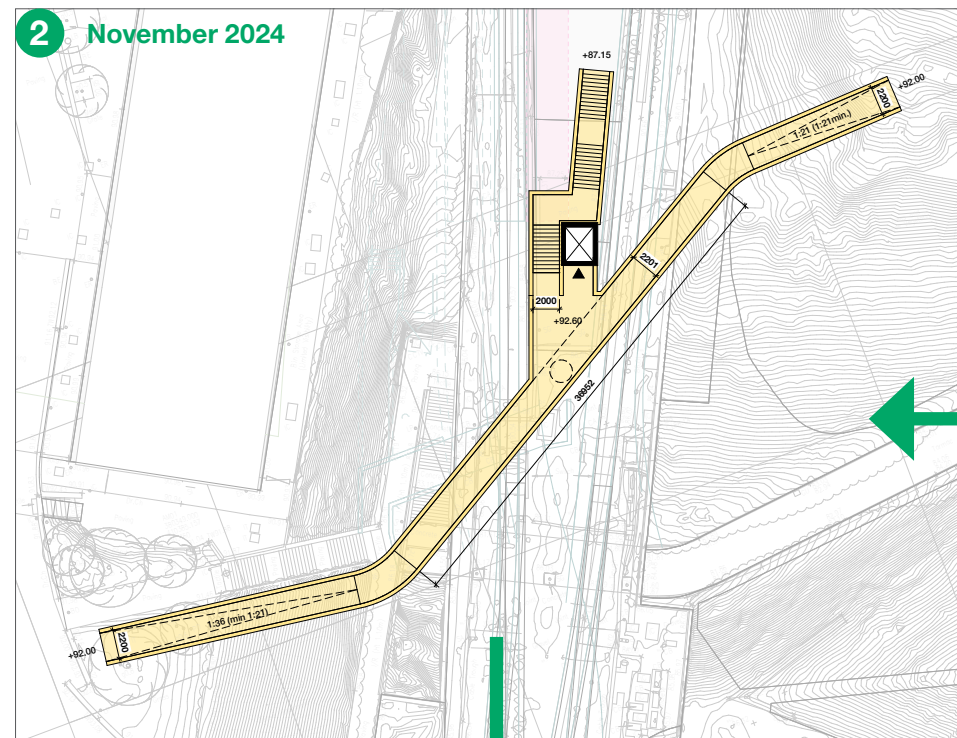
7 **Design proposals - Pedestrian footbridge**

7 Design proposals - Pedestrian footbridge

7.1 Design development

Although the principles of the bridge layout were established at the outset of the design stage, the routing and angle at which it passes across the Metrolink has refined. This is largely a result of working through the structural and logistical strategies, including removal of central structural support for the bridge, desired construction offsets from the existing stairs and to avoid existing below ground infrastructure at Union Square.

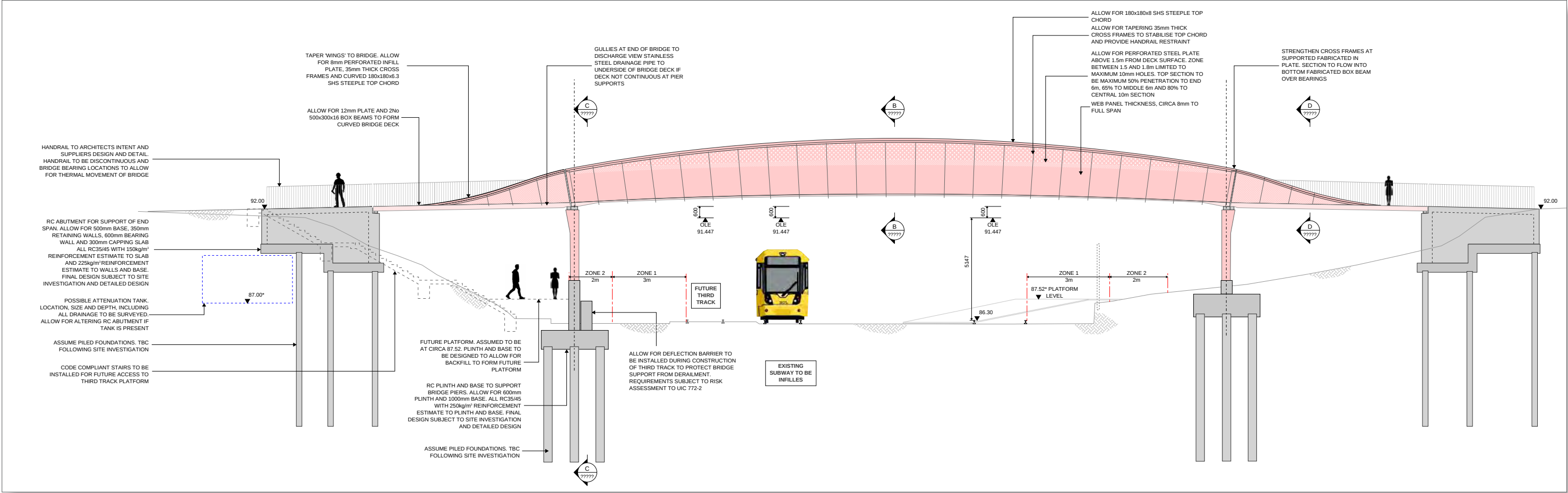
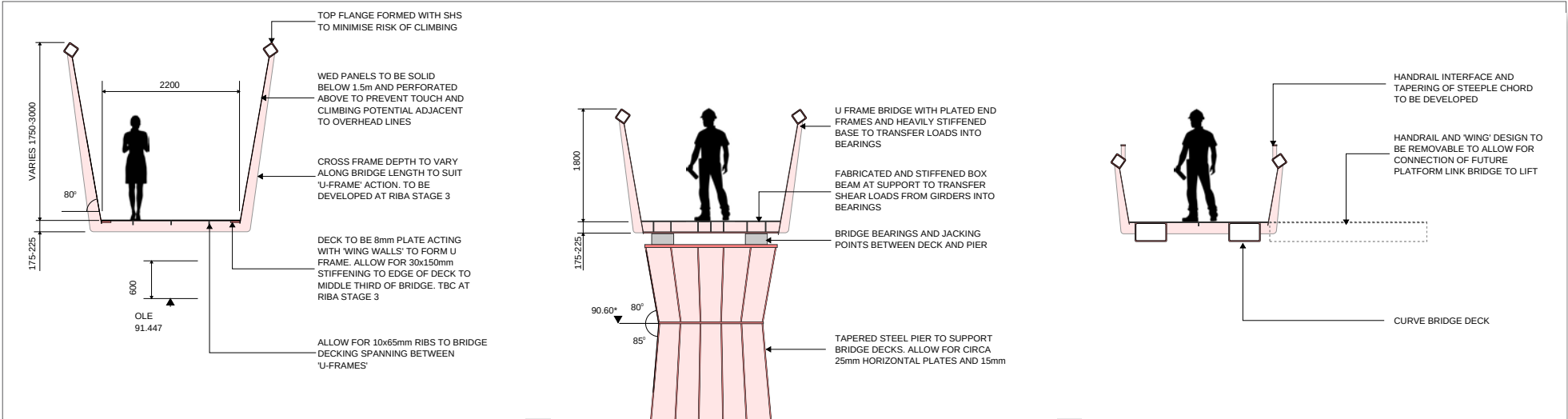
Another development from the original brief is the width of the bridge deck, which increased from 2 metres to 3 metres. This decision was made to ensure the pedestrian experience is positive, on a spacious / open deck. A positive outcome of these moves is the improvement of visual sight lines across the bridge and bends, benefiting security through natural surveillance and users' safety.



7 Design proposals - Pedestrian footbridge

7.2 Design development - Structural strategy

The drawings on this page represent the initial structural strategy from Renaissance. They capture the principles of a structure that spans the Metrolink lines with the introduction on feature support columns at either end of the track. Regularly spaced, profiled 'U' sections add stiffness to the structure and are articulated to 'fan' from the centre of the bridge. Between the columns and abutments, there is opportunity for a more open balustrade. A continuous arched chord is required across the main span with a single opening in the parapet, allowing for access down to platform.



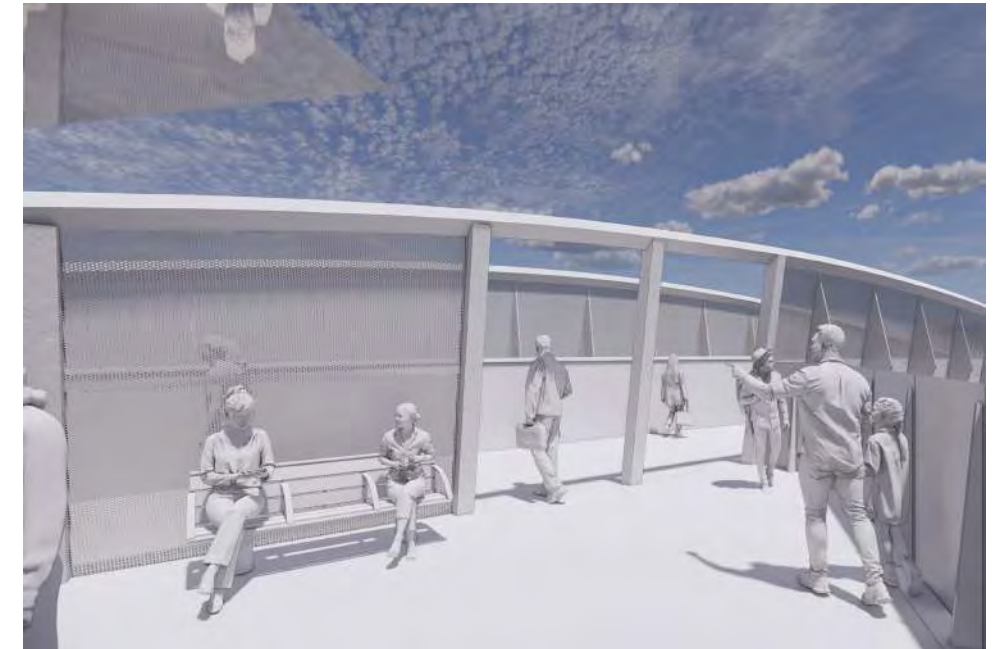
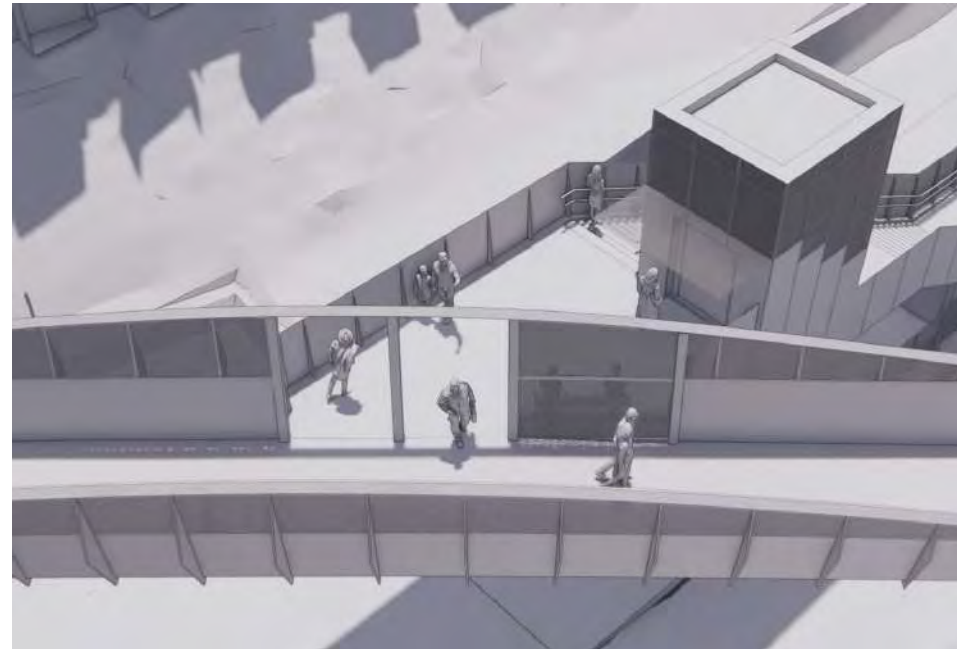
7 Design proposals - Pedestrian footbridge

7.3 Design development - Bridge opening

The access from the bridge span to the new southern circulation core has been subject to various design development studies. Ensuring the opening is generous with adequate sight lines to promote natural surveillance have been a key consideration. Due to the efficiency embedded within the structural strategy, only a single opening can be formed in the parapet, with full height perforated panels to the side to maintain structural stability.

Of the two main options proposed and developed with structural engineer Renaissance, the preferred solution was to maintain a single clear opening with full height perforated panels to either side. The arrangement is more balanced and central to the landing, promoting generous route that improves user experience

1 Original Strategy - Wider opening with central post



2 Preferred Solution - 3m clear opening with full height perforated panels to each side



7 Design proposals - Pedestrian footbridge

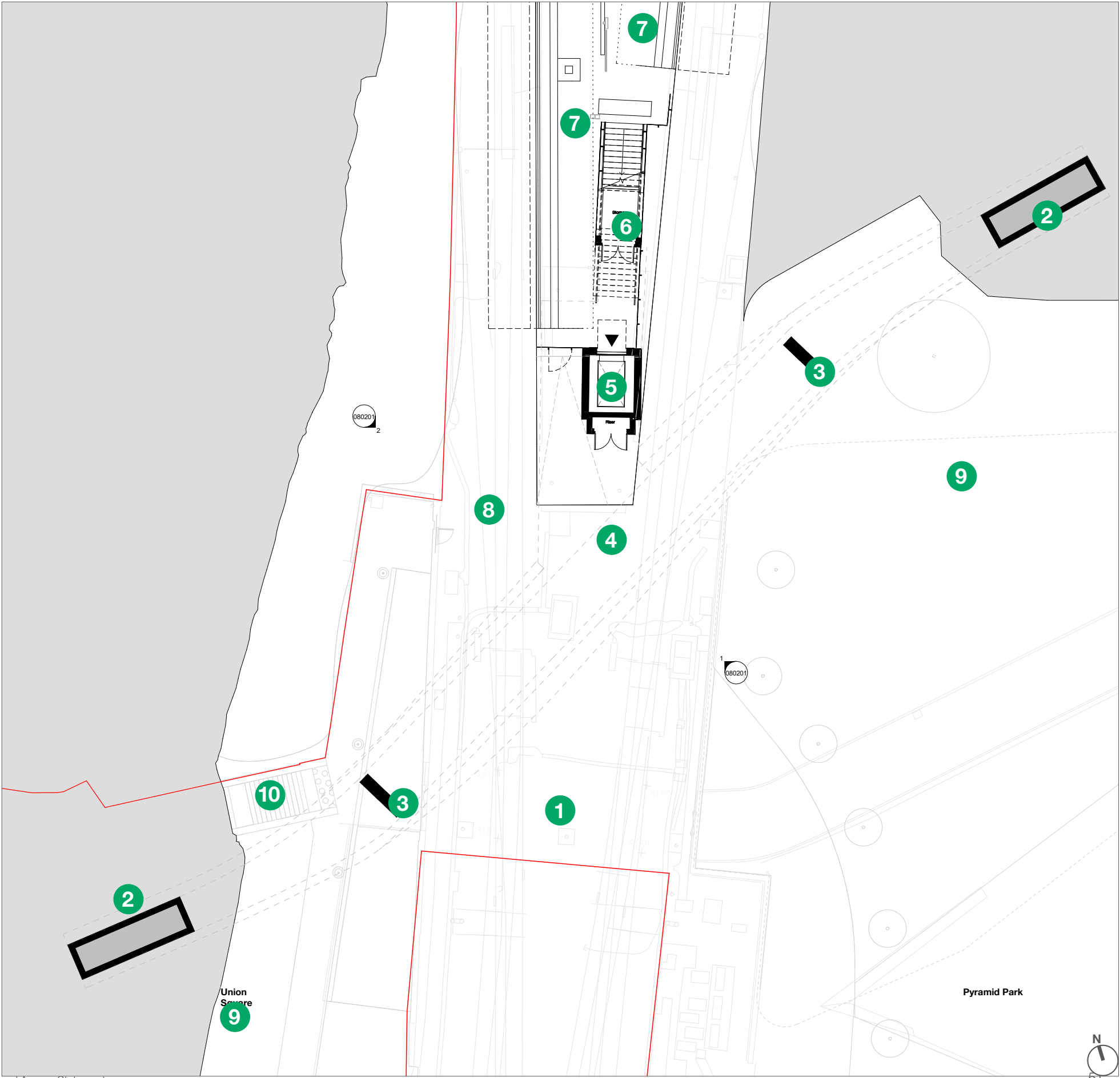
7.4 GA plan - Platform level

At platform level, the bridge elements that are defined as the precast concrete abutment structures, are embedded into the Union Square and Pyramid Park landscape. They feature stanchions further in bound to the track edge. The bridge structure spans over the track as a single span without intermediate support as outlined with the design brief from TfGM.

The lift shaft sits at the south of the platform, with access from doors facing the North. A service riser to the rear of the lift shaft allows services to be routed from the platform to the bridge deck, and subsequently to each abutment. A security line, with a gate for access by Metrolink operatives only, sits parallel with the lift shaft and restrict public access to the track.

The stair configuration connects to the eastern side of the platform to ensure it is outside of the metrolink boarding zone for trams to the West. A store is placed below the stair structure and is only to be accessed by metrolink personnel.

- 1 Infill of existing subway and associated infrastructure
- 2 Abutment built into embankment
- 3 Bridge stanchion either side of rail corridor
- 4 Free spanning bridge over rail corridor
- 5 Lift
- 6 Stair
- 7 Platform boarding zone
- 8 Metrolink operational access
- 9 Landscape works
- 10 Maintain existing stair access



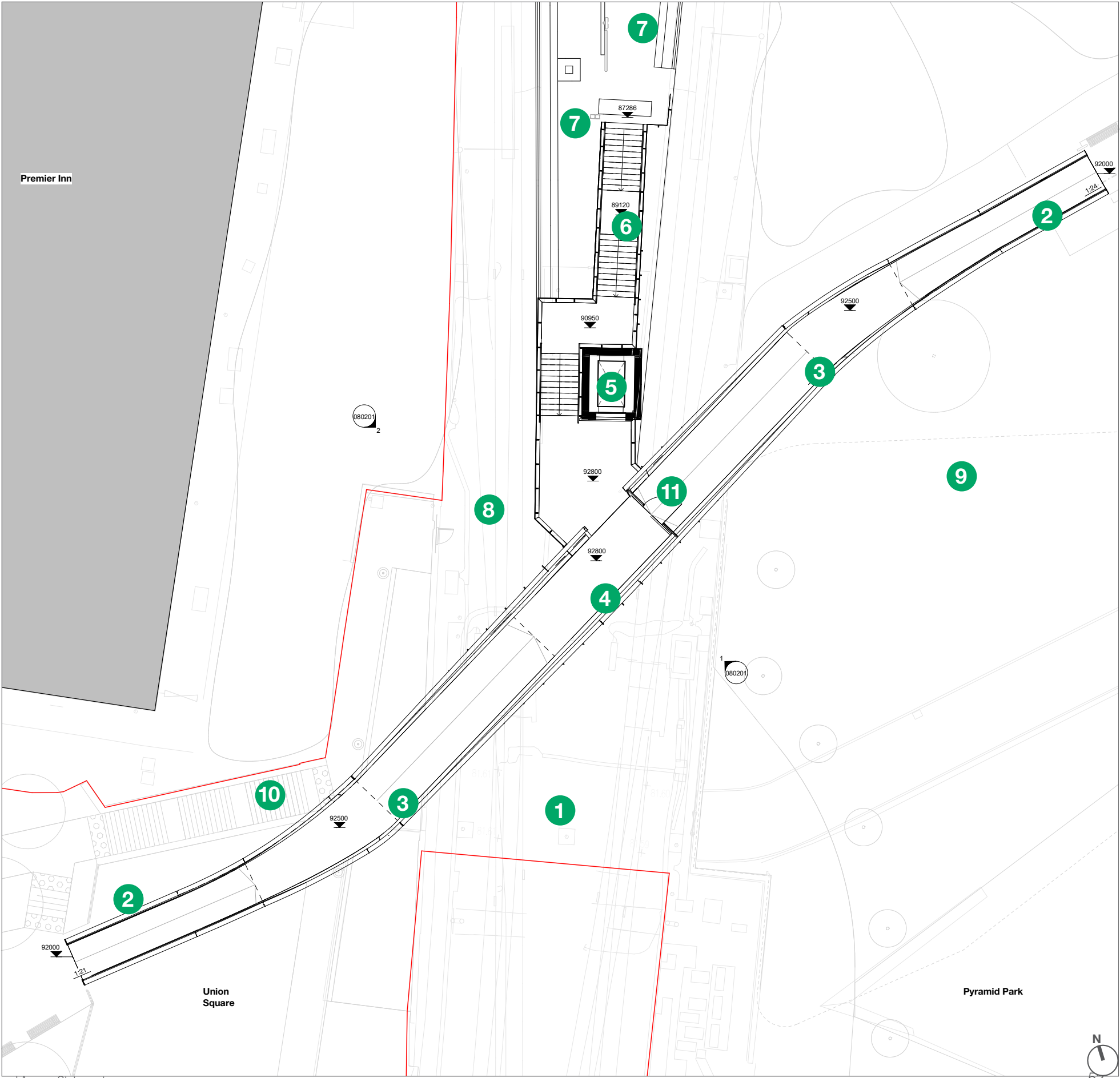
7 Design proposals - Pedestrian footbridge

7.5 GA plan - Bridge deck level

The stair and lift from platform level take passengers to an open landing area that links to the bridge structure. This area is configured to provide a dedicated waiting area for the lifts that sits outside the pedestrian movement zones. The entrance to the bridge from the landing is through a framed opening. A perforated screen sits adjacent to the opening, allowing natural surveillance for bridge users for oncoming user to mitigate conflict between movements.

There is an 800mm rise and fall across the length of the bridge to the abutments. This is factored into the deck design with gentle slopes shallower than 1:20, broken by and intermediate flat section. These slopes also direct surface water to the drainage provisions at the abutments. The bridge deck has a clear width of 3 metres across the main space, gradually tapering to 2 metres at the abutments to discourage cyclists from using the bridge.

- 1 Infill of existing subway and associated infrastructure
- 2 Abutment built into embankment
- 3 Bridge stanchion either side of rail corridor below bridge deck
- 4 Free spanning bridge over rail corridor
- 5 Lift
- 6 Stair
- 7 Platform boarding zone
- 8 Metrolink operational access
- 9 Landscape works
- 10 Maintain existing stair access
- 11 Temporary security gate

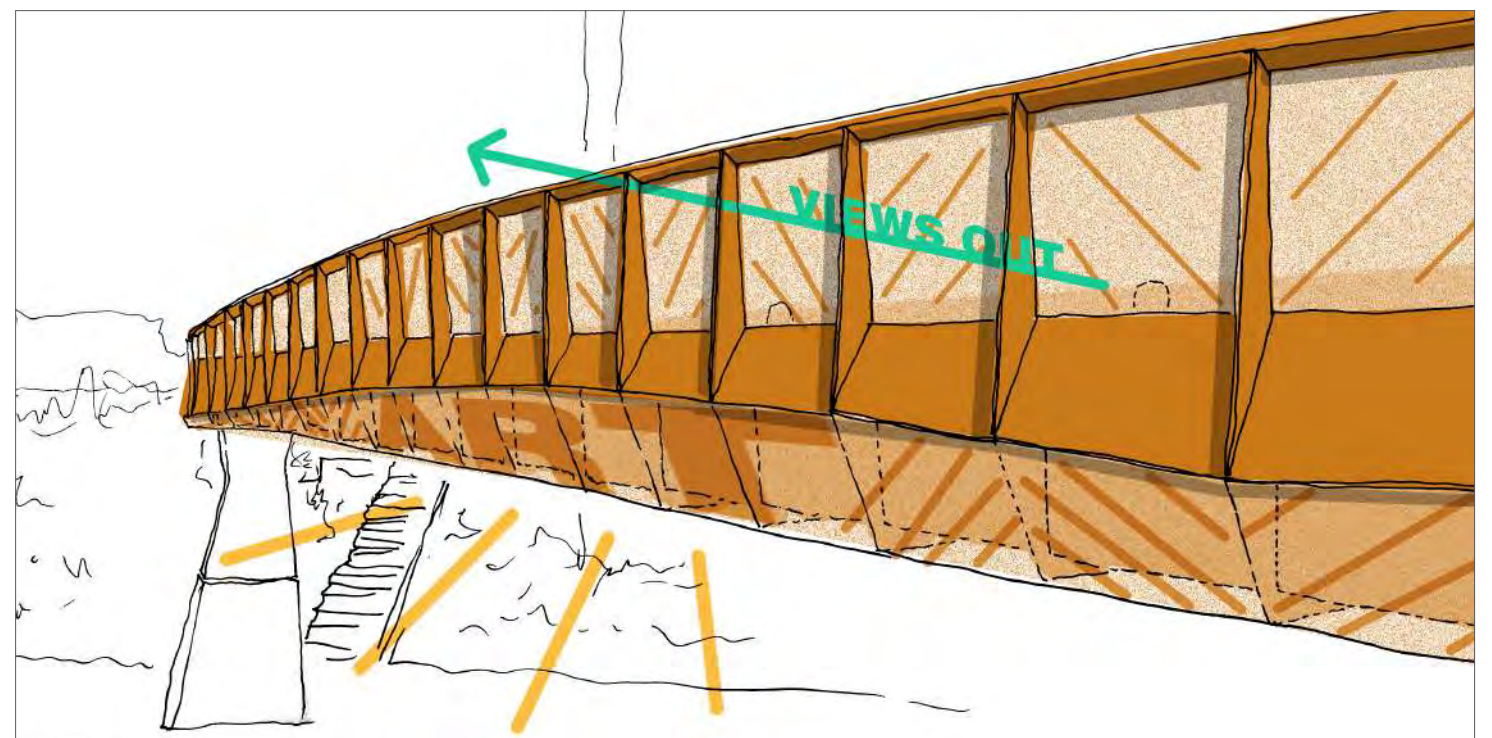
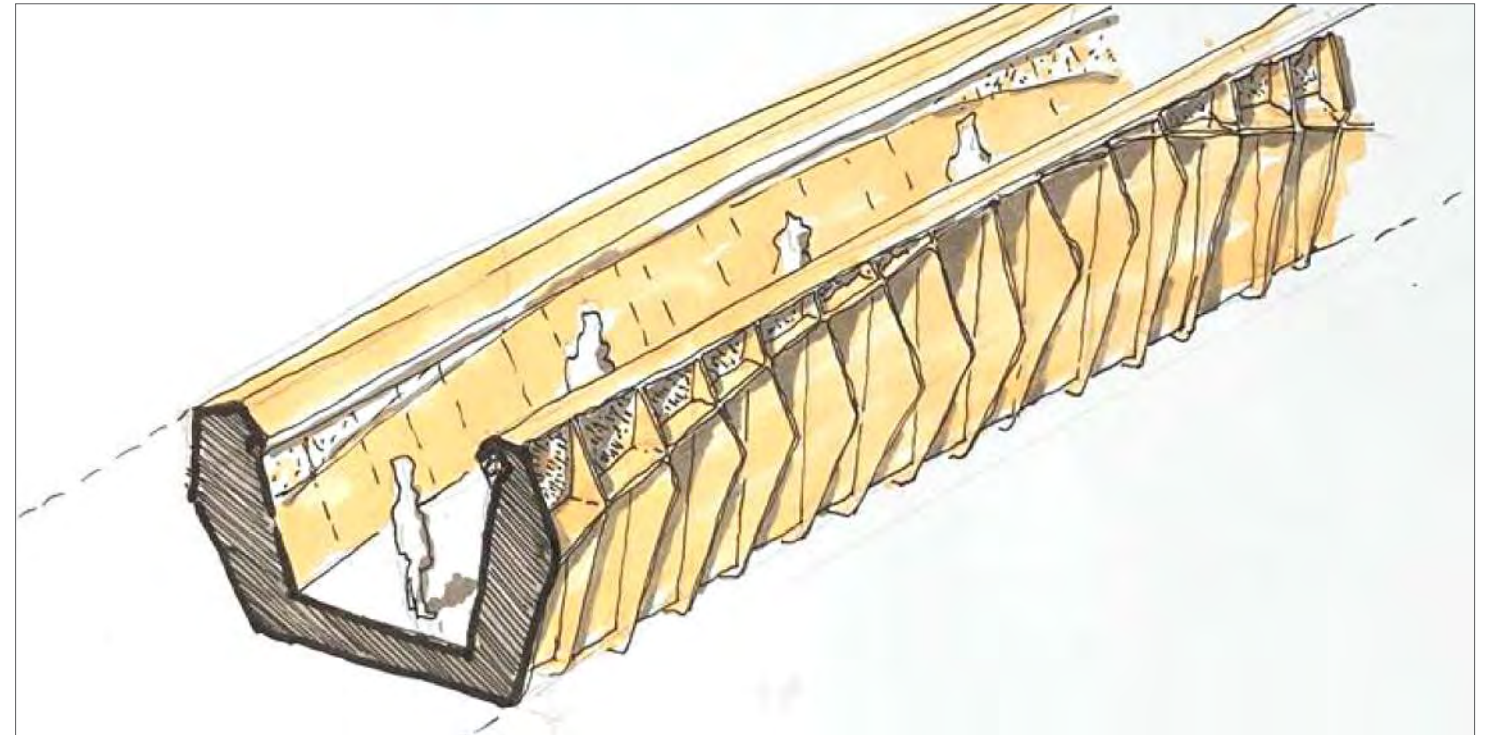
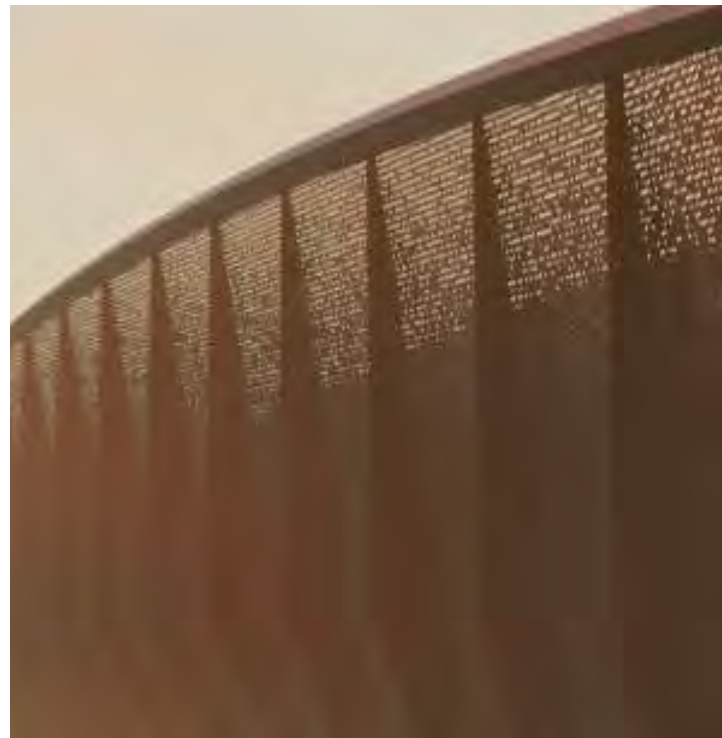


7 Design proposals - Pedestrian footbridge

7.6 Design development - Bridge appearance

The strategy to express the bridge structure with regular profiled fins provides opportunity for an expressive dynamic object within the context. This builds on the flowing form that had been defined from the routing across the tracks. Exaggerated profiled fins with subtle changes in depth undulate across the elevation. The opportunity to explore openness to the parapets through perforation and texture was also key to refining the aesthetic whilst maximising natural light to enhance user experience.

Design development image by Hawkins\Brown

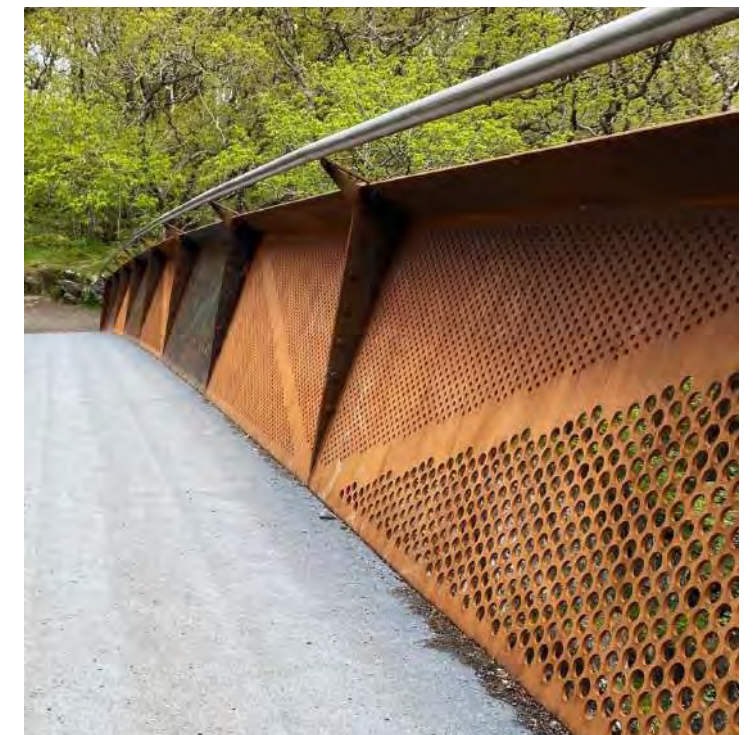
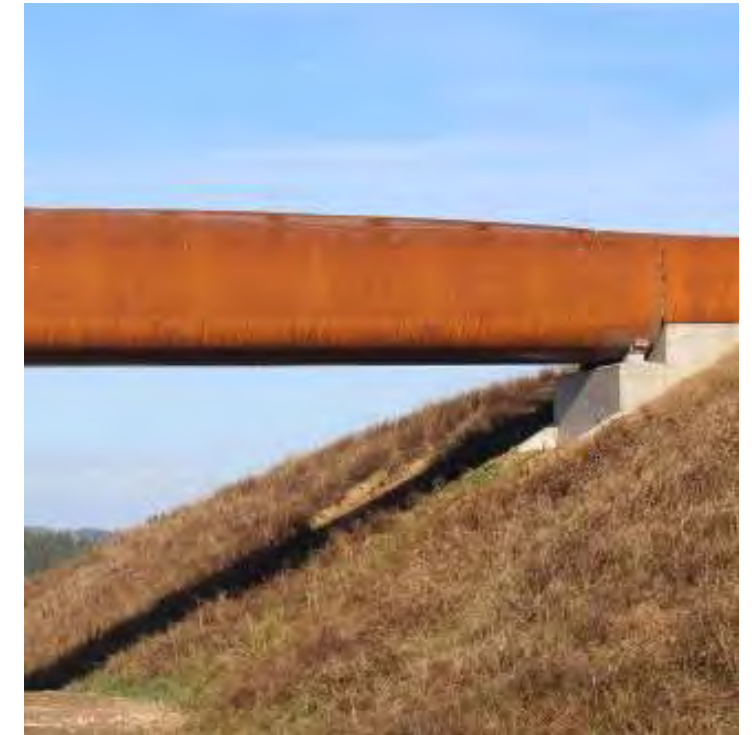


7 Design proposals - Pedestrian footbridge

7.7 Materiality and detail - Precedent studies

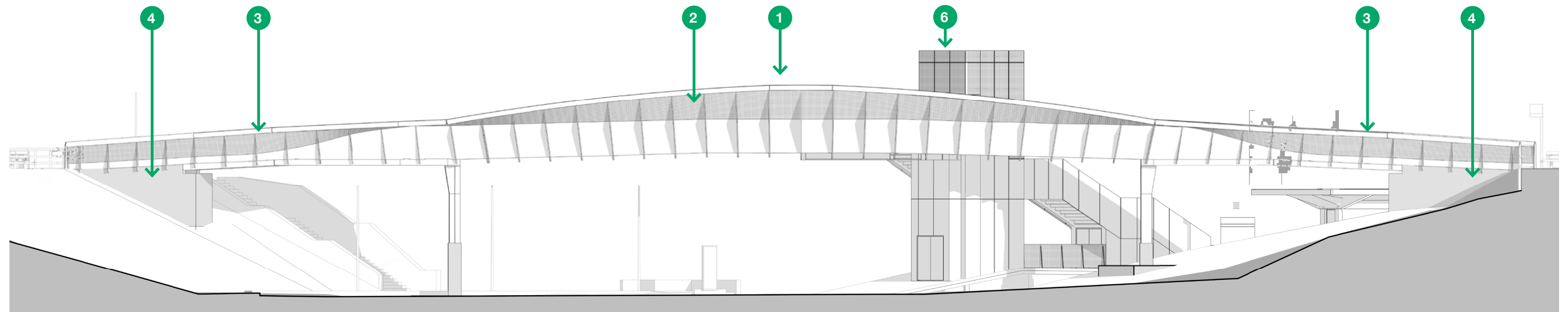
The design team have explored various options for the bridge materiality. The technical nature of the structure above a public transport network brings with it various technical considerations including servicing and maintenance regimes, structural performance and material efficiency. Within that, there was a desire to develop a sculptural form that expressed the repetitive fins that had emerged through the structural strategy.

Weathered steel (Corten) satisfies these requirements whilst providing flexibility and opportunity. Given the varied nature of the context and blur between urban and natural environments, a naturally evolving material such as Corten will bed into the surroundings over time, with a warm tone complimenting the existing material palette.

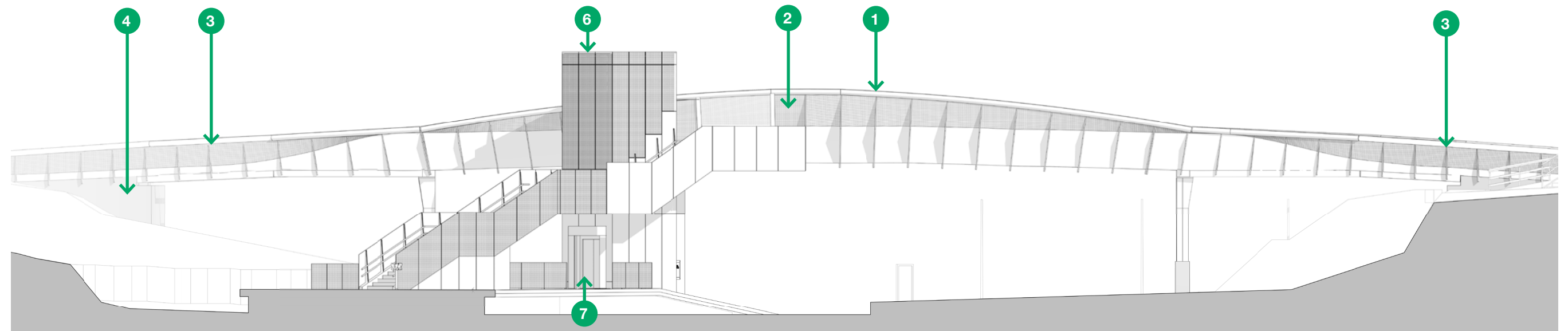


7 Design proposals - Pedestrian footbridge

7.8 Proposed elevations

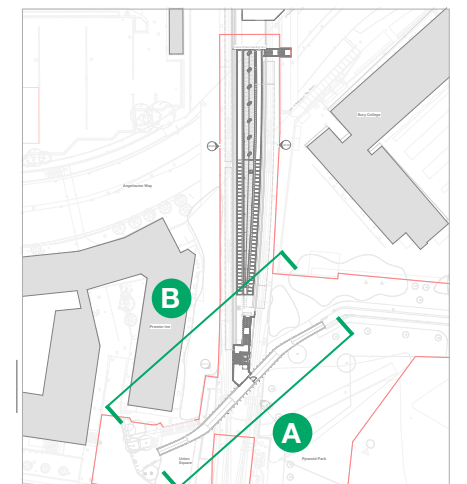


A Proposed bridge elevation facing North



B Proposed bridge elevation facing South

- 1** Weathered steel plate bridge structure (Corten)
- 2** Perforated weathered steel plate (Corten) pattern indicative only
- 3** Weathered steel balustrade upright with mesh Infill (Corten)
- 4** Precast concrete abutment with architectural finish
- 5** Aluminium Cladding Panel - Dark Grey PPC Finish
- 6** Perforated Aluminium Cladding Panel - Dark Grey PPC Finish
- 7** Stainless Steel Lift Doors with Glazed Infill



7

Design proposals - Pedestrian footbridge

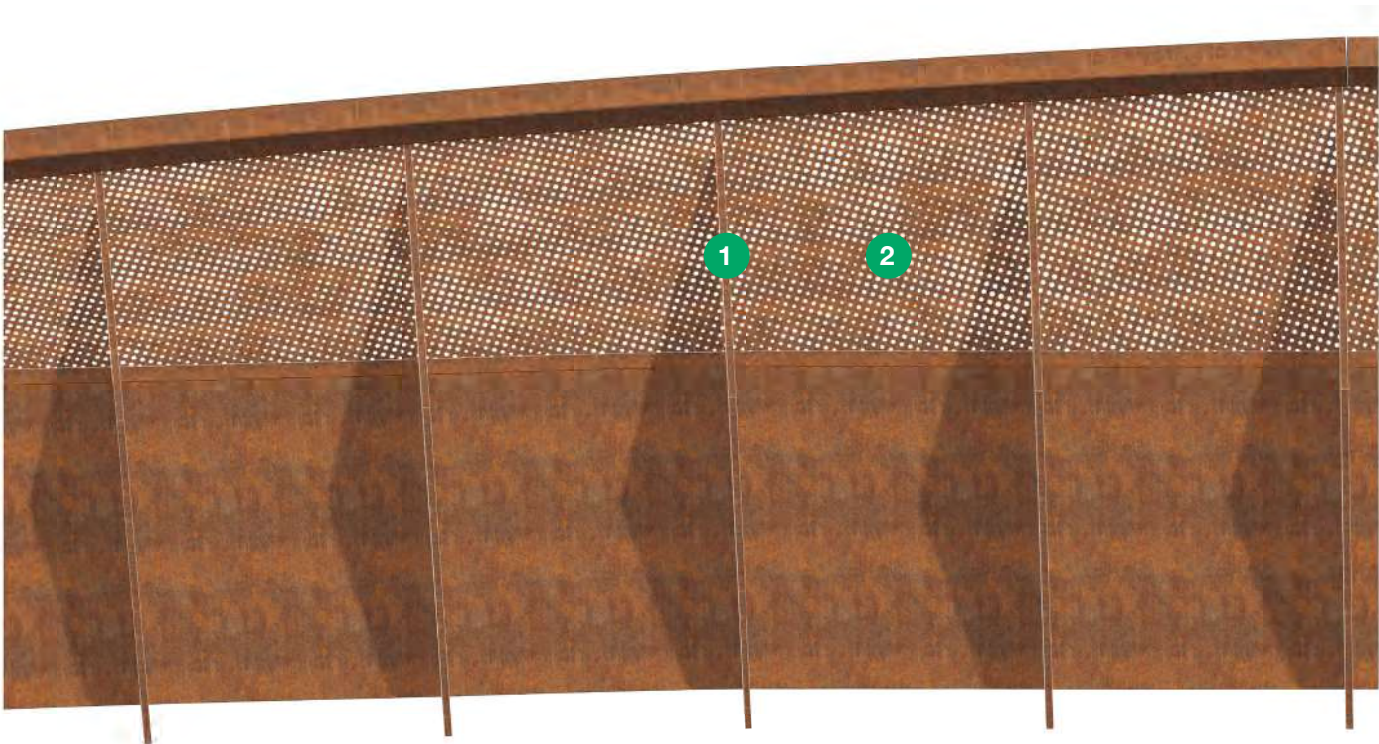
7.9

Bay study - Bridge

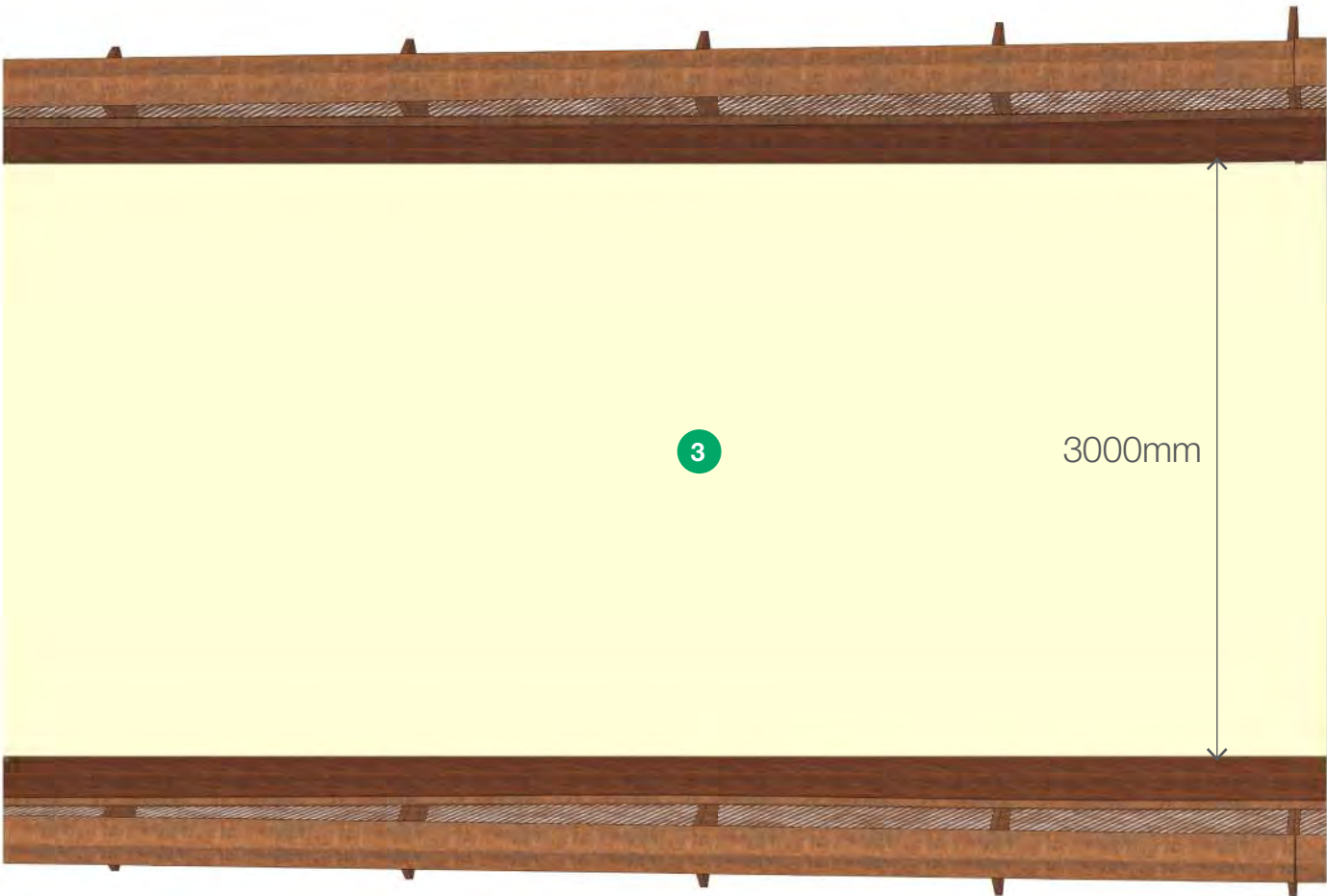
The bridge is constructed from weathered steel sheet with regular profiled ribs that stiffen the parapet. The ribs articulate to ‘fan’ from the centre of the bridge span to each abutment, adding further detail to the form that varies across the span.

The lower 1.5m of the bridge parapet is solid, to align with the technical requirements of the structure spanning the live electrified network. Above this datum, perforations are introduced to increase openness and permeability of parapet. This varies over the span of the bridge, with parameters defined within the structural strategy.

A paint applied grit finish is proposed to the bridge deck, providing a robust and maintainable finish in a vibrant colour, that flows through to the platform circulation. Opportunities for wayfinding within this plane will be tested with TfGM through the next design stage.



Bridge elevation



Bridge plan

- 1
- Weathered steel plate bridge structure (Corten)
- 2
- Perforated weathered steel plate (Corten) pattern indicative only
- 3
- Bonded grit floor finish

7

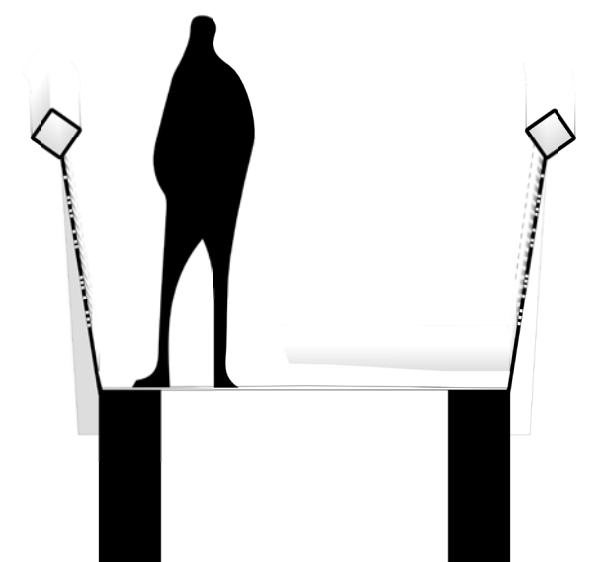
Design proposals - Pedestrian footbridge

7.10

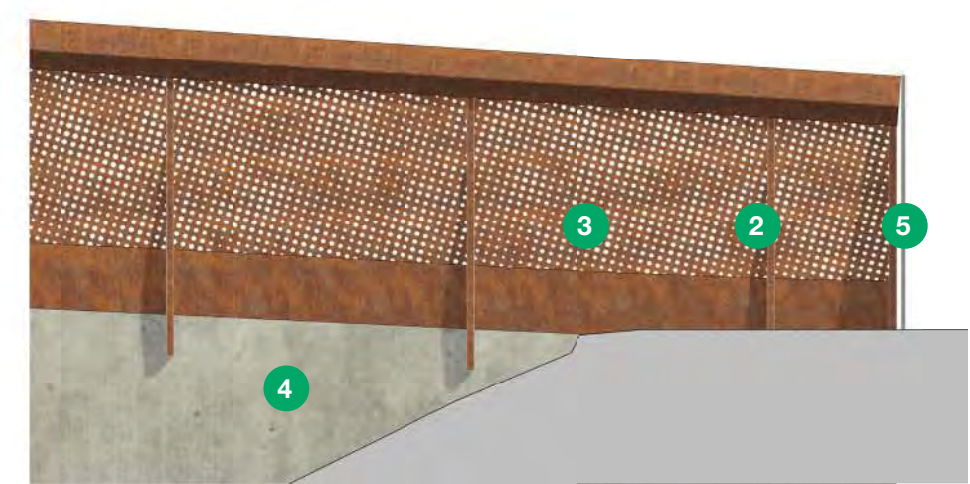
Bay study - Bridge abutment

The language expressed in the main span of the bridge translates across to the abutments at Pyramid Park and Union Square. Regular vertical supports frame perforated infill panels to mimic the texture from the main bridge. A rotated box section frames the top rail of these supports as a continuation of the bridge chord. Servicing and recessed lighting is housed within. At the end of the bridge, a profiled stainless-steel plate with a silhouette of the balustrade profile is offset. This creates a transition that responds to the palette within the landscape design.

The abutment structure is formed from an exposed visual concrete that is nestled into the landscaped bank.



Bridge abutment section



Bridge abutment elevation

- 1
- Weathered steel plate bridge structure (Corten)
- 2
- Perforated weathered steel plate (Corten) pattern indicative only
- 3
- Weathered steel balustrade upright with mesh Infill (Corten)
- 4
- Precast concrete abutment with architectural finish
- 5
- Stainless steel fascia plate
- 6
- Bonded grit floor finish



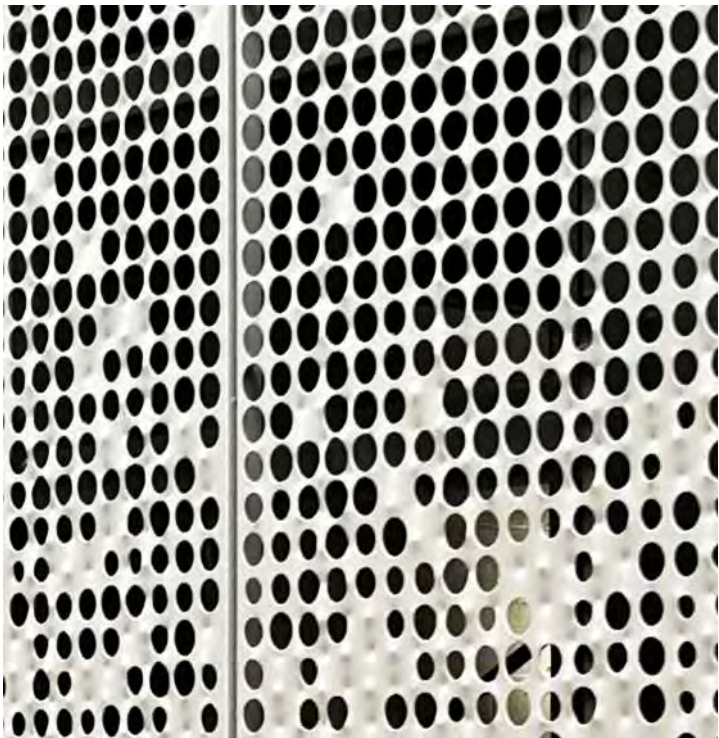
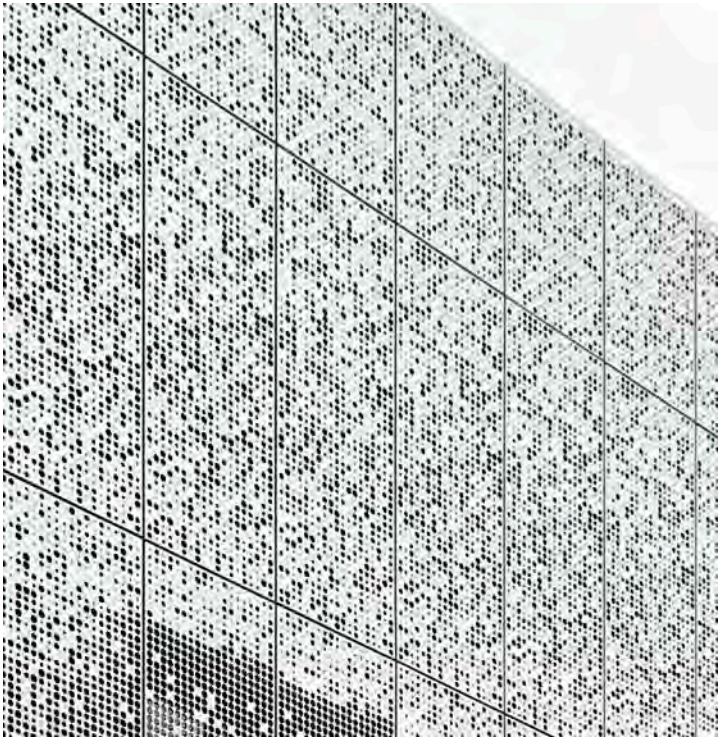
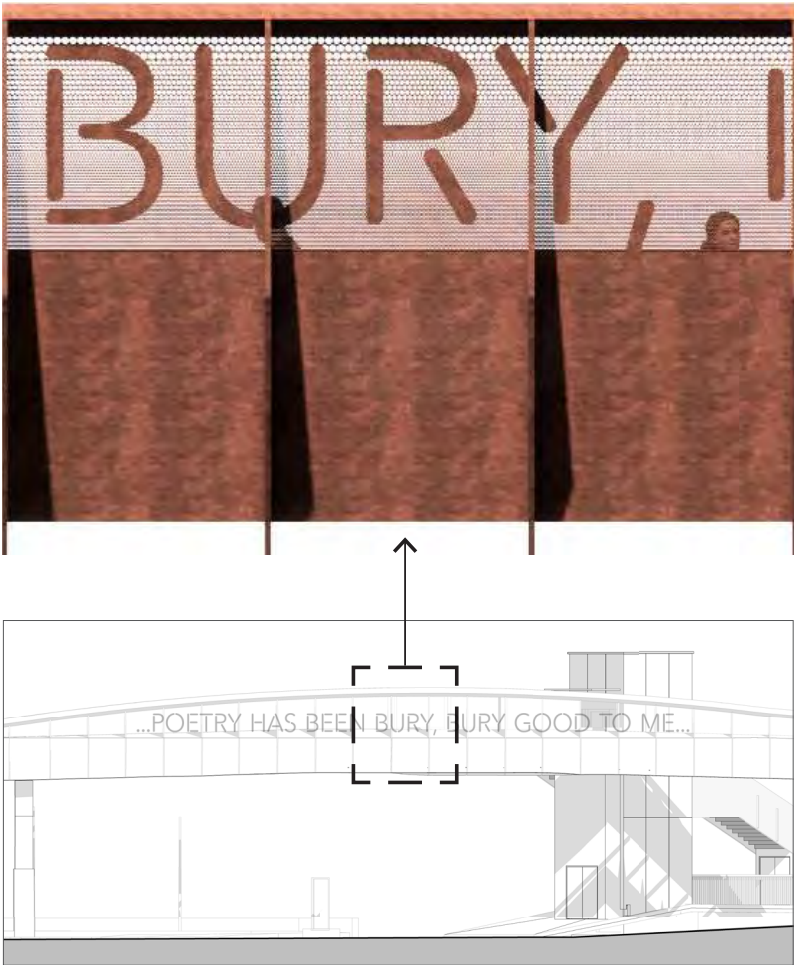
Bridge abutment plan

7 Design proposals - Pedestrian footbridge

7.11 Materiality and detail - Perforations

The strategy to include perforations within the parapet to the bridge provides an opportunity to embed a graphic overlay across the structure, essentially creating a canvas along the bridge. Hawkins\Brown have designed and delivered a range of strategies using perforated metalwork. TfGM have aspirations to work with artists within the wider redevelopment of the interchange and have commissioned an art consultant to help define a brief for these works. This will be explored through the detail design stages.

Design development image by Hawkins\Brown showing indicative artwork only

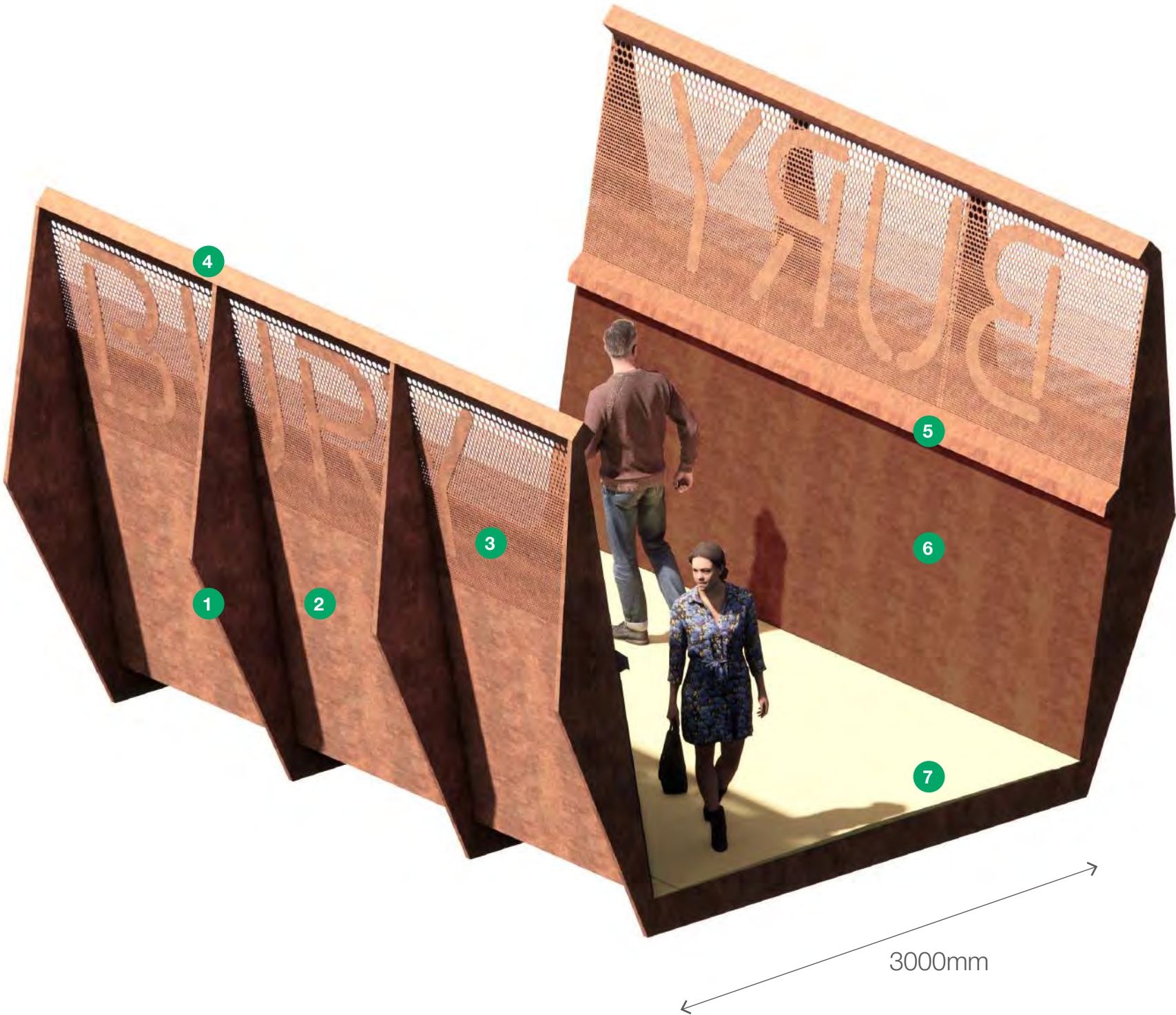


7 Design proposals - Pedestrian footbridge

7.12 Materiality and detail - Proposed finishes

The adjacent bay study captures the design intent for the bridge structure. A generous 3 metre wide deck and inclined parapet promotes a welcoming user experience. A painted finish is proposed to the internal face of the parapet, providing a neutral tone that can be treated with an anti-graffiti surface and thus maintainable. Integrated lighting strips and services track across the bridge in anti-climb profiles at 1.5m high, below the perforated panel, tapering down at the abutments. Externally the weathered steel plate is expressed with profiled 'U' frames, each being different to create a dynamic expression across the elevation. The graphic expression integrated into the perforated pattern adds further refinement to the detail.

- 1 Weathered steel expressed profiled structural girder (Corten)
- 2 Weathered steel plate bridge structure (Corten)
- 3 Perforated weathered steel plate (Corten) pattern with graphic overlay
- 4 Weathered steel - Corten Top Chord
- 5 Integrated lighting / conduit rail with anti-climb cover profile
- 6 Anti graffiti coating to inside face of bridge
- 7 Bonded grit floor finish



Design development image by Hawkins\Brown showing indicative artwork only

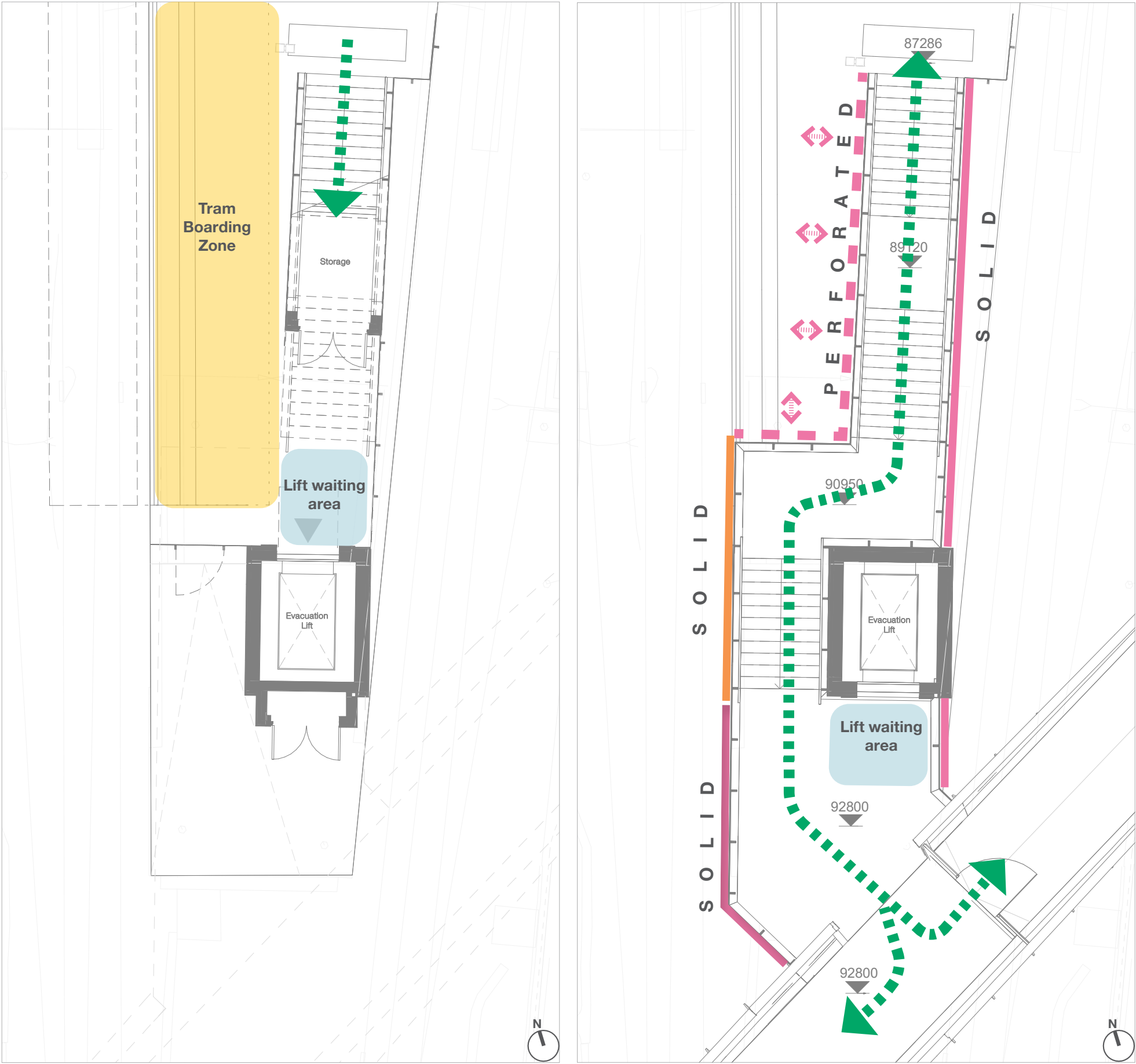
7 Design proposals - Pedestrian footbridge

7.13 Circulation link to platform

Access to the platform from the bridge is via a new lift shaft and stair. The lift and stair are both accessed from the east of the platform to ensure they are clear of the proposed metrolink boarding zones on the western platform. At platform level, the lift door is positioned below the stair landing providing shelter for users whilst waiting. A balustrade provides edge protection to the east, and a similar balustrade to the south restricts access to the track environment, which is to be access by maintenance personnel only.

To the east the stair is sufficiently offset from the Overhead Line Equipment (OLE) and has a solid balustrade. To the west, a portion of the balustrade is perforated to allow improved visibility between the bridge level and the platform. The third flight of steps has a higher balustrade to provide sufficient protection between people using the stair and the OLE.

At bridge level, the lift opening is to the south of the shaft facing onto the landing area that links to the bridge. The opening from the bridge onto the lift and stair landing, is positioned to create a dedicated waiting area for the bridge that is outside of movements zones. A perforated screen, required for the structural performance of the bridge, separates this area of landing from the bridge and allows uses to look through for oncoming pedestrians. The stair wraps around the lift shaft and terminates to the west of the landing.



7 Design proposals - Pedestrian footbridge

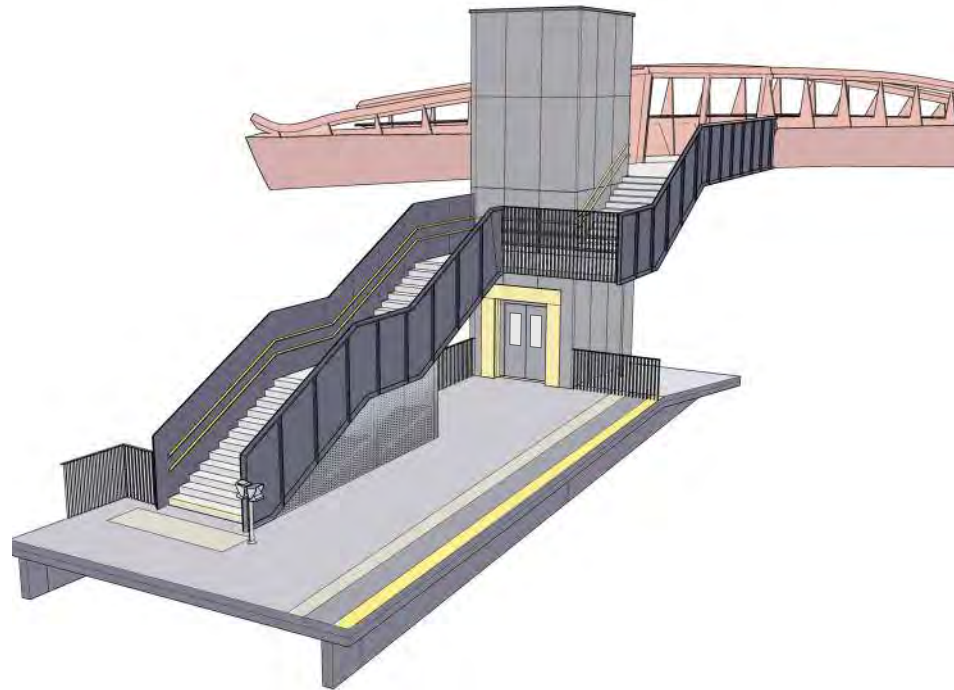
7.14 Southern circulation - Material testing

The new lift shaft and stair acts as a physical and visual link between the platform environment and the bridge structure. With the bridge defined as weathered steel and a more neutral palette to the platform, we tested a number of material combinations to celebrate this transition. A further consideration is the branding palette from TfGM, and how this needs to be integrated.

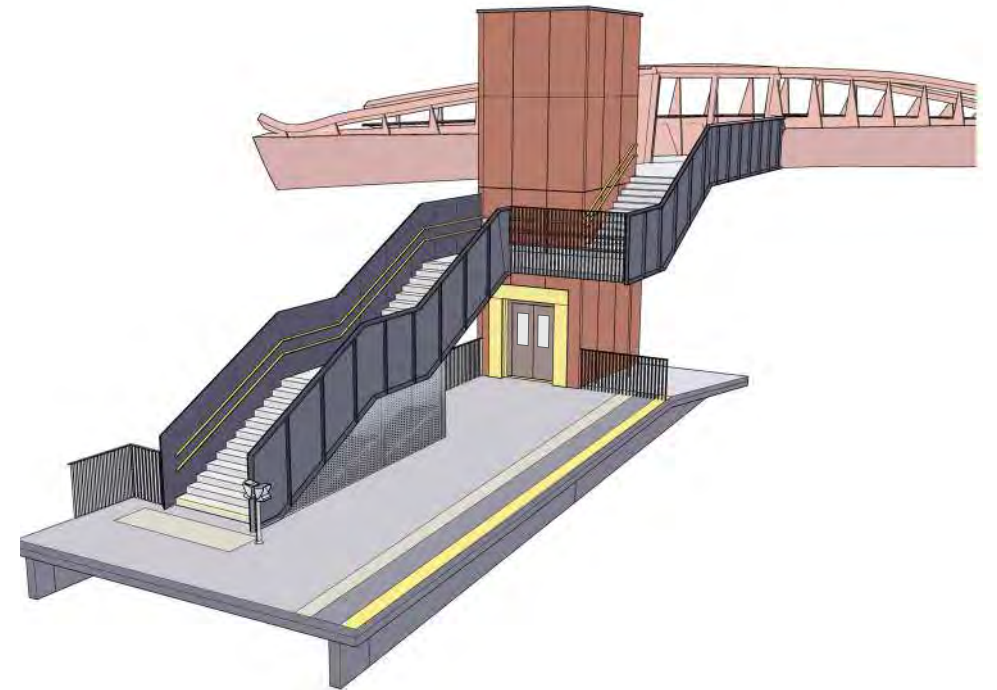
As the stair connects the passenger experience to the platform, a neutral finish that complimented the material palette on the platform felt most suitable. It also created a clear visual break to the bridge, better defining it as single sculptural form. The supports for the stair are expressed, taking cues from the expressive bridge structure.

The tests for the lift shaft included precast concrete and lightweight metal cladding, and tested different panel iterations and tone. Lightweight cladding to the precast concrete structure was the preferred choice, working within the palette generated for the platform. Through the studies, we established that the stairs as lift shaft should read as a same elements and therefore finished in dark grey.

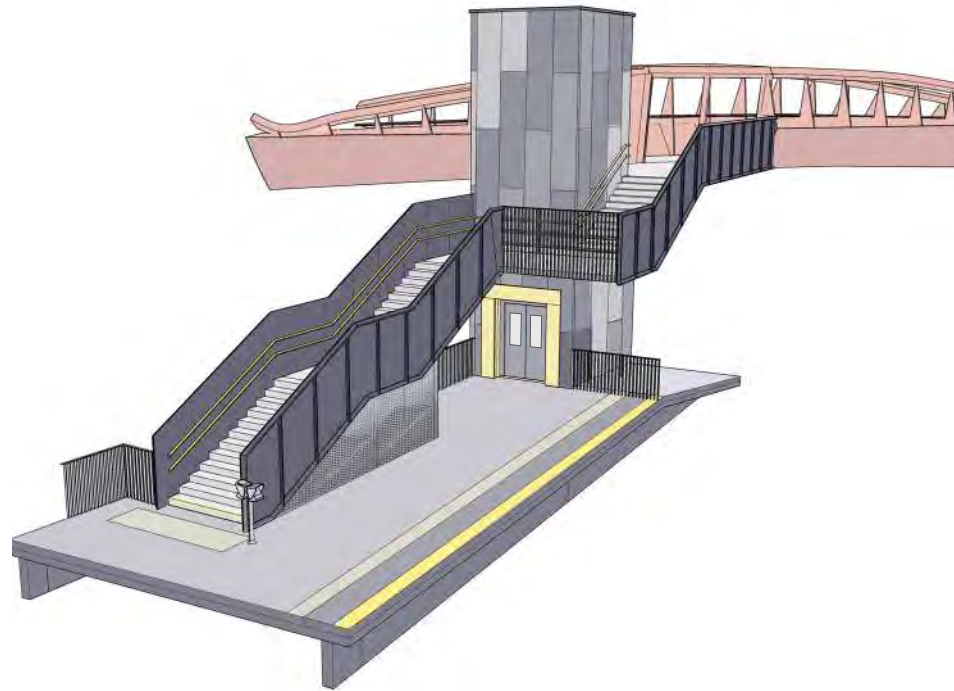
1 Precast concrete lift shaft



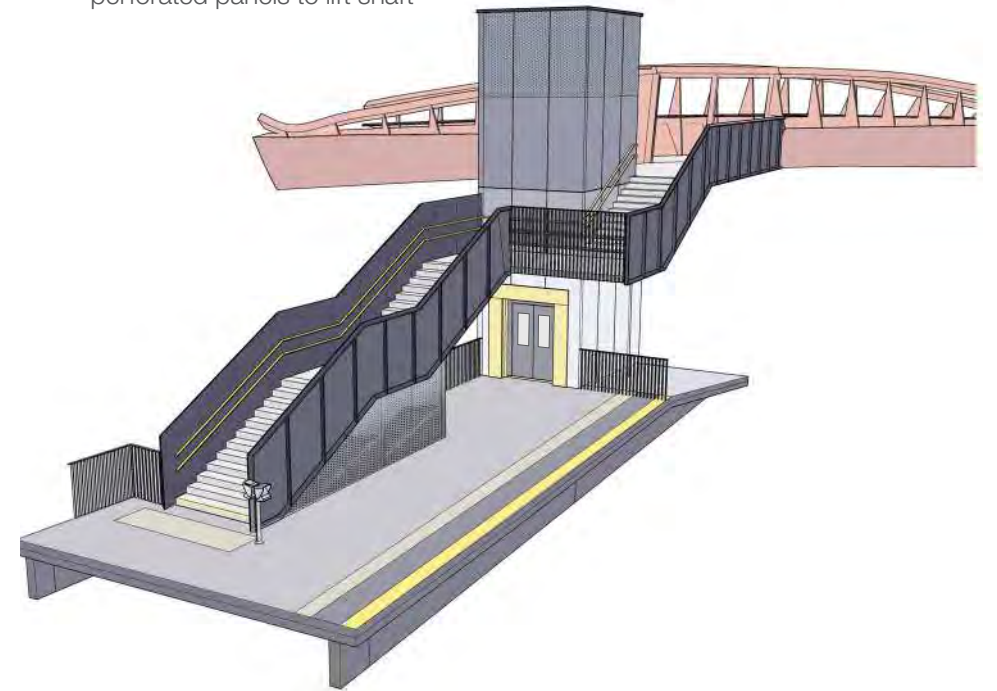
2 Metal cladding with 'Corten' finish to lift shaft



3 Metal cladding with varied neutral tones to lift shaft



4 **Preferred Strategy** - Metal cladding with neutral finish perforated panels to lift shaft



7 Design proposals - Pedestrian footbridge

7.15 Southern circulation - Materiality and detail

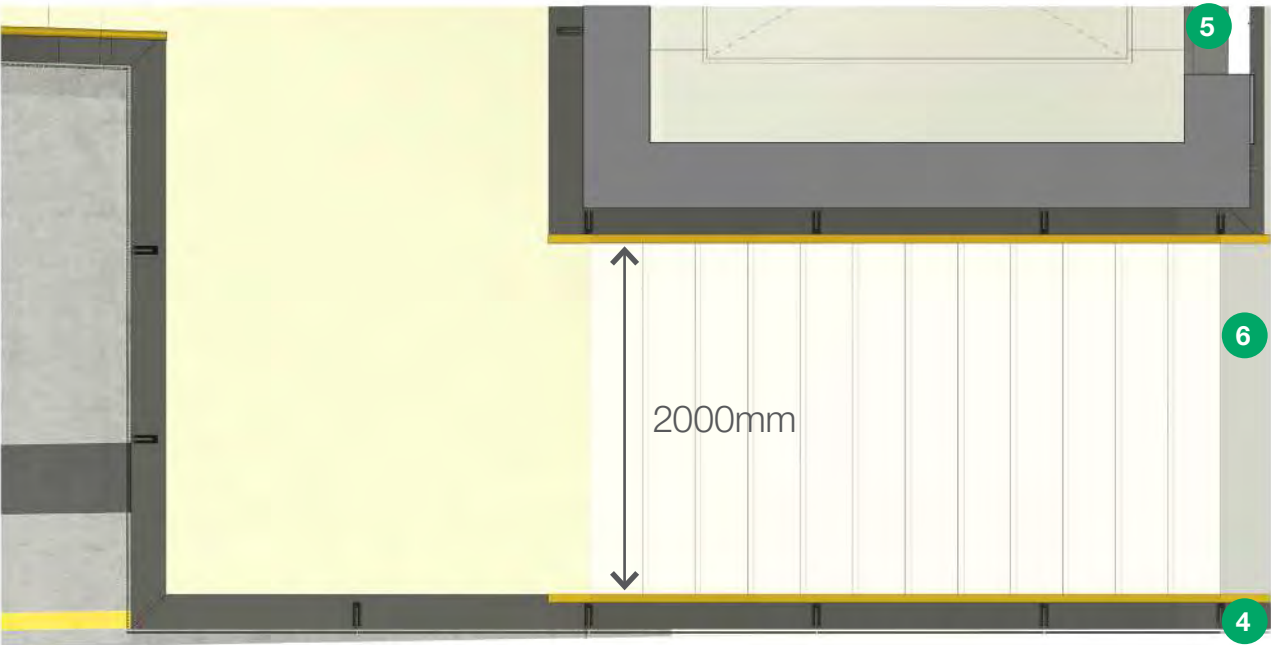
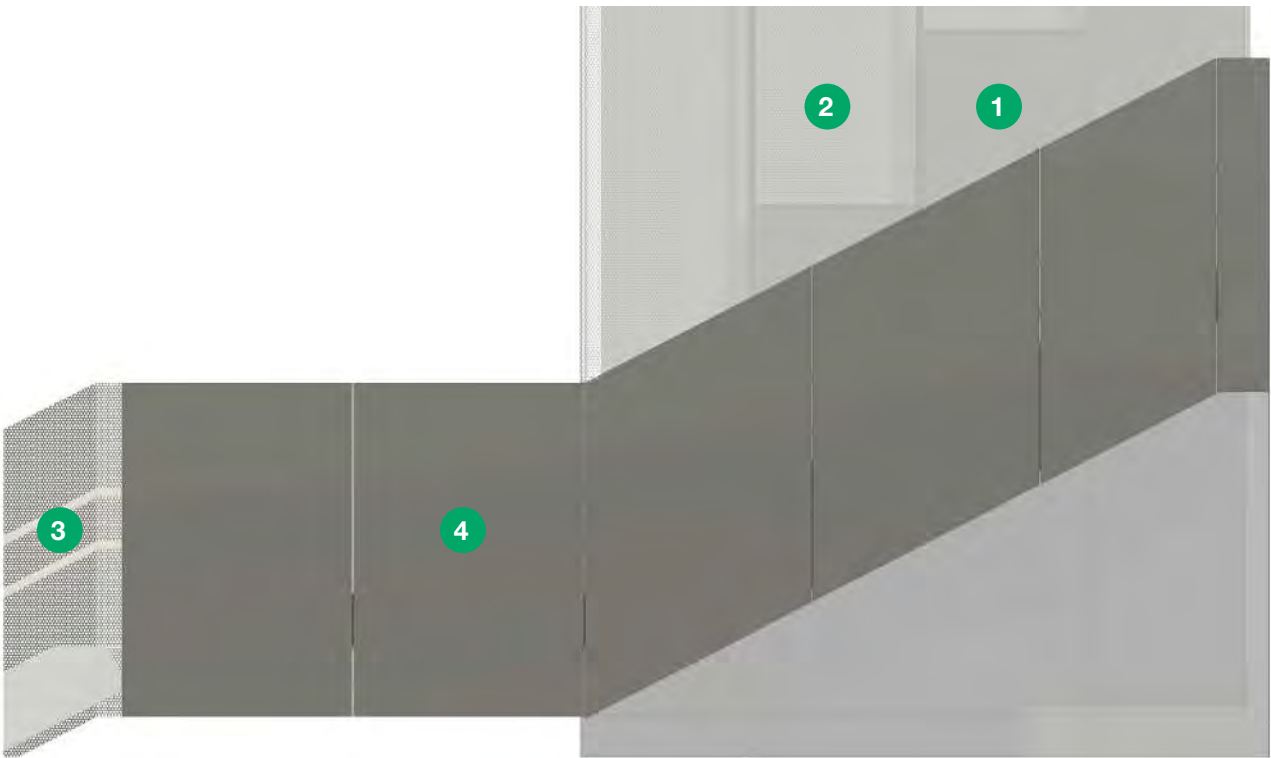
The stair is formed from a steel structure with a combination of solid perforated steel panels for balustrades. Perforations are proposed to the outer facing balustrades, enhancing visual permeability onto the platform and improving general surveillance and sight lines to and from the bridge landing. Tapered vertical supports for the balustrade sit at the inner face of the balustrade, creating a visual link to the expressed bridge structure for the user. The tapered posts also provide support for the handrails, which have integrated lighting to illuminate the stairs outside daylight hours. The finish for the stairs matches the bridge for continuity to and from the platform.

A lightweight metal cladding system is proposed to the external face of the lift shaft, matching the finish of the stair structure. The panels are formatted as planks to express verticality, with staggered joints that mirror the incline of the stair. The upper panels are perforated to maintain a visual connection across all the elements of this phase of works.

Design development image by Hawkins\Brown



- 1 Aluminium Cladding Panel - Dark Grey PPC Finish
- 2 Perforated Aluminium Cladding Panel - Dark Grey PPC Finish
- 3 Perforated Balustrade and Vertical Supports - Dark Grey PPC Finish
- 4 Metal Staircase with Solid Balustrade and Vertical Supports - Dark Grey PPC
- 5 Stainless Steel Lift Doors with Glazed Infill
- 6 Bonded Grit Floor Finish



7 Design proposals - Pedestrian footbridge

7.16 Southern circulation - Branding and signage

The use of way finding signage to enhance the pedestrian experience is key to TfGM's design brief. Whilst these details will be finalised through the detail design stages, indicative areas and strategies have been captured within the planning information.

Metrolink flag poles are located either end of the bridge structure and identified in the landscaping design. The central opening to the bridge will be marked with branded signage to create a 'portal' that is prevalent through the Metrolink network. The lift shaft, as the tallest structure within this phase of work, is an opportunity for a larger motif. Either integrated into the perforated pattern or a fabricated sign. This will be further developed with TfGM.

1 Metrolink motif opportunity



2 Bridge link and lift door 'portal'



3 Flag poles within landscape

