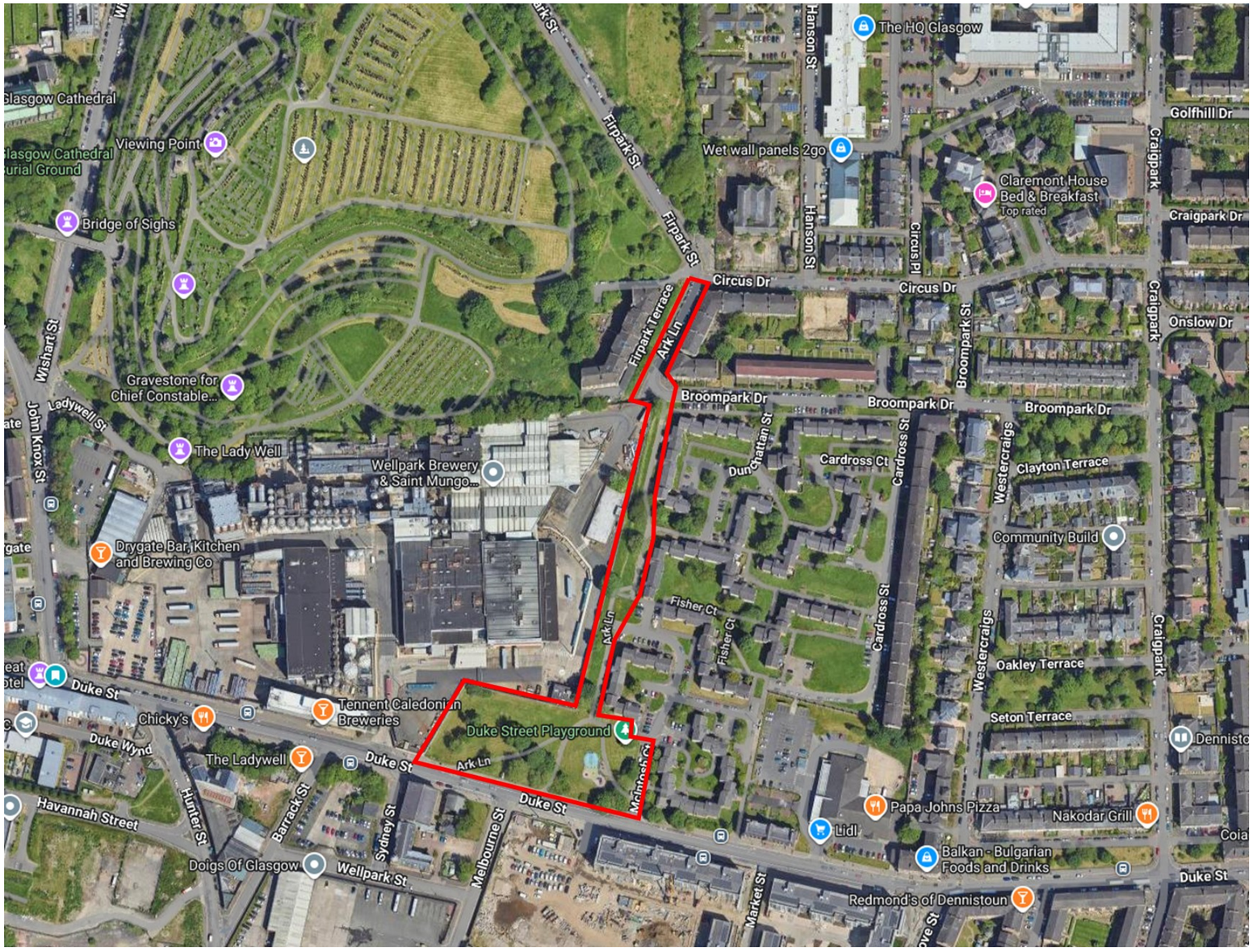
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Glasgow Avenues Plus - Block S

RIBA Stage 2 - Concept Report

Ark Lane

IronsideFarrar
EnvironmentalConsultants

Glasgow Avenues Plus - Block S

Concept Report **Ark Lane**

Summary Report

Prepared by Ironside Farrar for Glasgow City Council

Client Lead: City Centre Regeneration – City Deal Avenues Programme

Neighbourhoods, Regeneration and Sustainability, Karina Mirza

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1 Project Brief / Background

1.1 Final Project Brief

Glasgow City Council are seeking to prepare costed concept design options for an active travel/accessible link along Ark Lane between Duke Street and Broompark Drive. The route will link with Duke Street Avenue proposals and will initially be progressed as an extension to the Duke Street design proposals via Ironside Farrar's Block S commission.

This report forms the RIBA Stage 2 Concept Stage including proposals and cost information.

1.2 Existing Conditions

The lane connects Firpark Street in the north to Duke Street in the south linking to destinations such as Glasgow Royal Infirmary, Necropolis and Alexandra Park to the Duke Street Avenue and onwards to the City Centre.

The site is constrained to the west by a 5.2m high brick wall forming the boundary to Wellpark Brewery and residential properties to the east. To the south of the lane is an open space with playground and amenity green space.

The existing asphalt path is 3.0m wide with multiple flights of steps forming a barrier to cyclists and pedestrians with mobility issues. A well worn desire path has been formed on the grass verges by users bypassing the steps.

A series of decorative arches and several mature broadleaf trees provide an attractive off road route enhancing the character of the area..

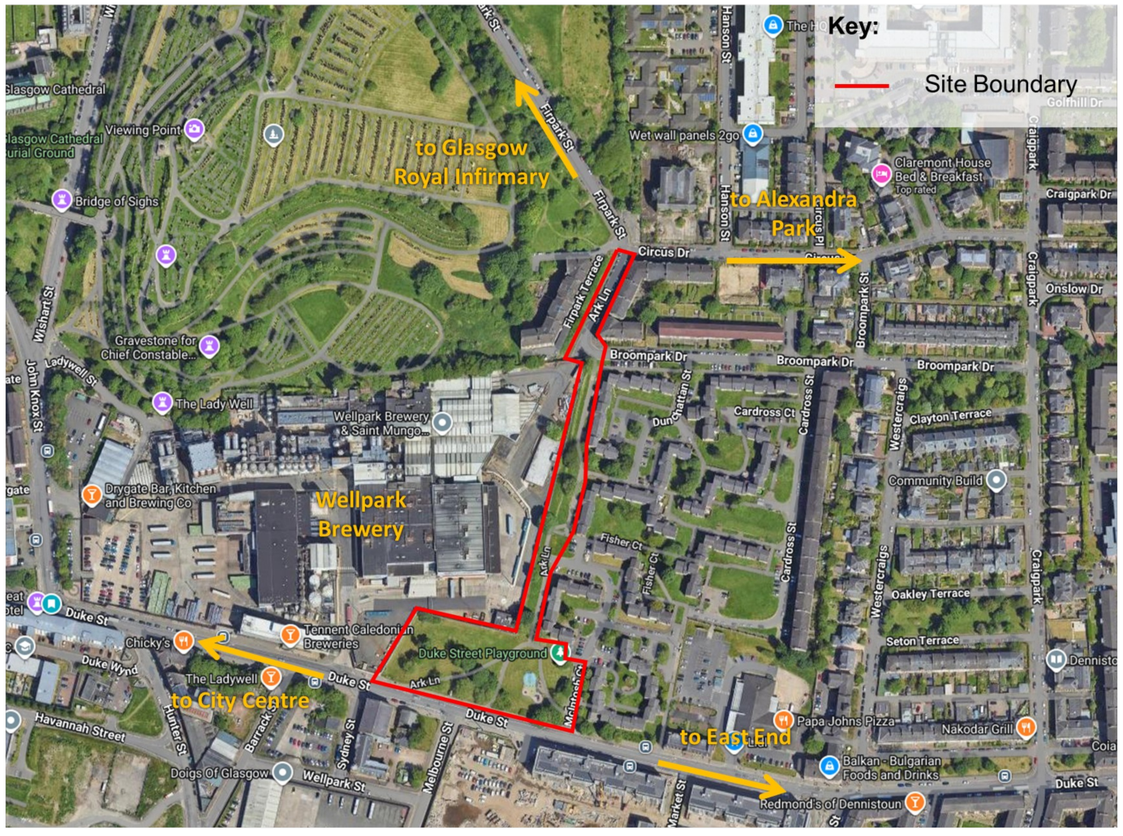


Figure 1.1 Site Context



Figure 1.2 Existing Path

2 Concept Design

2.1 Concept Design

The concept design process has been informed by a design phase which has included detailed site assessment (including topographic surveys, utility mapping and site walkover). The design team has also hosted a design session with representatives of the client team and GCC Technical Services (TS).

Two main options were considered for the site:

1 - Shared use path

2 - Segregated cycling and walking facilities

From the site walkover it was clear that due to spatial constraints providing segregated cycling and walking facilities would require the removal of several mature trees and would also likely have low compliance as pedestrians would likely take the most direct route by walking on the cycle path. It is therefore proposed that shared use is most appropriate.

Cycling by Design recommends remote shared use paths are 4.0m wide (2.5m absolute minimum). It is proposed to retain the decorative arches and trees therefore the path is proposed at 4.0m wide and tapering down to 3.0m wide locally at constraints.

The existing steps are the main barrier to accessibility. It is proposed that these are infilled and gently sloping paths are formed. Analysis of the 3D topographic survey show this would result in two locations with gradients between 5% and 9%. It is proposed that handrails and level rest platforms with seating are provided on these sections.

In the lower section it is noted the path connecting to south west at Duke Street is in proximity to the Sydney Street toucan crossing. It is proposed to utilise this by designating a short section of the Duke Street footway as shared use with appropriate tactiles and signage allowing cyclists to cross safely to/from the avenues segregated cycleways.

2.2 Soft Landscaping

Some soft landscape interventions are proposed. These seek to integrate the park into the Duke Street Avenue through a more open prospect to the south and softening the visual impact of industrial walls to the north, with appropriately planted trees and shrub species. This aims to encourage use of the play area and removes older shrub planting that requires regular maintenance to prevent screening of pedestrian movements and play that may discourage use. It would therefore be consistent with GCC feminist planning polices and the overarching aims and objectives of Glasgow Avenues.

2.3 Drainage Strategy

The existing path is drained by a number of footway gullies. It is proposed that these are relocated appropriately as part of the Stage 3/ 4 design phases.

Cycle Track Types		Footway Width	Separation	Cycle track width* – One-way, less than 300 cycles per hour peak	Cycle track width* – One-way, more than 300 cycles per hour peak	Cycle track width* – Two-way, less than 300 cycles per hour peak (per direction)	Cycle track width* – Two-way, more than 300 cycles per hour peak (per direction)	Buffer Width
Remote Cycle Tracks Separated from Pedestrians	Desirable minimum	2.0 m	Varies with Facility	2.0 m	2.5 m	3.0 m	4.0 m	N.A.
	Absolute minimum	1.5 m	Varies with Facility	1.5 m	2.0 m	2.0 m	3.0 m	N.A.
Remote Cycle Tracks Shared with Pedestrians	Desirable minimum	N.A.	N.A.	Not Recommended	Not Recommended	4.0 m	Not Recommended	N.A.
	Absolute minimum	N.A.	N.A.	Not Recommended	Not Recommended	2.5 m	Not Recommended	N.A.
Cycle Tracks adjacent to Carriageway Separated from Pedestrians	Desirable minimum	2.0 m	Varies with Facility	2.0 m	2.5 m	3.0 m	4.0 m	Refer to Table 3.8
	Absolute minimum	1.5 m	Varies with Facility	1.5 m	2.0 m	2.0 m	3.0 m	Refer to Table 3.8
Cycle Tracks adjacent to Carriageway Shared with Pedestrians	Desirable minimum	N.A.	N.A.	Not Recommended	Not Recommended	4.0 m	Not Recommended	Refer to Table 3.8
	Absolute minimum	N.A.	N.A.	Not Recommended	Not Recommended	2.5 m	Not Recommended	Refer to Table 3.8

- On gradients greater than 3%, cycle track width should be increased by 0.25 m to allow for greater lateral movement.
- Where gullies are present on a cycle track that do not allow cycles to easily overrun, the cycle track width should be increased by the widths of the gully.

Table 3.7: Dimensions for cycle tracks

Figure 2.1 Cycling By Design Standards

2.4 Public Utilities

C2 public utility records for the site have been obtained and are enclosed in Appendix 3. Affected providers as follows:

Openreach: One telecom line crossing the lower section of park likely to be unaffected by the works.
City Fibre: Telecoms links to properties at the north end of the lane may be affected by regrading works.
SPEN: LV cables to properties at north of site may be affected by regrading
SGN: LP Mians to properties at north of site may be affected by regrading
SW: Mains and sewers run the length of Ark Lane and may be affected by regrading
Virgin Media: Telecoms links to properties at the normiddle of the lane may be affected by regrading works.
Street Lighting: A number of street lighting columns are required to be relocated as part of the works

It is recommended that C3 notices are issued to affected providers as part of the Stage 3 design.

3 Concept Drawing/Visuals

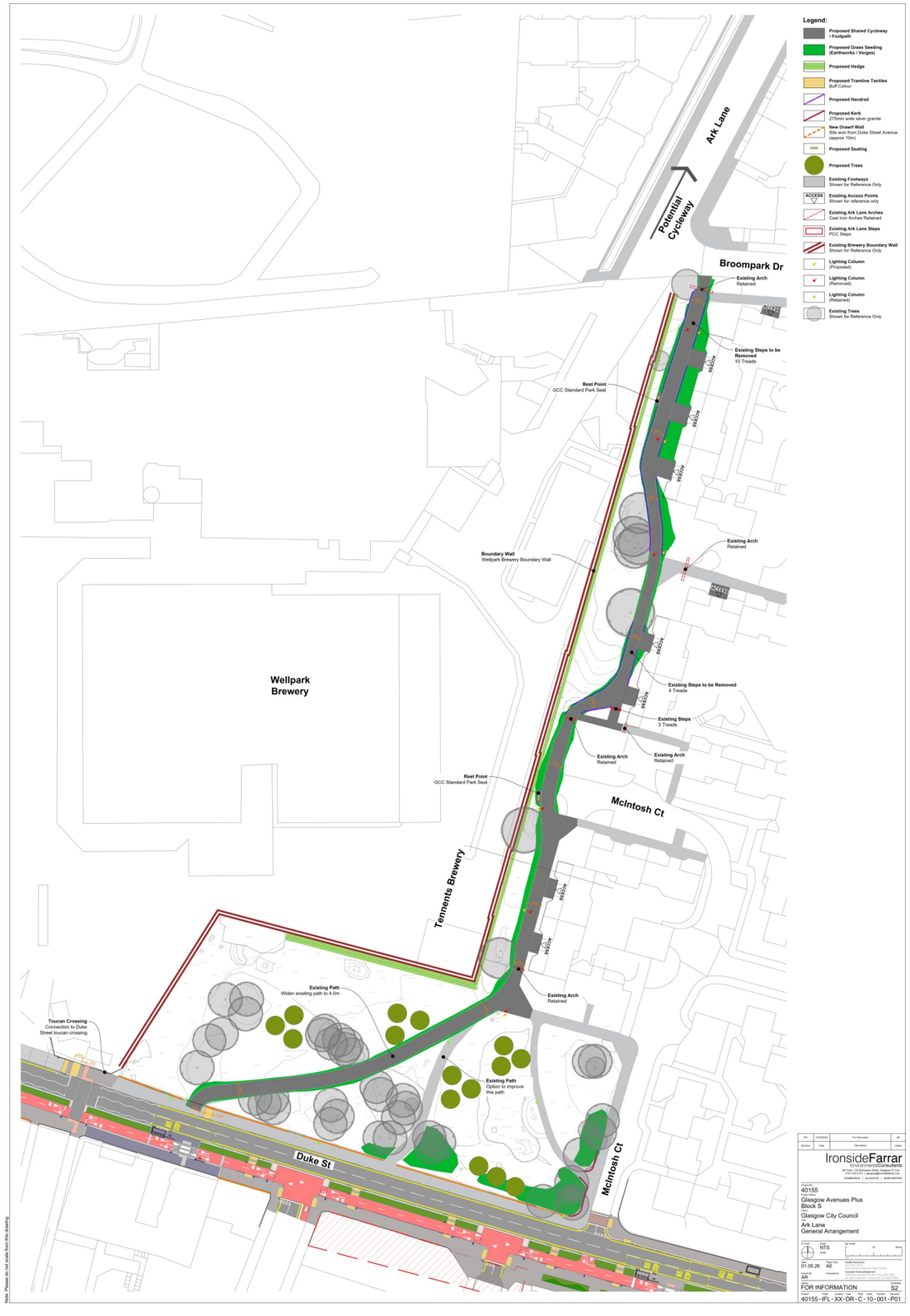


Figure 3.1 Proposed Concept

3 Concept Drawing/Visuals



Figure 3.2 Render



Figure 3.3 Photograph

3 Concept Drawing/Visuals

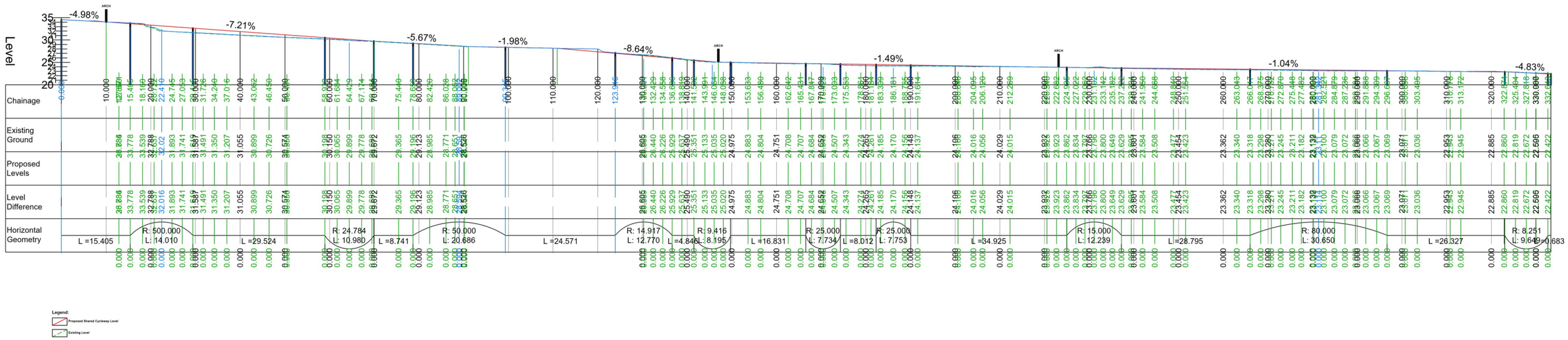


Figure 3.3 Long Section

4 Cost Information

4.1 Introduction

Costs have been prepared based on works identified on IFL's General Arrangement Drawing **(40155-IFL-AL-DR-C-10-001 -P01-S1_General Arrangement)** together with additional allowances for preliminaries, clearance, drainage and service diversions which have yet to be fully defined.

Costs have been prepared by IFL based on published rates and recent tender experience of similar projects. It is understood that competitive tenders will be sought through GCC's Public Realm Framework.

Costs exclude the following:

- VAT
- Professional/Legal fees and statutory consents
- Costs associated with unknown ground conditions or abnormal service diversions other than those specifically identified.
- Maintenance

4.2 Stage 2 Cost Estimate

The total cost for the delivery of the works are estimated at **£343,610.**

These have been further broken down into 3 phases should GCC only wish to progress 1, 2 or all 3 phases separately.

Phase 1 - £158,884 Phase 2 - £94,833 Phase 3 - £89,890

A more detailed breakdown of this estimate is included in Appendix 2.

The following assumptions were made:

- Surfaces will generally be as described in this report; variations in natural stone cost will be determined by availability at the time of ordering. Significant areas of the site are based on lower cost blacktop/concrete products.
- Furniture, signage and lighting are budget allowances pending detailed specification confirmation. Quantities based on like for like replacement of existing. Some elements may overlap with Duke Street Avenue (eg boundary walling) and could be de livered separately.

4.3 Commentary

The costs equate to **£146 per square metre**. This includes an optimism bias allowance of 30% which has been set following recent tendering experience by both GCC and IFL. Given ongoing uncertainty in construction inflation GCC may wish to make additional allowances over and above this to ensure sufficient budget allowances for future increases. These will largely be dependent on the actual timing of the works themselves and the procurement method.

4.4 Value Engineering

Value engineering (or additional) may be required and IFL have scoped some elements that would be worthy of further exploration as designs progress. These include:

- Phase 1 has the main barriers to active travel (several flights of steps) and therefore as a standalone package of works would offer significant improvement.
- Phase 2 would allow a complete improved route through the housing area .
- Phase 3 would complete the link to the Avenues project and provide wider improvements to the park as a whole.
- The soft landscaping interventions are not essential for active travel and may be omitted. Some hard landscaping elements may be delivered through Duke Street Avenue—subject to budget.
- A full new lighting for the path has been costed but it may be possible to retain or make minor adjustments to existing columns instead.

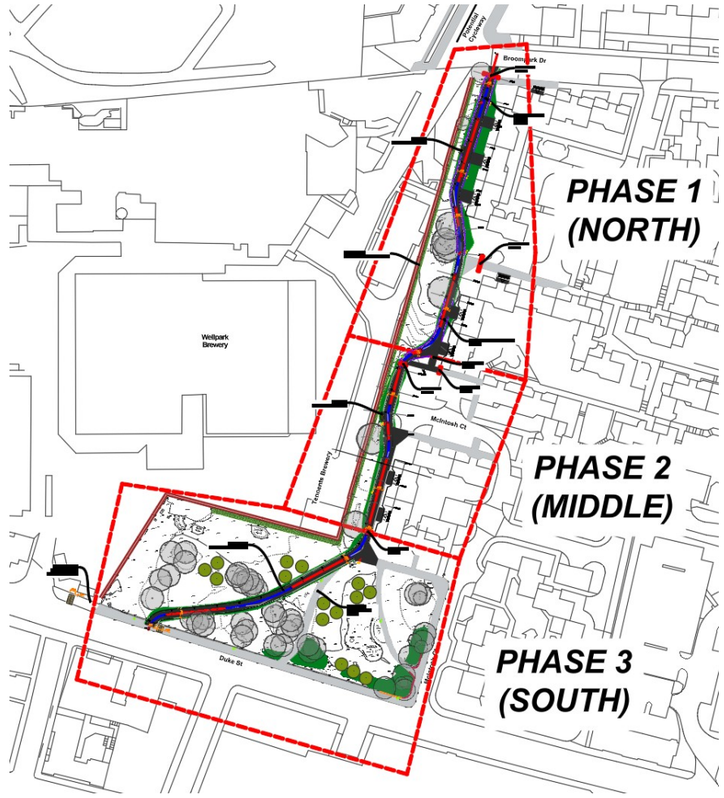


Figure 4.1 Phasing Plan

5 Planning & Consents

5.1 Planning

As noted in previous Stage Reports the site boundary is largely defined by the adoptable carriageway boundary and it is therefore considered that planning consent will not be required. The works are generally considered permitted development under the New Roads & Streetworks Act 1991.

5.2 Traffic Regulation Requirements

The short section of footway on Duke Street may require an order to formally determine it as shared use..

The drafting of any Orders will be undertaken at Stage 4 of the RIBA process as part of the final technical design for the project. It should be noted that the timescales associated with drafting the orders and following due process could be in the region of 12 months, depending on the nature of any objections.

5.3 Utility Consents

The Design Team will apply for all non-statutory consents on behalf of the Client. C3/C4 applications will be required for any utility diversionary works.

5.4 Construction Permits

The appointed Contractor will be required to apply for the following permits:

- **Road Opening Permit** - required to excavate any public road or footway
- **Road Occupation Permit** - required to occupy a section of public road

6 Health & Safety Strategy

6.1 The Construction (Design & Management) Regulations 2015

The Construction (Design and Management) Regulations 2015 came into effect on 06 April 2015. This project is deemed to fall within the scope of the Regulations and the client is therefore required to appoint a Principal Designer and subsequently a Principal Contractor for the project.

The project would be deemed notifiable and the client will be required to issue F10 notification to the Health & Safety Executive normally at the end of RIBA Stage 4.

At this early stage GCC would buy default be the Principal Designer. As designer under the regulations Ironside Farrar have a responsibility to identify significant risks to health and safety during the construction and maintenance of the site. Designs should seek to eliminate, reduced or manage such risks. The following summarises this review.

6.2 Hazard Identification / Risk Management

IFL have prepared a hazard identification / health & safety drawing to identify and record risks to health & safety.

Key Construction Risks include:

- Multiple utilities - Excavating and filling in proximity to underground utilities. Service diversions are likely to be required. Utility records are provided however uncharted services are likely and should be anticipated. Further review will be required at detailed design stagee
- Pedestrian management - Works to be barriered off and alternative pedestrian and cycle routes provided and signed.
- Site Access - Access arrangements to be agreed with GCC and owners/tenants/housing association.
- Existing mature trees - Trees to be protected throughout the works in line with BS 5837.

In Use Risks include:

- Pedestrian and cyclists conflict - Path widths proposed to be above absolute minimum in Design Guidance. Appropriate signage and tactile paving to be provided.

6.3 Accessibility Issues

The project aims to significantly improve accessibility by removing several flights of steps acting as a barrier to some users. In doing so this will require the formation of ramp like gradients. In order to mitigate this additional handrails and rest platforms should be provided. An EQIA may be required to review this in more detail and as a public record.

6.4 Road Safety Audit (RSA)

Not required

7 Summary / Next Steps

7.1 Summary

The design recommendations are to effectively realign and reconstruct the existing housing path (and park path) to provide a 4m wide shared use path from north to south linking Broompark Drive with the new cycle route on Duke Street currently under construction. The proposal will remove current barriers to active travel including several flights of steps but will retain some key elements of the local character (archways / railings). The steps will be replaced by a ramp in some sections which will require the addition of a handrail.

The proposals can be delivered in whole or in phases with each phase offering an additional benefit. Phase 1 (the north section) would be considered a particular priority as the only section with existing steps.

The path would be shared use (walking/wheeling/cycling) which can be a concern to some more vulnerable groups. The path width of 4m has been selected to ensure there is sufficient space for all users however the gradient will mean some cyclists can travel quite quickly. Retention of the arches and other local narrowings would be recommended to mitigate this further and should be included at detailed design.

The total cost for the delivery of the works are estimated at £343,610 however as noted above phasing or value engineering options are available.

7.2 Next Steps

The idea from the design has come from feedback from the Dennistoun Area Partnership and it is the intention that the proposals will be presented to them at their next meeting for consideration.

Further wider consultation with the general public may be appropriate after that meeting.

Subject to funding and procurement approach a detailed set of drawings would be required (RIBA Stage 4) for tendering and construction.

As the proposals will remove some of the steps accessing neighbouring properties discussion will be required with the relevant owner/housing association and their respective tenants to agree these details.

Depending on the final design traffic road orders may be required to designate areas of footway as shared use. These would need to be in place before the route was brought into use.

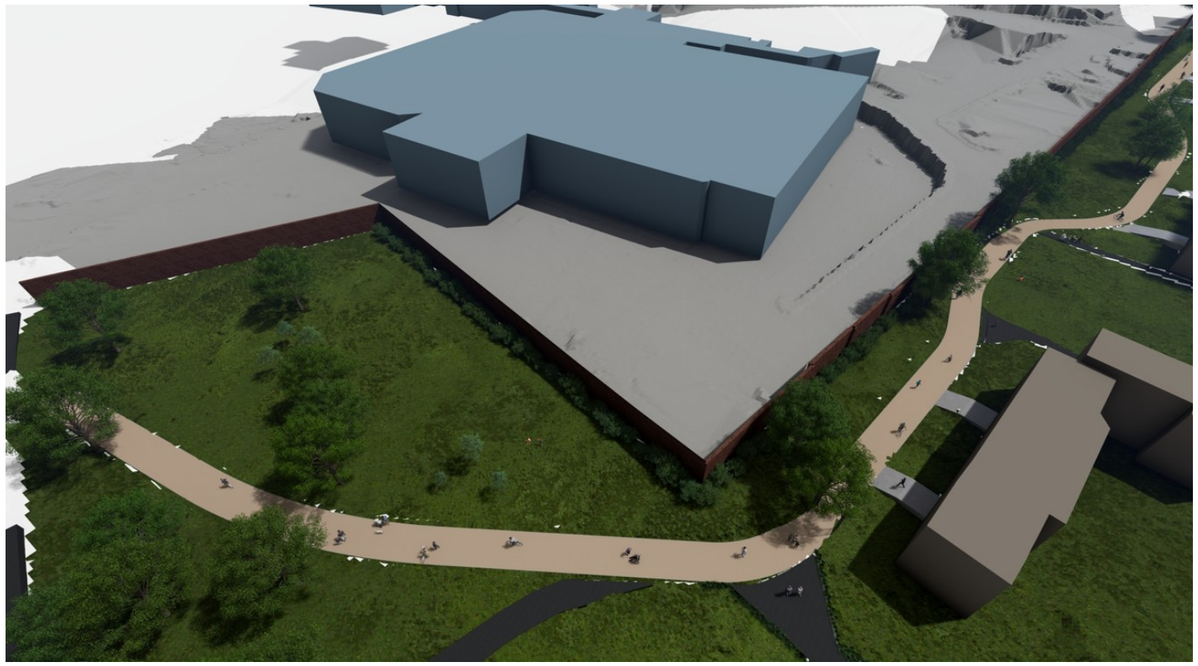


Figure 7.1 Aerial Render

Appendix 1: Concept Design

Appendix 2: Cost Estimates

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Appendix 5: Phase 1 Desk Study Technical Note

Revision	Status	Checked by	Date
P01	S3 - For Review and Comment by GCC	CC	20/05/26

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