6.5 Corn Exchange Street / Wheeler Street / Parsons Court

Corn Exchange Street

This street is predominately an access road. It is a narrow street with a narrow carriageway and narrow pavements either side. To the western side, against the Corn Exchange building, the footpath ramps up to meet the external doors. This further squeezes the width of the street due to the presence of the protective railings. This side of the street is the side which provides a continuous pavement to Downing Street.

On the other side of the street the footpath runs out at the edge of Fishers Square where it abuts the basement levels of the Grand Arcade. People who have travelled along the footpath on the eastern side either then have to go into the Grand Arcade or walk along the cycle lane / road until they reach a point where the footpath on the other side of the road returns to grade. This causes conflicts between pedestrians, cyclists and vehicles.

Wheeler Street

Wheeler Street has a number of restaurants / bars and cafes which are accessed from it. The existing main entrance to the Corn Exchange is via a ramped access with the entrance raised above the surrounding street level.

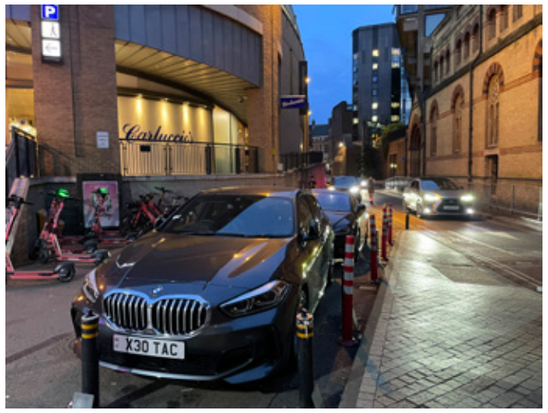
The street is single direction with a cycle lane demarcated to travel in the opposite direction. Although the street feels like a road with pavements either side, the pavements are narrow and there is pressure on their usage. This means the road is being used as a shared space despite it not being designed / designated as such. The same is true of Bene't Street including during evenings when people are queuing up waiting for tables at restaurants and spilling out of pubs. There is very little space for outdoor dining with a few slim benches located outside The Pint Shop.

Parsons Court

Parsons Court is an adopted highway. It is a street with a vehicle access through it to University Buildings at the south of the Street. The street also provides access to a number of buildings along Parsons Court including Steak and Honour, the Corn Exchange box office and others. There is an external fire escape from the first floor of the Corn Exchange to ground which provides a pinch point at the entrance to Parsons Court.

The street is also an area where numerous bins for both The Corn Exchange and the surrounding units are stored. There are doors from the Corn Exchange onto this street. There is also cycle parking for 6 bicycles at Sheffield stands. It is a key thoroughfare for deliveries including setts to access the back of house facilities to the rear of the Corn Exchange.

↑ Examples of the night time economy along Wheeler Street and Bene't Street demonstrating the existing use of these spaces as shared spaces



↑ End of paving on eastern side of Corn Exchange causing conflict between pedestrians / cyclists and unrestricted vehicles who don't realise before they have passed the crossing

Design Strategy

Corn Exchange Street

The intention for this street is that it will remain as a key movement connection. The intention is that private vehicular movement (with the exception of Blue badge holders) will be restricted along this route and so the volume of traffic will be reduced and the street will become safer for more vulnerable users such as cyclists and pedestrians.

The width of the carriageway will be reduced to 3.5m to increase the amount of space for pedestrians as much as possible.

The carriageway and pavement will be delineated with either a 25mm upstand kerb or a linear tactile edging in a contrasting tone. This will encourage the street to feel more pedestrian focussed whilst providing a marked route for vehicles when both are in the same space.

Fishers Court is outside the site boundary but future public realm projects could look to improve connections with this area including the access to it from Corn Exchange Street. The existing pull-in, is outside the Council or Highway's ownership but the area and approach into the Civic Quarter could be enhanced if this was brought into the public realm with new paving and additional trees to frame Fishers Court.

Wheeler Street

Wheeler Street will continue to be predominately a movement corridor. The carriageway will be narrowed where possible to provide wider footpaths and some limited areas for outdoor seating associated with the food and beverage establishments along this street. The reduction in general traffic through this area, and a change in materiality will contribute positively to making this street feel more pedestrian focussed.

Parsons Court

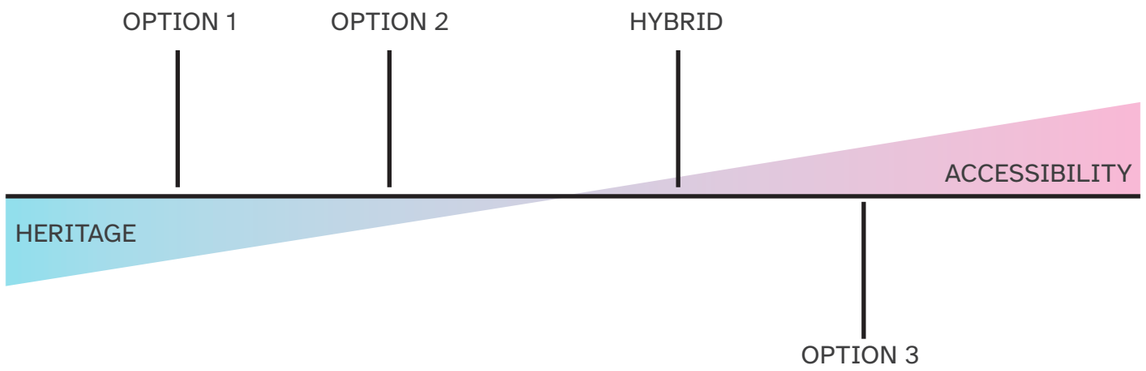
The intention is that Parsons Court will become a high quality alternative entrance and spill out space for the Corn Exchange. It will be a place where people can have refreshments before, during the interval and after shows. To achieve this the street will be 'stopped up' and control will return to Cambridge City Council.

Removing the bins from Parsons Court will be fundamental to improving the quality and feel of this space. Options for underground bins (see waste section) being located on Corn Exchange Street where the current loading bays are would alleviate pressures on Parson's Court. The narrow width of the Street would facilitate catenary lights and opportunities for bunting / flags or otherwise that promoted the performance people were attending.

↑ A reimagined Parsons Court

↓ Plan showing the proposals for Wheelers Street, Corn Exchange Street and Parsons Court

7.0 Hardworks



↑ Spectrum showing weighting of options for managing the setts

Surface Materials

Listed Setts

Historic Context

In 2019, the setts and the decorated iron railings were listed at Grade II.

The extent of the listing covers the land owned by Cambridge City Council and excludes any Highways land. The listing includes the historic granite setts, as well as surrounding 20th century interventions including new setts, areas of concrete slab and tarmac.

Modifications

It is evident from photographs and plan drawings that the extent of the original market and the shape of it has been modified over the last 170 years as discussed in Section 4. The southern end has been reduced by approximately 3m to re-position the carriageway.

The radii at the corners have also been enlarged, presumably to meet modern day highways concerns.

The original York stone paving surrounding the setts has also been removed over time and replaced with tarmac.

Further setts have been removed in the early 20th century when the subterranean WCs where constructed. The surface above these was replaced with a concrete slab.

There are additional areas of setts that were removed over time where repairs where carried out or modifications for drainage, and other utilities were carried out.

Condition of the Setts

A condition survey was carried out by Alan Wright Associates on behalf of Cambridge City Council with the anticipation that repair works would be carried out. The report flagged a number of areas of concern.

A separate study by Idacs(UK) was carried out in 2023 which identified a series of concerns for the safety of people using the Market Square.

The condition of existing surfacing is poor, and the bedding the setts are laid on is unknown. The material itself has been weathered away with patch repairs and replacement materials occurring over time.

Retaining the setts in their current condition causes serious issues with accessibility and inclusivity as referenced in the Council's independent report.

Options

As part of Stage 2 various options were looked at to review what the most appropriate solution would be for the setts that balanced the many needs of the Square from 'do nothing' which favoured a conservative heritage approach to 'fully remove' and resurface with a material that would create a fully compatible surface for modern accessibility needs.

From testing both these extremes it was determined that a middle ground was most appropriate, that retained the historic setts but which made them more appropriate for all the different users of the Market. In addition there are opportunities to enhance the interpretation of the Victorian Market Place.

Re-using the setts is an opportunity to maintain the heritage and to support the Net-Zero ambition with the re-use of material.

There are various options to be considered for the setts which include uplifting, improving the sub-base, re-dressing, re-gauging and re-laying.

Option 1

Repair locally – remove existing concrete slab, and carry out localised repairs

Heritage is protected – limited adverse effects

Doesn't achieve any of the goals of creating an accessible and sustainable market place for modern needs

Option 2

Refinishing in situ – this involves leaving the setts in place, removing the top 1-5mm to create a level top finish suitable for all users and re-mortaring the joints.

This has benefits in terms of time – the material is left in situ so no uplifting required, it can be done when the market isn't there, reducing disruption to the operations of the market, it reduces the need to transport material across the country to be redressed.

Any buried archaeology will remain undisturbed.

The negatives are that it doesn't solve the problems with the quality / construction of the sub-base, any issues with subsidence and the unevenness of the existing market, so long term won't solve the problems, re-doing the mortar widens the joints and changes the overall appearance

Option 3:

Removing and reinstating – this involves carefully lifting all the setts, taking them to a stone-masons and redressing them. This is likely to involve moderating the setts so they are all the same thickness (its likely there is between 50mm to 100mm of variance in them beneath the ground and they would be taken down to up to 10mm tolerance), and re-dressing the sides as required (sawn cut). The finished surface would then be either bush hammered or flamed to achieve a finish that is suitable for modern access needs. The setts

would then be gauged, and taken back to site and re-laid in the desired pattern

This has benefits that an appropriate sub-base can be constructed meaning longevity of the market place, a safe place for all users to walk over that lasts. Opportunities to re-do the drainage, have a single surface, and a methodology to the patterns in the surface finish.

The negatives are that it takes time, money and resource to do this, the fabric is moved from its original position, the patina will be changed (but a mixture of bush hammering and flaming will bring out all sorts of exciting tones and colours in the surface of the granite). Uplifting the material will more than likely reveal archaeological issues

Hybrid Option

Removing, redoing the sub-base, reinstating and then refinishing in situ.

This is a hybrid version of options 2 and 3 where the material is lifted but remains on site, isn't sawn but is just gauged and relaid once a new sub-base is down. It then is finished in situ and re-pointed.

There is additional workmanship on site because the setts will not be an even depth when they are relaid.

Challenges

All of this is subject to samples being carried out to determine the state of the existing setts. There is anecdotal evidence from some market traders that the setts were already uplifted at some point in the 1960s. Whether this was all the setts or some localised areas its not clear. Certainly from the photos we know there have been changes over time.

Because of the repairs there is a shortage of historic setts to cover the proposed area, so additional modern setts will be required (regardless). There are exciting opportunities to integrate and lay these with the historic setts and define more highly used areas with more modern paving. The intention is to represent the extent of the original Victorian place rather than the modified extent seen today. Samples would need to be carried out for all options. A flamed or bush hammered finish (or a mix) would provide a more accessible finish to the setts, as will the level of mortar and the width of the mortar joints.

York Stone

When the Market Square was developed in the mid 19th Century, the central area of granite setts was bordered with an approximately 1.8m wide edge of York Stone paving, and then an approximately 120mm wide granite edge against the carriageways that surrounded it.

None of the original York Stone around the setts has survived and today they are framed by a combination of tarmac and concrete block pavers. A granite kerb surrounds the footway with a granite sett soldier course. It has not been determined whether these edges form part of the original fabric.

The rest of the Civic Quarter would be re-surfaced in York Stone. There are existing areas of York Stone, particularly around Peas Hill that can be uplifted and re-used. The size of the units will be determined by the location of the York Stone. Using a smaller profile unit in narrower streets will help differentiate the spaces and create more intimate feeling spaces.

Hobson's Conduit

The historic route of Hobson's Conduit will be picked out in a different material. This could be a metal finish with opportunities for a public art piece to perform as interpretation for this important piece of Cambridge's heritage. The material will be laid flush with the surrounding surfacing to avoid becoming an issue for people with mobility issues.

Next Steps

1. Visit case study sites with heritage consultant to look at examples to assess whether the proposed solutions are acceptable for the Market Square

2. Carry out further work on the existing setts including taking small sample areas and carrying out trials.

3. Carrying out a detailed survey of all the setts across the square to accurately record all sizes, locations, types and locations of the setts and laying patterns.

7.1 Case Studies

Case Study: Bramley-Moore Dock, New Everton Football Stadium, Everton

This is a project which is currently under construction. The development involves the creation of the new home of Everton football club into the historic Bramley Moore Dock.

One of the key heritage aspects of the project has been retaining the historic features including the cobbles / setts, capstones and tramlines. These have been refurbished and reintegrated into the final scheme.

The setts included a mix of reclaimed granite from the site with areas of new granite integrated.

Case Study: Born Market, Barcelona

Opened in 1878, the Mercat del Born is a former public market and historically significant within Barcelona not only due to its iron construction but also as one of the first modern buildings in the city.

The Born district connects the old quarter with the wider city and in effect this is the largest covered square in Europe and a crossroads between city districts. The site's re-development is part of a strategy for regenerating the la ribera district. The market itself closed in the 1970's and the building's reinvention and public realm revitalisation was seen as a critical part of the project.

During construction and the lifting of the historic paving, extensive ruins of the medieval city were discovered. These have been preserved in situ and opened up for public viewing in places. The repaired and revitalised historic paving has been laid in new patterns that reflect the medieval street pattern, bringing to life a forgotten moment in time and helping to tell the story of the city. Historic setts are used in creative ways, utilising their natural colour differences to lay out new patterns and through undulating surfaces to enclose seating areas and provide play opportunities.

Case Study: Deptford Market

The revitalisation of a neglected yard into an inviting civic and community space in the heart of Deptford was completed in 2016.

Heritage was always at the heart of this project – from the retention of the existing community, the refurbishment of the Grade II listed Carriage Ramp and the re-use of historic setts, the scheme aimed to celebrate and retain what was good about the existing place.

The area was comprehensively re-paved, using existing setts from the old rail yard where possible. New setts were finished to match the existing, with varied colouring utilised to create patterns that help to define different spaces. Pop-up electricity boxes and branded flags and umbrellas support flexible use of the space and support the creation of a new identity.

↑ Industrial style tree pits

↑ kiosks support cafes by providing covered seating areas

↑ Setts support the industrial setting

↑ Branded flags designed by local children

Case Study: Hull Fruit Market

As part of the Big City Plan, the historic Fruit Market was regenerated to boost the tourist economy by drawing visitors to Hull's transforming waterfront. Linking to the plans for a cruise terminal and international arts centre, the addition of the Fruit Market has helped transform a near-derelict area into a vibrant, creative, and cultural quarter of the city, known for its art, music, and independent retailers.

Humber Street was first on the Hull Fruit Market agenda. Completed back in 2016, the space won the 'Great Street' Award from the Academy of Urbanism.

The historic setts were lifted, taken away to be tumbled for cleaning and then brought back and relaid incorporating the historic tram lines.

↑ New paving has transformed the street

↑ Historic granite setts blend with new paving

↑ Historic setts within a level, accessible surface

↑ The carriageway is clearly distinguished by materials

7.2 Bins and Waste Removal

From the information available in 2021, for market waste, there are currently five general waste 1100 litre waste bins. These are collected daily or every other day. These bins alone currently provide an inadequate amount of waste disposal for the waste generated by the market stall traders. The recycling waste is collected twice a week.

There are also numerous trade bins across the Civic Quarter. These are typically wheeled bins of varying types and capacities. The nature of these bins means that they are used by the general public as well as traders. With scheduled collection times, this can result in bins becoming full and overflowing, particularly on warm, sunny days, leading to environmental health concerns.

The trade bins are located within the highways but the type and size of the bins changes depending on the day of the week to suit collections.

Within the public realm generally there are a number of fixed bins. These vary in style and design language and particularly those on Peas Hill and Rose Crescent are large in size and dominating within the street scene.

↑ Market Square: Existing waste bins for market traders

↑ Market Square: Cardboard waste compressor (understood to currently be out of action)

↑ Market Square: Existing on-street 1100L waste bins

↑ Market Square: Existing cardboard waste container

↑ St Mary's Street: Unsightly and overflowing existing on-street wheeled waste bins used by the public and businesses

↑ Market Square: Leaking bin juice into the street creating an environmental and health hazard

↑ Wheeler Street / Bene't Street / Peas Hill: Wheeled bins on the street during a week day

↑ Guildhall Street: A combination of fixed and moveable bins

↑ Parsons Court: A number of wheeled bins providing refuse facilities for the Corn Exchange and surrounding businesses

↑ Peas Hill: Street bins located in the centre of the public realm dominate views and their location can create obstacles in the street scene

↑ Corn Exchange Street: Bins on the street underneath the building overhang

↑ Peas Hill: Street bins located in the centre of the public realm dominate views and their location can create obstacles in the street scene

Proposed Waste Removal System

Underground storage bins will be utilised for Market Traders and local businesses to use. These will be smart card operated so that they can only be used by registered people, with members of the public using standard on street bins.

A hydraulic lifting system is proposed. This consists of refuse bins above ground that are traditional in appearance, with a chute beneath which leads to a 1100litre wheeled bin. The above ground bins are fixed to a base plate and the wheeled bins below sit on a platform. A refuse collector operates a hydraulic lift which then allows the below ground bins to rise to ground level. The wheeled bins are independent of the structure and so can be standard wheeled bins which can be manoeuvred by operatives and emptied into a standard waste vehicle.

The waste system would be located along St Mary's Street to be easily accessed for Refuse vehicles from the street, limiting vehicles within the Square. Sealed subterranean units have a number of benefits over above ground waste storage:

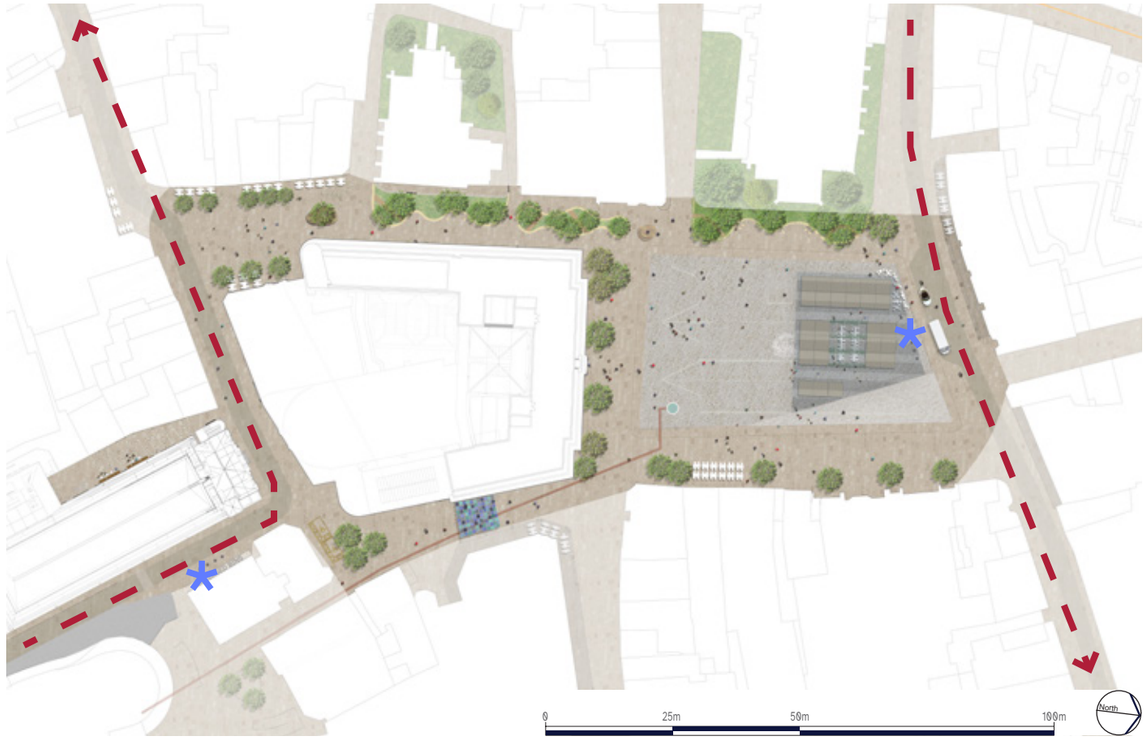
- There is a significantly higher capacity than regular bins.
- It is expected that the increased waste capacity combined with the smart collection technology will reduce the number of times a waste truck will be required to enter market square, increasing efficiency and reducing emissions.
- They have been shown to minimise the bad odours associated with traditional bin systems.
- Limited chance for vandalism
- More aesthetically pleasing than the cluttered on-street wheeled bins currently in operation and can therefore play a real role in improving the space facing the listed St Mary's church which is currently littered with various bins and waste elements.
- Cleaner, and more hygienic with less chance of foul leaks

In this busy city centre context, this system has numerous benefits over alternative systems used elsewhere, such as at Eddington:

- The bins do not require the use of a specialist vehicle for them to be emptied
- There is less health and safety risk to the general public through the lifting platform than a jib arm lifting a sizeable mass and manoeuvring it onto a vehicle to empty. This means refuse collection can happen as and when required without the need to cordon off large areas.
- Lifting the bins from underneath rather than above means they can take a higher mass of waste such as food waste which is heavier.

Management

Market Traders and businesses will each be given a smart card which allows them to 'tap-in tap-out' of the waste bins whenever they deposit waste. With only registered users being able to use the facilities, there is a record and reduces the opportunities for misuse. The capacity of the bins can be updated in realtime and refuse collections can be scheduled for when they are needed rather than on a day to day basis. This has the potential to reduce the number of collections required, particularly in quieter seasons.



↑ Proposed locations for underground bins

Underground bins

Refuse collection vehicle route

↓ CONTENUR UK underground bins on hydraulic platforms

7.3 Street Furniture

↑ Bonn Square, Oxford: Benches interspersed around trees.

↑ Whitfield Square, London: Timber cube benches to create small group seating areas

↑ Spitalfields, London: Long benches for communal dining

Listed Fountain Base

The existing decommissioned fountain base is the second known water feature to be installed in the Market Place. The first being the Conduit Head located in the southeast of the Market. The fountain base is contemporary with the Victorian layout. The fountain base originally had a gothic style canopy over it, but in the 1950s it was seen dangerously swaying and was taken down. Parts of it now reside in the Museum of Cambridge.

The current condition is poor, it's used as a seating area, has planting in the centre of it and is in need of repair works. There is a crypt beneath where the water chamber was. A report carried out by Alan Wright Consulting in 2002, identified that the uneven sub-base around the fountain and the chamber was resulting in differential movement and had lead to sinking and the causes of the uneven levels around the setts. To date, no repair works to this area are understood to have been carried out.

Relocating the fountain base to an alternative location within the market was tested. However, with each historical reiteration of the market a new water installation has been created. This moment in the Market Square's history - and the development of a new vision creates an opportunity to continue this story. A fountain for contemporary society that also speaks of the history of the area, the importance of bringing water into the heart of Cambridge for the people who live in the city, and the benefits that has brought over time. Currently this rich and important history is not able to be interpreted by the existing fountain and its location.

A new fountain

With this next iteration a new fountain is shown in the approximate position of the original Conduit Head on a key axis from both St Mary's Passage, the new axis between Guildhall Street and Rose Crescent. This presents an opportunity for a great piece of public art and interpretation that connects to a line in the paving from the Grand Arcade through Guildhall Street and the Market Square following the route of Hobson's Conduit.

The location of the Victorian fountain should not be lost as it is part of the story of the Market Square. Rather than removing the fountain entirely, the proposals allow for reinstating the fountain base in its current location but so that the various top edges of the granite blocks are flush with the surrounding setts. The remaining fountain head would be removed and saved as part of Cambridge's heritage.

New seating

New seating will typically be in the form of edges to planting beds along Peas Hill. Additional timber seating cubes and benches will be located around new tree planting, providing places for people to sit and relax in smaller groups.

Cycle stands

As part of the transport strategy, there will be limited cycle parking within the Civic Quarter. Where it is located, it will be Sheffield style stands in a high quality robust finish appropriate to the heritage context.

Tree grilles

Tree grilles will be installed to new tree planting. These will be minimal to avoid impact on people with mobility issues travelling over them.

7.4 Cycle Parking

Analysis and options for improving cycle journeys to the Civic Quarter have been set out in the report by KMC Transport Planning.

Cycling is a popular mode of transport in Cambridge and facilitating easy and convenient access to shops and leisure facilities in the Civic Quarter by cycling is important.

Currently, there is a lot of cycling activity within the Civic Quarter. In terms of parking, there are approximately 400 cycle parking spaces located on-street within 200m of the Market Square, double the number which are within the Grand Arcade Cycle Park. Market Street and Corn Exchange/Bene't Street also form part of cross-city cycle routes and are well-used by cyclists for all purposes.

The existing cycle access and parking arrangements can result in some issues and conflicts, including,

- Creating visual clutter, especially where bikes are parked long-stay or abandoned.
- Limiting accessibility and causing a barrier to movement, particularly for those with additional mobility needs. This has been exacerbated in recent years as VOI cycles/ e-scooters increase in popularity and are parked ad-hoc in the public realm.
- Contributing to pressure on available space between competing needs, such as seating, planting and flexible space.

The report by KMC Transport Planning sets out the above in more detail and provides recommendations on the strategy to ameliorate the issues outlined. Here, it is recommended that the cycle parking in the Civic Quarter is rationalised to provide more space for public realm.

The current design demonstrates how much public realm including seating and planting could be achieved if a large amount of cycle parking was relocated within the Civic Quarter as well as into other parts of the city. In order to maintain strong cycle access into the Civic Quarter, it is recommended that cycle parking is re-provided via the expansion and enhancement of cycle parking hub at the Grand Arcade, which could form the first phase of a Cambridge city cycle parking strategy to intercept cycle trips at convenient key locations in the City Centre.

This approach would be explored in more detail during the next Stage of works with the aim of finding the right balance to facilitate cycle access and provide high-quality public realm.

As part of our proposals we have however identified potential opportunities for cycle parking within the red line. These indicative locations are shown on the plan, utilising standard 'Sheffield' stand designs.

↑ Peas hill cycle parking dominates the street

↑ Peas Hill cycle parking in the centre of the space

↑ Guildhall street dominated by bikes and scooters

↑ Street stands are often over-used, with bikes sometimes left for long periods

↑ Bikes chained to the church railings are sometimes considered as part of Cambridge's charm to visitors

↑ Voi scooters and mopeds make it challenging to move through certain streets

↓ Plan showing possible locations for above ground cycle parking

8.0 Softworks

Trees

Introducing trees into the Civic Quarter will have many benefits:

- Thermal comfort - providing areas for shading in the summer and areas for people to sit underneath
- Surface water runoff - Tree canopies reduce flow to hard surfaces and into drainage systems.
- Biodiversity Net Gain - the target for this project is to achieve 20% BNG which new trees will contribute to

Trees will typically be planted in tree pits to be flush with the surrounding surface finishes to avoid them creating large physical obstacles in the public realm. They will need to be installed with root cells, root protection membranes and tree grilles.

The exception to this, is the planting along Peas Hill which will be in raised planters due to the presence of the existing underground structures below King Edward Saint and Martyrs Church.

There is a designed informality to the locations of the trees. This allows some flexibility at the point of installation to find optimal positions around existing below ground services which may be encountered over and above future surveys.

Tree species will be selected to encourage biodiversity without being limited to native species. Fruiting species will be avoided.

Planting

Planting will be selected that is beneficial to wildlife to support biodiversity, is mindful of the challenges around water consumption and which is also positive for people to experience.

Management

All proposed softworks falls within the adopted highways.

Trees and planting will need to be watered at regular intervals in line with a Landscape and Ecological Management Plan.

Next Steps

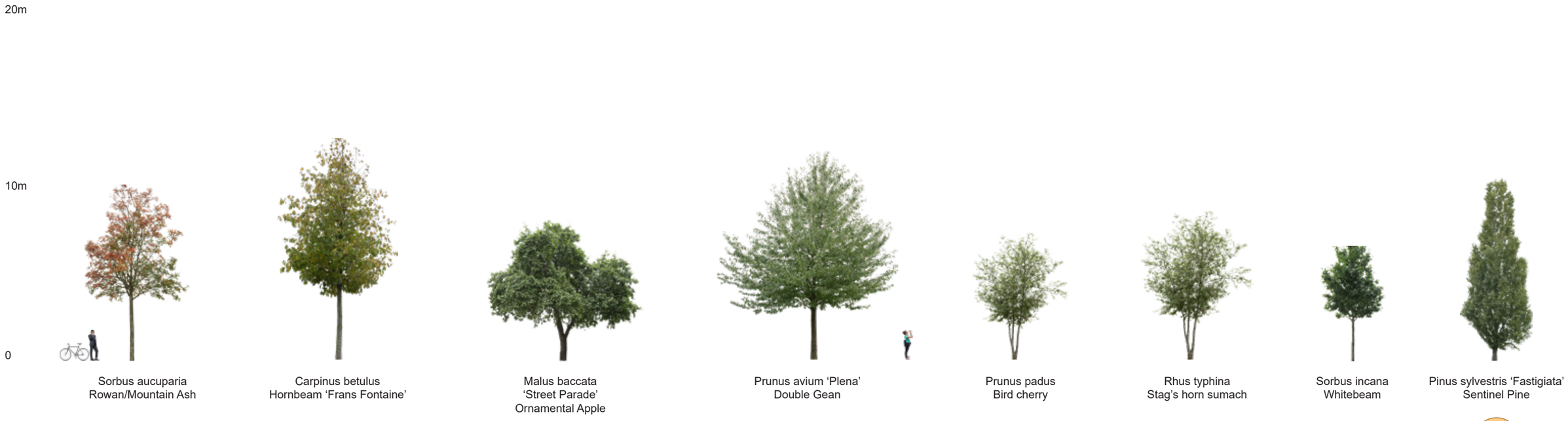
1. Following receipt of detailed survey information, reviewing locations of trees and planting in relation to below ground services.

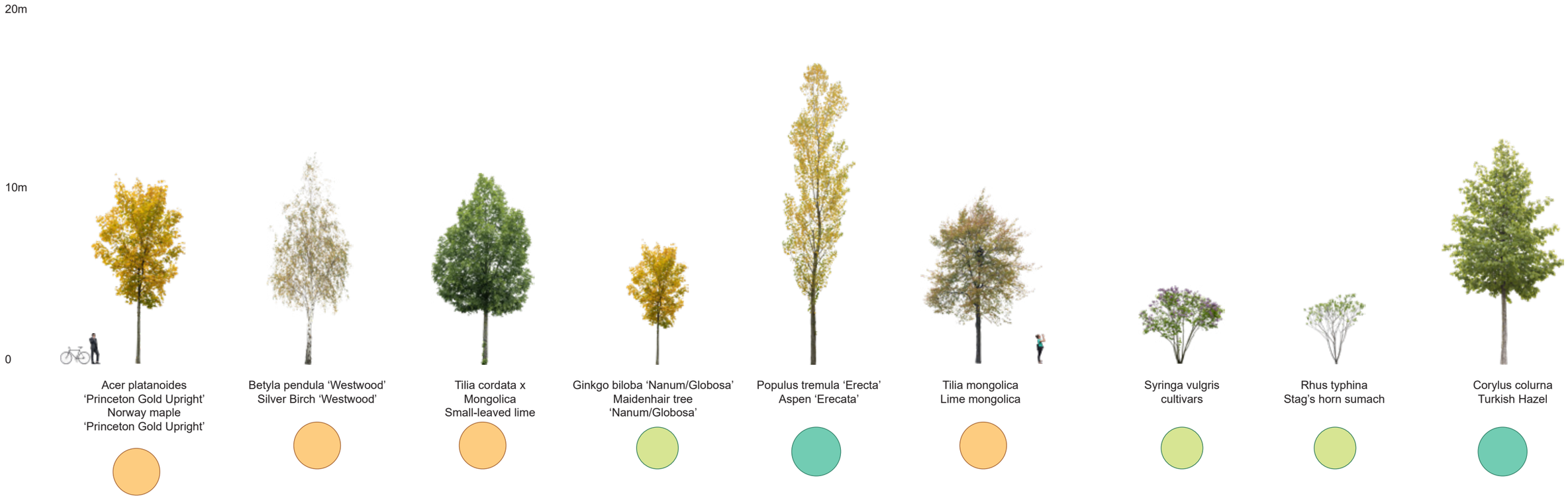
2. Refining location of trees in relation to highways requirements.

3 Testing positions of trees in sunlight modelling.

↑ Right tree, right place. Tree species will be selected to provide all year interest as well as being tested to ensure their location and type does not compromise views and people's experience of heritage assets

Small Street Trees Small Trees Medium Trees


20m
10m
0
Sorbus aucuparia
Rowan/Mountain Ash
Carpinus betulus
Hornbeam 'Frans Fontaine'
Malus baccata
'Street Parade'
Ornamental Apple
Prunus avium 'Plena'
Double Gean
Prunus padus
Bird cherry
Rhus typhina
Stag's horn sumach
Sorbus incana
Whitebeam
Pinus sylvestris 'Fastigiata'
Sentinel Pine


20m
10m
0
Acer platanoides
'Princeton Gold Upright'
Norway maple
'Princeton Gold Upright'
Betyla pendula 'Westwood'
Silver Birch 'Westwood'
Tilia cordata x
Mongolica
Small-leaved lime
Ginkgo biloba 'Nanum/Globosa'
Maidenhair tree
'Nanum/Globosa'
Populus tremula 'Erecta'
Aspen 'Erecata'
Tilia mongolica
Lime mongolica
Syringa vulgris
cultivars
Rhus typhina
Stag's horn sumach
Corylus colurna
Turkish Hazel

9.0 Phasing

The main considerations for a phasing strategy for the public realm are:

- Maintaining the market and supporting the traders
- Construction efficiency and cost

Projects such as this are challenging in the heart of a city and its important we learn lessons from other projects but also consider the lived experience of the Market Traders in Cambridge. Continued engagement with the Market Traders is critical before any decisions are taken on a phasing strategy.

There are broadly 3 main options for the Market Square. Each of these have advantages and disadvantages including important considerations for the Market Traders and management and overall programme length. It is envisaged that the rest of the public realm would follow-on, once the Market Square main works were complete.

Next Steps

1. Further work is required to look at additional support mechanisms for the traders during the disruption which may be dependent on the option that is taken forward.

2. Agreement on the design will be critical to the decant options as it may determine the extent of the disruption

3. Further studies on ownership, covenants, services etc. of alternative sites

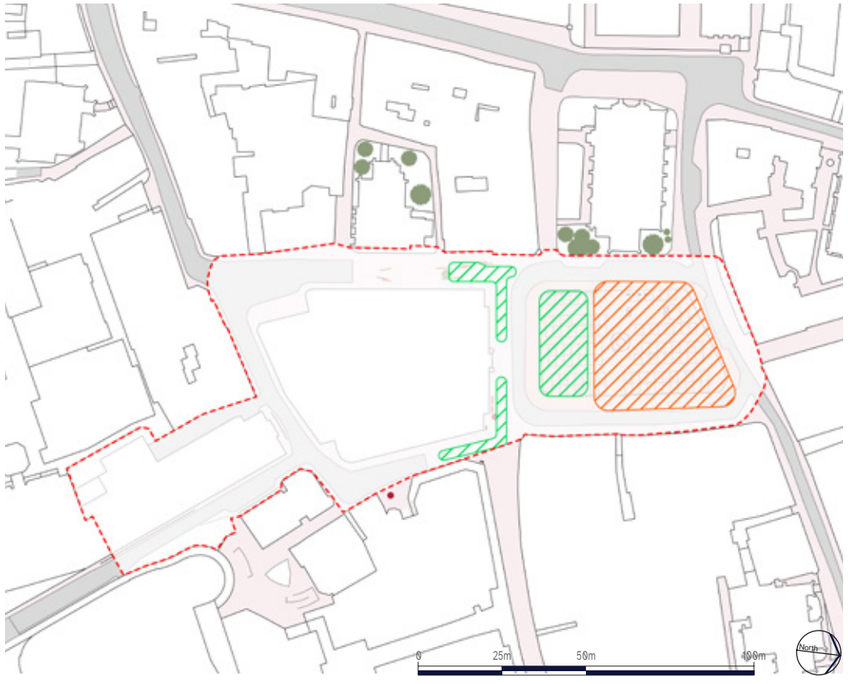
4. Design of alternative sites should it be required

Option 1

Peas Hill and Guildhall St would need to be cleared of existing street furniture to accommodate the main daily market. Sidney Street could be utilised during peak periods.

This approach would allow the main market area to be constructed in one go, potentially speeding up the construction process. Traders would be less impacted by construction noise, dust and vehicle movements.

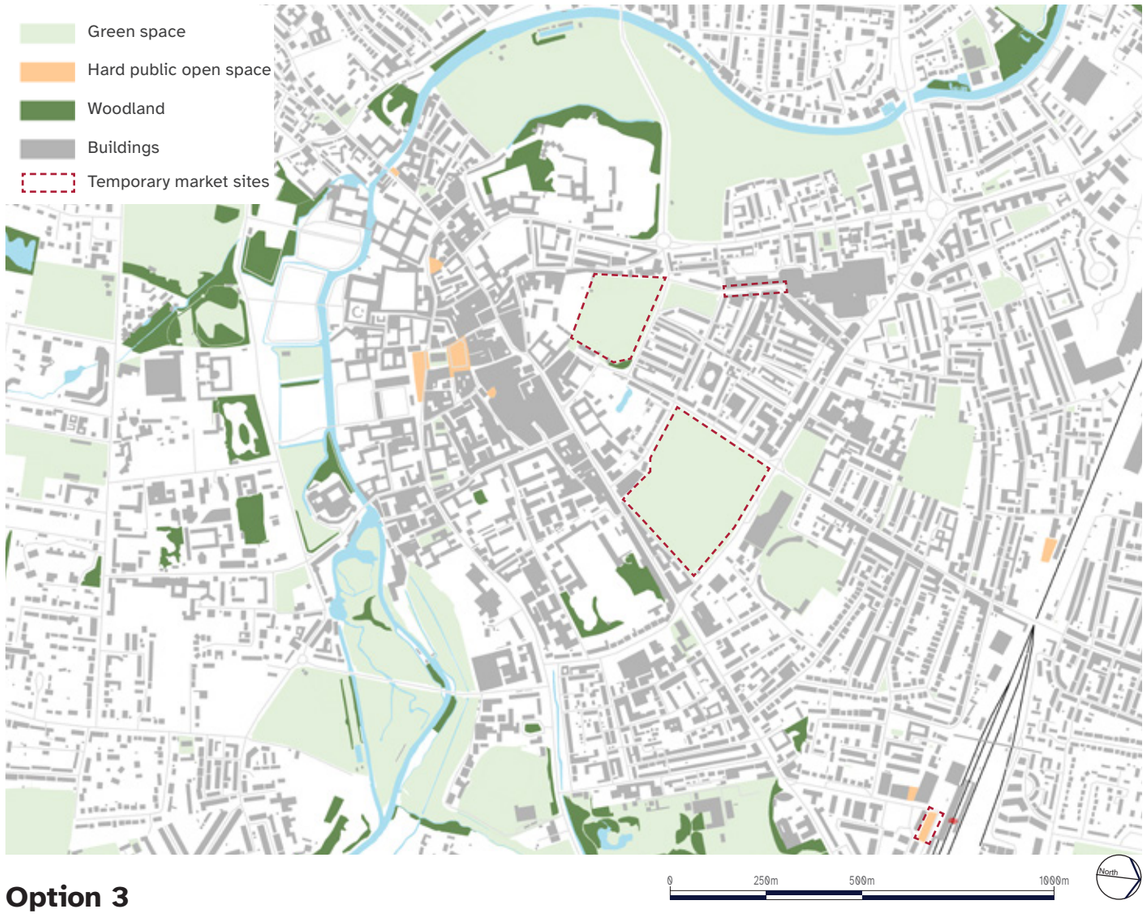
This approach spreads the Market out but keeps it within the city centre and across 2 main sites - both of which are close to the existing Square.



Option 2

Phase A

Split the Market area into two halves, enabling half the setts to be lifted, canopy and underground area to be constructed, with the other half still in use. Additional capacity would need to be provided around the Guildhall during peak periods.



Application boundary

Temporary Market Stall Area

Phasing Construction Area

Phase B

As the first half of the works complete, traders can move to the completed area of the market, while the remaining works are undertaken.

This approach keeps traders 'on the Market Square' and therefore easy to find for regular customers. There could be significant impact from construction (noise, dust, vehicle movements) and during the phase 2 the market would effectively be split. This option is likely to cause the longest delays to the programme as disruption is minimised.

Peas Hill and Guildhall St would need to be cleared of existing street furniture to accommodate the market.

Option 3

Clear the site and set-up a temporary market elsewhere in the city. A number of sites have been identified for further investigation including:

- Parkers Piece,
- Christ's Pieces,
- Fitzroy St outside the Grafton Centre
- Station Square.

Each of these is considered to have the space and footfall to support a temporary home to the market. Issues around servicing, covenants on public space, land ownership etc. all need further investigation in Stage 3 if market traders express a preference for this option.

The main market area can then be constructed as a single phase enabling all setts to be lifted.

This would be the most efficient from a construction perspective, minimising cost and programme. However, all traders will be off the existing market area until completion.

10.0 Sustainability

Net Zero

Supporting the City Council's Net Zero target is a key expected outcome of the Civic Quarter and the public realm has an important role to play. Full details of our approach to sustainability can be found in the report by Max Fordham. Our approach to Net Zero within the public realm includes:

- Promoting active travel and reducing vehicular movement within the city centre
- Re-use of existing materials where possible including listed setts and existing York Stone - less sensitive homes should be found for accumulated street furniture such as plastic bins, picnic benches etc.
- Retaining existing concrete pavers throughout the scheme to crush off-site and re-use as hard-core for new sub-bases.
- Specifying new materials from quarries in the UK or Europe to reduce transport and support local economies.
- Replacement of historic lighting and electricity supplies with a modern fit-for-purpose system
- Increasing tree canopy cover and vegetation across the Civic Quarter to improve air quality, reduce the heat island effect and provide shading in hot weather
- Potential for solar panels on the roof of the market canopy subject to further detailed design

Water Neutrality

The sustainable use of water is a key expected outcome of the Civic Quarter. Water scarcity and the predominant use of underground aquifers is a critical issue for Cambridge and the region – highlighted by the Market Square being the end point for Hobson's Conduit, an historic water source drawn from the Chalk Hills to the south of the city right into its heart.

As part of the design process, the potential for water features was considered and in part discounted due to issues around water scarcity. Our approach to the management of water includes:

- Capturing rain water where possible from the canopy, The Guildhall and other structures to feed vegetation within the red line boundary
- Relaying the Market drainage system which includes fish and fat drains to ensure the quality of water run-off is improved
- Prioritising native but drought tolerant planting to reduce the requirement for watering throughout summer months

Next Steps

1. A full and detailed carbon assessment of the public realm as part of the iterative design process for Stage 3

2. A full drainage survey for the whole of the Civic Quarter

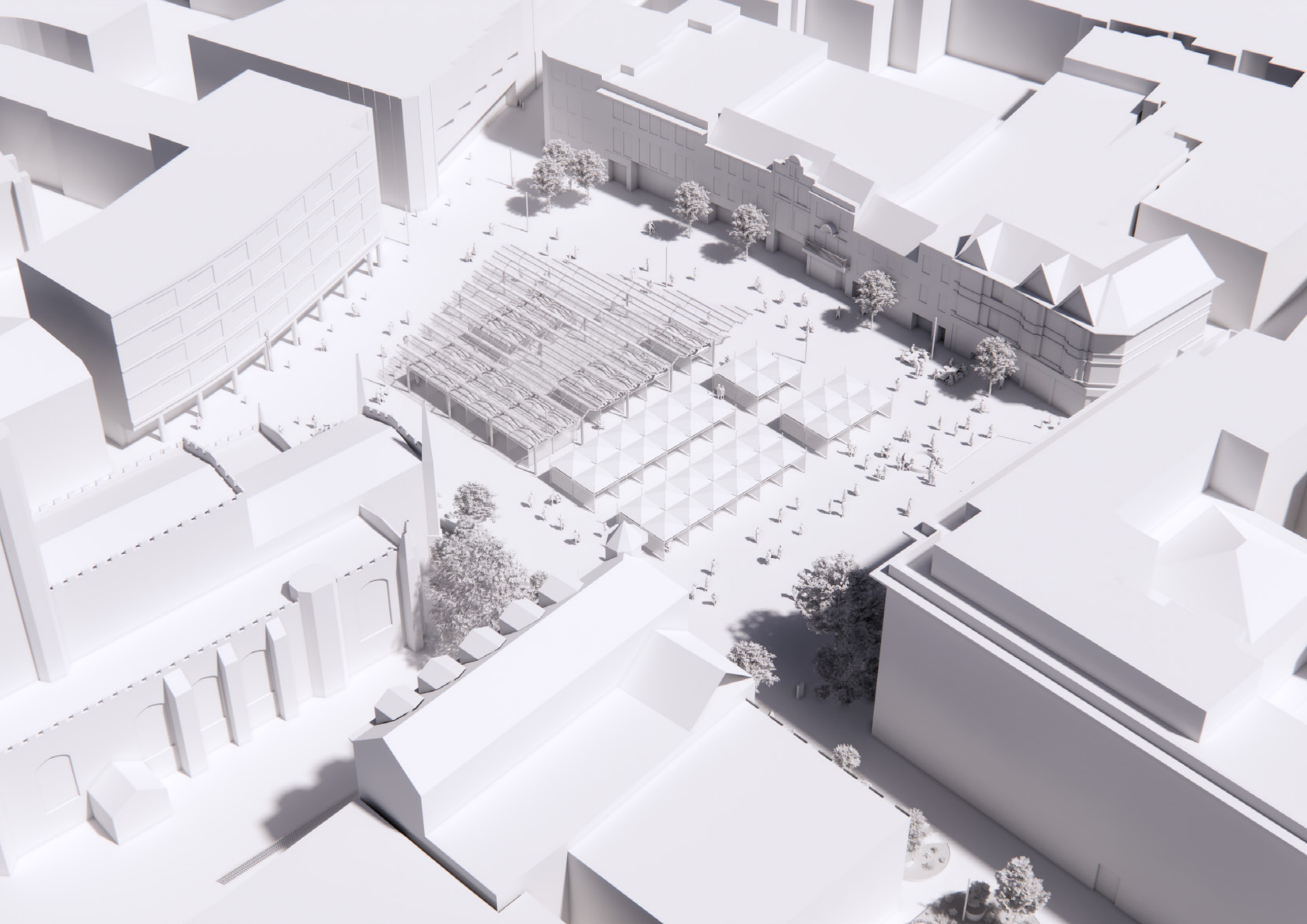
3. Full ecology baseline survey to be carried out and assessment of proposed BNG

11.0 Assumptions and Clarifications

No.	ASSUMPTION	NOTES	CLARIFICATION
1	Existing baseline information is representative of conditions.	Existing measured surveys only exist for the Market Square and are dated. All other areas are provided by Ordanance Survey 1:25,000 information.	Topographical survey required to accurately develop proposals further.
2	Basements shown are approximate.	There are a number of buildings which abut the site boundary which are known to have basements. The list is not exhaustive, and the extents of these basements and their relative depths below ground is not known.	Full survey information is required. There are potential impacts on positions of trees.
3	Engagement and consultation	These proposals have gone through a pre-application engagement process with City Council and County Council officers. The proposals within this report have not been taken through wider public consultation to date.	Further engagement and statutory consultation is required on these proposals
4	Existing ecological habitats on the site would be considered low and the extensive tree planting and soft works to Peas Hill would achieve the target 20% net gain.	No ecological surveys have been prepared as part of the baseline information. No Biodiversity Net Gain calculations have been carried out.	A set of ecological base line surveys and Biodiversity Net Gain calculations will be needed to ensure the targets are met.
5	One of the proposed solutions for the treatment of the historic setts will be acceptable to Historic England, local planning authority and stakeholders, and the setts can be dressed to meet modern day standards.	Proposals have been put forward for how to retain the setts and make them appropriate for modern day uses. However no samples or testing with stakeholders has been carried out to date.	Engagement is required with Historic England, and stakeholders. Careful sampling is required to test the various options. Visit sites that have done similar, test slip resistance.

12.0 Next Steps Summary

No.	TOPIC	NEXT STEPS
1	Below Ground Considerations	Detailed measured surveys required for all below ground structures and the access to them. This includes a full survey of all surrounding buildings to confirm the presence of basements as well as the Crypt. Depths of basements, ceiling build-ups, depths below existing surface levels and wall constructions would also be required.
2	Below Ground Considerations	A full PAS survey of all below ground services and utilities across the full extent of the Civic Quarter.
3	Events Programme	Further detailed conversations around long-term management and curation of event spaces including cost
4	Market Stalls	Further clarification for the long-term management requirements, funding and roles and responsibilities.
5	Market Stalls	Test types of market stalls and locations.
6	Market Basement	Undertake a full structural survey to understand the extents of the services that can be retained or need to be replaced
7	Hardworks	Visit case study sites with heritage consultant to look at examples to assess whether the proposed solutions are acceptable for the Market Square
8	Hardworks	Carry out further work on the existing setts including taking small sample areas and carrying out trials.
9	Hardworks	Carrying out a detailed survey of all the setts across the square to accurately record
10	Street Furniture	Test the capacity of the underground bins and how many businesses they will be serving, and how often they are likely to need to be collected to ensure the system will reduce the number of collections.
11	Phasing	Further work is required to look at additional support mechanisms for the traders during the disruption which may be dependent on the option that is taken forward.
12	Phasing	Agreement on the design will be critical to the decant options as it may determine the extent of the disruption
13	Phasing	Further studies on ownership, covenants, services etc. of alternative sites
14	Phasing	Design of alternative sites should it be required
15	Sustainability	A full and detailed carbon assessment of the public realm as part of the iterative design process for stage 3
16	Sustainability	A full drainage survey for the whole of the Civic Quarter
17	Sustainability	Full ecology baseline survey to be carried out and assessment of proposed BNG



Conclusions

Market Square and Public Realm Conclusions

The Market Square has been in existence in some form possibly for more than 1000 years. It has clearly gone through many changes in that time, resulting in the space we see today.

Through the comprehensive public engagement process the Consortium has been through, and the extensive consultation resulting from it, the deep-rooted problems with the existing Market Square and the wider public realm that surrounds the Guildhall and Corn exchange have fully come to light.

The Market Square and wider public realm are affected by anti-social behaviour, uncontrolled vehicular movement, excessive on-street cycle storage, unsightly refuse bins, broken and uneven paving, poor external lighting, lack of trees and urban greening and a lack of shade in summer. These issues have resulted in an unfriendly environment for pedestrians that also excludes the elderly, the partially sighted and people with mobility issues.

The granite setts to the Market Square are very uneven, slippery when wet and in a poor state of repair, making the Market Square inaccessible for many. Leaving the Market Square in its present condition is not a realistic option. As a minimum, the requirements of the Equality Act should be addressed.

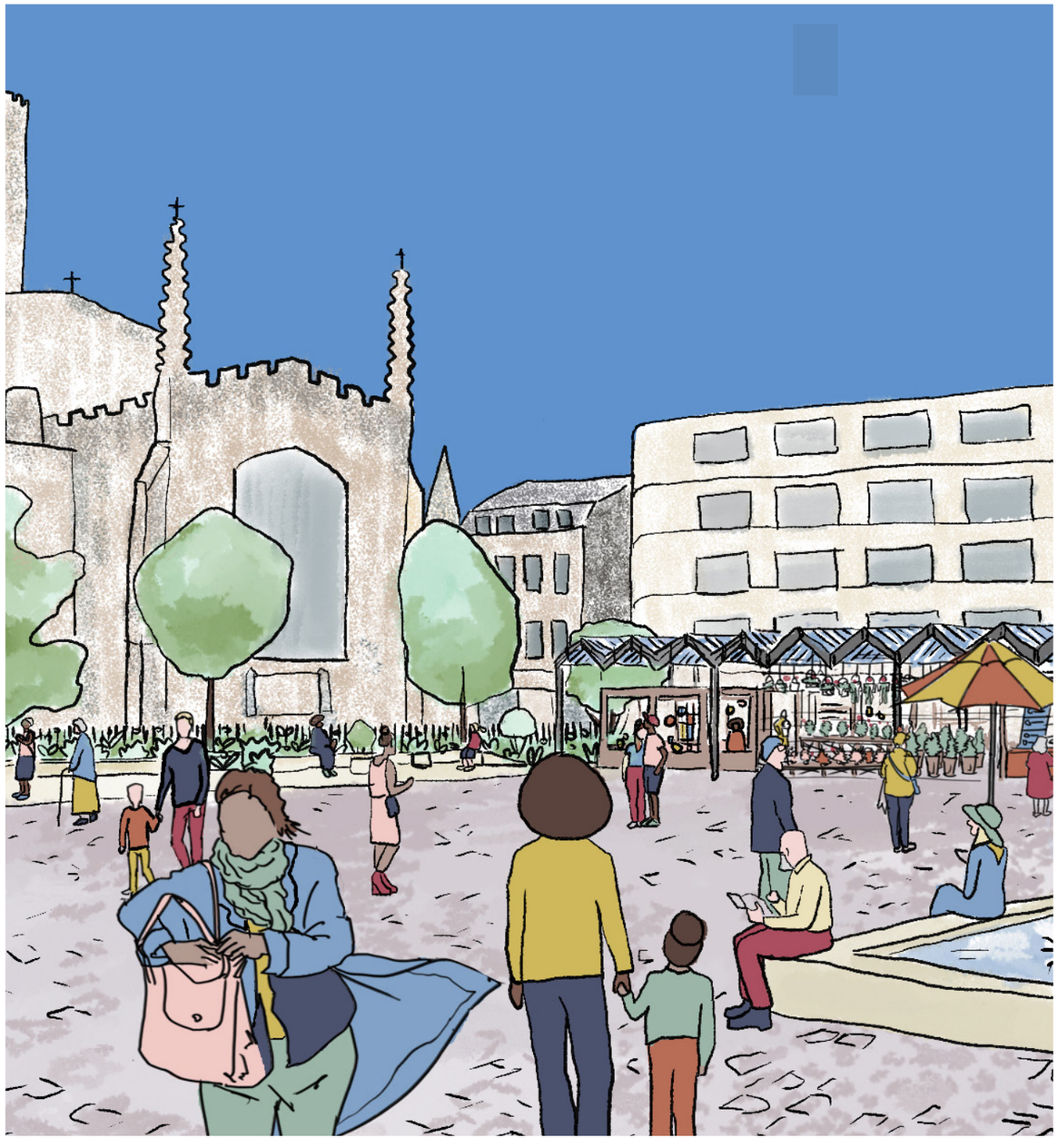
Compared with some of the beautiful and thriving market squares in other European cities, this Market Square falls a long way short of being an attractive destination. To secure the long-term future of the Market Square, a significant refurbishment and transformation is required. This multi-disciplinary design team is in full agreement that a visionary design approach can bring about the transformational change that is required.

These proposals will create a multi-functional civic space in front of the Guildhall that will allow a variety of curated cultural and community events to take place throughout the year, whilst at the same time allowing the full extent of market stalls to be implemented during peak shopping times. It's very important that the Market Square becomes an attractive destination for everyone, young and old, families, visitors, students and the other residents of the city. The proposals address issues such as the antisocial behaviour, unsightly bin storage, lack of public toilets, vast amount of cycle storage blocking pedestrian access, the lack of lighting, lack of shade in summer and lack of seating.

The proposal for an elegant lightweight permanent canopy in the square could help to address many of the issues listed above. The form of the canopy is not decided yet. At this stage the canopy concept is an idea in principle and requires significant design development. However if adopted, the canopy could integrate solar PV panels, which would generate renewable energy, which would contribute to a reduction in energy use across the Civic Quarter.

More stakeholder engagement will take place during RIBA Stage 3, with the market traders, members of the public, colleges, other interest groups and council officers for planning, conservation and transport.

At the heart of these proposals is putting people first. The proposed restriction on vehicular movement around the Guildhall and the Market Square will give pedestrian priority and make this public realm safer and more inclusive. The proposed transformation of the wider public realm and Market Square will regenerate this part of the city and bind the Civic Quarter together. This truly is a once in lifetime opportunity. If delivered, it will shape some beautiful spaces for people, connect commercial, civic and university life and create a new public space and market experience that befits a World-Class city.



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