built form resource

PJA

Stratford-upon-Avon Town Centre

Development Report

Version Control and Approval

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Chapter 1.

Introduction

1 Introduction

1.1 Project Summary

1.1.1 Report Purpose

PJA and Built Form Resource have been commissioned by Stratford-upon-Avon Town Council to prepare concept design options for Bridge Street and High Street in Stratford-upon-Avon town centre in alignment with Town Centre Project 5, as set out in the adopted Stratford-upon-Avon Neighbourhood Development Plan.

1.1.2 Neighbourhood Development Plan - Town Centre Project 5

The team were commissioned to investigate options to improve the balance between vehicles, cyclists and pedestrians within the town centre. The work builds on the 'Town Centre Project 5' as set out in the Neighbourhood Development Plan.

TC Project 5 - Improving the balance between vehicles, pedestrians and cyclists

- Bridge Street: The widening of footways and the narrowing of carriageways; redesigned car parking; redesigned taxi ranks; redesigned bus stopping bays on both sides; continued two way traffic flow; 20mph speed limit; and improved public realm and landscaping;
- High Street (between Bridge Street and Sheep Street): An experimental pedestrian priority area for 6 months with no access for vehicles between 11:00am and 4:00pm except for emergency vehicles, taxis and blue badge holders; 20mph speed limit; continued two way traffic with restricted loading. Subject to the results of the experiment, any permanent change to High Street will include a redesigned carriageway; widened footways; 20mph speed limit; and improved public realm and landscaping;
- Bridge Street and Wood Street roundabout: Redesign the Bridge Street roundabout to make for better general pedestrian flow and particularly to give improved pedestrian movement from High Street to Henley Street. Incorporation of additional on street parking within the Town Centre will be explored to accommodate the displacement of spaces as a result of the above initiatives.
- The implementation of a 20mph speed limit for the whole of the Town Centre will significantly improve the environment for cyclists and pedestrians and should therefore be an integral part of the above initiatives.

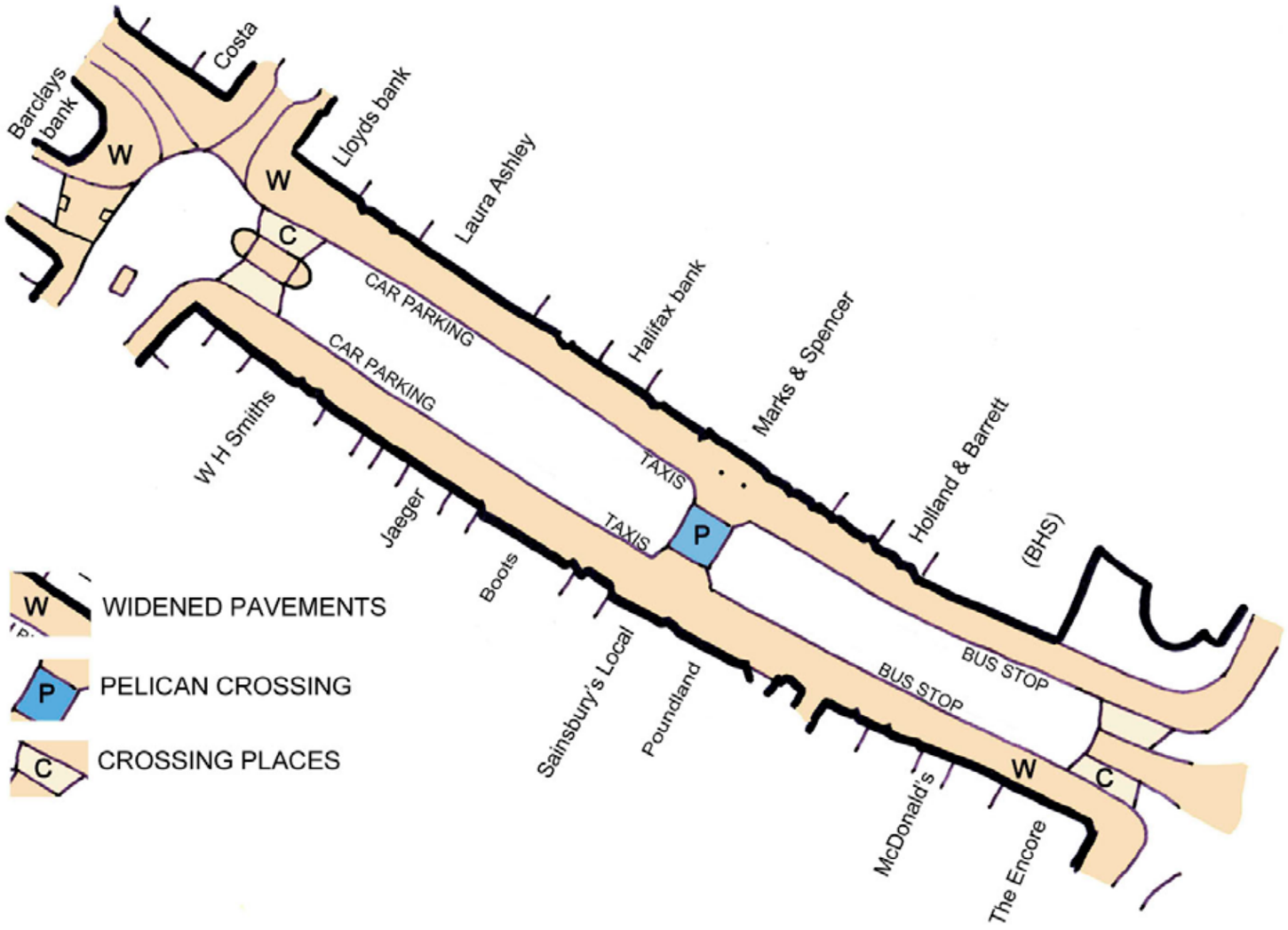

Fig.01 NDP Town Centre Project 5 Concept Design

1.2 Geographic Scope

The broad scope of this study is the Bridge Street and High Street in Stratford-upon-Avon town centre as shown on Figure 02 opposite.

The study is mindful of wider transport issues outside this area but focuses on measures that will improve the public environment in the historic and economic core of the town.

Where necessary, however, recommendations are made for places outside this area if they are relevant to the aims of the study.

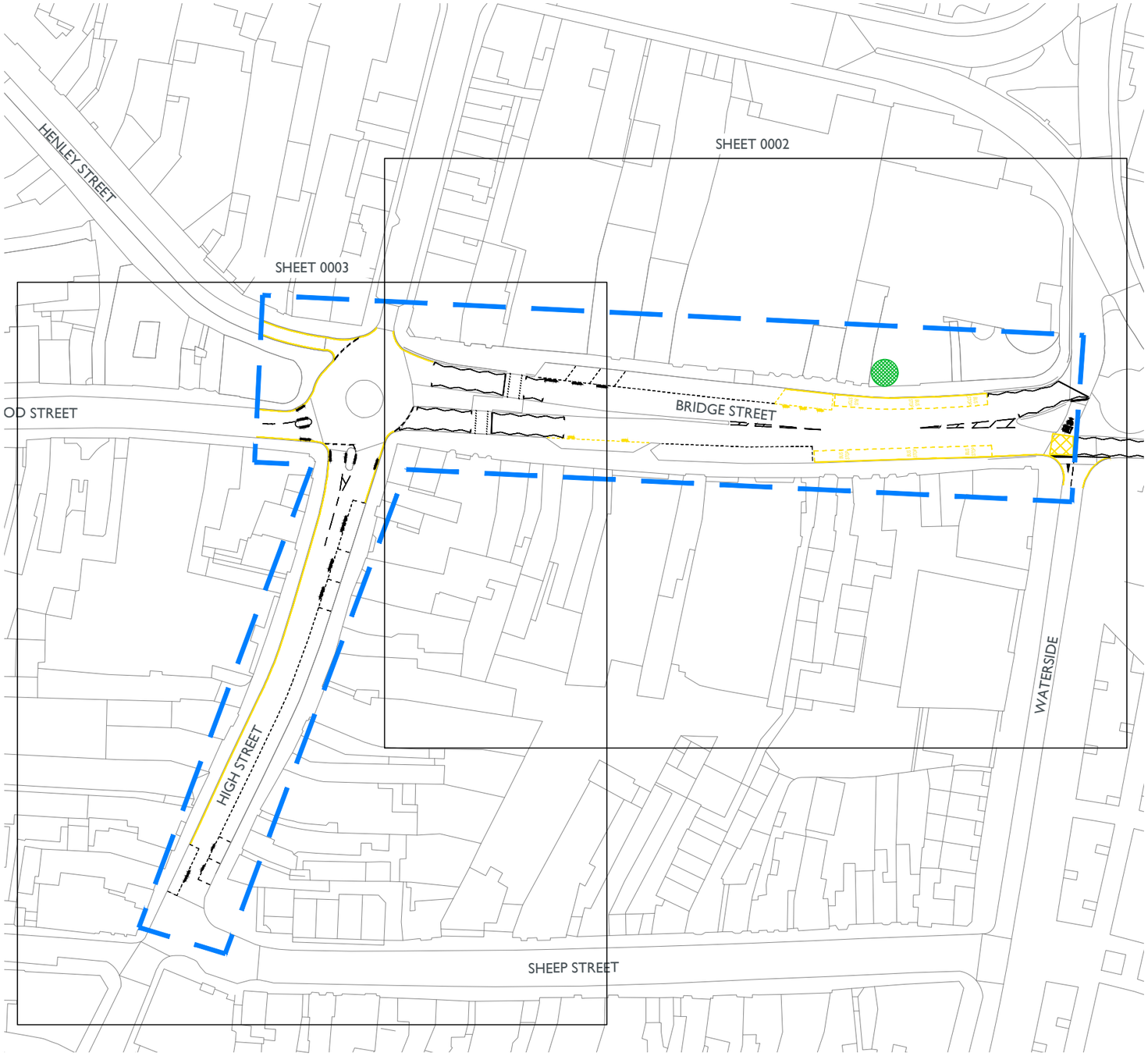

Fig.02 Extent of study area

1.3 Process

Since the start of the commission in March 2021 the project team have undertaken a comprehensive programme of engagement Town Centre Strategic Partnership (the "Strategic Partnership") which includes key stakeholders, including local interest groups, businesses and elected members.

The engagement process has included design workshops, meetings with key officers, site visits and a presentation to the Strategic Partnership.

1.4 Key Objectives

Our key objectives in preparing our recommendations are:

- Improve the balance between movement and place functions within the town centre.
- The implementation of a 20mph speed limit for the whole of the town centre.
- Maintain access for public transport and tourist buses.
- Ensure servicing and deliveries can be managed efficiently.
- Widening of footways and the narrowing of carriageways.
- Redesigned car parking.
- Redesigned taxi ranks.
- Improved public realm and landscaping.

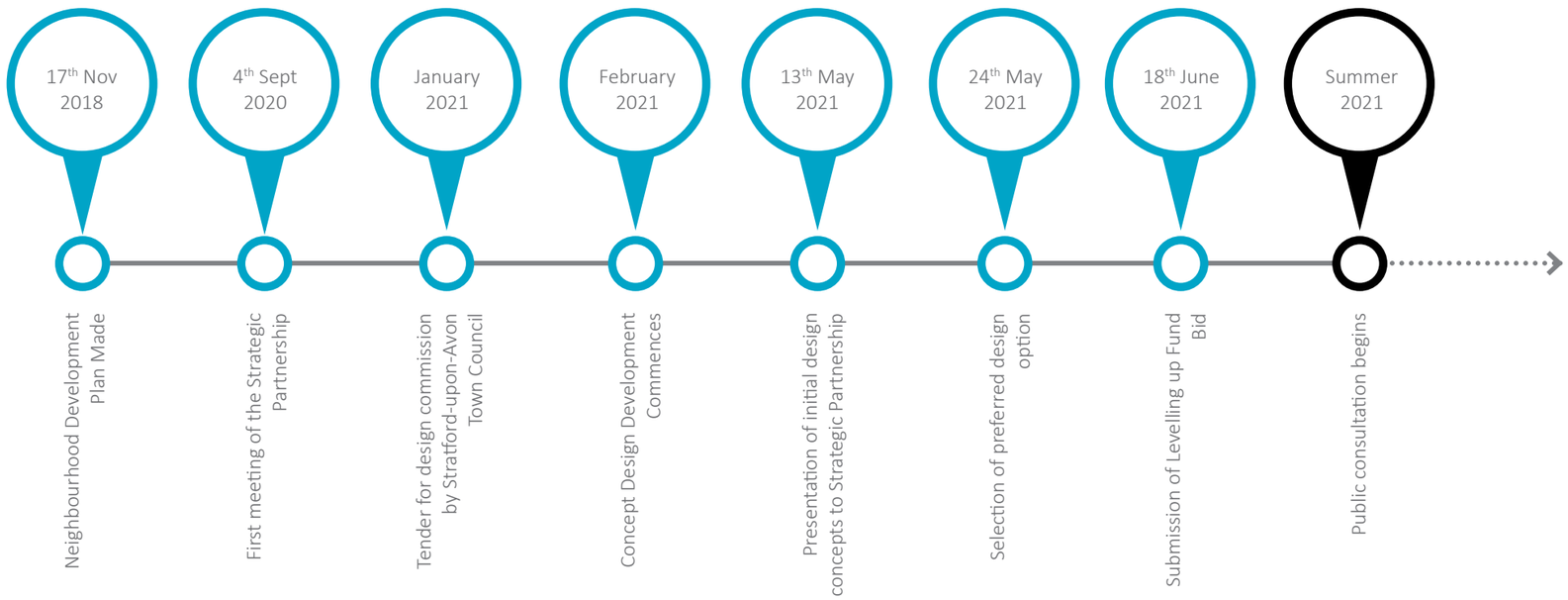

Fig.03 Project timeline

Chapter 2.

Site Analysis

2 Site Analysis

2.1 Strategic Context

2.1.1 The historic routes of Stratford-on-Avon

The immediate context of the current project is the wider pattern of streets that make up the town of Stratford-upon-Avon. The streets not only provide access to properties but also make up the spaces and settings for the public life of the town. The deeper rooted context of the project is the historical development of the street pattern.

As is well documented by historic maps, the streets of towns tend to persist for hundreds if not thousands of years. Stratford-upon-Avon provides a very good example. The current core of the town was created in the 12th century as a Medieval New Town and incorporated pre-existing roads and tracks. These include the Roman Road from Banbury to Droitwich via Alcester (Bridge Street/Wood Street/Greenhill Street); the track to Henley-in-Arden (Henley Street); Old Town and Southern Lane, which led to the pre-existing Saxon settlement around Holy Trinity Church. Other pre-existing routes would have included the current Warwick Road and Evesham Road.

The foundation of the Medieval New Town created the slightly irregular grid of streets south of (and incorporating) the Roman Road. There are three additional east west streets: Ely Street/Sheep Street, Scholar's Lane/ Chapel Lane, Chestnut Walk/Old Town; and three north-south streets: Rother Street/Windsor Street, Church Street/Chapel Street/High Street and Southern Lane/Waterside.

Within the Medieval town, the widened space at the top of Rother Street was the livestock market and Bridge Street was the main market space. What is now the Birmingham Road, north of Bridge Street, was a gravel quarry and likely formed a back lane to and accommodated the drainage and waste from Bridge Street properties.

Subsequent transformations, in particular with the advent of the motor car have modified the pattern of streets only slightly. What was the old Roman Road remains a strategic through route (Alcester Road to Shipston Road) and the Warwick Road and Evesham Road remain strategic connections. The principal modification has been to turn the old back lane of Bridge Street into the strategic route of the Birmingham Road, picking up the line of the track to Henley-in-Arden. That change has, in turn, allowed Henley Street to become the much quieter, local street it is today.

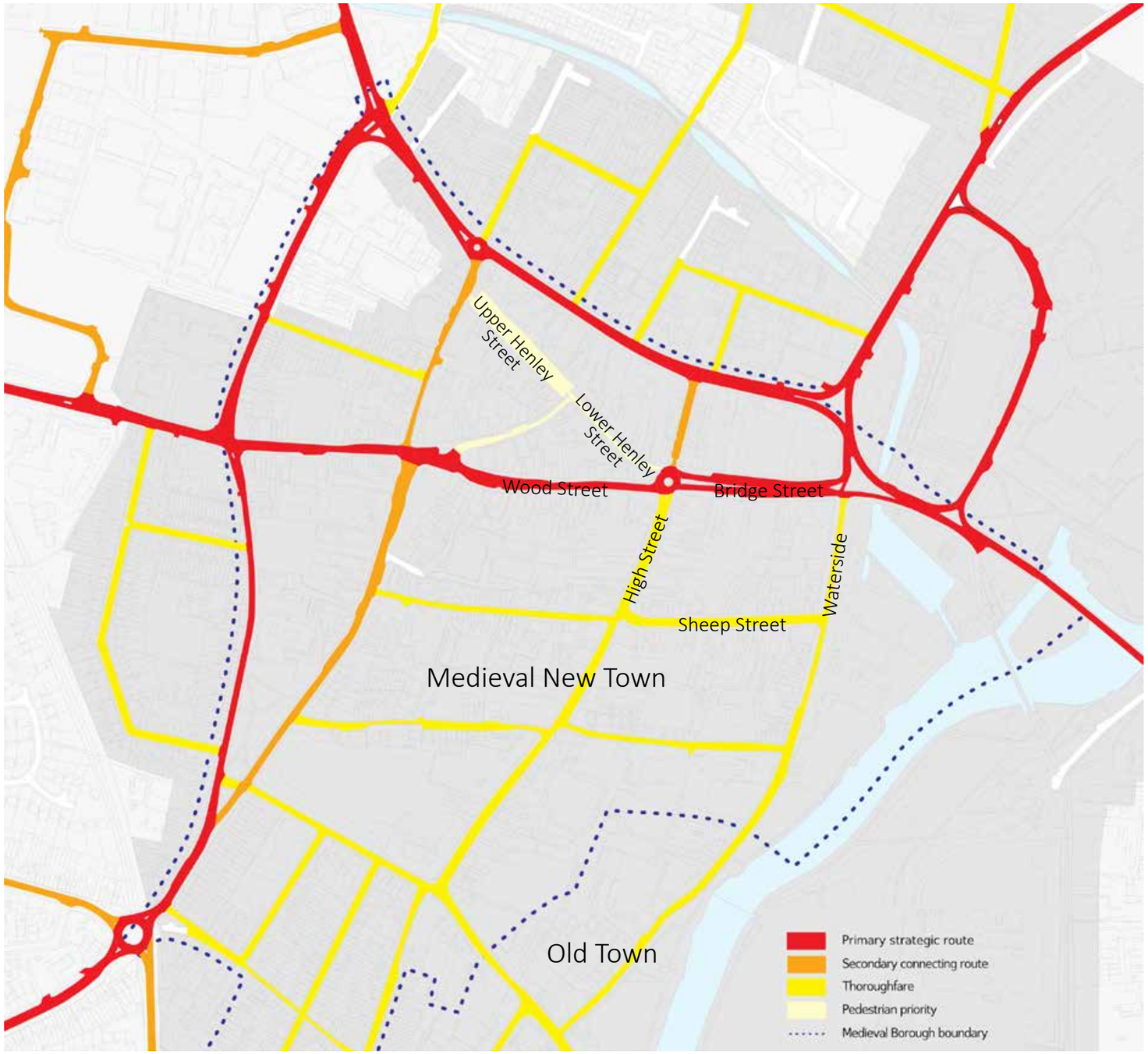

Fig.04 Strategic highway network

2.2 Historical Photographs

2.2.1 Bridge Street

As illustrated in the photographs on the following page, Bridge Street is one of the most distinctive streets within Stratford-upon-Avon, in large part because of its width. As part of the Medieval New Town, the street was deliberately created as a wider street to accommodate the principal market. In that role as a market space, the street accumulated a number of permanent buildings that became known as Middle Row. These buildings persisted into the middle of the nineteenth century and show the capacity of the space for a wide range of functions.

The width of the street, combined with the rise in levels from the river, allow for distinctive views in both directions. This fact along with the position, size and shape of the street have made it ideal as a setting for events and as a ceremonial space. The street retains its flexibility and capacity and remains a space for use in a wide variety of ways.

2.2.2 High Street

While the High Street was secondary to Bridge Street as a market space, it formed the central north-south spine of the Medieval New Town. With less traffic, it attracted a range of uses including hotels and shops as well as large residential properties. It also provided the principal route to Old Town and Holy Trinity Church. With the passing centuries and the birth, career and growing fame of William Shakespeare, the High Street also became part of the ceremonial route from Shakespeare's birthplace in Henley Street to his memorial in Holy Trinity Church. The street remains a well proportioned and vibrant space, lined with exceptional buildings.

2.2.3 Wood Street roundabout

The space at the top of Bridge Street plays a number of important roles in the town. It is the most connected space in the street network and therefore attracts large numbers of cars, cyclists and pedestrians. In part because of its connectivity, but also because of its position on a high point and visibility, it is a symbolic and ceremonial centre of the town. This role is well illustrated in the historic photographs, which show large crowds gathered in the space.

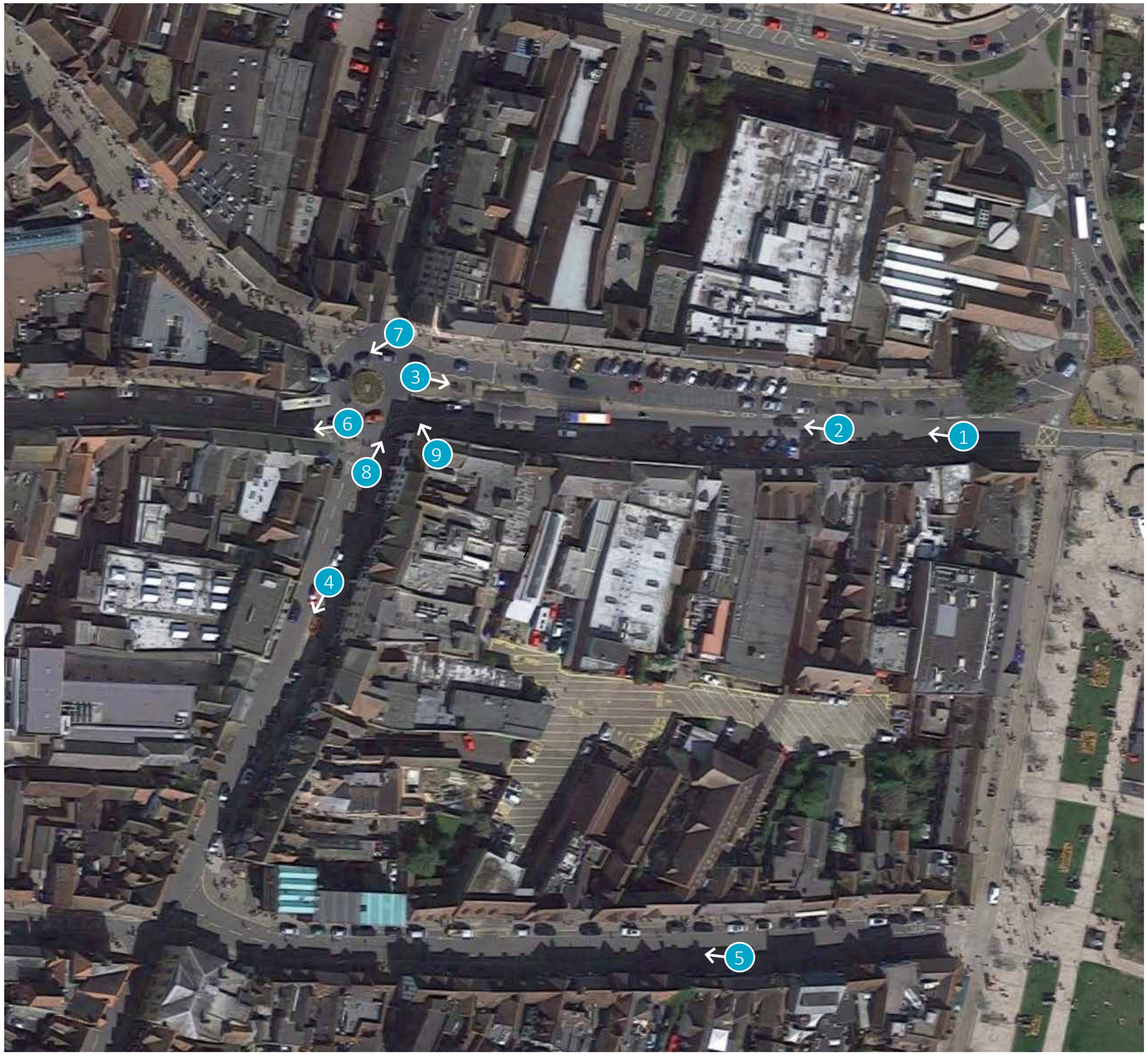

Fig.05 Historic photograph locations (approximate)

Bridge Street

Photo.01 View west along Bridge Street (1899)

Photo.02 View west along Bridge Street showing former Middle Row (now demolished)

Photo.03 View east along Bridge Street showing Shakespeare Birthday Celebrations

High Street / Sheep Street

Photo.04 View south along High Street

Photo.05 View west along Sheep Street towards High Street

Photo.06 View west along Wood Street

Wood Street roundabout

Photo.07 View south west towards High Street / Wood Street

Photo.08 View north along High Street towards Union Street

Photo.09 View north towards Henley Street

2.3 Streets and the historic environment

2.3.1 Heritage and community value

While the historic street pattern of Stratford-upon-Avon is an important part of its character, the more tangible features that give the town its identity and create the sense of positive qualities are the buildings that line the streets. The drawing to the right (Figure 10) shows the listed buildings (in pink) and key landmark buildings (in red- also listed). What is evident when looking at the plan is that the historic buildings are clustered along the main streets of the Medieval New Town. The streets with the most listed buildings also generally correspond to the streets with mixed use that are the most active and vibrant. These streets were also identified as the 'Walkable Core' of the town in the study undertaken by ARUP in 2009.

From a heritage perspective, the streets of the New Town and the buildings that line them represent a unique and irreplaceable asset and resource. The streets and buildings have evidential and historical value as an embodiment of the past, providing a sense of time depth that enriches our experience of the place. They also have aesthetic value, enhancing the quality of the environment, contributing to a sense of positive delight. Finally, the streets and buildings have communal value through a sense of continuity and connection and peopl'e's identification with them as their place to live, work or visit.

In this context, the use and treatment of the street spaces themselves- the physical surfaces of footway and carriageway, the signage and street furniture- can play a significant role in either supporting or undermining the value of the streets. The aim of this study and its precursors in the ARUP 2009 study and the work done by Colin Davis for the Neighbourhood Development Plan, is to ensure that the street spaces enhance the value of the historic environment. As explored in more detail in the following section, previous schemes have transformed Henley Street and Waterside in a way that has been very beneficial for the range of heritage values. The result, however, is a number of different treatments for different streets. One of the main objectives of the proposals put forward in this study is to help stitch those schemes together. Each subsequent project should help to integrate the core streets of the New Town- and its connection to Old Town- to reinforce the sense of the whole.

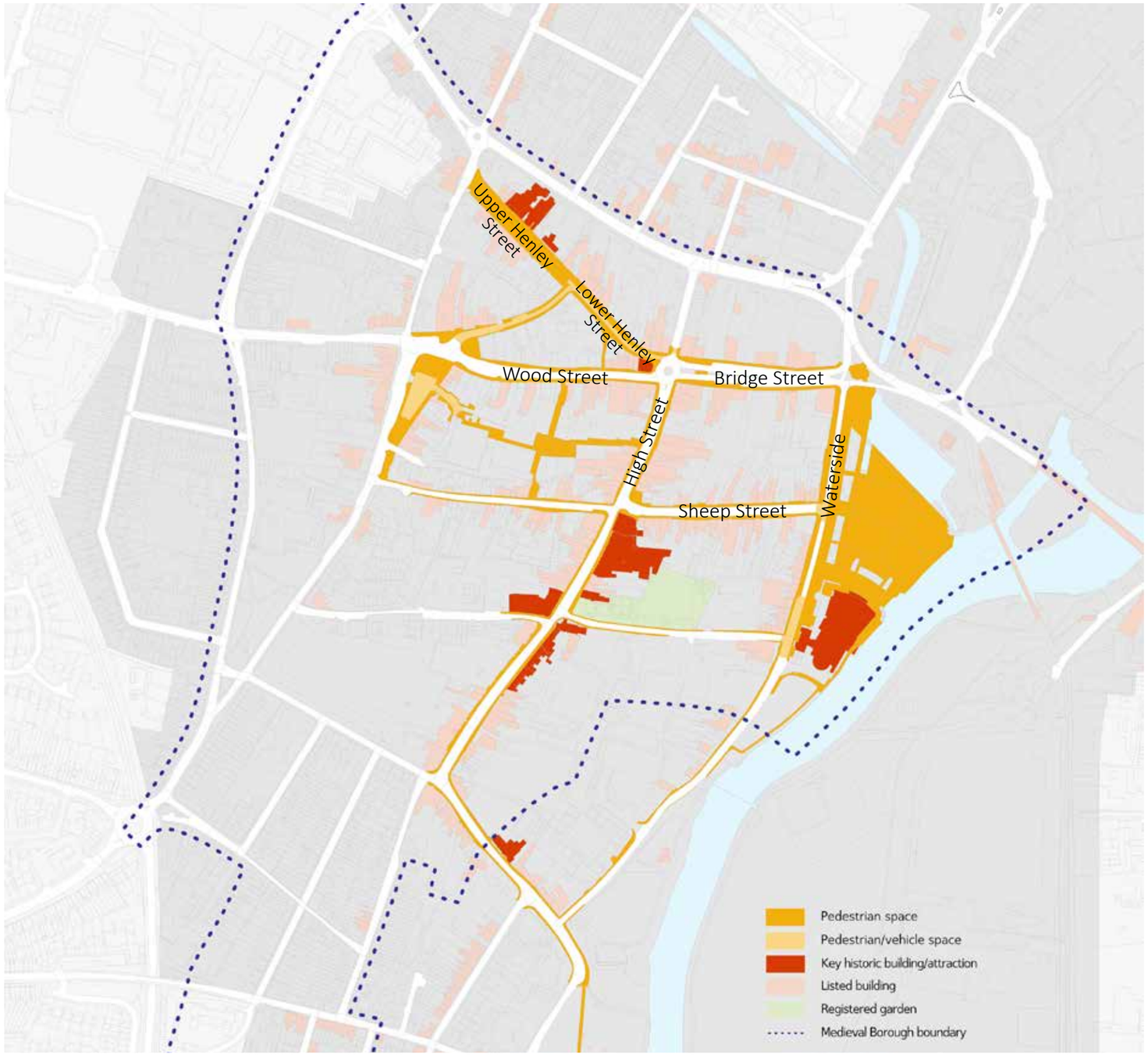

Fig.10 Pedestrian space and key heritage features

2.4 Street space and the life of the town

2.4.1 The many lives of streets

Streets fulfil many roles. Most obviously they accommodate movement and allow us to get from one place to another and into and out of the buildings that line them. Just as obviously, they accommodate different modes of movement: walking, cycling and motor vehicles of different kinds. The street spaces should, also, ideally, accommodate a range of ages and abilities.

Less obviously, streets accommodate a range of different kinds of 'occupation', from standing on a street corner talking to a friend you've bumped into, to cafe tables, street markets, car shows, fairs and public ceremonies.

One of the positive consequences of the recent COVID restrictions has been to highlight the wider range of activities that streets can accommodate and the positive impact they can have on the life of the town. A central part of that transformation is rebalancing the proportion of street spaces that are given over to motor vehicles.

The drawing to the right (Figure 11) shows the spaces within the core of the town that are primarily pedestrian (orange), shared (light orange) and primarily vehicular (white). This shows the pedestrian areas focused on Rother Street, Upper Henley Street, Bell Court Waterside/Bancroft Gardens.

Just as important, if not more so, as seeking to integrate the streets of the New Town from a heritage perspective, a central aim of the proposals put forward is to bring together the pedestrian environments. The goal in putting forward the design proposals is both to improve the individual street and to improve the continuity and connectivity of the wider network of streets. That is, the choice of treatments is based on both how to make the most of the space within an individual street and how to get them to work together more effectively. A further aim in the design is to ensure the use of the streets is flexible, together and individually. The streets should work when they accommodate both vehicles and pedestrians and when they are closed to vehicles for specific events.

The end result should be to bring more life into the streets.

Fig.11 Pedestrian space within the town centre

2.5 The Need to Achieve a Better Balance Between Movement and Place

2.4.2 Balancing Functions

Highways such as Bridge Street and High Street are a vital part of a town's public realm and contribute to a prosperous economy and a healthy and inclusive society, if well designed.

In recent years, inspired by government documents such as 'Manual for Streets', the need to achieve a better balance between the 'movement' (by all modes) and 'place' functions of highways has increasingly become accepted by decision-makers and their professional advisors.

Balancing the movement and place functions of these two streets in Stratford-upon-Avon town centre is a key focus of this project and is a core objective of the Neighbourhood Development Plan (NDP). The challenge of how to achieve the right balance is a complex area for designers, particularly in a town centre environment. The town centre has a rich past and a distinctive charm and character, founded both on Stratford-upon-Avon's status as a market town and the place where Shakespeare was brought up and to which he returned. The town has prospered over the centuries and become an attractive place to live, work and visit, for both residents and tourists alike.

This success has unfortunately also brought about some pressures- high house prices, congestion and poor air quality in certain areas. As the town continues to grow, so the demands on its infrastructure will increase, and continued success cannot be taken for granted. The NDP sets out a strategy to secure the town's future, focussing on the need to strengthen and revitalise the town's shopping offer and consolidate the visitor and tourist economy.

The NDP recognises that to do this we need to improve the public realm; remove clutter from the streets; and make it easier and more pleasant for people to move around the town, particularly on foot. This will make a visit to Stratford-upon-Avon a more relaxed and enjoyable experience and make the town's retail and entertainment offer more attractive.

2.4.3 Visitors in the Town Centre

The visitor economy is vital to Stratford-upon-Avon's continued prosperity. Visitors come from all over the world to enjoy the theatre and wider Shakespeare experience, as well as shopping, the river and all the other attractions that make up the town's heritage. They add to the vitality of the town and underpin its economic success. The NDP recognises that there is a continuing need for reasonable growth and modernisation of visitor facilities.

As a tourist and visitor destination the town needs to be contemporary and competitive; that is why the proposed improvements to the overall ambience to the town centre identified in this study are vital.

The COVID-19 pandemic has brought this need into sharp focus, with an acceleration of the changes in the reasons why people visit and use high streets and their expectations when they are there. The rise in online shopping has meant that people can increasingly satisfy their day-to-day needs without visiting town centres. Stratford-upon-Avon must therefore offer a unique and high-quality experience and which draws people to it.

During the latter stages of the pandemic, the need to provide a relaxed and generous pedestrian experience has been even more important due to the requirement for social distancing, and a set of temporary traffic management measures was put in place. These are explained in more detail on the following page.

2.6 COVID-19 Temporary Traffic Management

2.6.1 Temporary Traffic Management

As a result of the COVID-19 pandemic Warwickshire County Council introduced temporary changes to the layout of Bridge Street, High Street and Union Street within the town centre to support social distancing as lockdown measures begin to be eased. This work is forming an important part of the County Council's response to the public health crisis created by Covid-19 and is in line with Government expectations.

Initial versions of the temporary traffic management measures were more extensive, but have subsequently been relaxed in stages to the measures outlined below. The measures were designed to support the gradual re-opening and recovery of the town centre and include the following measures:

- **High Street** – Full closure between 11am and 6pm, seven days a week, from its junction with Bridge Street to its junction with Sheep Street, with no deliveries permitted during this closure. Outside of these hours to be 2-way traffic and previous parking restrictions.
- **Bridge Street** – 2-way traffic, introduction of temporary barriers to provide additional space for social distancing, echelon parking (1hr, no return 2hrs) and one bus stop to be provided between Much A Shoe About Nothing shop to the old BHS. Temporary barriers adjacent to Boots with an informal crossing point near Sainsbury's.
- **Union Street** - Relocated taxi rank, with the addition of two parking spaces (1hr), at the Guild Street end of the taxi rank.
- 20mph speed limit

The COVID-19 measures have given Warwickshire County Council the opportunity to trial key traffic management and parking changes within the town centre, which have been built on in this report's recommendations. The current temporary measures will be removed in line with the Government's roadmap to recovery.

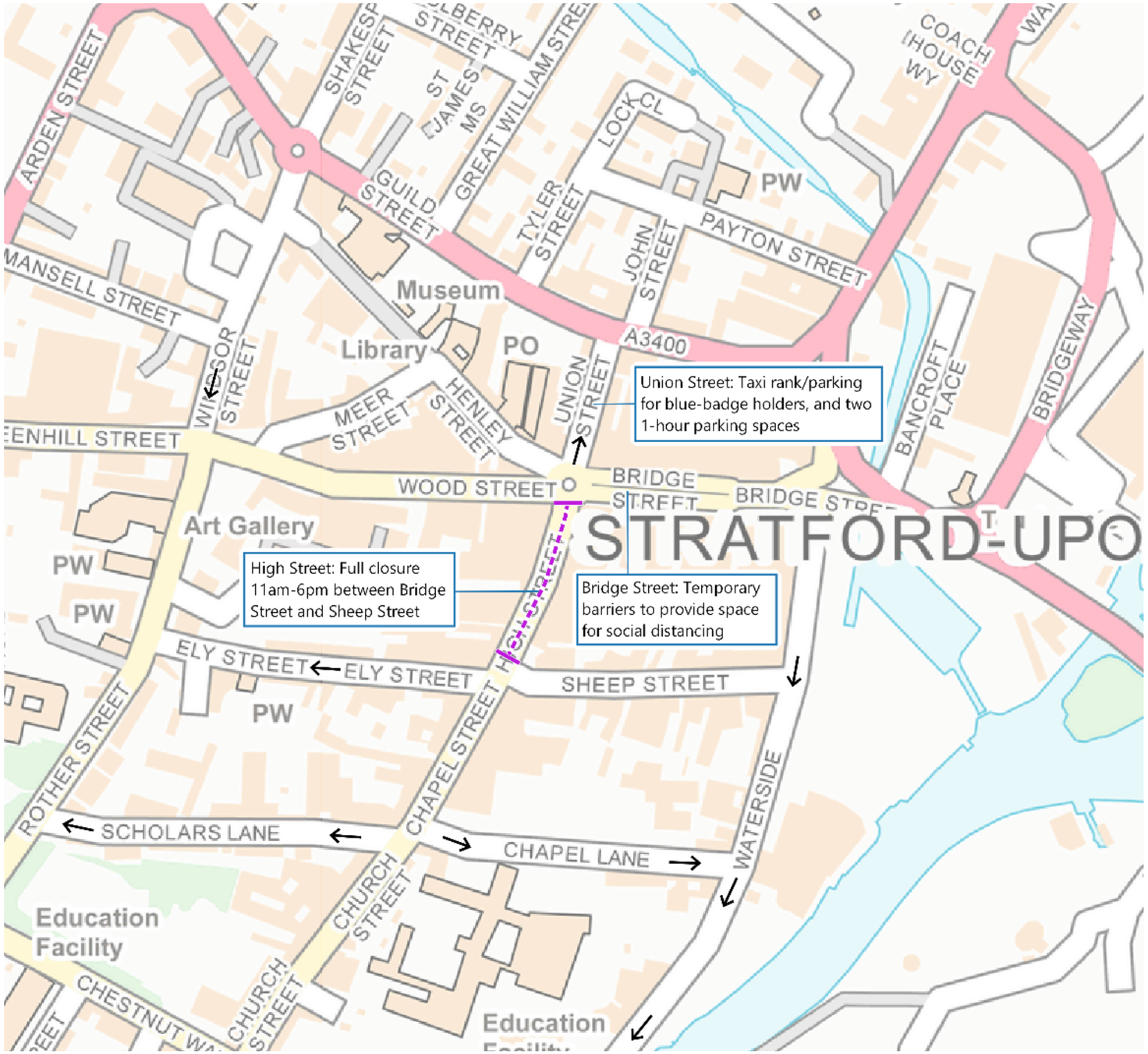

Fig.12 COVID-19 Temporary Road Layout Changes: August 2020 (map produced by Warwickshire County Council)

Chapter 3.

Existing Street Typologies

3 Street Typologies

3.1 *Creating better streets: Inclusive and accessible places*, Reviewing Shared Space Report

In January 2018 the Chartered Institute of Highways and Transportation (CIHT) published 'Creating better streets: Inclusive and accessible places – Reviewing Shared Space' which provides a series of recommendations to Government and professions on how the complex issue of balancing the movement and place functions of streets can be further improved and developed.

The report analysed the performance of a series of case studies where town centre streets had been redesigned to improve the quality of the public realm. In some cases the changes were relatively minor – improving the quality of paving materials and introducing street trees for example. In others the changes were more significant, drawing on the principles often referred to as 'shared space', whereby the use of traffic signs, road markings and other conventional traffic management features is reduced.

In order to enable these case studies to be assessed in a consistent way the report considered five objectives that summarised the reasons why schemes of this nature are typically carried out, as follows:

- Inclusive Environment
- Ease of Movement
- Improved Safety and Public Health
- Quality of Place
- Economy

The report did note, however, that not all of the case studies had explicitly set out their objectives at the outset, and a key recommendation was that in future local authorities should use this framework when developing public realm improvements to provide clarity into why schemes are being carried out and to inform design choices.

We have therefore used this framework to assess the options for the redesign of Bridge Street and High Street.

The CIHT Report also sought to bring greater clarity over the type of design approaches that could be considered. In particular, it recommended that the term 'shared space' should no longer be used as it has been applied to designs that are in practice quite different.

The report proposed three new categories of street designs:

Pedestrian-Prioritised Street:

- Streets where pedestrians feel that they can move freely anywhere and where drivers should feel they are a guest. Under current legislation it is not possible to give formal priority to pedestrians, but a number of successful schemes of this nature have been achieved, typically where traffic volumes and speeds are low.
- Street schemes of this type have generally adopted designs that do not appear to contain a well-defined carriageway so that road users (particularly drivers) do not assume that pedestrians need a defined crossing or a driver's permission to cross the street. Such schemes have often used a level surface, sometimes with similar paving types and colours across the whole of the space. There is normally no need for any dedicated cycling facilities.

Informal Street:

- Streets where formal traffic controls (signs, markings and signals) are absent or reduced. There is a footway and carriageway, but the differentiation between them is typically less than in a conventional street. Such schemes have successfully been implemented at much higher levels of traffic flow.
- A defining feature of this design approach is the absence or reduction of formal traffic control measures, particularly at junctions. The aim is to reduce the speed of vehicles by creating some uncertainty in drivers' minds over whether they have the right of way over other traffic streams. Other design features are used with the intention of reducing vehicular speed and dominance such as reducing the differentiation between the footway and carriageway- for example, by using reduced-height kerbs; and providing features such as median strips which encourage more frequent crossing movements by pedestrians.
- Because of the higher traffic flows, most schemes of this type provide regular crossings of the carriageway where drivers stop or slow to allow pedestrians to cross with confidence. Courtesy crossings, which do not use traffic signals, signs or markings, are often used to reduce the formality of the street. Dedicated cycle facilities may be appropriate.

Enhanced Street:

- Streets where the public realm has been improved and restrictions on pedestrian movement (e.g., guardrail) have been removed but conventional traffic controls largely remain in place.
- These are essentially normal streets where care has been taken to improve the quality of the public realm. This has typically been achieved through the removal of unnecessary street clutter, particularly pedestrian guardrails which reduce people's freedom of movement, and by the introduction of features such as seating, public art and street trees, which improve their experience of simply being there. Controlled pedestrian crossings and cycling infrastructure will often be needed.

We believe these descriptions provide a useful framework for developing alternative design approaches for Bridge Street and High Street. For the purpose of this study, the design team have therefore used the classifications to describe the options presented.

3.2 Summary of Street Typologies

In order to understand the context for future improvements within the town centre, existing streets have been classified against the three street typologies set out in the CIHT Report. These are shown on the adjacent plan.

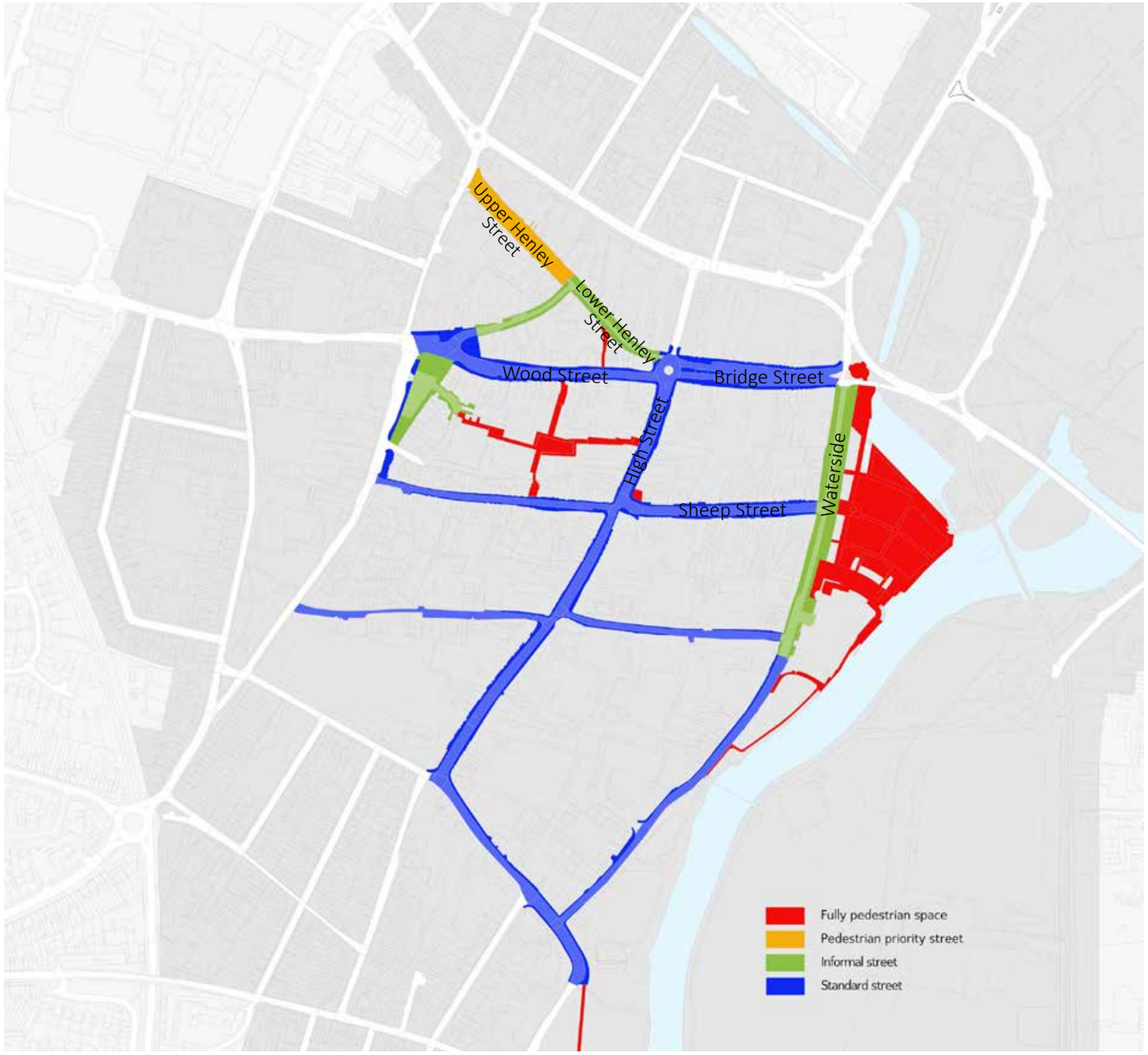

Fig.13 Classification of existing street types

Bridge Street:
(Currently ‘standard street’)

Photo.14 View west along Bridge Street showing temporary COVID street improvements

Photo.15 View west along Bridge Street showing bus stop

Photo.16 View east along Bridge Street showing temporary COVID street improvements

High Street / Sheep Street:
(Currently ‘standard street’)

Photo.17 View south along High Street during trialled pedestrianised hours

Photo.18 View south along High Street during trialled pedestrianised hours

Photo.19 View north along High Street outside of pedestrianised hours

Wood Street roundabout
(Currently ‘standard street’)

Photo.20 View south west towards High Street / Wood Street

Photo.21 View north towards Henley Street

Photo.22 View south west towards High Street

Sheep Street
(Currently 'standard street')

Photo.23 View east along Sheep Street

Photo.24 View east along Sheep Street

Photo.25 View showing entrance to service yard off Sheep Street

Waterside
(Currently 'informal street')

Photo.26 View south along Waterside

Photo.27 View north along Waterside

Photo.28 View north along Waterside

Union Street
(Currently 'standard street')

Photo.29 View north along Union Street

Photo.30 View north along Union Street showing taxi rank

Photo.31 View north along Union Street showing taxi rank and blue badge parking

Lower Henley Street / Meer Street
(Currently ‘informal street’)

Photo.32 View north west along Lower Henley Street

Photo.33 View south east along Lower Henley Street

Photo.34 View west along Meer Street

Upper Henley Street
(Currently ‘pedestrian priority street’)

Photo.35 View north west along Upper Henley Street

Photo.36 View showing Shakespeare Statue on Upper Henley Street

Photo.37 View north west along Upper Henley Street

Wood Street
(Currently ‘standard street’)

Photo.38 View east along Wood Street

Photo.39 View east along Wood Street

Photo.40 View west along Wood Street

Chapter 4.

Concept Design Options

4 Concept Design Options

4.1 Overarching Strategy

Central to this study is the creation of a concept design strategy for Bridge Street and High Street which supports principles set out in the Stratford-upon-Avon NDP to:

- Objective E- Improving access and movement within the Town Centre
- TC Project 5- Improving the balance between vehicles, pedestrians and cyclists.

To deliver this objective and address challenges faced by Stratford-upon-Avon, the following spatial vision / strategy sets out our ambitions and how collectively they will create a prosperous and sustainable town centre.

4.1.1 Inclusive Environment

- Reduce conflict between vehicles, pedestrians and cyclists.
- Maintain good bus access to key locations in the town centre.
- More place and spaces to sit and rest.

4.1.2 Ease of Movement

- Reduce pedestrian congestion by increasing space and encouraging more balanced distribution.
- Improve reliability of bus journey time to / through the town centre.
- Realise potential significant increase in cycling, particularly capitalising on the increases observed during COVID-19.
- Allow for continued access to the town centre by tourist coaches and taxis.

4.1.3 Improved Safety and Public Health

- Reduce conflict between pedestrians, cyclist and motor vehicles.
- Simplifying junction conflicts and operations
- Enabling smoother less congested vehicle movements.

4.1.4 Quality of Place

- Raise the quality of the public realm on Bridge Street and High Street to a standard befitting its world-class heritage.
- Reclaim movement space on key heritage streets within the town centre.
- Minimising street clutter.
- Improve wayfinding through design.

4.1.5 Economy

- Balance reduction in car parking with an increase in cycle parking.
- Maintain servicing to retail and business premises, but encourage the use of more sustainable arrangements including cycle freight.

4.2 Summary of Options

The design team have developed four initial concept options to present to the Stratford-upon-Avon Town Centre Strategic Partnership (TCSP). These are summarised as:

- Option 1 - Enhanced Street (as per TC.5 Project)
- Option 2a - Informal Street (option b from consultant brief)
- Option 2b - Informal Street (wide central space)
- Option 3 - Pedestrian Prioritised Street (option c from consultant brief

The design options are presented in detail on the following pages.

4.3 Option 1 - Enhanced Street (as per TC.5 Project)

4.3.1 Overall Design Vision

Option 1 proposes delivery of an enhanced street on Bridge Street and High Street in line with the concept set out in TC.5 Project set out in the NDP.

Both Bridge Street and High Street would be redesigned to create an enhanced street environment, with decluttering of both Bridge Street and High Street. In addition the following key changes are proposed as part of this option:

- **Bridge Street:** The widening of footways and the narrowing of carriageways; redesigned car parking; relocated taxi rank to Union Street; redesigned bus stopping bays on both sides; continued two way traffic movements; 20mph speed limit; and improved public realm and landscaping
- **High Street:** The widening of footways and the narrowing of carriageways; continued two way traffic movements; 20mph speed limit.
- **Bridge Street and Wood Street roundabout**: Redesign the Bridge Street roundabout to make for better general pedestrian flow and particularly to give improved pedestrian movement from High Street to Henley Street.

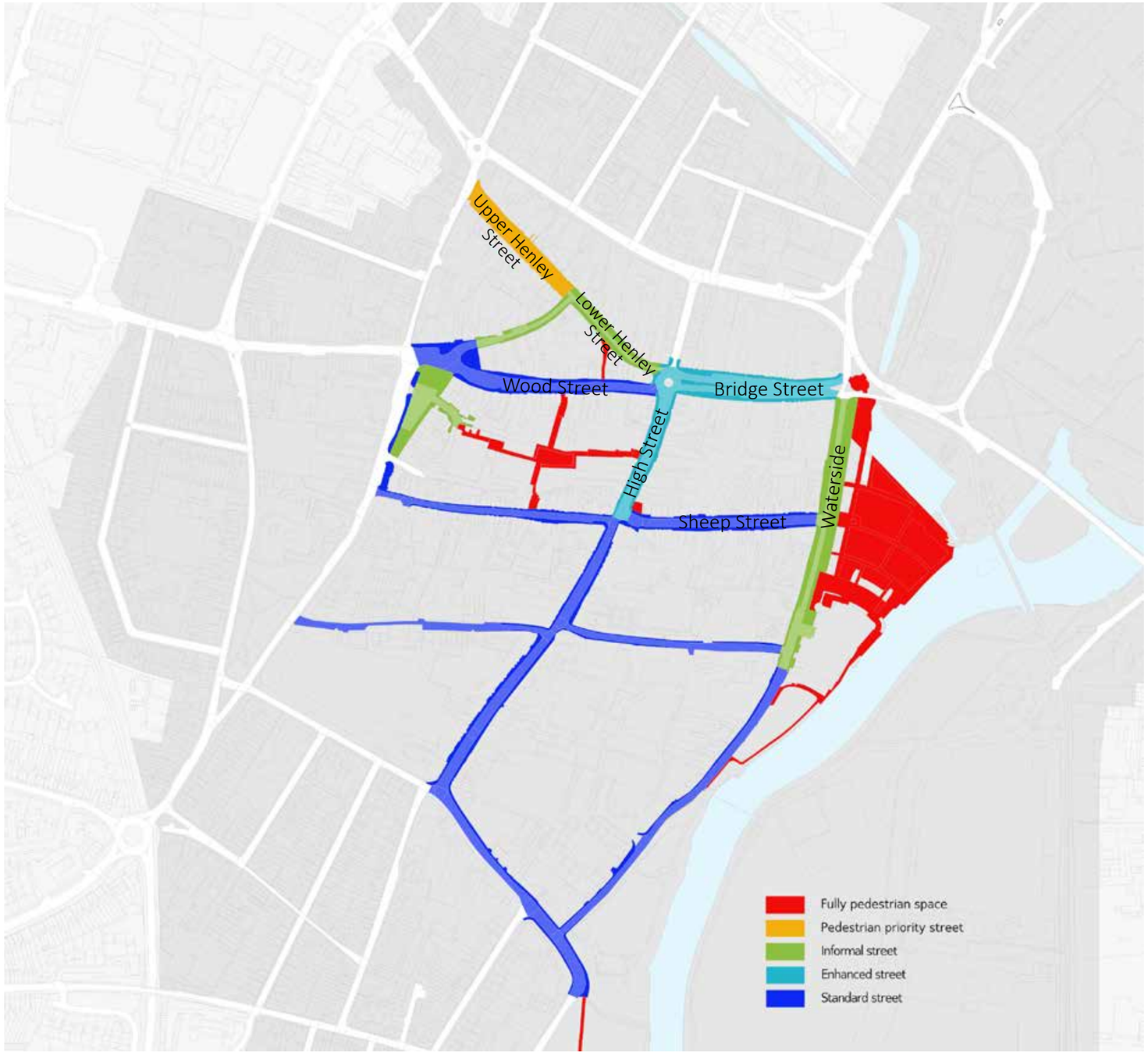

Fig.41 Option 1- Enhanced Street: Proposed street type classification

4.3.2 General Arrangement Drawing

The adjacent plan shows the concept design general arrangement drawing.

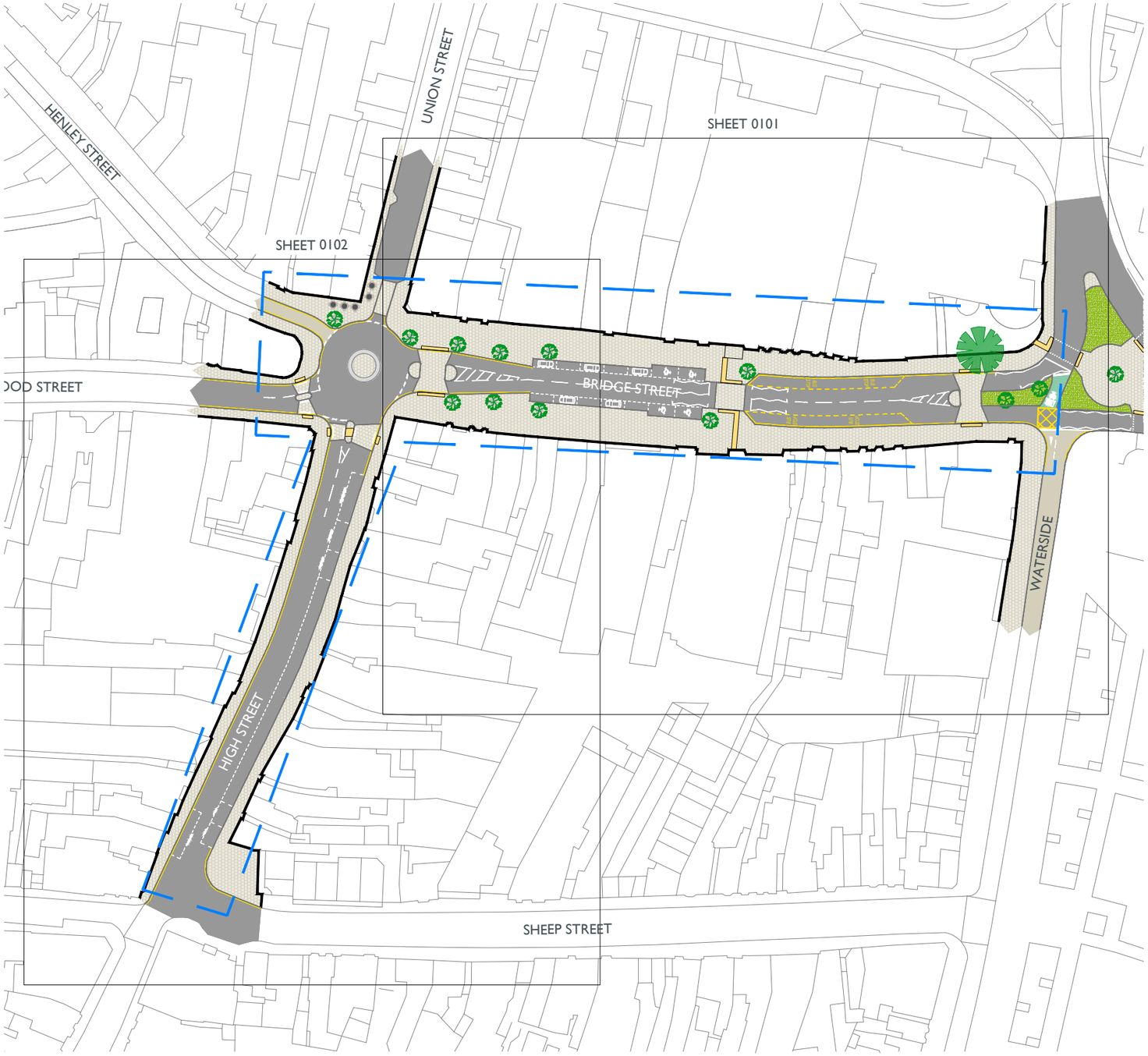

Fig.42 Option 1- Enhanced Street: General Arrangement Drawing

4.3.3 Bridge Street

- **Widened footways / narrowed carriageway:** Footways along the length of Bridge Street are widened by reducing the carriageway width and removing the existing section of central median.
- **Walking:** Three pedestrian crossings have been created at equal intervals along Bridge Street. Courtesy crossings are provided at the eastern and western ends of the street with a relocation of the controlled pelican crossing to a central point on the street.
- **Cycling:** Cycling in carriageway.
- **Public transport:** Space for public transport is maintained at the eastern end of Bridge Street. Loading is also permitted in this area.
- **Taxis:** The taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements.
- **Private cars:** Bridge Street open to private cars.
- **Parking:** A total of 10 car parking spaces plus 4 disabled spaces are provided to the west of the pelican crossing. This maintains the level of provision currently provided as part of the temporary COVID-19 improvements.
- **Road markings:** Standard road markings are maintained.
- **Materials:** Enhanced material palette on footways. Asphalt on carriageway.
- **Planting:** Initial review of below ground services indicates there is potential to introduce new planting.

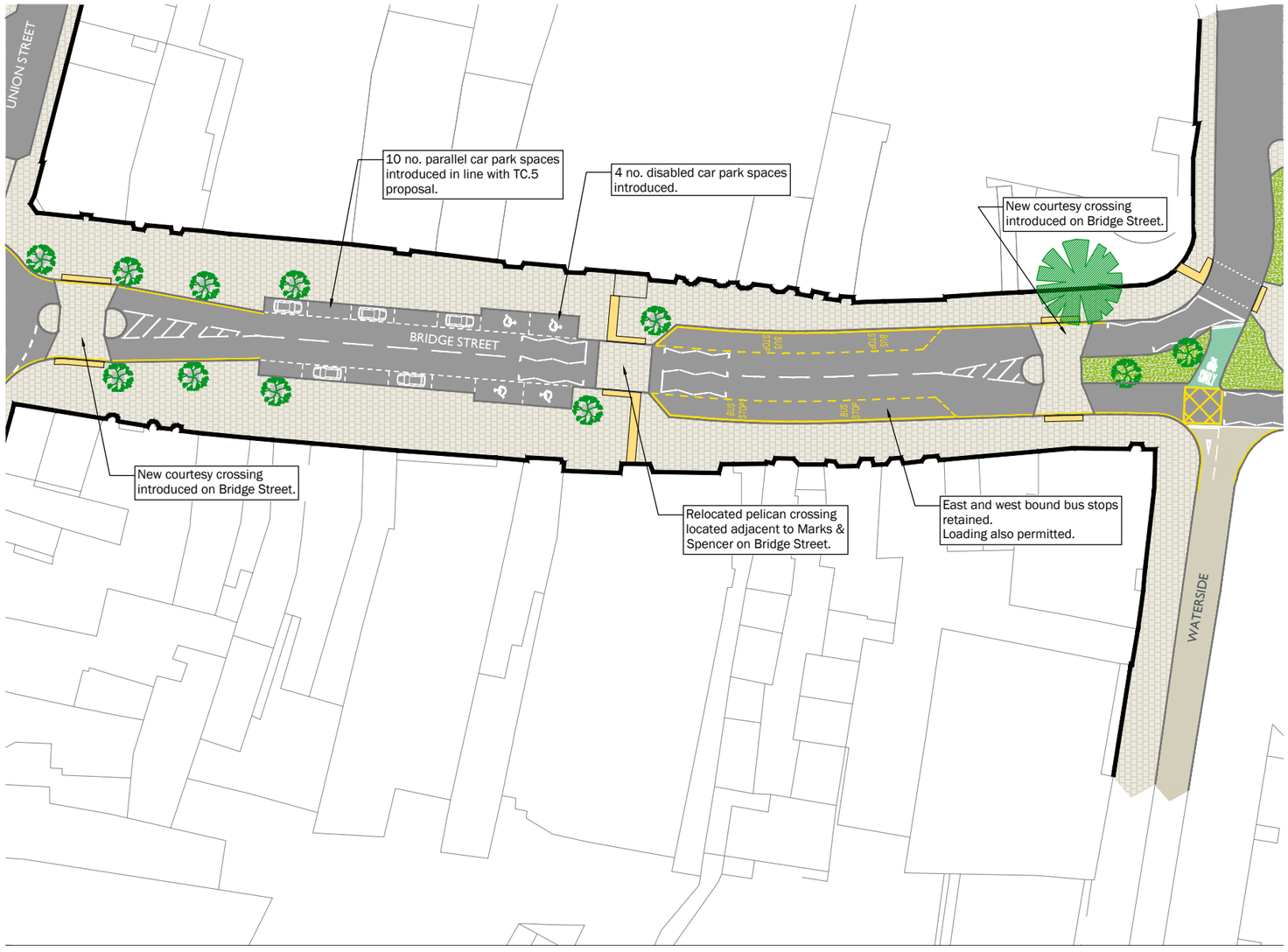

Fig.43 Option 1- Enhanced Street: Bridge Street

4.3.4 High Street

- **Widened footways / narrowed carriageway:** Footways along the length of High Street are slightly widened by reducing the carriageway width.
- **Walking:** An improved pedestrian crossing is located at the roundabout with Wood Street / Bridge Street.
- **Cycling:** Cycling in carriageway.
- **Public transport:** No change.
- **Taxis:** The taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements.
- **Private cars:** High Street open to private cars.
- **Parking:** Existing parking spaces retained.
- **Road markings:** Standard road markings are maintained.
- **Materials:** Enhanced material palette on footways. Asphalt on carriageway.
- **Planting:** No opportunity for introduction of new planting.

Fig.44 Option 1- Enhanced Street: High Street

4.3.5 Summary of Key Design Outcomes

A summary of the overall design approach is provided in the adjacent table.

	LOCATION		
	BRIDGE STREET	HIGH STREET	BRIDGE ST ROUNDABOUT
Overall Design Approach	Enhanced Street	Enhanced Street	Enhanced Street
General Description	Widen footway / narrow carriageway	Widen footway / narrow carriageway	Introduce roundel
INCLUSIVE ENVIRONMENT			
Pedestrian crossings	Controlled crossing - pelican	Courtesy crossing	Courtesy crossing
Tactile paving	Yes	Yes	Yes
Kerb height	100 mm	100 mm	100 mm
EASE OF MOVEMENT			
Walking	Widened footway	Widened footway	Courtesy crossings added
Cycling	In carriageway (no change)	In carriageway (no change)	In carriageway (no change)
Public Transport	No change	No change	Maintain u-turn at roundel
Taxi	Taxi rank on Union Street	Taxi rank on Union Street	Taxi rank on Union Street
Private cars	No change	No change	No change
IMPROVED SAFETY AND PUBLIC HEALTH			
Speed limit	20 mph	20 mph	20 mph
Air Quality	No change	No change	No change
QUALITY OF PLACE			
Pedestrian Space	More space to sit and rest	More space to sit and rest	Decluttered
Road Markings	Standard road markings	Standard road markings	Standard road markings
Materials - carriageway	Asphalt	Asphalt	Asphalt
Materials - footway	Enhanced material palette	Enhanced material palette	Enhanced material palette
Planting	New street trees introduced	No additional planting	No additional planting
ECONOMY			
Car Parking	10 car parking spaces / 4 disabled spaces	4 disabled parking spaces	n/a
Cycle Parking	Enhanced cycle parking	Enhanced cycle parking	n/a
Servicing	No change	2 loading bays	n/a
Management of access	Temporary closures	Temporary closures	Temporary closures
Activities afforded when open to traffic (Daily 24 hrs)	Café tables, performances, street vendors, informal social interaction while standing	Café tables, performances, street vendors, informal social interaction while standing	n/a
Activities afforded when closed to traffic (Special events only)	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.

Fig.45 Option 1- Enhanced Street (as per TC.5 Project)

4.4 Option 2a - Informal Street (option b from consultant brief)

4.4.1 Overall Design Vision

Option 2a proposes delivery of an informal street on Bridge Street and High Street. It proposes the same spatial reallocation as option 1, but with additional enhancement to both Bridge Street and High Street with removal of formal road markings and reduction in kerb heights throughout.

This option would help to achieve a greater level of consistency across the town centre, creating greater continuity of design along Meer Street, Lower Henley Street, Bridge Street, High Street and Waterside.

The following key changes are proposed as part of this option:

- **Bridge Street:** The widening of footways and the narrowing of carriageways; redesigned car parking; relocated taxi rank to Union Street redesigned bus stopping bays on both sides; continued two way traffic movements; 20mph speed limit; and improved public realm and landscaping.
- **High Street:** The widening of footways and the narrowing of carriageways; continued two way traffic movements; 20mph speed limit.
- **Bridge Street and Wood Street roundabout**: Redesign the Bridge Street roundabout to make for better general pedestrian flow and particularly to give improved pedestrian movement from High Street to Henley Street.

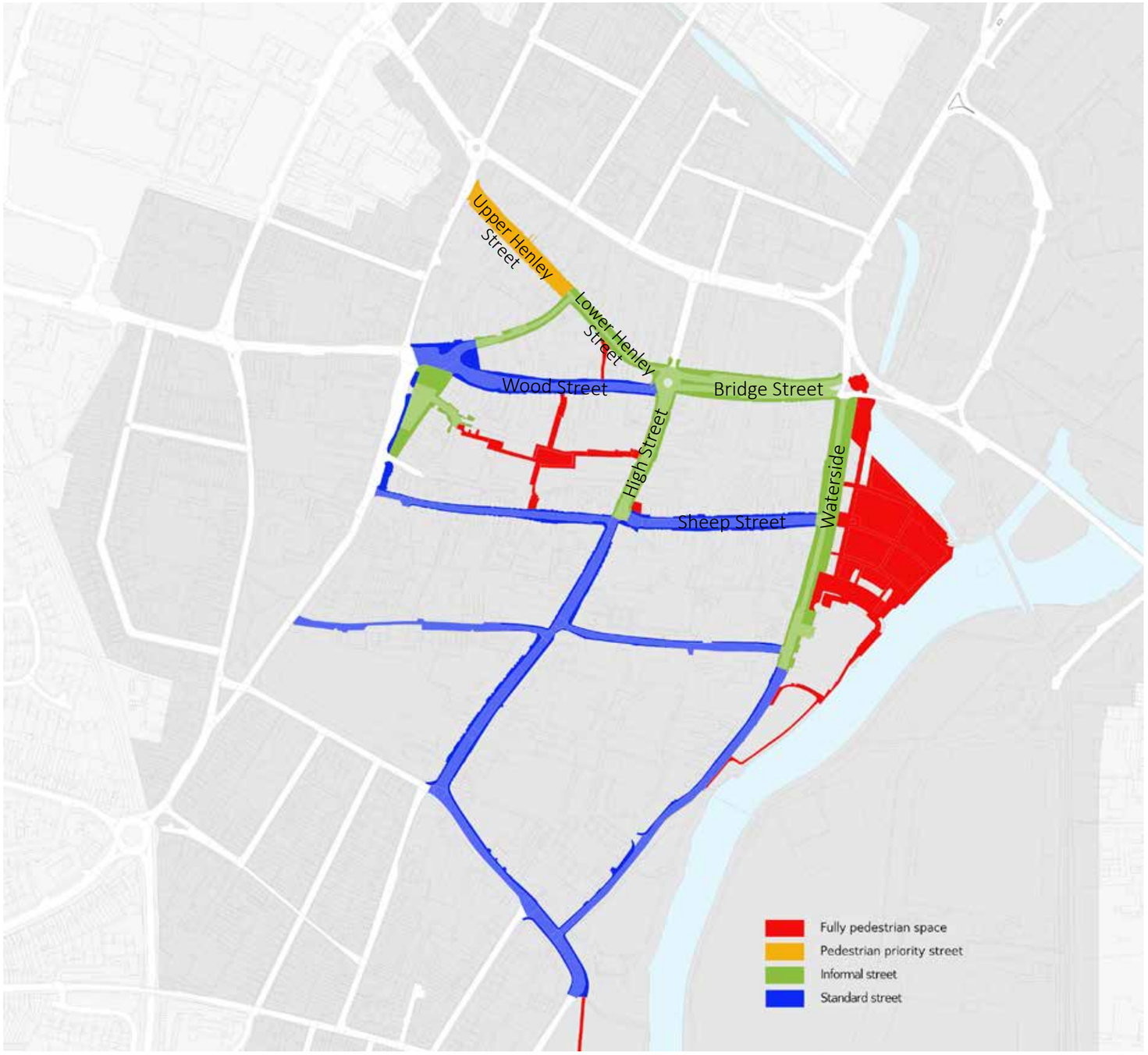

Fig.46 Option 2a- Proposed street type classification

4.4.2 General Arrangement Drawing

The adjacent plan shows the concept design general arrangement drawing.

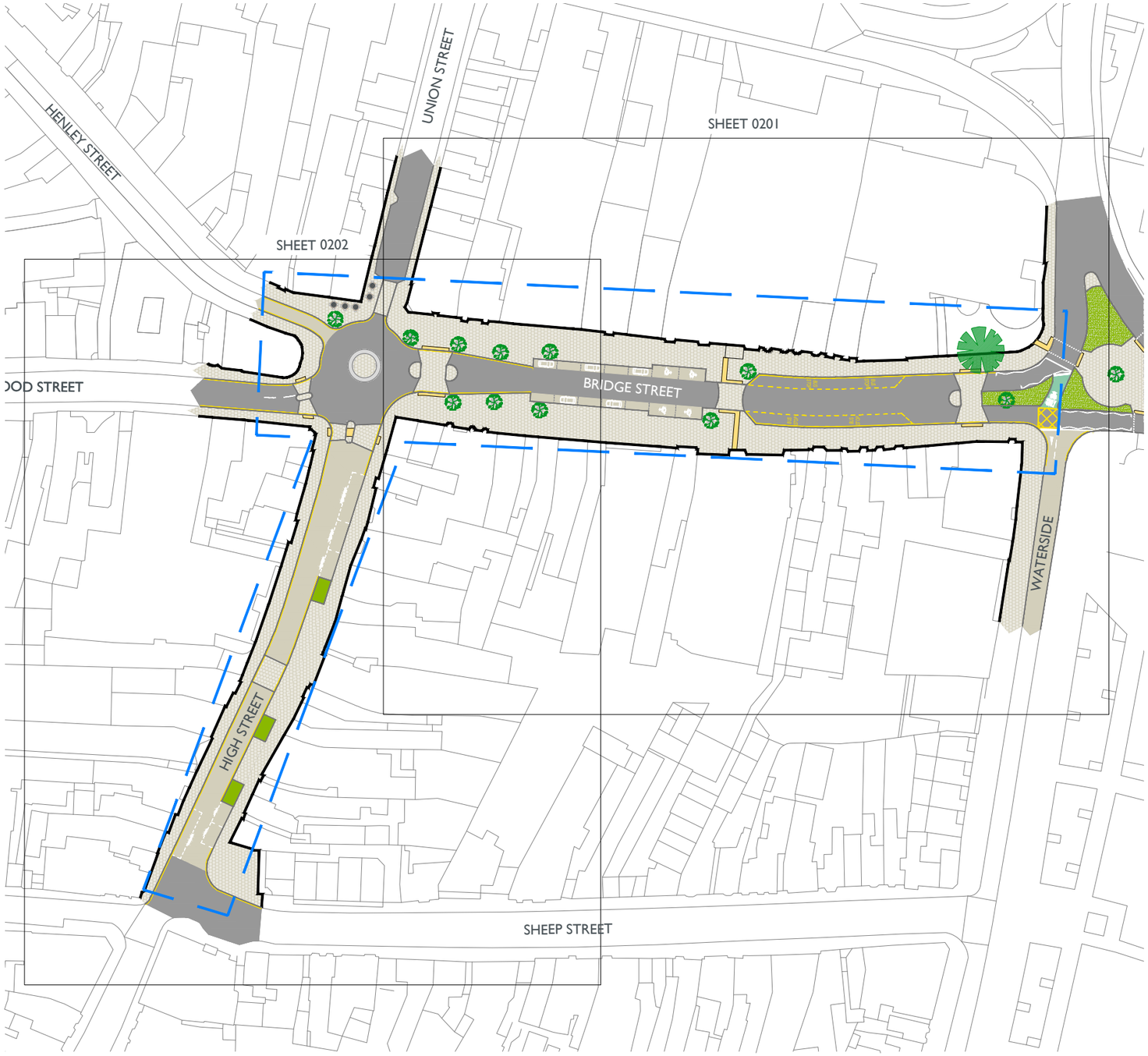

Fig.47 Option 2a- Informal Street: General Arrangement Drawing

4.4.3 Bridge Street

- **Widened footways / narrowed carriageway:** Footways along the length of Bridge Street are widened by reducing the carriageway width and removing the existing section of central median.
- **Walking:** Three courtesy crossings have been created at equal intervals along Bridge Street.
- **Cycling:** Cycling in carriageway.
- **Public transport:** Space for public transport is maintained at the eastern end of Bridge Street. Loading is also permitted in this area.
- **Taxis:** The taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements.
- **Private cars:** Bridge Street open to private cars.
- **Parking:** A total of 10 car parking spaces plus 4 disabled spaces are provided to the west of the pelican crossing. This maintains the level of provision currently provided as part of the temporary COVID-19 improvements.
- **Road markings:** Standard road markings are removed.
- **Materials:** Enhanced material palette on footways and parking bays to reduce their visual impact on the streetscene. Asphalt on carriageway.
- **Planting:** Initial review of below ground services indicates there is potential to introduce new planting.

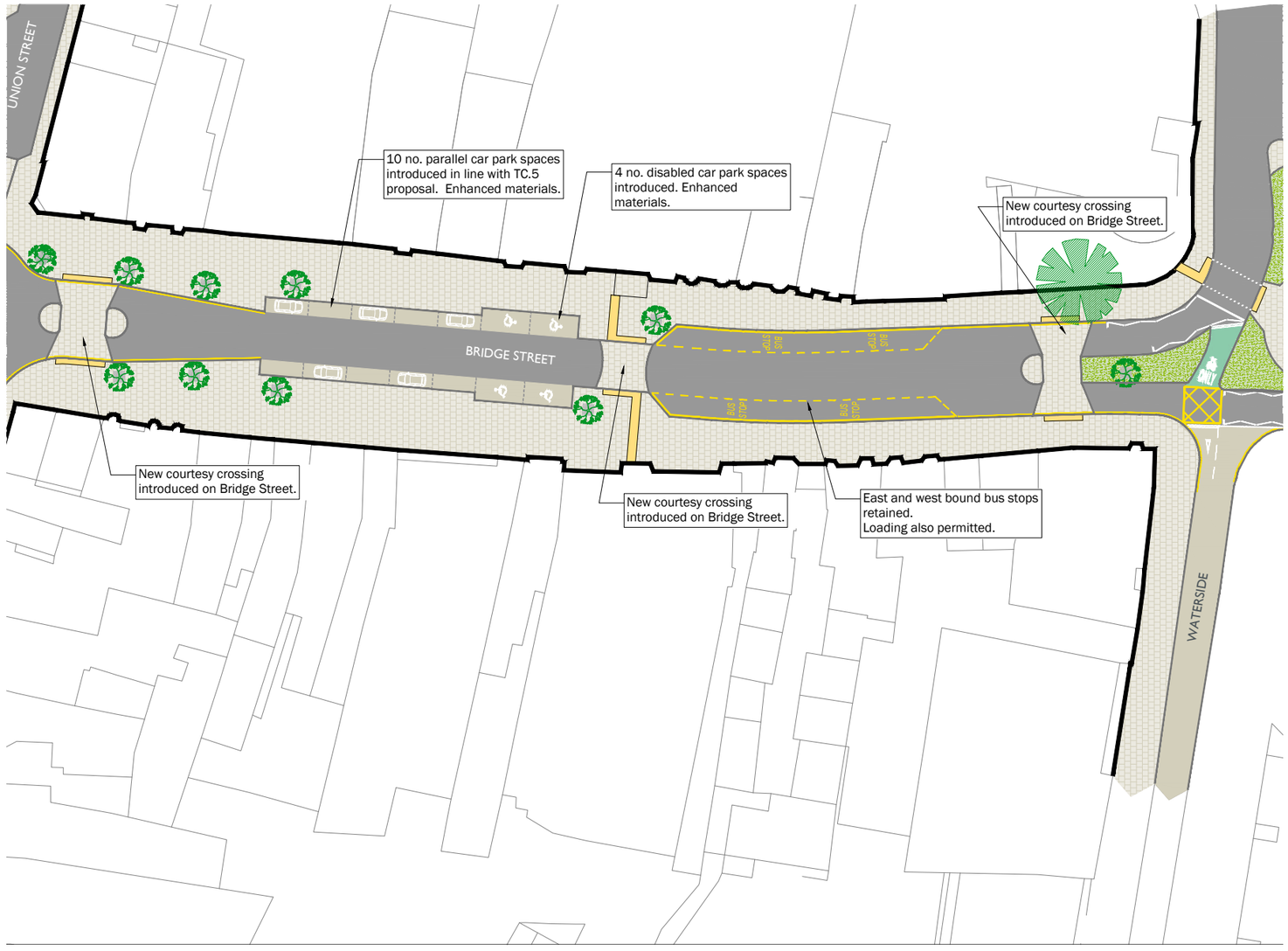

Fig.48 Option 2a- Informal Street: Bridge Street

4.4.4 High Street

- **Widened footways / narrowed carriageway:** Footways build outs introduced in existing parking spaces to create an improved pedestrian environment.
- **Walking:** A new courtesy crossing is located at the entrance to Bell Court shopping precinct.
- **Cycling:** Cycling in carriageway.
- **Public transport:** No change.
- **Taxis:** The taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements.
- **Private cars:** High Street open to private cars.
- **Parking:** Existing disabled parking spaces and loading bays retained. General parking removed.
- **Road markings:** Standard road markings are maintained.
- **Materials:** Enhanced material palette on footways and parking bays to reduce their visual impact on the streetscene. Coloured asphalt (as per Waterside) on carriageway.
- **Planting:** Opportunity to introduce new parklets within footway build outs similar to those currently located on Waterside.

Fig.49 Option 2a- Informal Street: High Street

4.4.5 Summary of Key Design Outcomes

A summary of the overall design approach is provided in the adjacent table.

	LOCATION		
	BRIDGE STREET	HIGH STREET	BRIDGE ST ROUNDABOUT
Overall Design Approach	Informal Street	Informal Street	Informal Street
General Description	Widen footway / narrow carriageway	Widen footway / narrow carriageway	Introduce roundel
INCLUSIVE ENVIRONMENT			
Pedestrian crossings	Courtesy crossing	Courtesy crossing	Courtesy crossing
Tactile paving	Yes	Yes	Yes
Kerb height	60 mm	60 mm	60 mm
EASE OF MOVEMENT			
Walking	Widened footway	Widened footway	Courtesy crossings added
Cycling	In carriageway (no change)	In carriageway (no change)	In carriageway (no change)
Public Transport	No change	No change	Maintain u-turn at roundel
Taxi	Taxi rank on Union Street	Taxi rank on Union Street	Taxi rank on Union Street
Private cars	No change	No change	No change
IMPROVED SAFETY AND PUBLIC HEALTH			
Speed limit	20 mph	20 mph	20 mph
Air Quality	Modest improvement	Modest improvement	Modest improvement
QUALITY OF PLACE			
Pedestrian Space	More space to sit and rest	More space to sit and rest	Decluttered
Road Markings	Removed	Removed	Removed
Materials - carriageway	Asphalt (or coloured asphalt as per Waterside)	Asphalt (or coloured asphalt as per Waterside)	Asphalt (or coloured asphalt as per Waterside)
Materials - footway	Enhanced material palette	Enhanced material palette	Enhanced material palette
Planting	New street trees introduced	New parklets introduced	New street trees introduced
ECONOMY			
Car Parking	10 car parking spaces / 4 disabled spaces	4 disabled parking spaces	n/a
Cycle Parking	Enhanced cycle parking	Enhanced cycle parking	n/a
Servicing	No change	No change	n/a
Management of access	Café tables, performances, street vendors, informal social interaction while standing	Café tables, performances, street vendors, informal social interaction while standing	n/a
Activities afforded when open to traffic (Daily 24 hrs)	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.
Activities afforded when closed to traffic (Special events only)	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.

Fig.50 Option 2a- Informal Street (option b from consultant brief)

4.5 Option 2b - Informal Street (wide central space)

4.5.1 Overall Design Vision

Option 2b proposes delivery of an informal street on Bridge Street and High Street but with an alternative spatial arrangement on Bridge Street to Option 1 and 2a.

Existing footway widths are largely retained on Bridge Street with narrowing of the carriageway and removal of car parking allowing for the creation of a wide central space, with removal of formal road markings and reduction in kerb heights throughout.

Similarly to Option 2a this option would help to achieve a greater level of consistency across the town centre, creating continuity of design along Meer Street, Lower Henley Street, Bridge Street, High Street and Waterside.

The following key changes are proposed as part of this option:

- **Bridge Street:** Maintains footways width with the narrowing of carriageways allowing space to be reallocated to the centre of the street; removal of car parking; relocated taxi rank to Union Street; redesigned bus stopping bays on both sides; continued two way traffic movements; 20mph speed limit; and improved public realm and landscaping.
- **High Street:** The widening of footways and the narrowing of carriageways; continued two way traffic movements; 20mph speed limit.
- **Bridge Street and Wood Street roundabout**: Redesign the Bridge Street roundabout to make for better general pedestrian flow and particularly to give improved pedestrian movement from High Street to Henley Street.

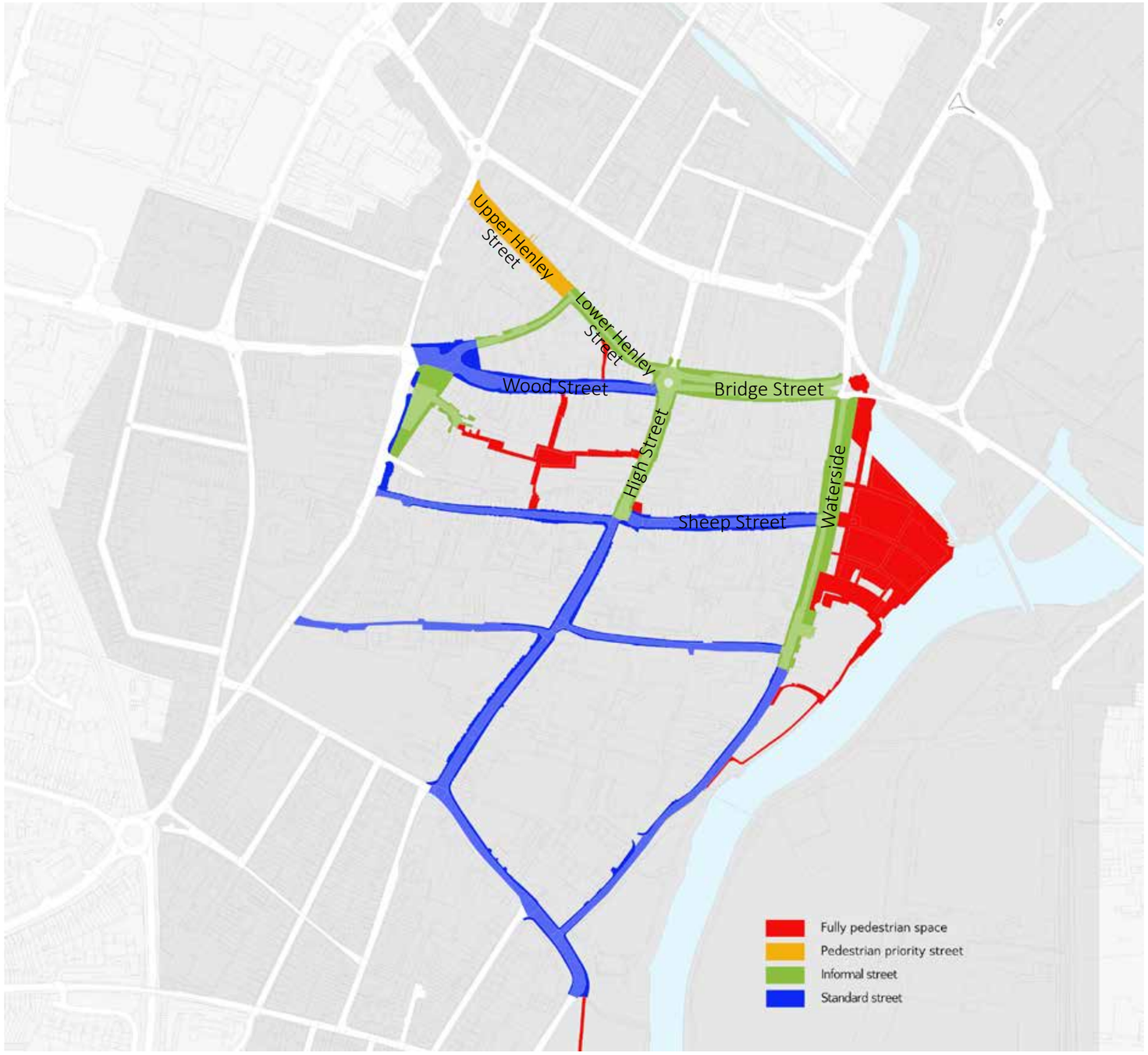

Fig.51 Option 2b- Proposed street type classification

4.5.2 General Arrangement Drawing

The adjacent plan shows the concept design general arrangement drawing.

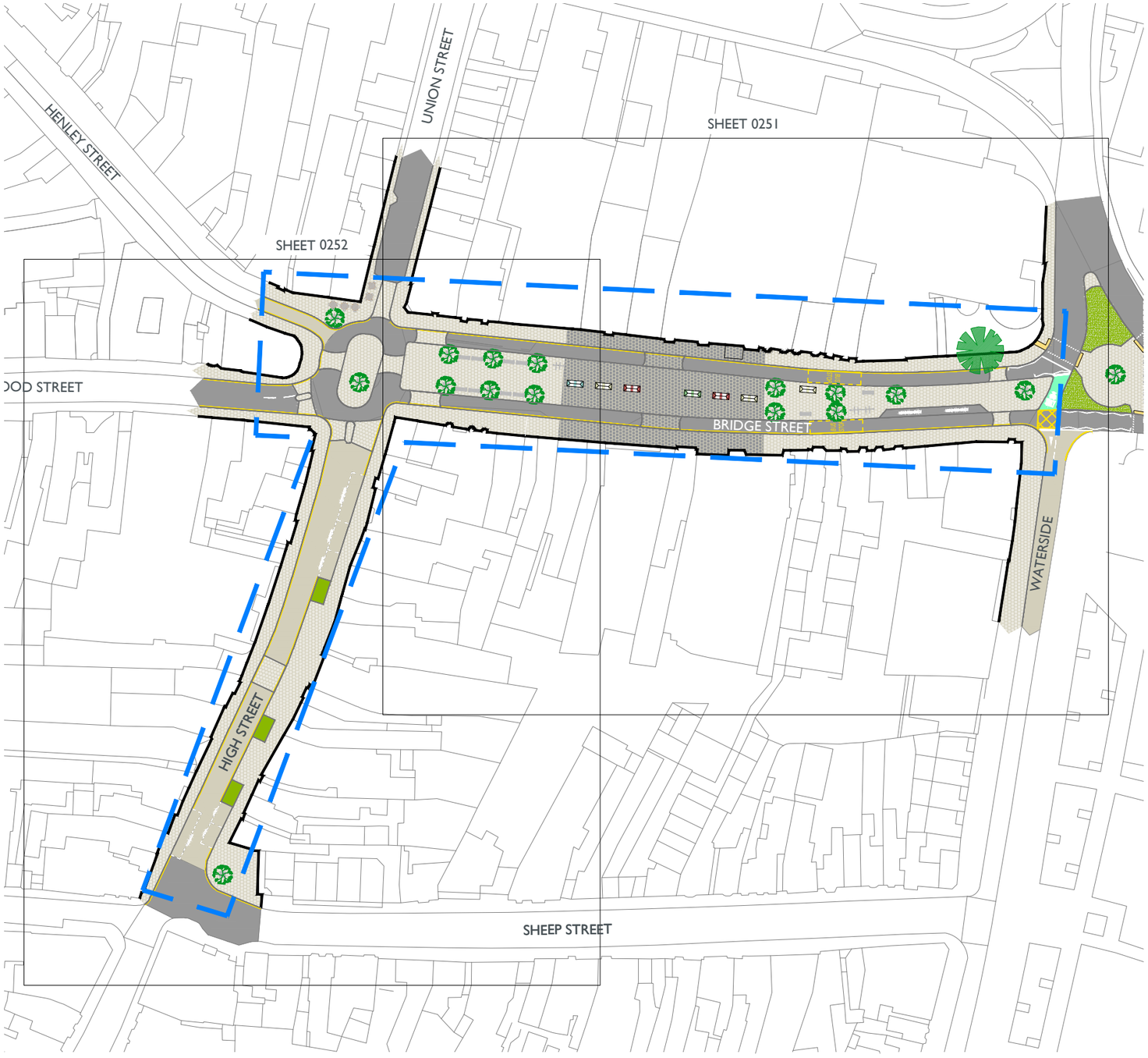

Fig.52 Option 2b- Informal Street: General Arrangement Drawing

4.5.3 Bridge Street

- **Widened footways / narrowed carriageway:** Footways along the length of Bridge Street are maintained. Narrowing of the carriageway and removal of car parking and bus laybys allows for the creation of a wide continuous central median.
- **Walking:** Three courtesy crossings have been created at equal intervals along Bridge Street.
- **Cycling:** Cycling in carriageway.
- **Public transport:** Space for public transport is maintained at the eastern end of Bridge Street.
- **Taxis:** The taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements.
- **Private cars:** Bridge Street open to private cars.
- **Parking:** Car parking is removed. A new loading bay is located within the central space at the eastern end of Bridge Street.
- **Road markings:** Standard road markings are removed.
- **Materials:** Enhanced material palette on footways and parking bays to reduce their visual impact on the streetscene. Asphalt on carriageway.
- **Planting:** Initial review of below ground services indicates there is significant potential to introduce new planting creating a central avenue of planting in the widened central space.

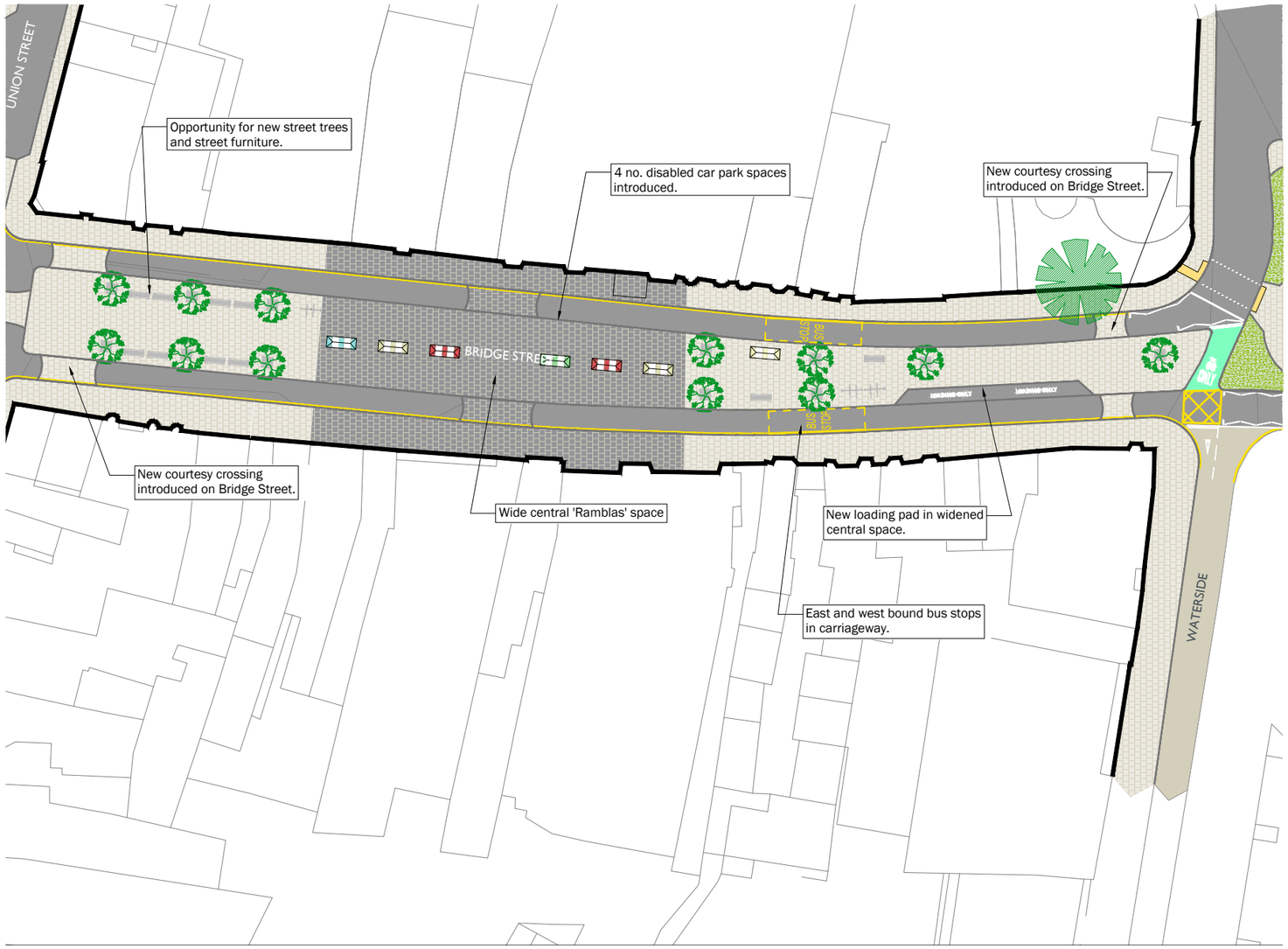

Fig.53 Option 2b- Informal Street: Bridge Street

4.5.4 High Street

- **Widened footways / narrowed carriageway:** Footways build outs introduced in existing parking spaces to create an improved pedestrian environment.
- **Walking:** A new courtesy crossing is located at the entrance to Bell Court shopping precinct.
- **Cycling:** Cycling in carriageway.
- **Public transport:** No change.
- **Taxis:** The taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements.
- **Private cars:** High Street open to private cars.
- **Parking:** Existing disabled parking spaces and loading bays retained. General parking removed.
- **Road markings:** Standard road markings are maintained.
- **Materials:** Enhanced material palette on footways and parking bays to reduce their visual impact on the streetscene. Coloured asphalt (as per Waterside) on carriageway.
- **Planting:** Opportunity to introduce new parklets within footway build outs similar to those currently located on Waterside.

Fig.54 Option 2b- Informal Street: High Street

4.5.5 Summary of Key Design Outcomes

A summary of the overall design approach is provided in the adjacent table.

	LOCATION		
	BRIDGE STREET	HIGH STREET	BRIDGE ST ROUNDABOUT
Overall Design Approach	Informal Street	Informal Street	Informal Street
General Description	Widen central space / narrow carriageway	Widen footway / narrow carriageway	Introduce roundel
INCLUSIVE ENVIRONMENT			
Pedestrian crossings	Courtesy crossing	Courtesy crossing	Courtesy crossing
Tactile paving	Yes	Yes	Yes
Kerb height	60 mm	60 mm	60 mm
EASE OF MOVEMENT			
Walking	Footway maintained / widen central space	Widened footway	Courtesy crossings added
Cycling	In carriageway (no change)	In carriageway (no change)	In carriageway (no change)
Public Transport	No change	No change	Maintain u-turn at roundel
Taxi	Taxi rank on Union Street	Taxi rank on Union Street	Taxi rank on Union Street
Private cars	No change	No change	No change
IMPROVED SAFETY AND PUBLIC HEALTH			
Speed limit	20 mph	20 mph	20 mph
Air Quality	Modest improvement	Modest improvement	Modest improvement
QUALITY OF PLACE			
Pedestrian Space	More space to sit and rest	More space to sit and rest	Decluttered
Road Markings	Removed	Removed	Removed
Materials - carriageway	Asphalt (or coloured asphalt as per Waterside)	Asphalt (or coloured asphalt as per Waterside)	Asphalt (or coloured asphalt as per Waterside)
Materials - footway	Enhanced material palette	Enhanced material palette	Enhanced material palette
Planting	New street trees introduced	New parklets introduced	New street trees introduced
ECONOMY			
Car Parking	Loading bay only	4 disabled parking spaces	n/a
Cycle Parking	Enhanced cycle parking	Enhanced cycle parking	n/a
Servicing	No change	No change	n/a
Management of access	Café tables, performances, street vendors, informal social interaction while standing	Café tables, performances, street vendors, informal social interaction while standing	n/a
Activities afforded when open to traffic (Daily 24 hrs)	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking
Activities afforded when closed to traffic (Special events only)	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking

Fig.55 Option 2b- Informal Street (wide central space)

4.6 Option 3 - Pedestrian Prioritised Street (option c from consultant brief)

4.6.1 Overall Design Vision

Option 3 proposes delivery of a pedestrian priority street on Bridge Street (No access to Bridge Street for general traffic between 11:00- 16:00 hrs) and an informal street on High Street.

This option proposes a similar spatial arrangement on Bridge Street as Option 1 and 2a, but with a level surface throughout. Public transport access along Bridge Street would be maintained.

The following key changes are proposed as part of this option:

- **Bridge Street:** Level surface with deliniation of a vehicle path; removal of car parking; relocated taxi rank to Union Street; redesigned bus stopping bays on both sides; continued two way traffic movements for buses (24hrs); Closure to general traffic between 11:00-16:00 hrs; 20mph speed limit; and improved public realm and landscaping.
- **High Street:** The widening of footways and the narrowing of carriageways; continued two way traffic movements; 20mph speed limit.
- **Bridge Street and Wood Street roundabout:** Redesign the Bridge Street roundabout to make for better general pedestrian flow and particularly to give improved pedestrian movement from High Street to Henley Street.

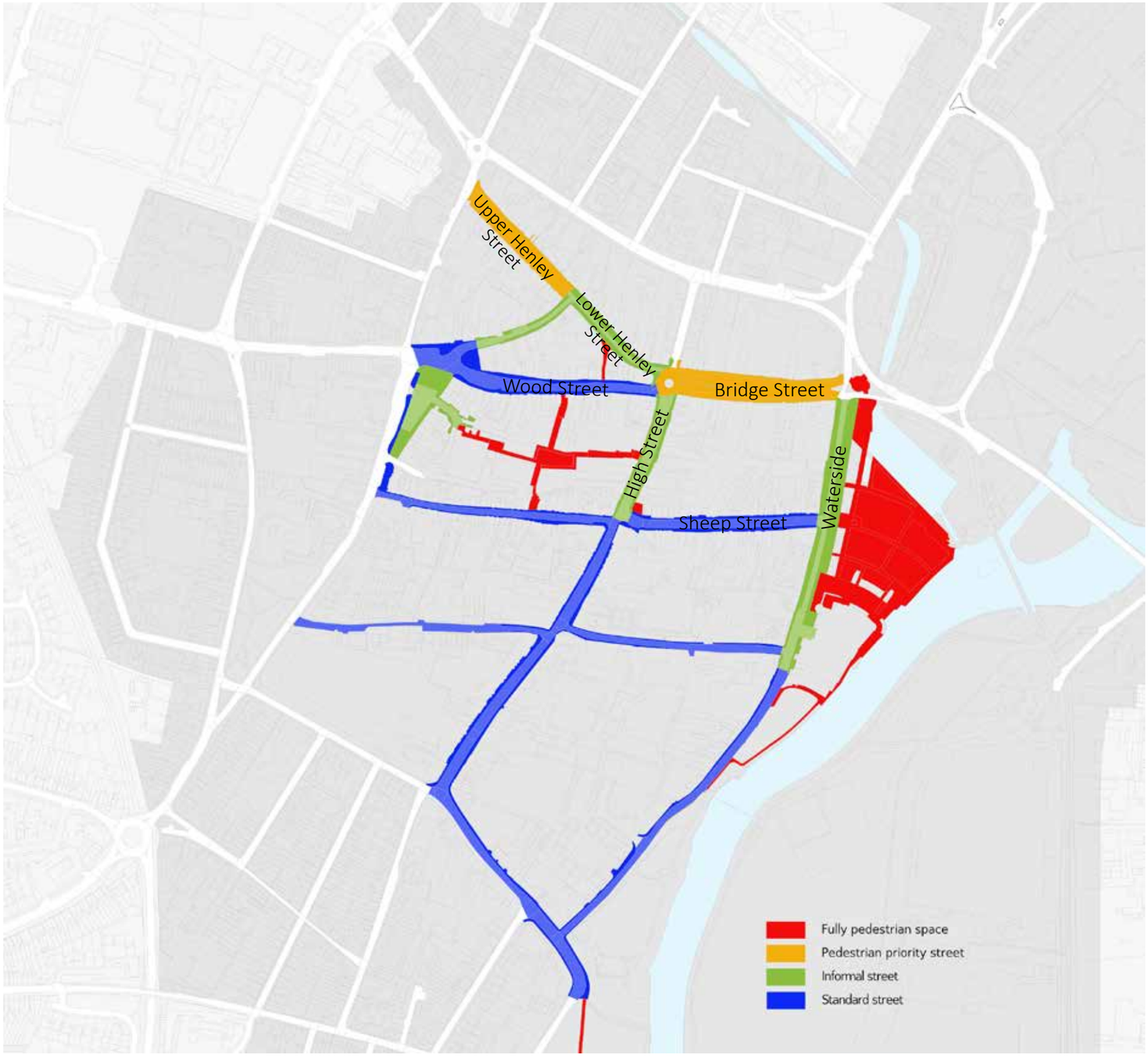

Fig.56 Option 3- Proposed street type classification

4.6.2 General Arrangement Drawing

The adjacent plan shows the concept design general arrangement drawing.

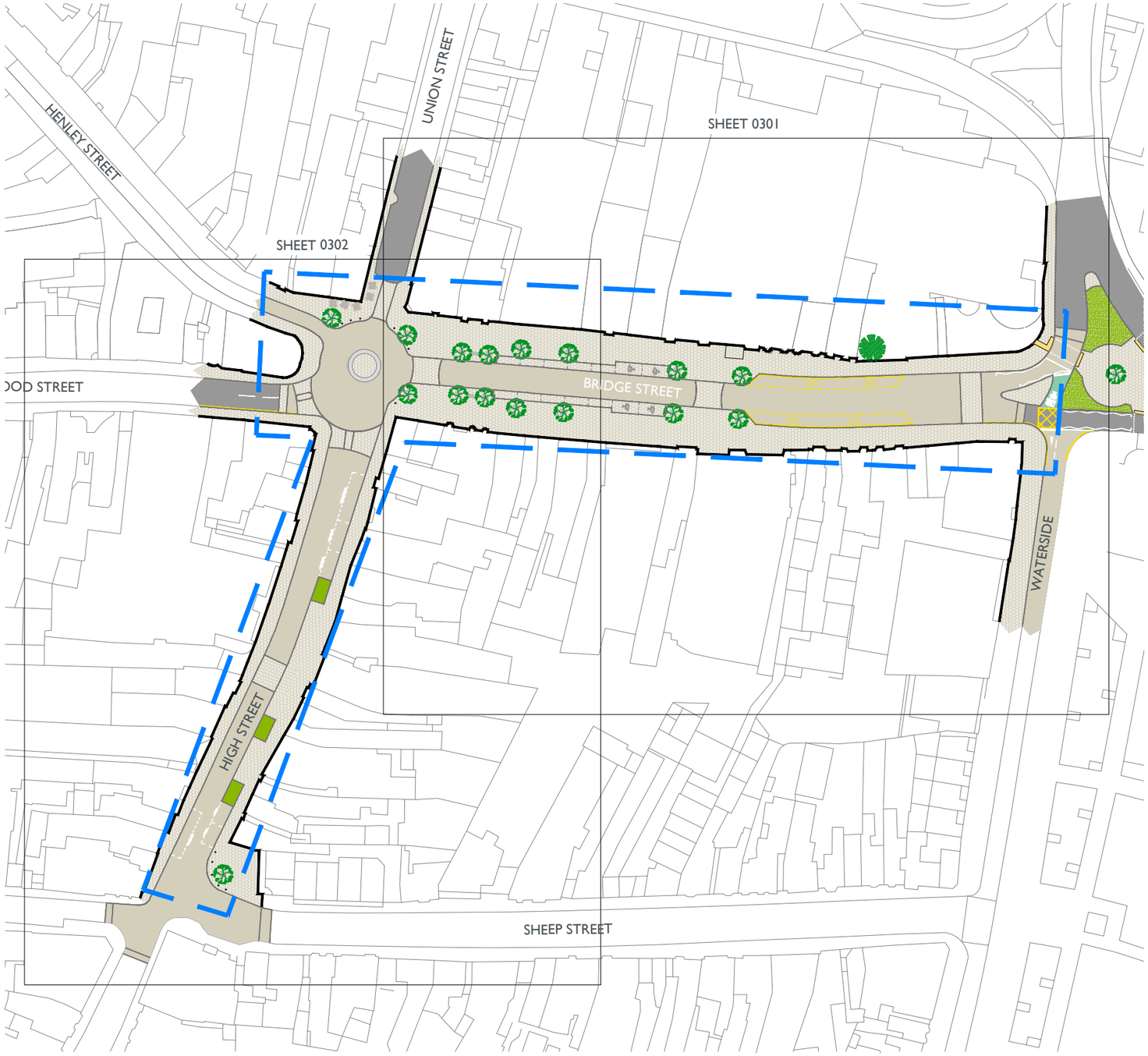

Fig.57 Option 3- Pedestrian Priority Street: General Arrangement Drawing

4.6.3 Bridge Street

- **Widened footways / narrowed carriageway:** Level surface throughout.
- **Walking:** Three courtesy crossings have been created at equal intervals along Bridge Street.
- **Cycling:** Cycling in carriageway.
- **Public transport:** Space for public transport is maintained at the eastern end of Bridge Street.
- **Taxis:** The taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements.
- **Private cars:** No access to Bridge Street for general traffic between 11:00- 16:00 hrs.
- **Parking:** Car parking is provided in marked bays 16:00- 11:00 hrs only.
- **Road markings:** Standard road markings are removed.
- **Materials:** Enhanced material palette on footways and carriageway.
- **Planting:** Initial review of below ground services indicates there is potential to introduce new planting.

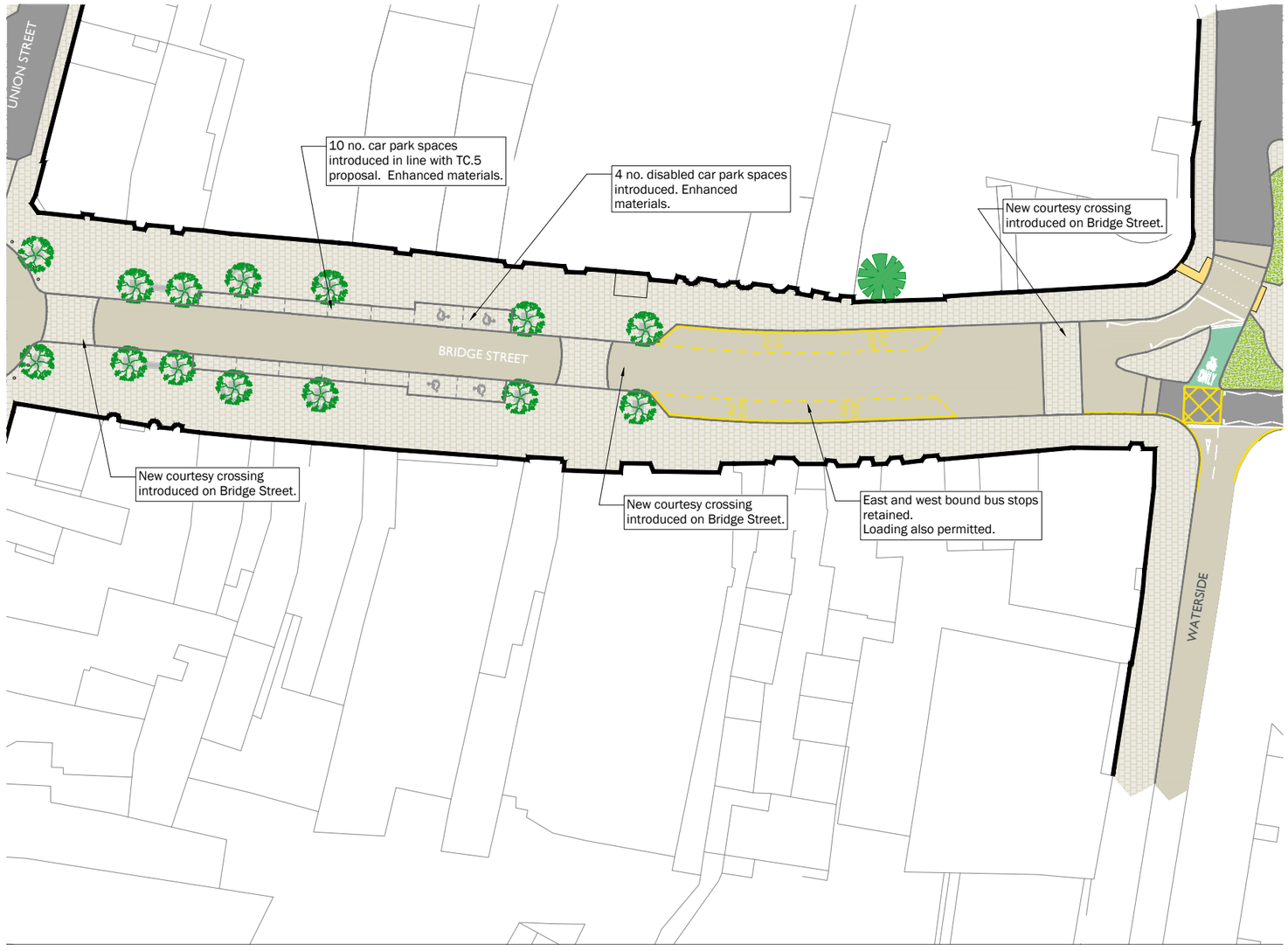

Fig.58 Option 3- Pedestrian Priority Street: Bridge Street

4.6.4 High Street

- **Widened footways / narrowed carriageway:** Footways build outs introduced in existing parking spaces to create an improved pedestrian environment.
- **Walking:** A new courtesy crossing is located at the entrance to Bell Court shopping precinct.
- **Cycling:** Cycling in carriageway.
- **Public transport:** No change.
- **Taxis:** The taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements.
- **Private cars:** High Street open to private cars.
- **Parking:** Existing disabled parking spaces and loading bays retained. General parking removed.
- **Road markings:** Standard road markings are maintained.
- **Materials:** Enhanced material palette on footways and parking bays to reduce their visual impact on the streetscene. Coloured asphalt (as per Waterside) on carriageway.
- **Planting:** Opportunity to introduce new parklets within footway build outs similar to those currently located on Waterside.

Fig.59 Option 3- Pedestrian Priority Street: High Street

4.6.5 Summary of Key Design Outcomes

A summary of the overall design approach is provided in the adjacent table.

	LOCATION		
	BRIDGE STREET	HIGH STREET	BRIDGE ST ROUNDABOUT
Overall Design Approach	Pedestrian priority street	Pedestrian priority street	Informal Street
General Description	Widen central space / narrow carriageway	Widen footway / narrow carriageway	Introduce roundel
INCLUSIVE ENVIRONMENT			
Pedestrian crossings	Courtesy crossing (outside hours of pedestrianisation)	Courtesy crossing	Courtesy crossing
Tactile paving	Yes	Yes	Yes
Kerb height	Level surface	Level surface	Level surface
EASE OF MOVEMENT			
Walking	Footway maintained / widen central space	Widened footway	Courtesy crossings added
Cycling	In carriageway (no change)	In carriageway (no change)	In carriageway (no change)
Public Transport	No change	No change	Maintain u-turn at roundel
Taxi	Taxi rank on Union Street	Taxi rank on Union Street	Taxi rank on Union Street
Private cars	No change	No change	No change
IMPROVED SAFETY AND PUBLIC HEALTH			
Speed limit	20 mph	20 mph	20 mph
Air Quality	Significant improvement	Modest improvement	Modest improvement
QUALITY OF PLACE			
Pedestrian Space	More space to sit and rest	More space to sit and rest	Decluttered
Road Markings	Removed	Removed	Removed
Materials - carriageway	Asphalt (or coloured asphalt as per Waterside)	Asphalt (or coloured asphalt as per Waterside)	Asphalt (or coloured asphalt as per Waterside)
Materials - footway	Enhanced material palette	Enhanced material palette	Enhanced material palette
Planting	New street trees introduced	New parklets introduced	New street trees introduced
ECONOMY			
Car Parking	10 car parking spaces / 4 disabled spaces (16:00 - 11:00)	4 disabled parking spaces	n/a
Cycle Parking	Enhanced cycle parking	Enhanced cycle parking	n/a
Servicing	Loading permitted (16:00 - 11:00 hrs)	2 loading bays	n/a
Management of access	Café tables, performances, street vendors, informal social interaction while standing	Café tables, performances, street vendors, informal social interaction while standing	n/a
Activities afforded when open to traffic (Daily 24 hrs)	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking
Activities afforded when closed to traffic (Special events only)	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.	Markets, mop fair, car show, birthday celebration/procession, performances, street vendors, informal social interaction while standing, safe walking.

Fig.60 Pedestrian Prioritised Street (option c from consultant brief)

4.7 Traffic Modelling

4.7.1 Summary

To support this project traffic modelling has been undertaken by Vectos Microsim on behalf of Warwickshire County Council.

Vectos Microsim (VM) has used the Stratford-upon-Avon Wide Area (SuAWA) S-Paramics model to assess the effects of delivering a package of measures within the town centre that are to be submitted for funding consideration as part of the Levelling up Fund. The microsimulation model covers the whole Stratford-upon-Avon urban area and its hinterland and is therefore able to capture the diversionary impacts of traffic management proposals as shown on the plan below.

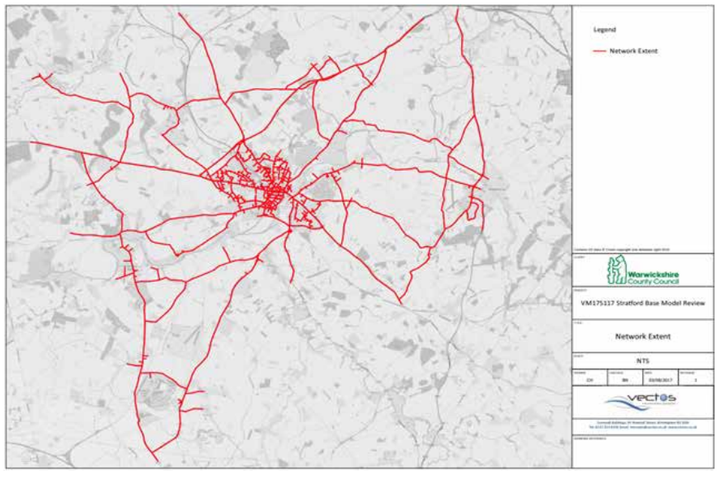

Fig.61 Modelling extents

The objectives of the modelling assessment were:

- To identify the model parameters required to reflect an appropriate level of flow displacement within the town centre to represent the scheme intentions.
- To assess the effects of a range of options, including various one-way and street closure arrangements, on the overall network performance.
- To assess the performance of the intended option, relative to the 'Do Nothing' to establish the residual effects which are expected upon the transport network.
- To utilise outputs from the model scenarios to inform an economic assessment of the scheme which will, in turn, enable the calculation of the scheme Value for Money (VfM) via derivation of a Benefit Cost Ratio (BCR).

In order to assess the alternative options for the town centre schemes four scenarios were tested. These are listed in the table below:

Scheme Option Assessment Scenarios

SCENARIO	BRIDGE ST	HIGH STREET
1	2 way reduced speed/flow	2 way reduced speed/flow
2	2 way reduced speed/flow	1 way north bound only.
4	2 way reduced speed/flow	Full closure
5	Bus only	2 way reduced speed/flow

There is no scenario 3 as the scheme proposed for this option focusses entirely on off-street working and would have no bearing on the model results.

All scenarios include the assumption of both High Street and Bridge Street being 10mph and an increased route cost has been applied to reflect the alternative layout.

4.7.2 Option Assessment

An initial stage of modelling was undertaken to establish an appropriate level of flow displacement within the town centre, which would subsequently help to achieve the scheme objective to encourage the uptake of active modes of travel. This assessment identified that a 10mph speed limit (+ cost factor of 2.0 to control driver perceptions on route attractiveness) would be the most suitable parameter to induce reassignment away from Bridge Street and High Street.

The modelling outputs for this scenario identified that as a result of the re-assignment, traffic wasn't flowing freely through the model network, particularly in the AM peak, as follows:

- Traffic avoiding Bridge Street seeks to access Guild Street via Union Street and, at times, this was observed to cause the model to lock up as the traffic blocks back through a number of key junctions within the town centre.
- Traffic avoiding High Street reassigns to Grove Road and Arden Street instead. The signal configuration of these junctions is not optimised to cater for these movements

To ensure that the reassignment of traffic did not have a detrimental impact on the operation of the wider modelled network, a range of options to refine the scheme were assessed. The following scenario was identified as most appropriate to use in the second stage of modelling (and updated in the scheme drawing):

- Treatment of Union Street with 10mph (+ cost factor of 2.0);
- Implementation of right turn ban out of Union Street; and
- Optimisation of the Arden Street / Birmingham Road and Grove Road/ Arden Street junctions.

Based on reviewing the network mean delay across the whole network, Option 5 was discounted from further assessment – results showed that Option 5 induced large increases in journey times in the AM peak, compared to all other scenarios.

A further assessment was undertaken for each of the remaining options (1, 2 and 4) in terms of change in flow levels through the scheme. All options were forecast to considerably reduced traffic flows on both High Street and Bridge Street. As Option 4 was forecast to generate slightly higher delays across the whole network than Option 1 and 2, and given that retaining two-way access along High Street had been identified as desirable outcome, Option 1 was progressed to the detailed analysis stage.

4.7.3 Detailed Analysis

As part of the traffic modelling, Option 1 has been assessed in six model scenarios:

- 2023 Reference
- 2023 Reference +Scheme
- 2031 Reference
- 2031 Reference +Scheme
- 2031 Core Strategy
- 2023 Core Strategy +Scheme

Overall, the modelling shows the scheme proposals are very effective at reducing town centre traffic levels across all modelled scenarios. This does generate some increases in delay around the edge of the town centre, however these are partly mitigated through signal time optimisation which can be developed before the scheme is finalised.

4.8 Press Coverage

4.8.1 Communications

Advent Communications has been appointed by Stratford-upon-Avon Town Council to manage communications on the project on behalf of the design team.

Two press releases have been prepared at key intervals in the design process with articles published in the Stratford-upon-Avon Herald in April and June 2021. Extracts from the Stratford-upon-Avon Herald website are shown below.


Stratford-upon-Avon HERALD

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Town centre redesign being explored by Stratford Town Council

By Ben Lugg - blugg@stratford-herald.com

Published: 16:11, 21 April 2021 | **Updated:** 16:13, 21 April 2021

A COMPLETE transformation of Bridge Street and High Street is being explored by Stratford Town Council, with a new study expected to present concept designs in the summer.


Stratford-upon-Avon HERALD

Home | News | Business | Sport | What's On | Jobs | Contact | Advertise

Home › News › Article

Government money could transform Stratford

By Ben Lugg - blugg@stratford-herald.com

Published: 15:02, 02 June 2021 | **Updated:** 15:11, 02 June 2021

A bid to transform Stratford town centre is being given a shot in the arm with news that Warwickshire County Council is applying for significant funding for the scheme.

Fig.62 Extracts from Stratford-upon-Avon Herald website

Chapter 5.

Preferred Option

5 Preferred Option

5.1 Selection of the Preferred Option

5.1.1 Presentation to the Town Centre Strategic Partnership

A presentation of the concept design options set out in Chapter 4 of this report was made to the Town Centre Strategic Partnership (TCSP) via zoom on the 13th May 2021.

Overall the concept design options were very well received by the TCSP, with members expressing a preference in the meeting for Option 2b which provides the widened central space, echoing the historic arrangement of Bridge Street prior to the demolition of 'Middle Row' as shown on the historic photographs presented in Chapter 2 of this report.

There was also a strong desire to maintain the full closure of High Street from its junction with Bridge Street to its junction with Sheep Street, which has been trialled as part of the temporary COVID-19 traffic management and has been well received by local businesses, residents and visitors.

5.1.2 Stakeholder Feedback

Following the meeting the TCSP members were invited to submit detailed feedback via email to Stratford-upon-Avon Town Council which was collated and reviewed by the Town Council in advance of their decision on the preferred option.

Key thoughts provided are summarised below:

Bridge Street

- **Option 2b - widened central space -** Stakeholders felt this option strikes the right balance between providing additional space for pedestrians and maintain access for traffic. The 'Ramblas' style central space would offer something unique and different in the town, and offer flexible space for use for events.
- **Public transport -** bus stops should be maintained for users with additional needs. Park and ride service should also be extended to this location (currently terminates at Wood Street).

High Street

- Strong desire to maintain timed closure of High Street as implemented as part of the COVID-19 temporary traffic management measures.

Union Street

- Relocation of blue badge parking to Union Street as part of the COVID-19 temporary traffic management has been successful and these should be retained. Consideration for additional blue badge parking is required.

Materials

- Contrasting colours required for all areas including paving and tactile markings.
- Support for proposed 60mm kerb height.

5.1.3 Meeting of the Town Council

Following the presentation to the TCSP and receipt of comments from key stakeholders the Town Council met on the 24th May 2021 to select the preferred option for further development by the design team.

Taking into account the feedback received the preferred option is as follows:

High Street

- Closed to traffic from 11:00am to 4:00pm (as per the NDP).

Bridge Street

- Option 2b with a provision for buses.
- Taxis and Blue Badge parking to remain in Union Street.

The preferred option will be subject to furher / wider consultation as part of the design evolution.

5.2 Design Evolution

5.2.1 Key Amendments and Design Considerations

Following the selection of the preferred option the design team have worked to evolve the concept design to reflect the results of the traffic modelling work undertaken by Vectos Microsim and also ongoing engagement with the Town Council and other key stakeholders.

The preferred option is described in detail in the following paragraphs:

Bridge Street

Footways along the length of Bridge Street are maintained. The carriageway is narrowed and existing on street car parking spaces removed to allow for the creation of the 'Ramblas' style wide continuous central space.

- **Walking:** Three courtesy crossings have been created at equal intervals along Bridge Street.
- **Cycling:** Cycling in carriageway (improved). New right turn from Bridge Street to Waterside link provided. Higher quality cycle parking.
- **Public transport:** No change. Space for public transport is maintained at the eastern end of Bridge Street.
- **Taxis:** The existing taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements.
- **Private cars:** Bridge Street open to private cars.
- **Car parking:** Loading bay only.
- **Road markings:** Standard road markings are removed.
- **Materials:** Enhanced material palette on footways and parking bays to reduce their visual impact on the streetscene. Asphalt on carriageway.
- **Planting:** Initial review of below ground services indicates there is significant potential to introduce new planting creating a central avenue of planting in the widened central space.

High Street

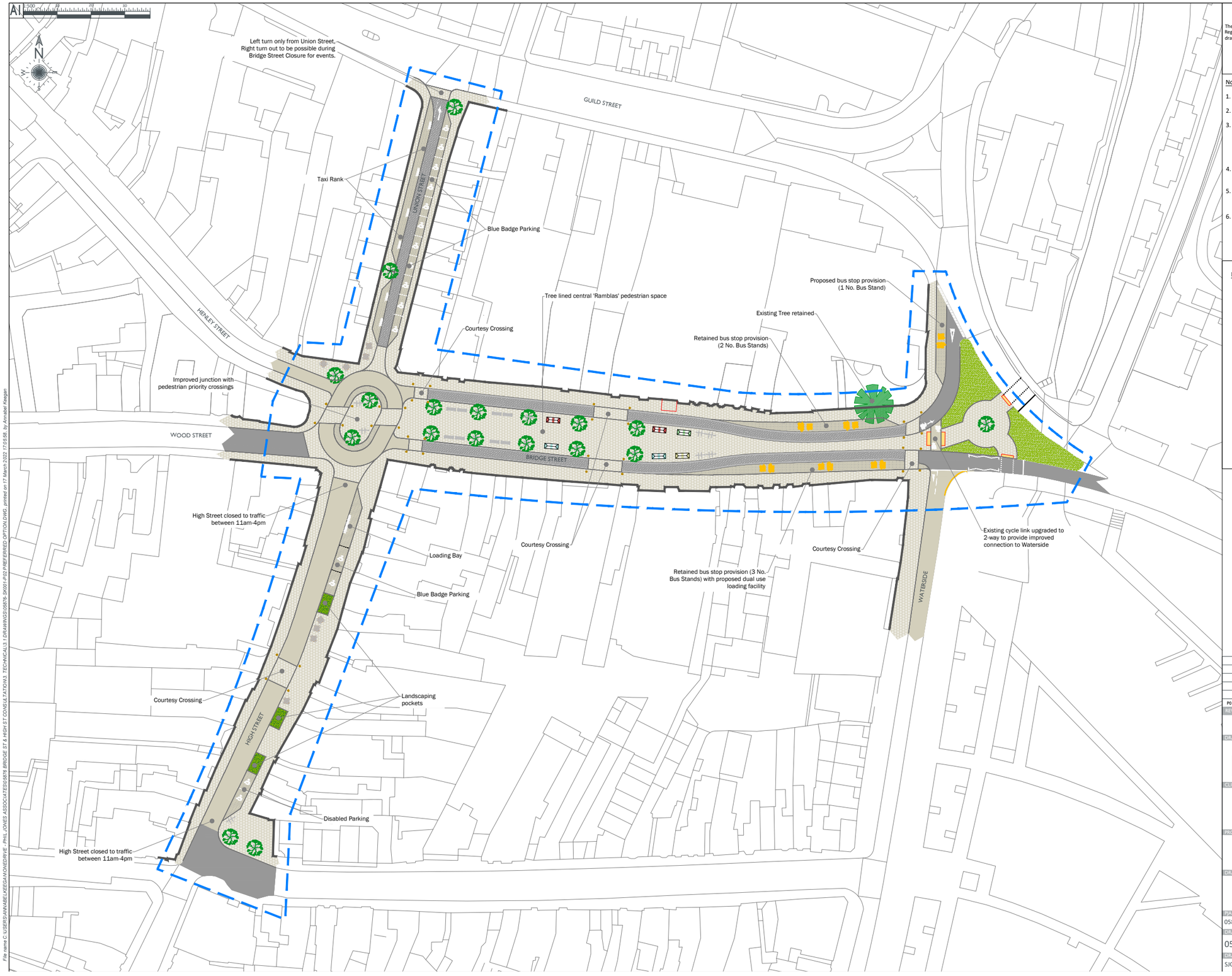
The design has also been amended to allow for the full closure of High Street (11:00am to 4:00pm).

- **Walking:** Improved crossing of Union Street adjacent to the junction with Bridge Street.
- **Cycling:** Cycling in carriageway (improved). Higher quality cycle parking.
- **Public transport:** High Street is closed to traffic from 11:00am to 4:00pm (as per the NDP). No change outside these hours.
- **Taxis:** The existing Bridge Street taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements. No dedicated taxi provision on High Street proposed.
- **Private cars:** High Street is closed to traffic from 11:00am to 4:00pm (as per the NDP).
- **Car parking:** 11am to 4pm: 0 parking spaces, 4pm to 11am: 4 blue badge spaces.
- **Road markings:** Standard road markings are removed.
- **Materials:** Enhanced material palette on footways and parking bays to reduce their visual impact on the streetscene. Coloured asphalt on carriageway (as per Waterside).
- **Planting:** Opportunity to introduce new parklets or landscaping.

Union Street

Further to the results of the traffic modelling the scheme extents have been extended to include the full length of Union Street. The design has been updated to prohibit right turns from Union Street to A3400 Guild Street.

- **Walking:** Improved crossing of Union Street adjacent to the junction with Bridge Street.
- **Cycling:** Cycling in carriageway (no change). Higher quality cycle parking.
- **Public transport:** No change.
- **Taxis:** The taxi rank is relocated to Union Street in line with the temporary COVID-19 improvements. 9 taxi rank spaces.
- **Private cars:** Union Street open to private cars. Right turn from Union Street to A3400 Guild Street removed as a result of traffic modelling work undertaken.
- **Car parking:** 11 blue badge spaces
- **Road markings:** Standard road markings are removed.
- **Materials:** Enhanced material palette on footways and parking bays to reduce their visual impact on the streetscene. Asphalt on carriageway.
- **Planting:** Opportunity to introduce new landscaping.



CDM NOTE

These drawings have been produced with reference to the CDM Regulations 2015. Please note that these are pre-construction phase drawings and should be subject to further design risk management as required in accordance with Regulation 9

Notes

1. Do not scale from this drawing.
2. All dimensions are in metres unless stated otherwise.
3. This drawing is to illustrate the proposed public realm improvements to Bridge Street, High Street and Union Street for the purpose of Warwickshire County Councils Leveling Up Fund (LUF) Strategic Outline business Case Application.
4. The design as shown is based on OS Mapping and subject to transfer to Topographical Survey.
5. The design as shown represents Stratford Town Council and Warwickshire County Council's preferred scheme design.
6. This drawing has been reproduced from drawing 05342-SK001 prepared for Stratford-Upon-Avon Town Council, but includes amendments to Union Street following consultation response from the Taxi Association.

Key

- Scheme Extent
- High Quality footway Paving
- Lay-by/bus stop
- Typical Asphalt Carriageway
- Chipped Asphalt Carriageway
- Coloured Asphalt Carriageway
- Proposed Landscaping
- Proposed semi-mature tree
- Proposed pedestrian Seating
- Proposed Cycle parking
- Market Stall opportunity

REV	DATE	REVISION NOTE	DRW	CHK	APP
P01	18/10/2021	First Issue	SJG	SJG	AK

FOR INFORMATION

DRAWING ISSUE STATUS

PJA
The Aquarium - King Street
Reading - RG1 2AN
Tel: 0118 956 0909
Birmingham - Bristol - Cambridge
Exeter - London
Manchester - Melbourne - Reading
pja.co.uk

CLIENT

Warwickshire County Council

PROJECT

Bridge Street, High Street & Union Street
Stratford-upon-Avon

DRAWING TITLE

Preferred Public Realm Option

PJA JOB No.	SCALE	DATE
05876	1:500	18/10/21

DRAWING NO.	REVISION
05876-SK001	P02

DRAWN	CHECKED	APPROVED
SJG	SG	AK

Fig.63 Preferred Option- Overall design

Fig.64 Preferred Option- Bridge Street: Artists Impression

Fig.65 Preferred Option- High Street: Artists Impression

Chapter 6.

Cost Estimate

6 Cost Estimate

6.1 Cost Estimate

6.2.1 Summary

Outline cost estimates have been prepared by PJA to inform the Levelling up Fund application.

The costs are summarised in the adjacent table.

Item	Description		Amount
01	**Site Data & Surveys**		
01-05	Sureys & Investigations	£	95,000
		£	**95,000**
02	**Professional Services**		
02-01	Project Management & Cost Management	£	150,000
02-02	Design Services	£	497,000
02-03	Business Case Development & Governence	£	150,000
02-04	Consultation/Stakeholder Management	£	100,000
02-05	Procurement & Legal Costs	£	150,000
		£	**1,047,000**
03	**Construction**		
03-01	Contractors Profit (10%)	£	468,868
03-02	Contractors Prelims incl Traffic Management (20%)	£	937,736
03-03	Construction Cost	£	5,002,442
		£	**6,409,045**
04	**Construction Inflation**		
04-01	Inflation 2 years @ 2.5%[2]	£	324,458
		£	**324,458**
05	**Utility Diversions**		
05-01	Provisional Allowance for lowering, protecting and diverting of utilities	£	2,000,000
		£	**2,000,000**
06	**Statutory Processes/Risk**		
06-01	Legal Traffic Orders	£	25,000
06-02	Land Discrepency Risk Allowance	£	50,000
06-03	Compensation/Disruption Risk Allowance	£	500,000
		£	**575,000**

Sub-total:	**£**	**10,450,503**
Contingency (20%):	£	2,090,101
Sub-total:	**£**	**12,540,604**
Optimism Bias (44%):	£	5,517,866
Total:	**£**	**18,058,470**

Chapter 7.

Summary and Conclusions

7 Summary and Conclusions

7.1 Summary

This project, which has been developed by PJA on behalf of Stratford-upon-Avon Town Council, seeks to improve the streetscape of the town centre, providing more safe space for pedestrians and cyclists, improving public transport journey times, and rationalising movement and parking. The project will create a vibrant setting to enable the town to function commercially, meeting the needs of the local community, and tourists

This proposal will significantly remodel three key town centre streets: Bridge Street, High Street, and Union Street, within the historic market town, to redefine the balance between vehicles, pedestrians and cyclists, redressing the current priority given to private vehicles. This will include the full pedestrianisation of High Street between 11am and 4pm. This will build on previous pedestrian priority schemes across the town centre, and central to delivery of the Neighbourhood Plan, providing consistency in approach to provide a safe, legible town centre environment. This will help secure the ongoing economic vitality of the town post COVID-19, enable it to thrive as a centre which meets the needs of local people and international visitors, and 'level up' any economic differences between Stratford-upon-Avon and other UK tourism destinations.

The scheme has developed through a bottom-up co-development approach emerging out of the made Stratford-upon-Avon Neighbourhood Development Plan (NDP) and drawing on the significant knowledge and experience base of local stakeholders and representative groups through the ongoing input of the Stratford-upon-Avon Town Centre Strategic Partnership (TCSP). This approach has enabled key organisations to work together to identify, determine and review the vision for the town centre as set out in the NDP. The partnership's terms of reference include the mission to *'facilitate through effective collaboration between local agencies and partners, a thriving town centre where everyone enjoys a good quality of life'.* Membership includes the three tiers of local government, Stratforward (BID), the Royal Shakespeare Company, Shakespeare Birthplace Trust, Shakespeare's England and local representative groups including Accessible Stratford which provides advice on inclusion and accessibility within Stratford-upon-Avon.

The scheme has been designed to RIBA Stage 2 using established approaches to the design process. This includes application of the recommendations and principles outlined in the CIHT report '*Creating better streets: Inclusive and accessible place'* (2018) which was prepared with the support of the Disabled Persons Transport Advisory Committee to make highways inclusive, safer and part of the public realm and the community around them.

It has also drawn on experience and user feedback from town centre projects and initiatives developed over many years, including the town centre temporary road space reallocations introduced to enable social distancing and support town centre businesses and users during the Covid-19 pandemic. The response included the temporary closure of streets and widening of footways into the carriageway. These generated significant stakeholder and community feedback.

7.2 Conclusions

Stratford-upon-Avon is critical to the prosperity of the local and national economy. Tourists, drawn to the town due to its connection with Shakespeare, make a significant contribution to National GDP. It is the main commercial centre in the district, and wider NDP area.

Stakeholder and public engagement and consultation will continue to form a key part of the project as it develops to ensure the views and needs of users can be identified, understood and incorporated into the ongoing design process.

Appendix I

C2 Utilities Data

Promap®
LANDMARK INFORMATION GROUP

Utilities Report

Utility Type		
	Electricity	STATUS: AFFECTED NUMBER AFFECTED: 2
	Gas	STATUS: AFFECTED NUMBER AFFECTED: 1
	Water and Sewerage	STATUS: AFFECTED NUMBER AFFECTED: 1
	Telecoms	STATUS: AFFECTED NUMBER AFFECTED: 3
	Other	STATUS: AFFECTED NUMBER AFFECTED: 5

Total Number of Utility Companies Contacted: 20

Report Information

Works Description: RIBA Stage 2 design

Batch: B

Status: Complete - Please see 'Understanding This Report'

This report is issued for the site described as:
Site off Bridge Street, Stratford Upon Avon

Report Number
LM / 94895

National Grid Reference
420236 254930,420400 254811,420073 254811,420073 255048

Customer Reference
276498119_1

Report Date
19 April 2021

CONTACT DETAILS

If you require any assistance, please contact our customer services team on:

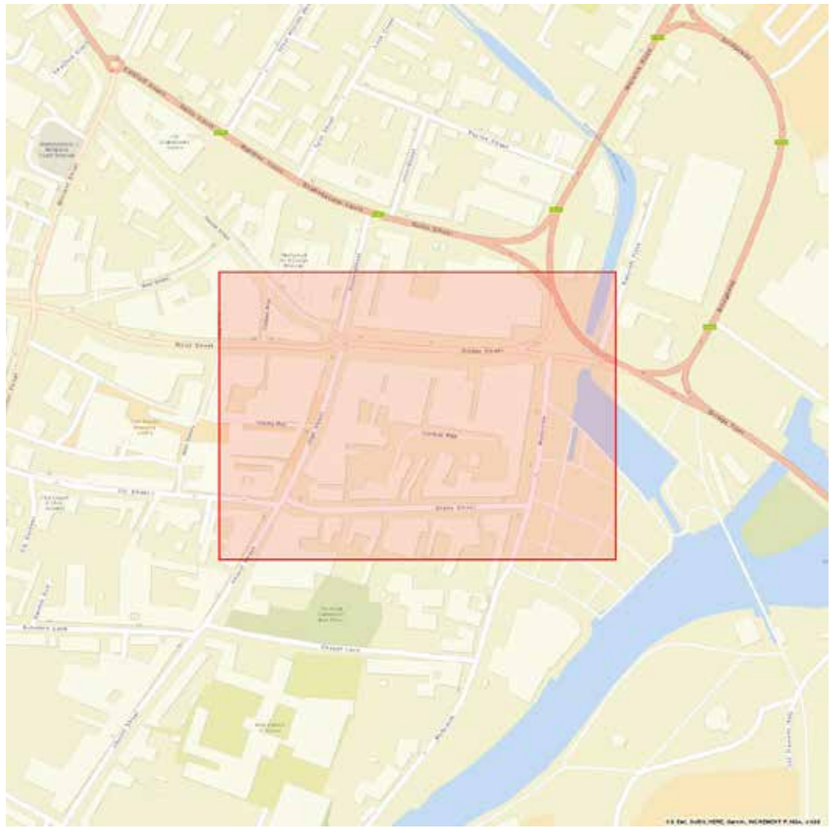
0844 844 9960

or by email at:
customerservice@promap.co.uk

landmark.co.uk

Utilities Report

Search data map



Please ensure that search data covers the COMPLETE AREA within the boundary lines on this map. This is marked by

Landmark will not be held responsible for any incident or accident arising from the use of the information associated with this particular Statutory Search. The details provided are given in good faith, but no liability whatsoever can be accepted in respect thereof.

Client Reference:
276498119_1

Route:
Site off Bridge Street, Stratford Upon Avon

Postcode:
CV37 6AB,CV37 6AT,CV37 6EP,CV37 6EY

OSGR:
420240 254930

Check by:
NJ

Utilities Report

Request Status Report

Route:
Site off Bridge Street, Stratford Upon Avon

Postcode:
CV37 6AB,CV37 6AT,CV37 6EP,CV37 6EY

OSGR:
420240 254930

Date Requested:
12 April 2021

Client Reference:
276498119_1

Report Number:
LM / 94895

Checked and Validated By:
SCG

Validation Date:
19 April 2021

Affected Utilities

We have received plans/information from the following companies. Please see the enclosed response.

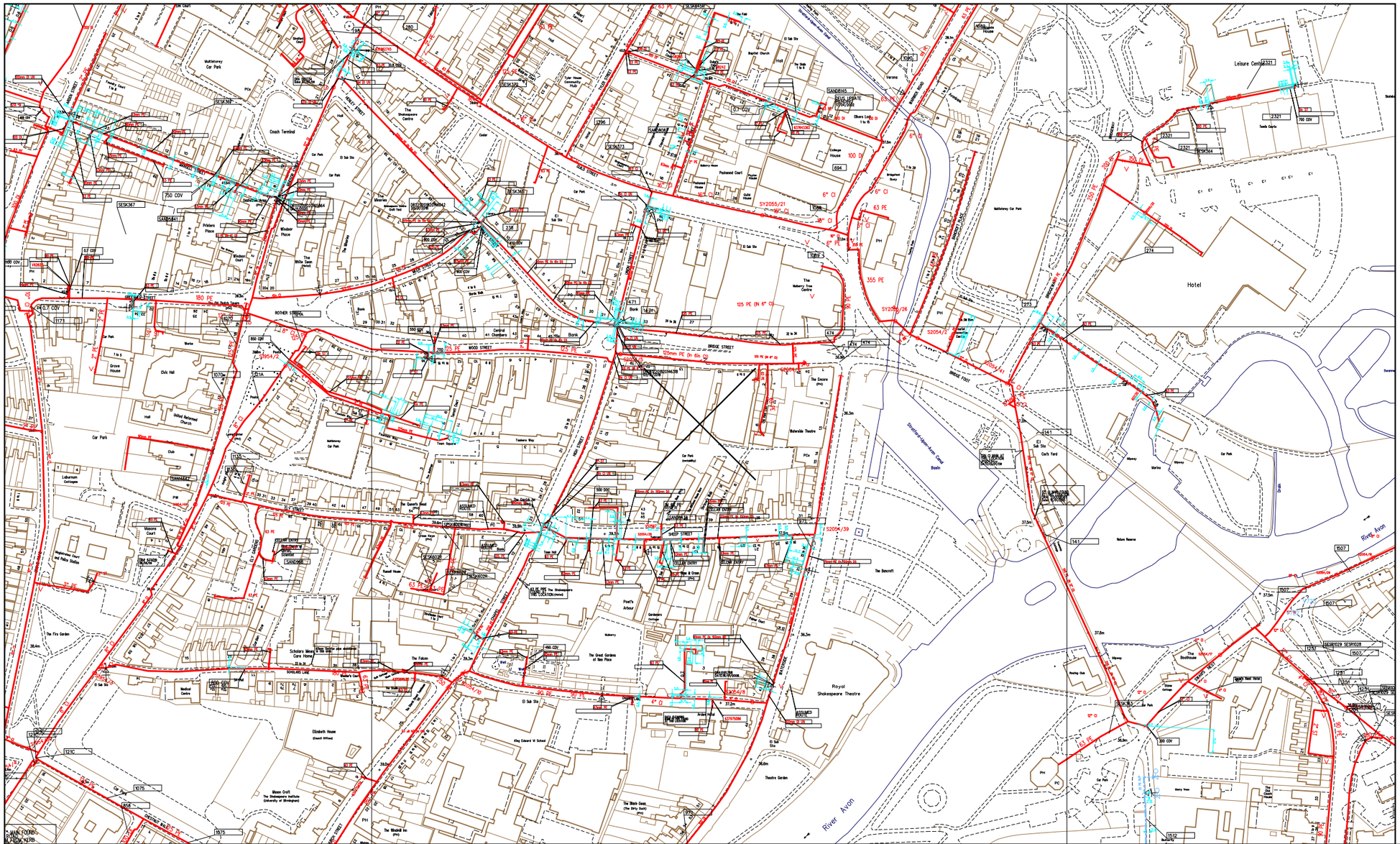
Utility	Category	Date Issued	Notes
Digital Utility Overview Plan	**Product**	10 May 2021	Supplied in Batch B.
Cadent Gas Ltd	Gas	19 April 2021	
Canal and River Trust	Other	19 April 2021	See response.
Environment Agency	Environmental Agency	19 April 2021	See response.
LinesearchbeforeUdig	Other	19 April 2021	Western Power Distribution - identified as affected. See separate response.
Openreach - [British Telecommunications]	Telecom	19 April 2021	
Severn Trent Water	Water, Sewerage	19 April 2021	
Utility Assets	Electric	19 April 2021	See response.
Virgin Media	Telecom	19 April 2021	
Warwickshire County Council	Council	19 April 2021	
Western Power Distribution	Electric, Telecom	19 April 2021	

Utilities Report

Not Affected Utilities

We have received a not affected/no plant present response from the following companies.

Utility	Category	Date Issued	Notes
C.A. Telecom UK - [Colt Technology Services]	Telecom	19 April 2021	
CityFibre	Telecom	19 April 2021	
GTC	Telecom, Gas, Electric, Water	19 April 2021	
Instalcom - [CenturyLink, Global Crossing, Fibernet & Fibrespan]	Telecom	19 April 2021	
Last Mile	Gas, Electric	19 April 2021	
Network Rail	Rail	19 April 2021	
SKY Telecommunications Services	Telecom	19 April 2021	
Verizon	Telecom	19 April 2021	
Vodafone	Telecom	19 April 2021	



SCALE: Not to scale	LP MAINS
USER ID: MLOH2099	MP MAINS
DATE: 15/04/2021	IP MAINS
EXTRACT DATE: 01/12/2020	LHP MAINS
MAP REF: SP2054	
CENTRE: 420236, 254930	

Some examples of Plant Items:
Valve | Depth of Cover | Syphon | Diameter Change | Material Change | Out of Standard Service

This plan shows those pipes owned by Cadent Gas Ltd in their role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Cadent Gas Ltd or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue. Further information on all DR4s can be determined by calling the DR4 hotline on 01455 892426 (9am-5pm) A DR4 is where a potential error has been identified within the asset record and a process is currently underway to investigate and resolve the error as appropriate.

MAPS Viewer Version 5.8.0.1

Local Machine

built form
resource

PJA