



North Acton Station Feasibility Study Update

June 2023



1 Introduction

Mott MacDonald were commissioned by Transport for London (TfL) and the Old Oak and Park Royal Development Corporation (OPDC) in to undertake a feasibility study exploring improvements to North Acton station. The consultant team included Landolt + Brown, 5th Studio and Morgan Sindall. London Borough of Ealing (LBE) have also supported this study.

This report outlines the analysis that has been undertaken to understand the existing issues and opportunities at the station and it details the options that have been shortlisted as part of this study.

This work represents early feasibility work and all options are subject to change.

2 Background

1. Station Site Context

North Acton station is served by the Central line, which provides high frequency connections to and from central London. Immediately north of the Central line tracks at the station are the Chiltern Railways tracks which do not serve the station. The station serves residents in North Acton and employees, many of whom work in Park Royal, a large industrial estate close by. The station is on the border of fare zones 2 and 3.

2. North Acton Station Square

In 2020 works were completed to create a fully accessible ramp within North Acton Station Square providing a step-free access, accessible route from Victoria Road to North Acton station. The scheme included new surfacing and soft landscaping.

In March and May 2022 public consultation was carried out as part of the North Acton Public Realm Prospectus project. The community were consulted on concept designs for public realm improvements, including a café, public toilet, and a cycle parking hub underneath an accessible public terrace. Subject to detailed design, the proposals will be delivered using funding that has been secured from surrounding development (Fig 2.1)

3. Holiday Inn Development

The Holiday Inn site adjacent to North Acton Square is owned by Downing Students and is undergoing discussions with OPDC and LB Ealing about a new higher-density development on the site. OPDC facilitated information sessions with the owner of Holiday Inn site.

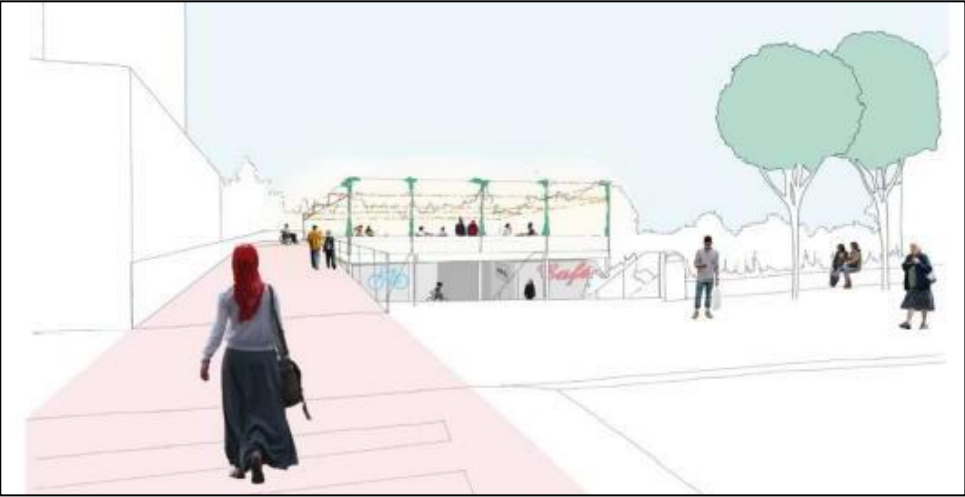


Figure 2.1: North Acton Square Proposal

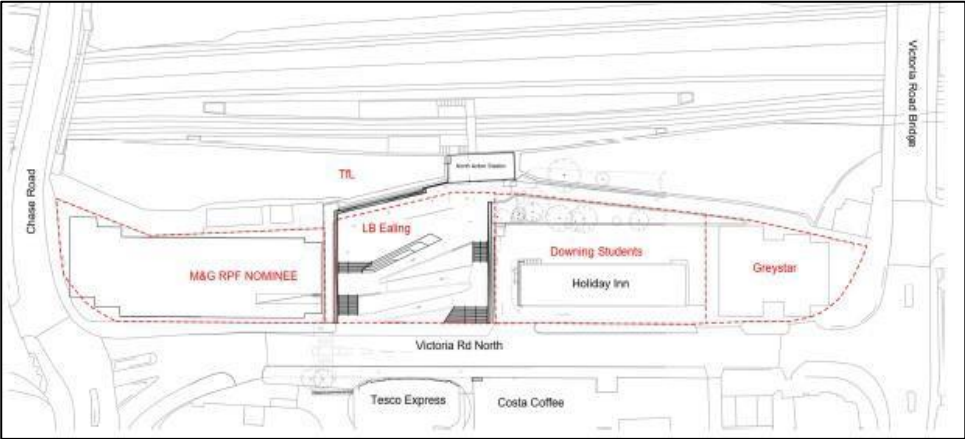


Figure 2.2 Existing Site layout showing land ownership

4. Old Oak West

North Acton station is located within the Old Oak and Park Royal Opportunity Area where significant growth is planned. Over the next 20 years, the Local Plan sets out that the area has the potential to support circa 25,000 new homes and circa 65,000 new jobs.

North of the station, across the Central line and Chiltern Railways line rail tracks is the development site Acton Well West which sits in the wider development area identified as “Old Oak West”. This site sits within the Opportunity Area where the first phase of significant development and growth is expected. The Old Oak and Park Royal Development Corporation (OPDC) is working with central government, the Greater London Authority, Homes England, HS2, Network Rail and the local boroughs to develop a comprehensive and coordinated approach to the regeneration of the area.

Within North Acton itself there is already considerable level of development underway, with several sites having either already secured planning permission or progressing through the planning process.

Given the above information and the significant growth planned for the area, it is imperative to have a station that is fit for purpose, without capacity constraints, which has step-free access for people with reduced mobility and is well connected to the surrounding local area.

5. Victoria Road Pedestrian and Cycle Enhancements

Victoria Road is a key part of the street network in North Acton and the wider Old Oak area. There are a number of existing constraints on Victoria Road, particularly where it crosses over and under railway lines. Where it crosses the Central and Chiltern Railways line, Victoria Road is currently providing bus stops in both directions, a segregated cycle lane and footways; however, there is currently not adequate space to provide all of these elements satisfactorily.

A separate bridge from North Acton Station to the development site to the north, called ‘Acton Wells West’ had previously been proposed, but following further analysis of the impact on access to Old Oak Common (see figures 2.4 and 2.5), it was shown that this new bridge would only deliver a modest difference in the walking distance between Old Oak Common and North Acton stations, which would not justify the requirement to deliver a new bridge. Therefore, it was agreed that improvements to Victoria Road bridge was the preferred strategic approach for providing improved links over the railway and on to Old Oak Common station rather than a new bridge linking North Acton Square with Acton Wells as set out in OPDC’s Local Plan. As a new bridge is no longer recommended for delivery, the existing public realm on Victoria Road bridge will need improving to create a safe and high-quality environment for pedestrians and cyclists and stakeholder engagement is required to develop these improvements.

6. Network Rail Down Up Wycombe Line (Chiltern Railways Line)

The down/up Wycombe line, referred to in this report as Chiltern Railways line, is directly north of platform T2/3. It sits at a higher level than the Central line tracks as shown in Figure 2.3. Up to 2018, it was understood that this route was used for freight and once-daily passenger “parliamentary” service provided by Chiltern Railways. Since then and in accordance with the sectional appendix, this route has now been stopped up with a temporary buffer stop and the track has been recovered east of the North London Line overbridge.



Figure 2.3 View of North Acton Station from Chase Road

3 Objectives

Using the baseline information relating to the station, and in consultation with TfL, OPDC and Ealing, the following objectives have been identified that the station options developed as part of this work need to achieve. The objectives have been used as the basis for the sifting criteria to shortlist the final option identified in this report. This is subject to change during the next phase of design development.

1. Step-Free Access

Provide step-free access and accessibility improvements. One of the main objectives to be achieved is to deliver a step-free access station to enable people with reduced mobility (PRM) to use the station. This can be achieved through provision of lifts and/or ramps that can take PRMs from street level down to platform level.

2. Capacity Enhancement

Relieve congestion and pinch points. The current station layout has several capacity constraints.

- 1 The ticket hall
- 2 The gateline
- 3 The stairs between the ticket hall and Platform 1
- 4 The stairs between the ticket hall and platform 2/3

3. Enhanced Local Permeability and Onward Connections

North Acton station plays an important role in providing access to Central line services for the local community. As such it is vital that the station connects well to the surrounding area. In particular, this study will explore the following design elements to improve local permeability and connectivity to and from the station:

- 1 The optimal location of the station 'Front Door' in a way that serves both North Acton to the south and the Old Oak West development including links to the future HS2/Elizabeth Line station to the north and northeast.
- 2 Evaluate the benefit of creating a new route from the station directly to the north across the Central Line and Chiltern Railways line rail tracks vs. implementing enhancements to the existing Victoria Road bridge route.
- 3 Identify measures to improve and enhance local

4. Improve Back of House Facilities

This study will investigate the provision of compliant station back of house facilities to TfL standards

5. Integrate Environment and Sustainability Principles into The Design

Further to the original project brief, discussions with the client team highlighted the importance of considering and integrating environmental and sustainability principles.

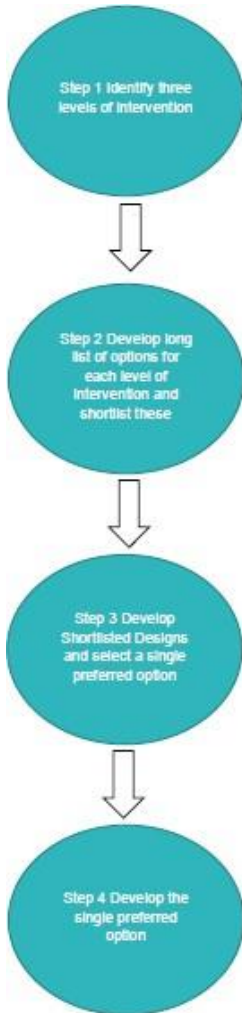
6. Constructability

As part of this commission the Design Team will need to identify opportunities to improve constructability

4 Option Selection Methodology

4.1 Methodology Overview

A comprehensive four-stage optioneering process was implemented to explore and develop the single preferred option for North Acton Station.



At early stage of the design, it was agreed that at the initial optioneering stage a long list of options to be grouped under four groups/levels of interventions would be developed. The objectives for each level of intervention are listed below:

- Low Level Intervention Options- Group 1

Deliver an MVP (Minimal Viable Product) station upgrade scenario with the objective of providing Step free access only with some capacity improvement. The station upgrade scope commensurate with the baseline station proposals outlined in the Steer Report Option 01 which proposed a step-free access and capacity upgrade scheme.

- Medium Level Intervention Options- Group 2

Station Upgrade scenarios which maximise the opportunity for improved connectivity within the wider townscape via development of 3rd party land. Station upgrade scope commensurate with the baseline station proposals outlined in the Steer Report Option 10 which proposed a step free access and capacity upgrade scheme with the station entrance at street level fronting a new north / south unpaid bridge across the railway.

- High level intervention Options- Group 3

New build station and platforms to a more suited location to the East of Victoria Road bridge. The scheme would explore development opportunities on assembled land (TfL, NR, and Holiday Inn site) on both sides of the Victoria Road bridge.

- High level intervention Options- Group 4

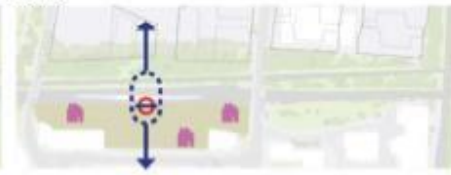
New build station to land east of Victoria Road bridge combined with London Overground (LO) station interchange. The scheme would explore development opportunities on assembled land (TfL, NR, and Holiday Inn site) on both sides of Victoria Road bridge.

Group 1
Minimum Viable Option



- Maximum benefit for minimum cost
- Step free access a priority
- Existing station square retained
- Station entrance in existing location
- Potential to incorporate - or safeguard - a bridge to Old Oak West

Group 2
Maximise Opportunity of 3rd Party Land



- New station entrance at raised ground level
- Step free access and capacity enhancement equal priorities.
- Integrated bridge to Old Oak West.
- Development opportunities on assembled land - TFL and Holiday Inn site.

Group 3&4
North Acton Station to East



- Relocated station to the east - potential to combine with Old Oak Common Lane station
- Step free access and capacity enhancement equal priorities.
- More prominent station location
- Significant development opportunities on assembled land – TFL, NR and Holiday Inn site.

Figure 4.1 Feasibility Study Levels of Intervention

4.3 Sifting Criteria and Scoring

Table 4-1 provides the agreed sifting criteria to score each option against. This is mainly based on the objectives outlined by the client group as presented in section 3.

Table 4-1 Sifting Criteria

Scheme Objectives	Sifting Criteria
1 Deliver Step-free access	Step Free Access and Accessible Provisions
2 Provide enhanced capacity and address existing constraints in the ticket hall and at platform level	Capacity Enhancement
3 Improve permeability / connectivity to surrounding existing and new neighbourhoods and links to buses	Modal Interchange
4 Improve integration with Local Plan	Compatibility with Local Plan
5 Improve back of house facilities (station office, mess facilities etc.)	Operations
6 Enable over-site development where possible*	OSD / ASD Opportunities. Retail / Commercial Opportunities
7 Integrate environment and sustainability principles into the design	Sustainability & Environmental
8 Minimise constructability / buildability impact of the scheme.	Constructability

*OSD was explored at early stages then discounted for the shortlisted options.

Table 4-2 provides the score values used to score each of the scheme objectives presented in Table 4-1 for each of the options. This enabled the design team and the client group to quantitatively assess each option against each other.

Table 4-2 Score values

Comparison to baseline	Scoring compared to baseline option (2018)	
Significantly worse	-2	
Worse	-1	
Baseline / Equal	0	
Better	+1	
Significantly better	+2	

5 Development of Preferred Option

5.1 Development of Preferred Option

The preferred option will create improvements to both the station and the surrounding public realm. As well as capacity upgrades and a new ticket hall arrangement, the proposal includes raising North Acton Square to street level and creating a level approach to the station.

It has been considered with regards to a number of potential development opportunities on adjacent sites and this arrangement allows for various configurations to come forward and work well with the proposed station arrangement.

There is the potential to build the station in a single phase alongside a phased approach to constructing the station square, with access along the existing private approach to the TfL bin and plant store. This would enable the station to be delivered ahead of wider development and change in the area.

Development of Final Option - Aims

The following three aims have driven the development of the preferred option:



A compelling illustrative 'final' scheme which focuses on the opportunities for development and placemaking once the full station upgrade has been delivered



Develop an optimised station layout - a solution which is technically feasible and produces a good station outcome in design and operation terms



Understand deliverability of a 2-phase approach - in the short term, demonstrate how the scheme is capable of being phased to deliver vital station improvements, to address accessibility, capacity, and fire safety requirements

5.2 Placemaking and Public Realm

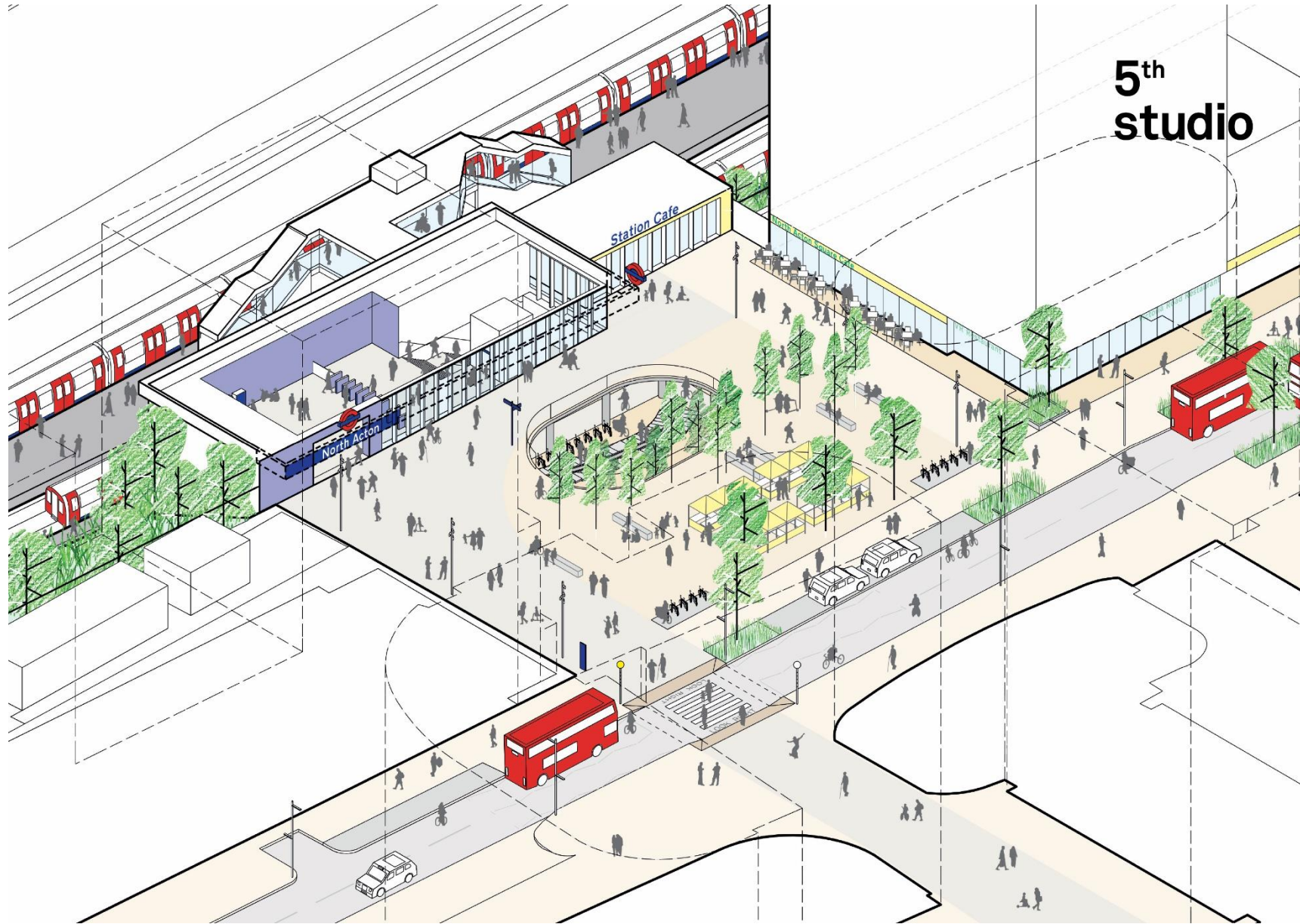


Figure 5.1 Illustrative proposal of North Acton Square at station entrance level

Zoning of the Public Realm

There is potential to create a space that acts as a focus for the community as well as a successful transport interchange. Through zoning of the public space, areas can be defined for active uses and transport functions.

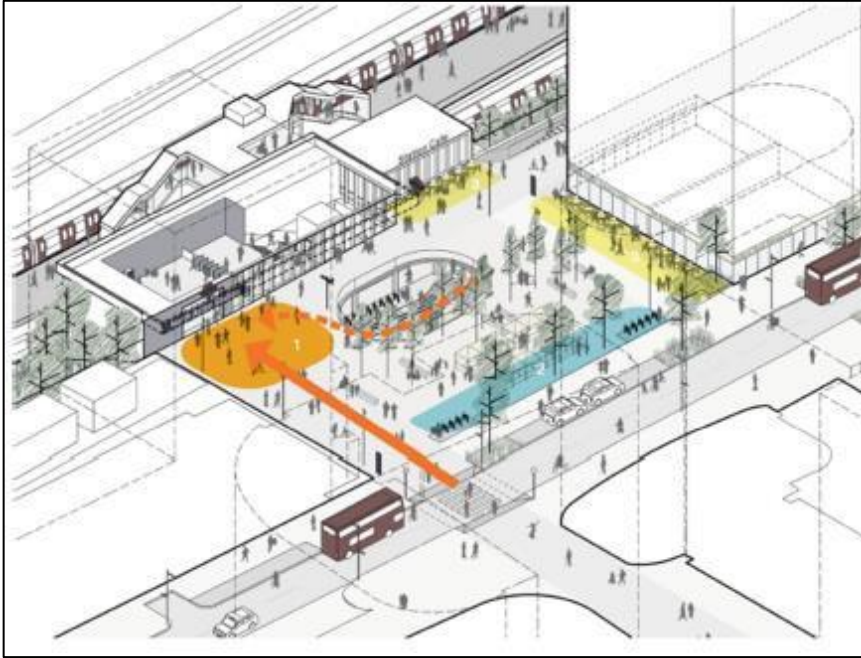


Figure 5.2 Zoning of North Acton Square

- 1 Southern approach from Victoria Road - wayfinding and local information
- 2 Interchange space along Victoria Road - with areas for accessible cycles, space for waiting, signage etc
- 3 Cafe or retail space to activate the edges of North Acton Square

Activation and Temporary Uses

North Acton Square has been designed to enable social spaces to be visible, but away from passenger flows. The layout of the square should be able to accommodate a wide range of activities and flexible programming - such as the pop-up market shown here:



Figure 5.3 Space for temporary events on North Acton Square

- 1 Generous flexible space for temporary events, community or market use
- 2 Trees in flush tree pits (utilising space below the deck), to maintain unobstructed routes through the space and clear sight-lines across the square
- 3 Cut-out in the deck with views down into the lower level below

5.3 Movement

The station entrance is designed to accommodate existing and future pedestrian movement demand. The entrance situated to the west responds to the current highest pedestrian demand, along Portal Way to the south. It also enables a connection along the eastern route towards Old Oak Common, accommodating future demand either along this route or on Victoria Road North.

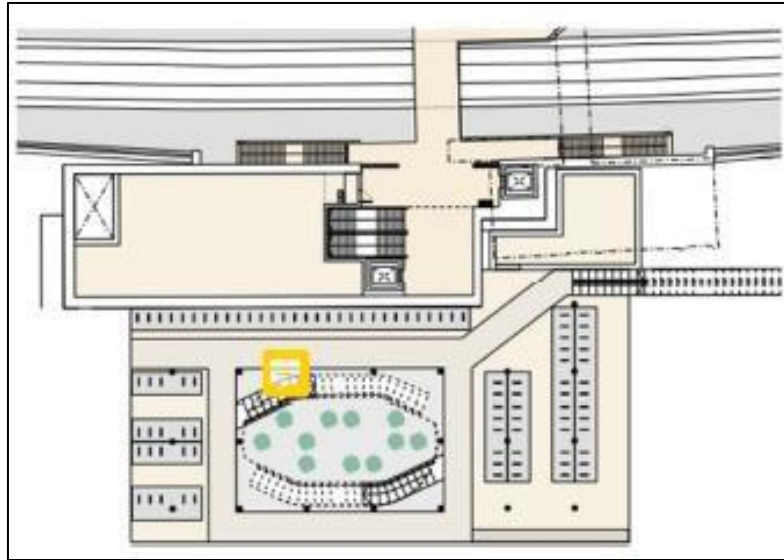


Figure 5.4 Indicative layout of cycle hub in the lower level space

Previous work indicated that by 2026, 60% of pedestrian movements will be arriving from the south, and that by 2041, 57% of pedestrian movements will be arriving from the east.

This high volume of pedestrian movement highlights the importance of the eastern route connecting North Acton Station to Victoria Road bridge.

Pedestrians could approach the station from the east either along the east- west route or along Victoria Road given the raising of the square to provide an accessible route from street to station entrance. 35% of pedestrians are still expected to approach the station from the south. The public realm prospectus study includes an improved route to the south along Portal Way as new developments come forward in the area.

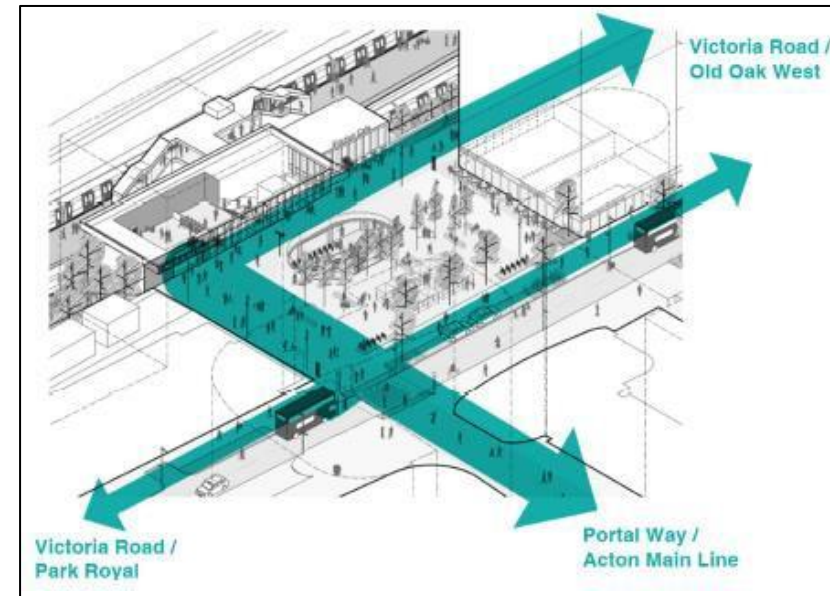


Figure 5.5 pedestrian movement through the public realm

6 Conclusions and next steps

6.1 Conclusions

This feasibility report has documented a potential option for the upgrade of North Acton station alongside a solution that offers significant improvements to the constructability, station access and connectivity within the wider townscape.

The initial station design offers the possibility to phase the development independent of the more wholesale change to the wider public realm and development sites. The study reviewed options for the optimum approach for accessing the station, and identified the importance of delivering a high quality, fully accessible route which feels safe, welcoming and overlooked. The creation of a high quality street environment with active frontages, town centre uses and exemplary public realm will be critical to secure, and this can most effectively be delivered via Victoria Road and the raising of the station square.

This has resulted in the replacement of the previously envisaged bridge to the north, as set out in OPDC's Local Plan, with the recommendation for focusing on improvements to the Victoria Road bridge as the preferred strategic approach for providing improved links over the railway and on to Old Oak Common station.

The station design and new ticket hall footprint also offers a new station entrance location that maintains a generous public square and supports a range of development options for the adjoining land to best fit with the emerging masterplan in the area

The plans for the station will be refined as part of the design development process.