

## Public Realm Proposal - Outline Designs Maidstone

Week Street and Gabriel's Hill

March 2017

This document needs to be read in conjunction  
with drawing AL6361-2000 to AL6361-2022

This document accompanies the outline submission for the public realm regeneration for Phases 3 and 4 which consists of works relating to Week Street and Gabriel's Hill.

This document has been sub divided into the following sections:

1. Introduction
2. The Site
3. Analysis
  - Points of interest
  - Site constraints
  - Site opportunities
4. Design Concepts
5. Masterplan Vision
6. Strategies and Principles
  - Street Furniture
  - Paving
  - Planting
7. Maintenance
  - Manufacturers Product Literature
8. Appendices - Gabriel's Hill Drop-off Options

# 01. INTRODUCTION

## INTRODUCTION

PRP Landscape working in collaboration with Conisbee Engineers have been appointed by Maidstone Borough Council to produce public realm proposals for Week Street and Gabriel's Hill. Once approved the initial outline proposals shall be developed into a tender package for implementation by the selected contractor. It is envisaged that the scheme could be on site towards the beginning of 2018.

When developing the proposals for the public realm, we have been mindful of the rich and diverse heritage associated with Maidstone. This heritage really underpins our conceptual approach and we have aimed to deliver a scheme that is unique to its context.

As part of the design process we have reviewed the recent Public Realm Design Guide produced by Francis Knight and where possible integrated their key elements of their strategic vision within the scheme.

We believe the proposals presented within this report share a symbiosis with Maidstone's public realm vision and create a scheme rich in local identity.



## 02. THE SITE

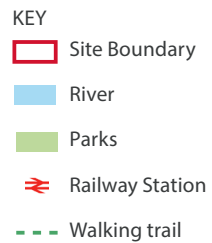
## THE SITE

The extent of public realm improvement works will be along the main shopping street, located in Maidstone Town Centre, to the South of Maidstone East Station.

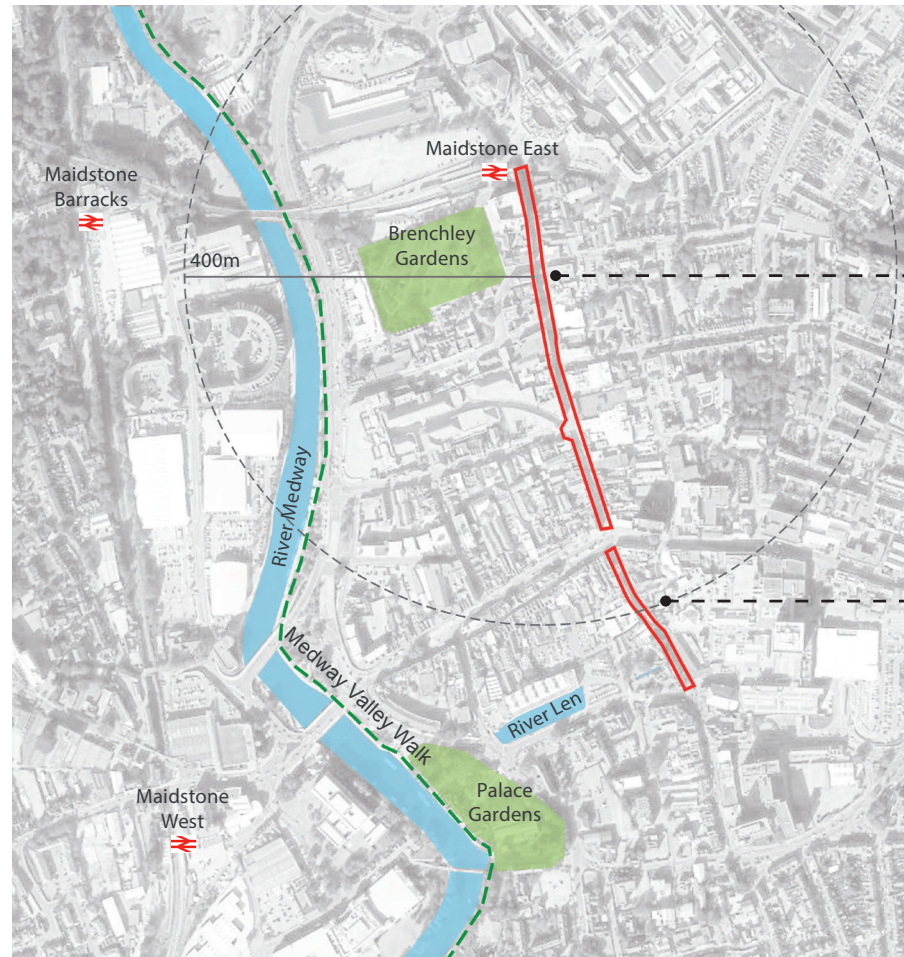
The work will be carried out in two phases

Week Street Phase is predominately a shop-base environment with a good range of national retailers and a shopping centre in Fremlin Walk.

Gabriel's Hill Phase is largely characterized by local independent shops.



Site Context



Week Street Phase



Gabriel's Hill Phase





## THE SITE – EXISTING CONDITIONS

Currently the streetscape is highly constrained.

There is no consistency in terms of materials with a varied palette used across the site.

Street clutter dominates the public realm and connections are lost between key local destinations.



Raised kerbs demarcating vehicle routes



Dead ends



Clutter



Underused space



Lost links



Vehicle dominance

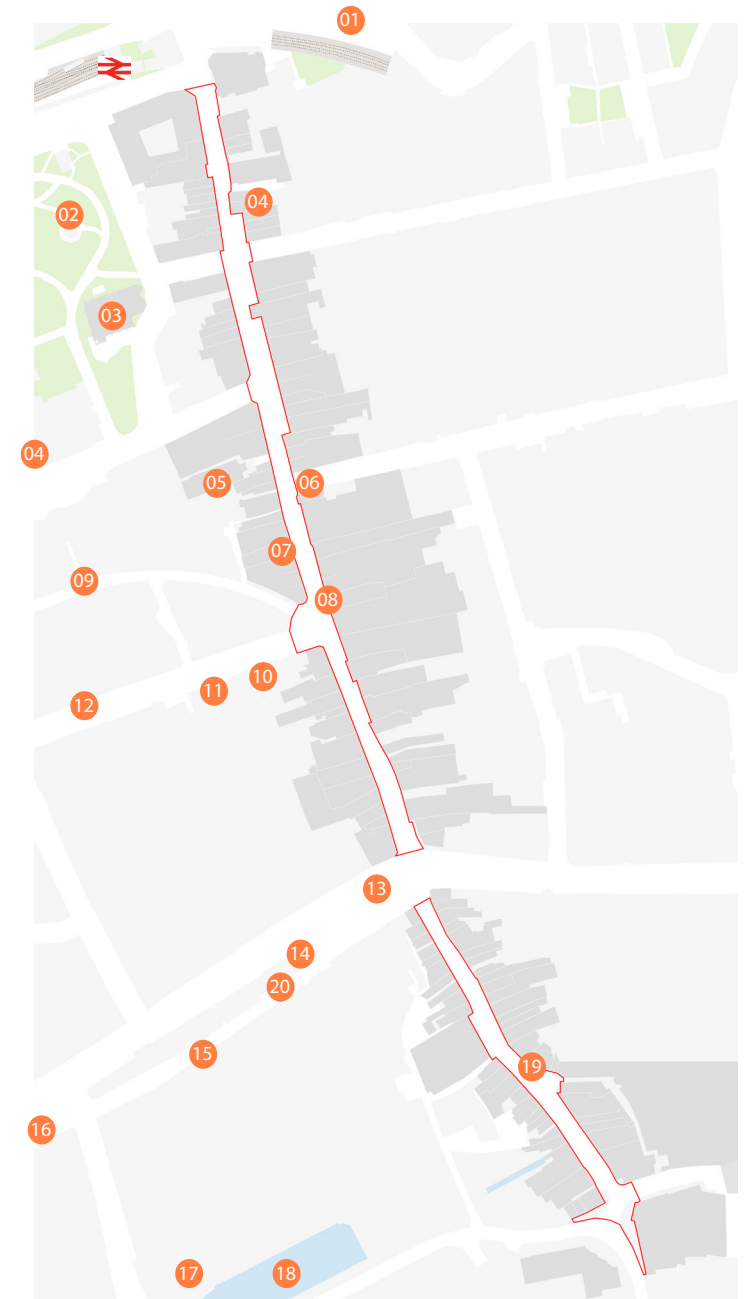
## 03. ANALYSIS

## ANALYSIS – POINTS OF INTEREST

There are a number of key points of interest within the context of the site.

This is illustrated on the map and images opposite.

There lies an opportunity within the design proposals to celebrate the diverse and varied historical context of the town.







01. Kent County Council (1824)



05. United Reformed Church



09. Fremlin Brewery (1861)



13. Victoria Monument & Jubilee Sq (1862)



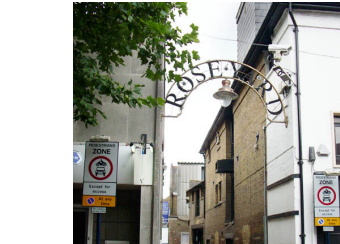
17. Peugeot Maidstone (1930s)



02. Brenchley Gardens (1871)



06. Feature facade - Subway (1680)



10. Rose Yard



14. Town Hall (1763)



18. River Len (1629-1680)



03. St. Faith's Church (1892)



07. Feature facade - Tiger (1680)



11. Hazlitt Theatre (1869)



15. Bank Street



19. Golden Boot (1790)



04. Maidstone Museum (1858)



08. Artist William Alexander lived in the area



12. Benjamin Disraeli, Prime Minister for Queen Victoria (1837)



16. Remembrance Sq - Peasant Revolt (1381)



20. Battle of Maidstone (1648)

## SITE CONSTRAINTS

The current site contains a range of constraints that will be addressed as part of the design proposals.

Key constraints include:

- Vehicular routes
- Dead ends
- Disconnections





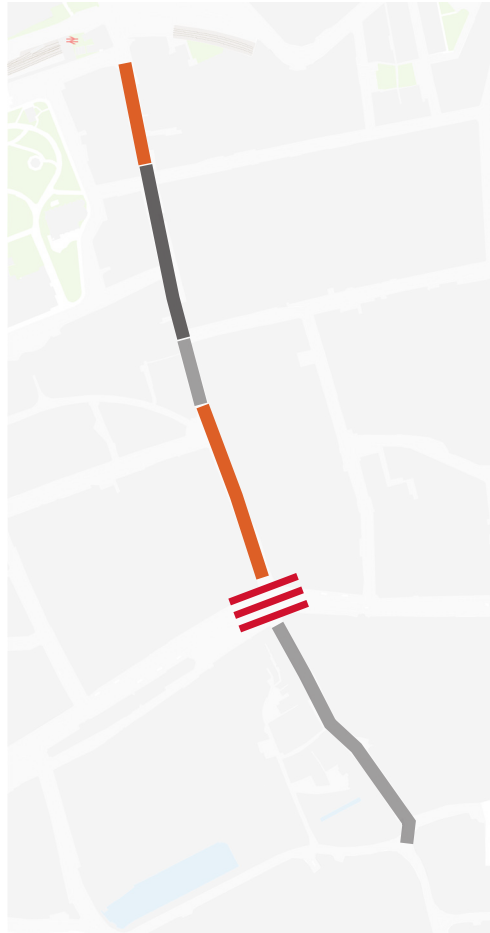
## SITE CONSTRAINTS

Raised kerbs



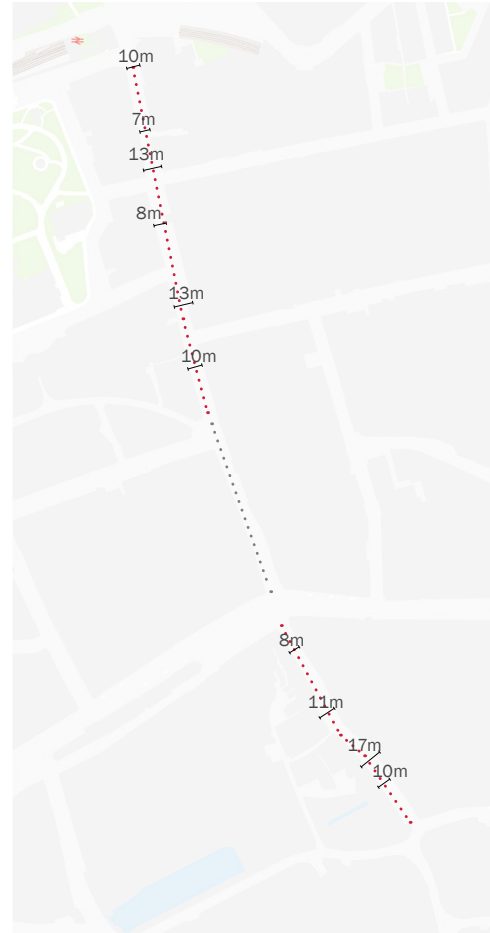
- Raised kerbs and uneven levels on both Week Street and Gabriel's Hill
- Road condition is predominately designed for vehicle use.

Mixture of surfaces



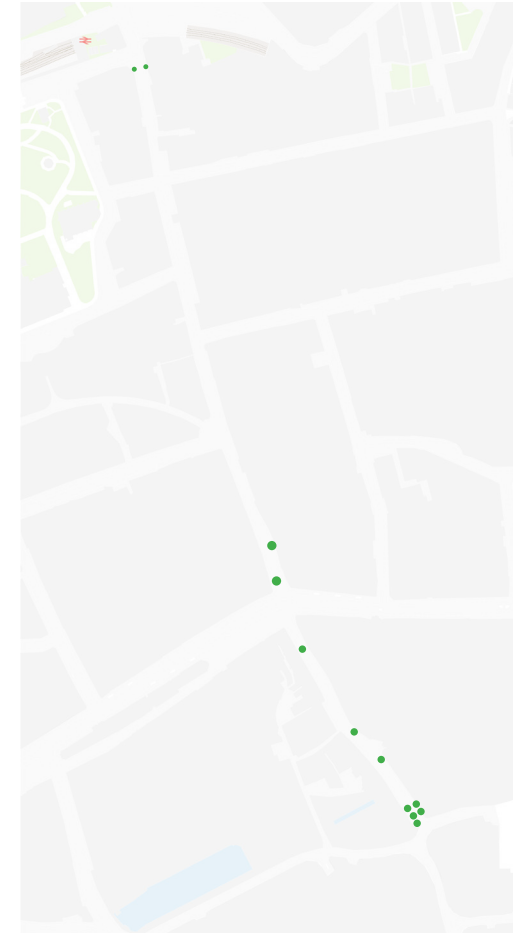
- Mixture of different surfaces along Week Street, result in a lack of visual connection and unity along the streetscape

Street clutter and width



- Width of the streets varies in width from 13m at the widest to 7m at narrowest point
- Visual clutter along streetscape includes shop signage, phoneboxes, bollards, bins and streetlighting.

Existing trees



- Narrow streetscape and underground services which limit opportunities for tree planting

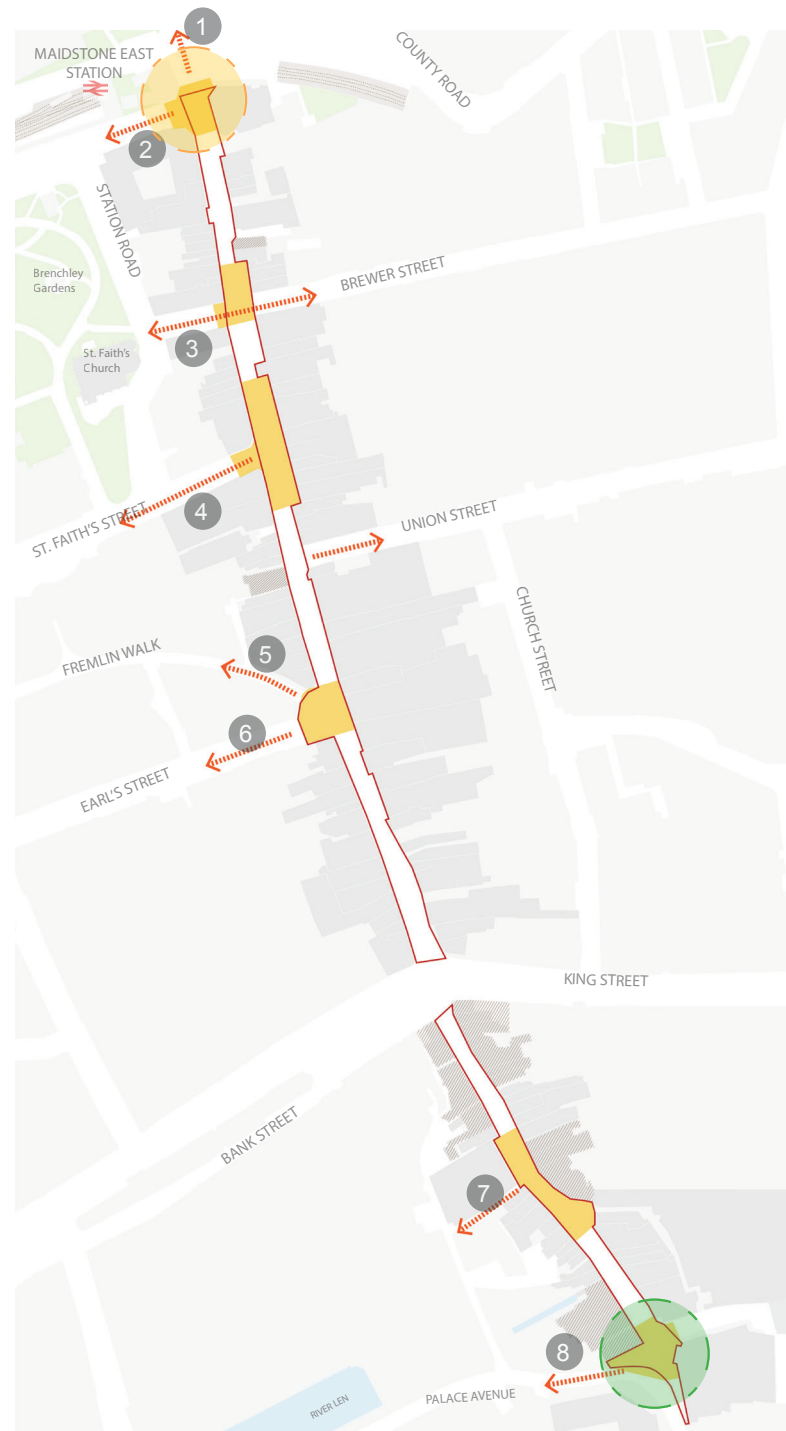


## SITE OPPORTUNITIES

The site offers the opportunity for new interventions to enhance the public realm experience.

Key opportunities include:

- New public squares
- Reconnection with local context
- A consistent and de-cluttered streetscape
- Celebrate Maidstone's diverse history and reflect this within the proposals



Links to surrounding destinations:

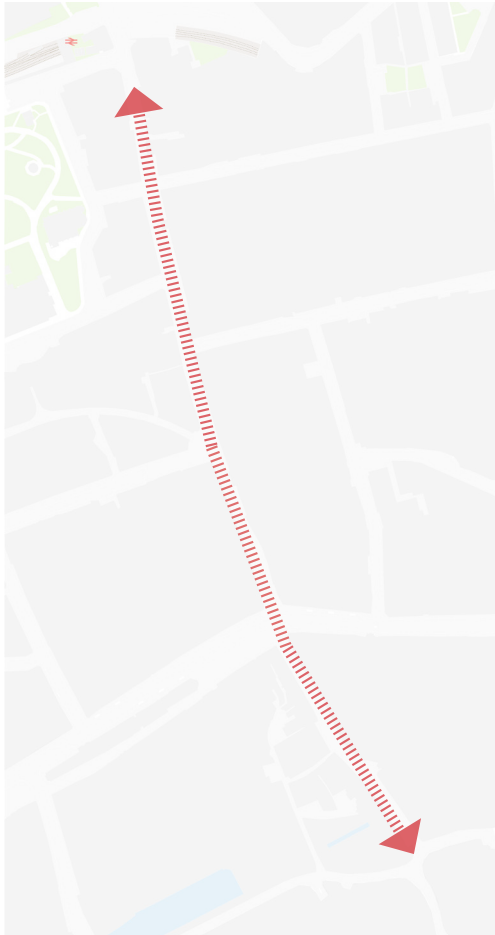
1. Kent County Council
2. Maidstone East Station
3. Brencley Gardens and St. Faith's Church
4. Maidstone Museum and Art Gallery
5. Fremlin Walk Shopping Centre
6. Rose Yard and Hazlitt Theatre
7. River Len and Mills Pond
8. Archbishop Palace and Peugeot Building

### KEY

- Site boundary
- New Squares
- Links to key destinations
- New gateway linking to new proposal for Station Approach
- New links
- New gateway to Historical quarter

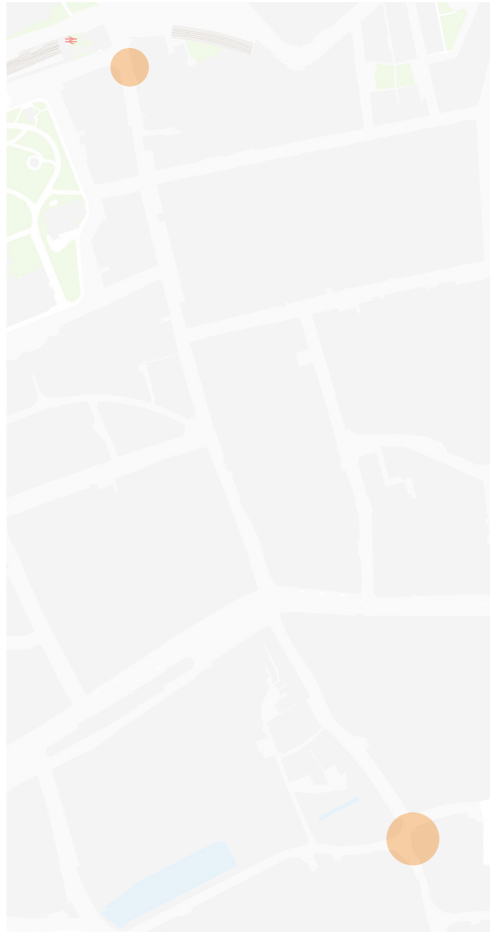
## SITE OPPORTUNITIES

### Unity



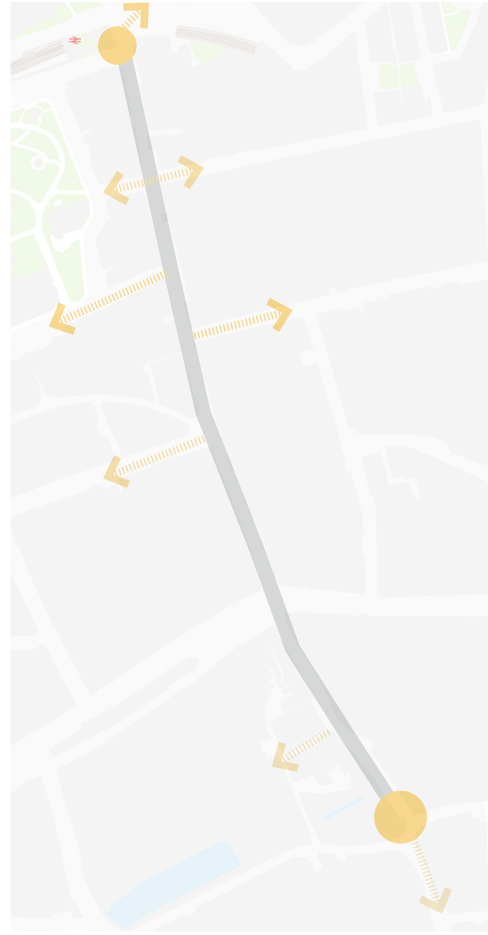
- Unify public realm use of one surface.
- Consider the existing public realm.
- Connect to the existing and proposed public realm.
- Consider pedestrian and vehicular accessibility.
- De-clutter /one surface for flexible pedestrian use.
- Review opportunities to link Week Street to Gabriel's Hill and beyond.

### Gateway



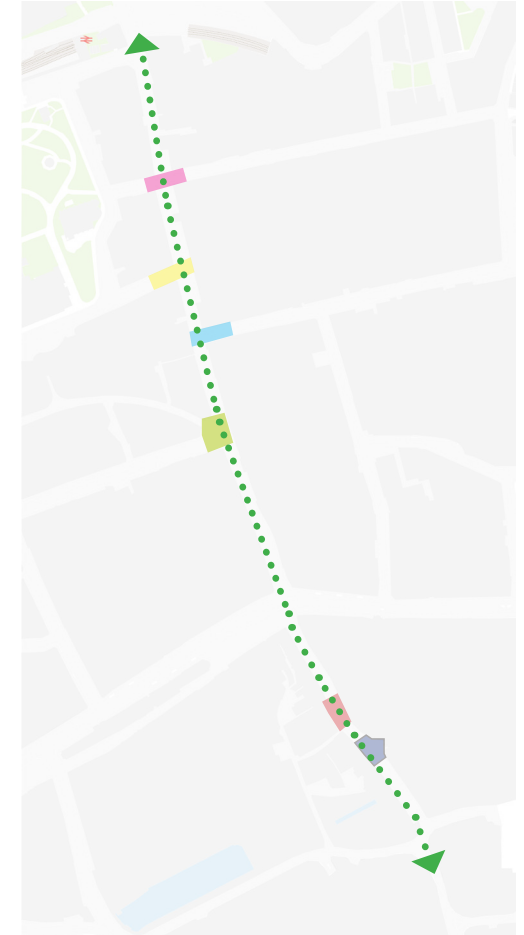
- Celebrate main access points as gateways.
- Opportunity to integrate art and wayfinding features to mark entrances
- Gateways could act as an opportunity to start an educational or historical trail.

### Connectivity



- Opportunity to link and activate the nearby public amenity spaces and the local public facilities to the public realm.
- Enhance footfall to local small business on side streets.
- Opportunities at junctions for new squares, material changes and feature spaces.
- Gateways to celebrate streets.

### Square



- Create a rhythm of activity or spaces that do not impact on pedestrian or vehicular movement.
- Identify where width of street allows for nodes of activity.
- Family of street furniture with potential to integrate a story /timeline.
- Scope for junction intersections to vary in character, i.e change paving colour or texture.
- Create square for pedestrians to stop and enjoy the atmosphere.

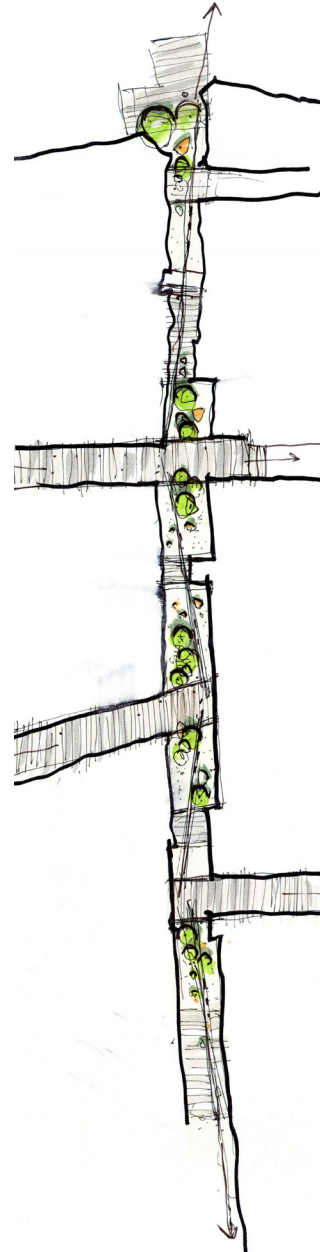
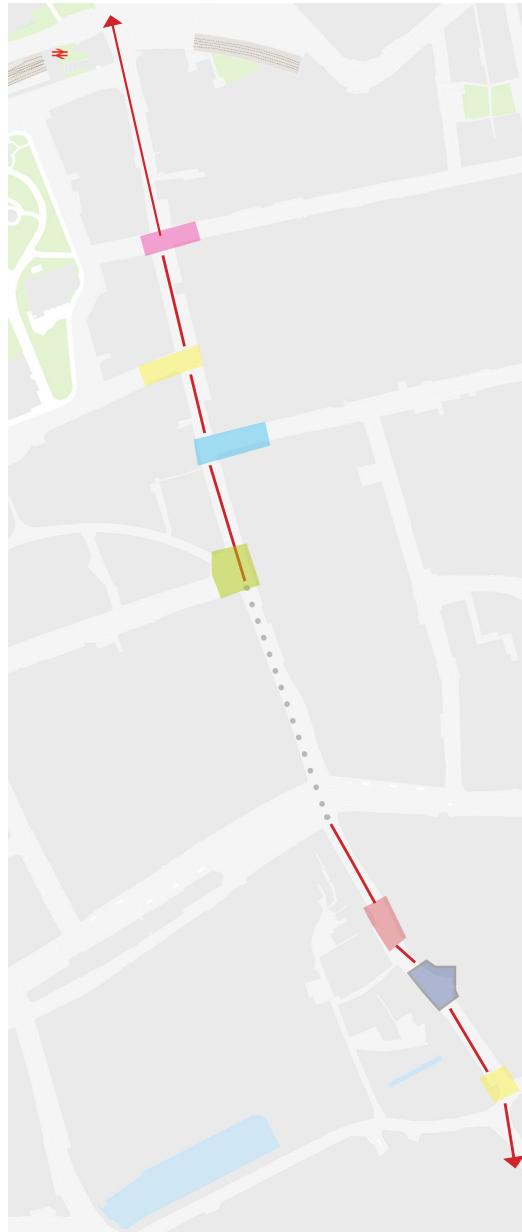
## 04. DESIGN CONCEPTS

## DESIGN CONCEPT 1 - ROMAN ROAD

Maidstone was historically a transport hub, where the Roman road linked Rochester with Lympne port.

This design will demonstrate the historical context of Maidstone as an Old Market town through:

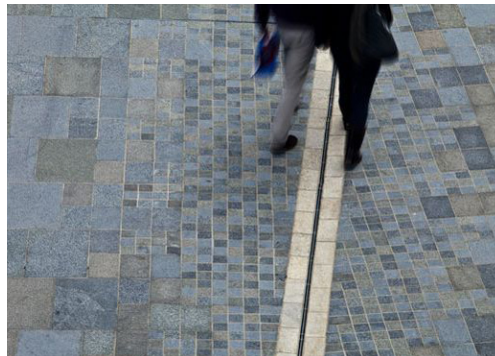
- Connecting street spaces with a linear paving or drainage element, a de-constructed Roman Road.
- Introducing feature element, which could act as a time line linking spaces and buildings.
- Breaks at junctions responding to the modern streetscape.
- Material changes at architectural setbacks.
- Creates nodes/spaces through a dynamic line



## DESIGN CONCEPT 1 - ROMAN ROAD



Sketch Illustration



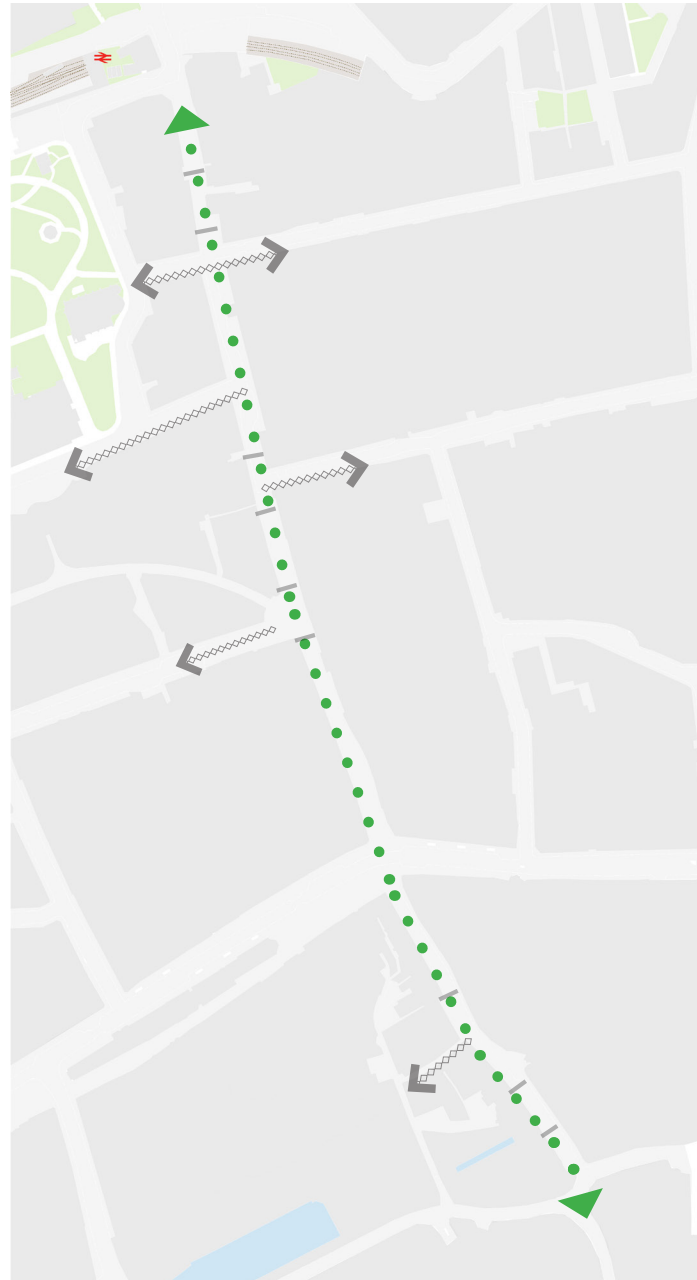


## DESIGN CONCEPT 2 - WEAVE

The concept is to weave the site back to it's local context as well as stitch elements of Maidstones history within the design.

Key elements include:

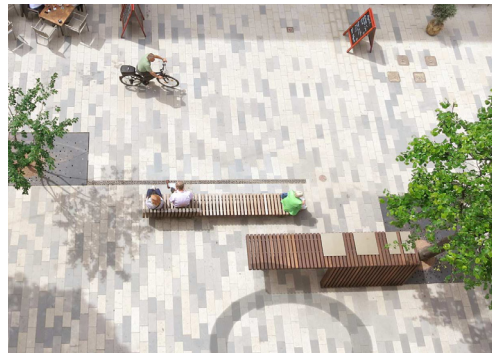
- Unify surface materials to minimize impact on the streetscape
- Linear paving elements with a historical theme will respond to the existing architectural street layout.
- A rhythm/pulse along the street will be created at strategic points with tree planting and a contemporary family of street furniture.
- Lighting will be used to enhance and compliment the concept.
- Key junctions will be identified with a change in paving colour/texture.



## DESIGN CONCEPT 2 - WEAVE



Sketch Illustration



## 05. MASTERPLAN VISION



## MASTERPLAN VISION

Our concept is the merger of the 'Roman Road and Weave' concept creating a clear public realm with a timeline running from one end of the high street to another.

Our concept is to celebrate the richness of the history and culture of Maidstone and create a special destination unique to the town.

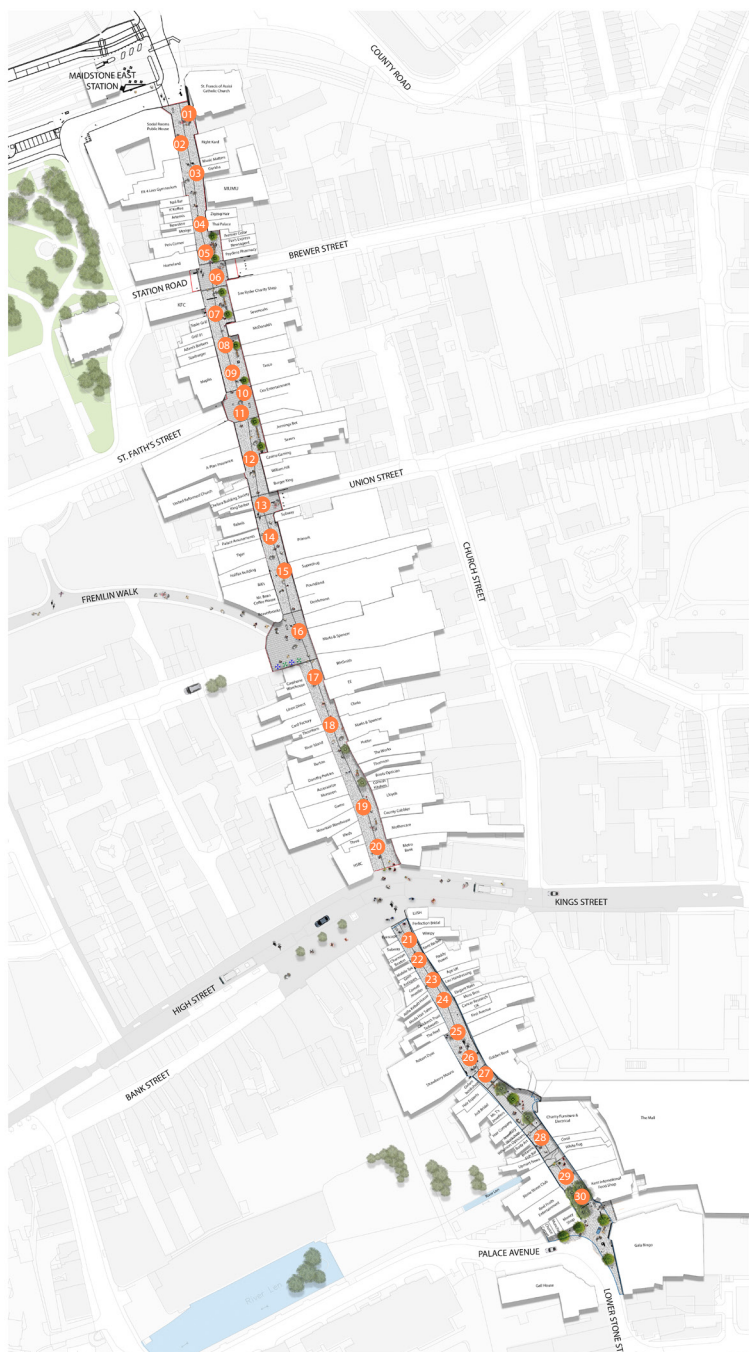
Overall Masterplan



Week Street Phase

Gabriel's Hill Phase

## MASTERPLAN VISION - TIMELINE FEATURE



A list of historic events will be shown on the feature timeline along the site to celebrate the rich historical characteristic in Maidstone.

1. Kent County Council was built in 1824
2. St. Francis Church was built in 1880
3. Maidstone East Station was opened on 1 June 1874
4. Maidstone Prison opened in 1819
5. Maidstone Rugby Club started in 1880
6. Brenchley Park opened in 1871
7. St. Faith's Church opened in 1892
8. Maidstone United Football Club started in 1897
9. Museum building was built between 1561 to 1577
10. Maidstone museum opened in 1858
11. Iguanodon discovery in 1834
12. Wove paper was made in 1740
13. Pargetted facade of Subway dated back in 1680s
14. Pargetted facade of Tiger dated back in 1680s
15. Artist William Alexander lived there from 1767-1816
16. Fremlin Brewery was the largest brewery in 1861
17. Hazlitt Theatre opened in 1869
18. Maidstone as a principle market town in 17th Century
19. Jane Austen wrote Pride and Prejudice after visiting Maidstone in 1796
20. Town Hall was established in 1763
21. Previously Old Bell Inn in 1669
22. Former Bull Hotel, major medieval inn of Maidstone in 15th Century
23. Bull Yard, 15th Century ragstone paving
24. 18th century listed buildings
25. Peugeot building from 1930s
26. Mill Pond was marked on map in 1748
27. Golden Boots found in 1790
28. River Len in use between 1629 to 1680
29. Battle of Maidstone in 1648
30. Peasant Revolt in 1381

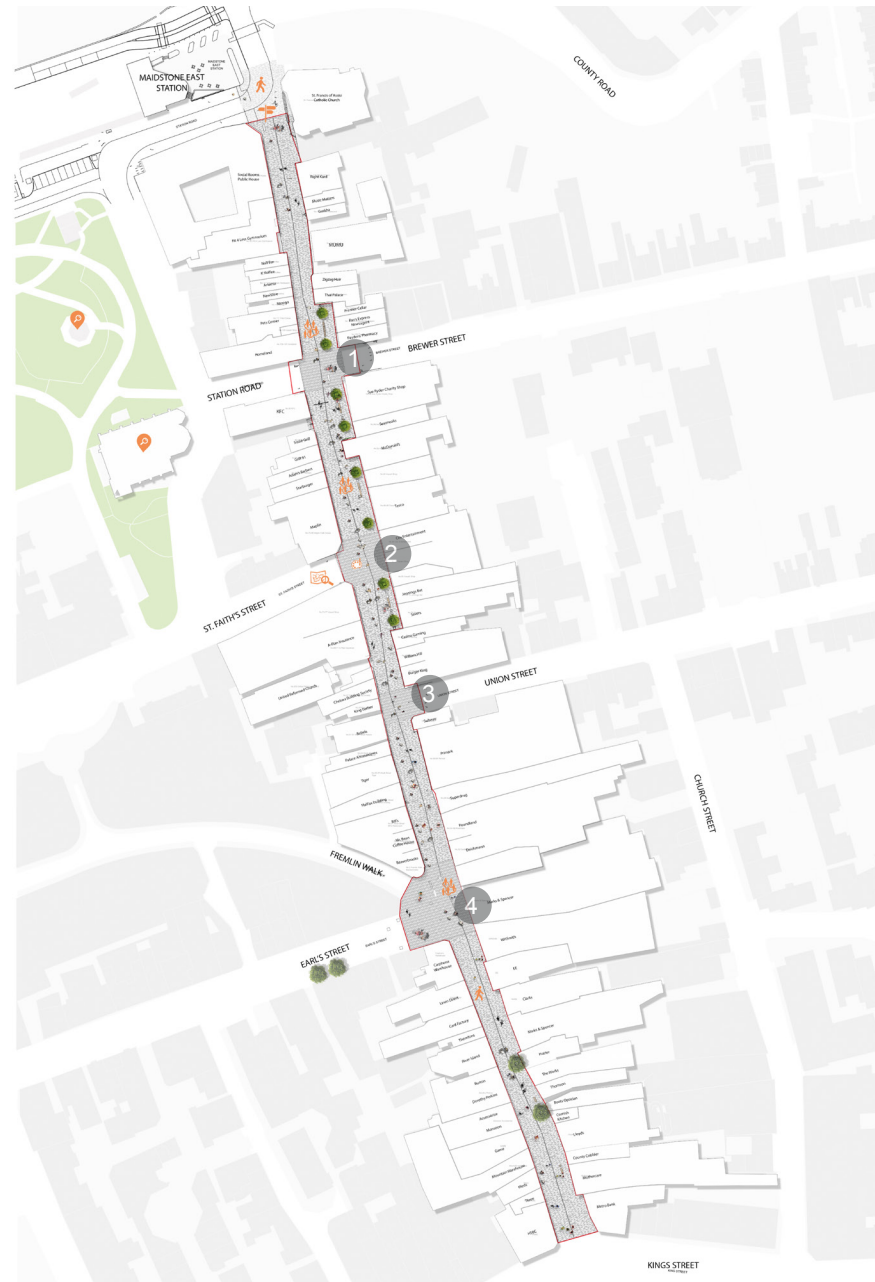
## MASTERPLAN VISION - WEEK STREET

The final masterplan has incorporated the two design options that have been shown previously: *Roman Road* and *Weave*.

The concept of *Roman Road* is reflected on the timeline feature that will run through the site. This will create a sense of linearity and improve visual connectivity. The other concept of *Weave* is demonstrated on the paving pattern, which will be used in the squares along the street, stitching the public realm to the local context.

Natural squares formed at each junction will be celebrated with new street furniture, tree planting and wayfinding features to activate the function of the spaces. Each square is characterized by its adjacent context which are named as follows:

- 1 Station Square  
Links to Maidstone East Station and Brewer Street
- 2 Iguanodon Square  
Links to St. Faith's Street to Maidstone Museum
- 3 Union Square  
Links to Union Street, to the eastern side of Week Street
- 4 Fremlin Square  
Links to Fremlin Walk Shopping Centre and Earl's Street



### KEY

- Point of interest
- Pedestrian friendly zone
- Dining out area
- Discovery route
- Square
- New wayfinding feature
- Feature paving
- Existing trees
- Proposed trees



## MASTERPLAN VISION - STATION SQUARE

The station square is at the junction between Station Road and Brewer Street.

- Activate and utilize the forecourts of the shop frontages
- Create stopping/meeting points with new street furniture and tree planting
- Green walls are proposed on existing building facade to enhance greenery and biodiversity in the urban environment
- Introduce new wayfinding feature to provide information on the immediate surroundings, i.e. Maidstone East Station.

Sketch view looking towards the square





## MASTERPLAN VISION - STATION SQUARE

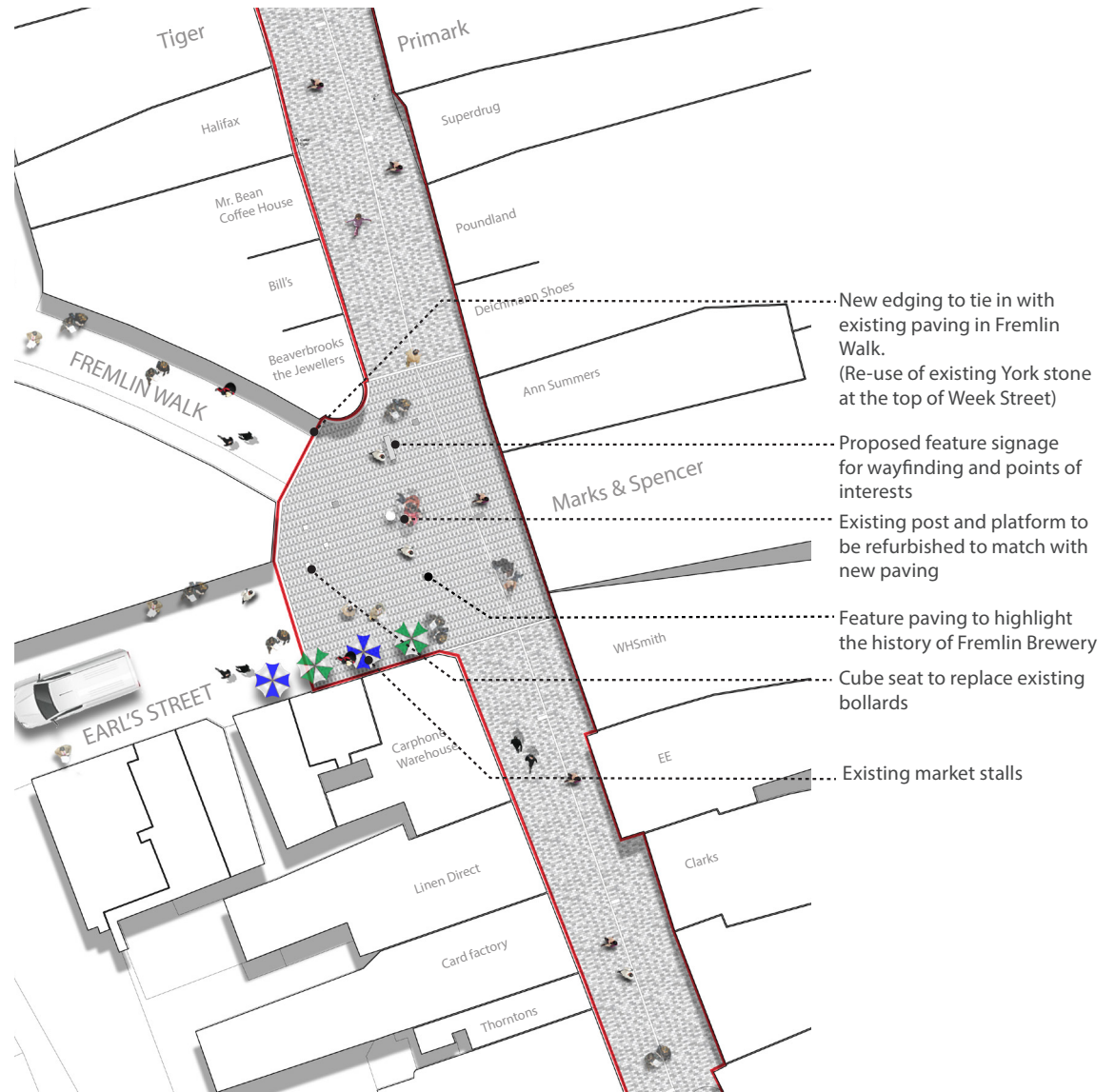




# MASTERPLAN VISION - FREMLIN SQUARE

The Fremlin Square is connecting Week Street with Fremlin Walk and Earl's Street.

- Introduce features within the paving to celebrate Maidstones heritage such as Fremlin Brewery.
- Upgrade and refurbish existing platform in the centre of the square to match with proposed paving
- Celebrate and highlight the river view down Earl's Street



## MASTERPLAN VISION - GABRIEL'S HILL

Gabriel's Hill consists of a range of listed buildings, reflecting the historical and cultural heritage of Maidstone.

Due to the width of Gabriel's Hill, the proposed scheme for the streetscape is predominately hard landscape.

Existing trees are to be retained where feasible, with the introduction of a feature tree within the proposed Mall Square.

The key areas in Gabriel's Hill are:

- 1 **Mall Square**  
New landmark tree proposed to characterised and mark the entrance of the mall with new street furniture
- 2 **River Len Paving**  
Feature paving etched with a historic map of the river to reveal its presence underneath ground level
- 3 **Historic Quarter**  
Restrict and limit vehicle access in this area by introducing new tree planting and street furniture





## MASTERPLAN VISION - MALL SQUARE

The existing entrance to Maidstones major shopping centre The Mall. The proposal is to enhance the public realm with a de-cluttered contemporary streetscape. With strategically placed street furniture and tree planting, the aim is to activate the space in front of the Mall and provide a focal point along Gabriels Hill.

- Simple design to de-clutter the streetscape to highlight the entrance to the Mall
- Visible reference to River Len through bespoke paving elements
- Feature tree to mark the Mall entrance



Sketch view looking towards The Mall's entrance





## MASTERPLAN VISION - MALL SQUARE





## MASTERPLAN VISION - HISTORIC QUARTER

Currently there are a series of options under consideration for the public realm fronting Gala Bingo and marking the entrance of the Historic Quarter.

### Option 1 - Enhanced Public Realm

This option looks to continue the proposed paving material to Gabriel's Hill and form a shared surface. The bellmouth to the junction has been reduced and road narrowed to place less emphasis on the vehicle. Tree planting and street furniture has been introduced to direct vehicle movement as well as enhancing the public realm experience.

Please refer to the Appendices for drawings of alternative options currently under consideration.

It is apparent on site that this area is used by the public for means of drop-off and currently this is not permitted. The options contained within the Appendices look at introducing a drop-off layby within the design. The proposals will be subject to a road safety audit in terms of their viability as a workable scheme and subject to Highways agreement.



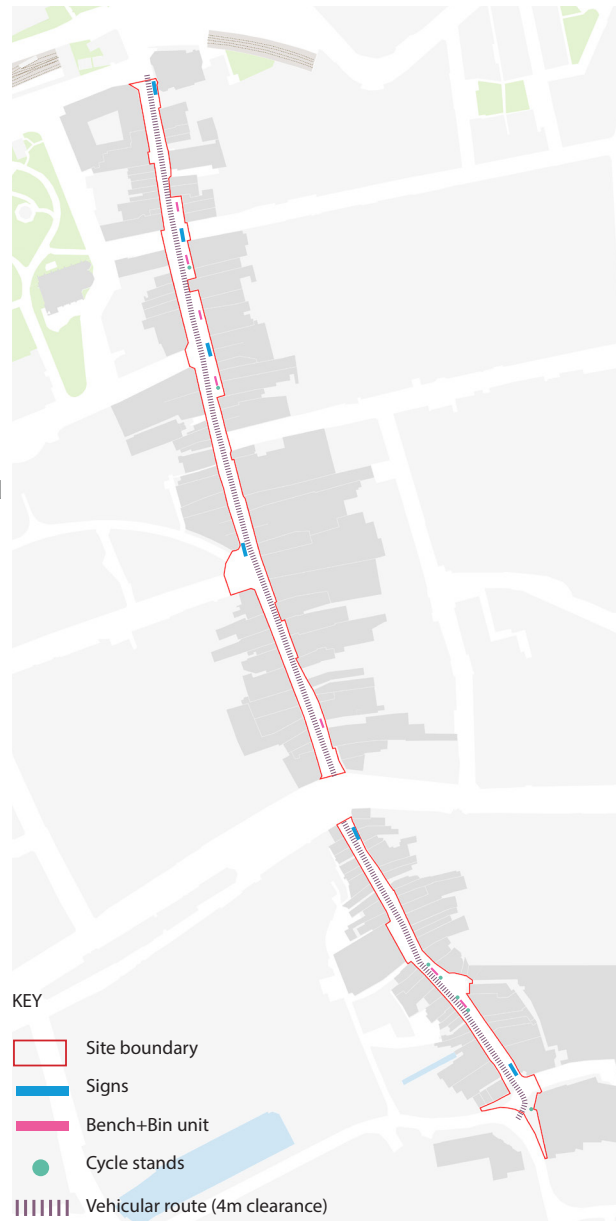
Option 1 - Public realm restricted vehicle access

## 06. STRATEGIES AND PRINCIPLES

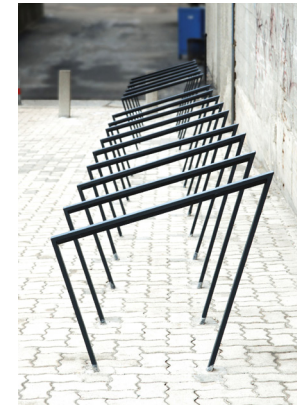
# STREET FURNITURE STRATEGY

A family of furniture unique to Maidstone is strategically located along the streetscape.

- New wayfinding feature to provide information on the local context adjacent to the streetscape. They also act as a landmark feature in each of the squares.
- New bench and bin unit will replace existing furniture at selected squares.
- New cycle stands are proposed to replace existing
- Opportunity to incorporate Maidstone colours within the proposed signage



Bespoke wayfinding sign  
2000mm height x  
400mm width in steel,  
powder coated with  
bespoke lettering



Cycle stands  
Mmcite edgetyre STE410

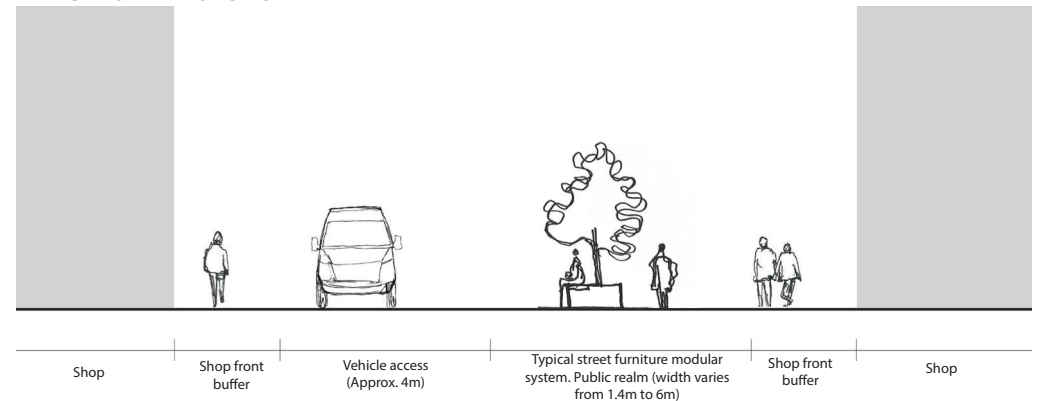


Bench+Bin unit  
Marshall's Demetra bin



Bench+Bin unit  
Marshall's Demetra bench in Bianco Stone with timber finished in Okume  
Size: 1800X600X450mm.

## TYPICAL STREET SECTION



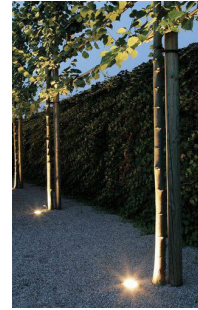
# LIGHTING STRATEGY

## Week Street

- Existing light column to be replaced with DW Windsor Silka 4 Stainless steel light column  
Ref.: IP55/ IK10/CLASS
- 4 nos. of DW Windsor Lyra 1 LED uplight within tree pit in new tree planting

## Gabriel's Hill

- Existing heritage light columns to be retained and painted in accordance with Francis Knight's documentation.
- Lights that are outside the conservation boundary by the area outside Gala Bingo to be replaced with DW Windsor Silka 4 Stainless steel light column  
Ref.: IP55/ IK10/CLASS
- 1 no. of DW Windsor Lyra 1 LED uplight within tree pit in tree planting at the Mall's entrance



• DW Windsor Lyra 1 LED uplight within tree pit



• DW Windsor Silka 4 Stainless steel LED light column



• Existing light column within the conservation zone on Gabriel's Hill



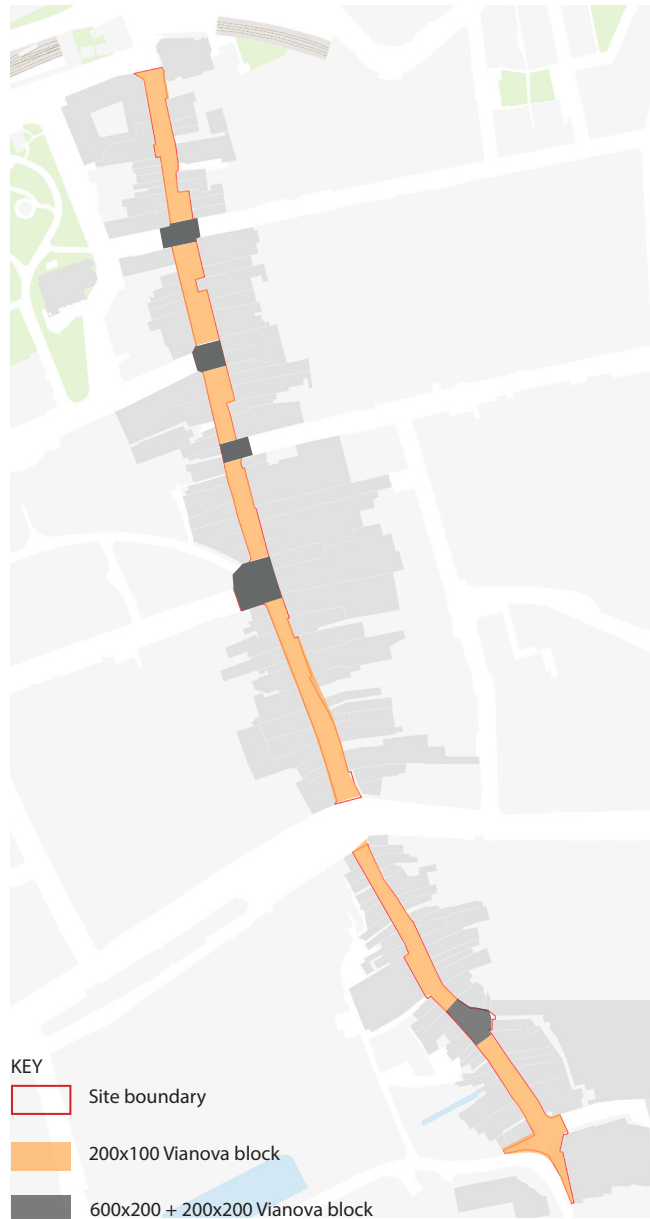


## PAVING STRATEGY

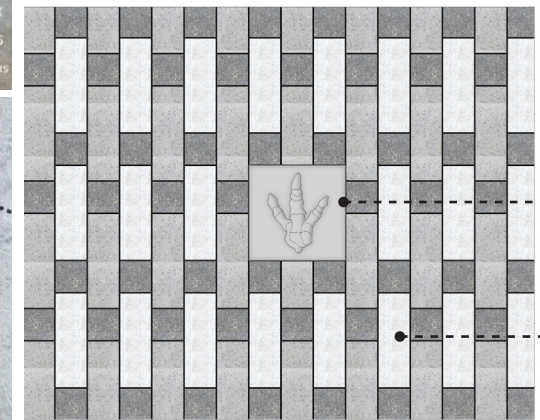
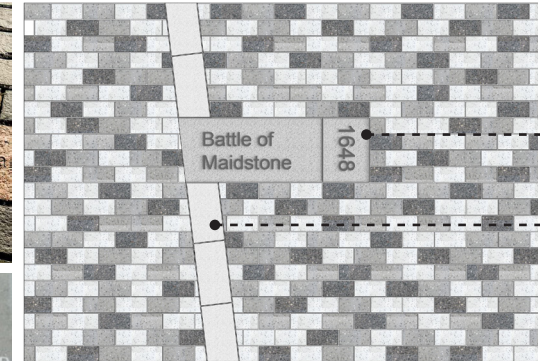
The materiality is chosen to create a pedestrian friendly unified streetscape through modules of robust concrete block paving with key elements of Kentish Ragstone

Different dimensions of concrete block will be used to create different paving patterns along and streetscape and in the key squares.

Kentish Ragstone is chosen to enhance Maidstone identity as this stone is vernacular to the town and is sourced in a local quarry. The Ragstone will be used only as a feature element with specific etched details relating to the town's history.



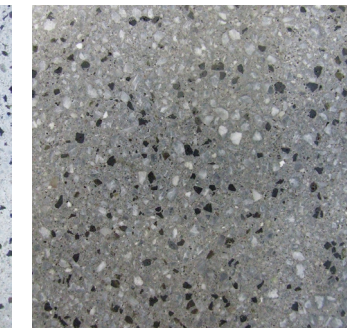
### Kentish Ragstone - Key feature in paving



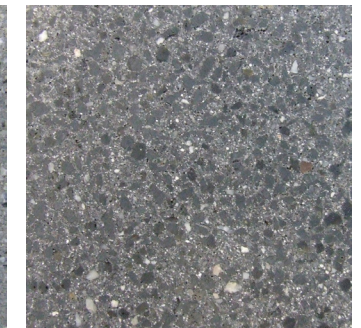
### Charcon Vianova - Main consistent paving type



Light Grey



Dark Grey



Anthracite



## PLANTING STRATEGY

The planting strategy focuses on vertical landscape elements due to the limitation for soft landscape at street level.

Existing trees are retained where feasible and new tree planting and green wall features are proposed to soften the streetscape.

New tree species will be carefully chosen to accommodate the heavy footfall with emphasis on low maintenance.

The planting palette for the green wall will match with the Maidstone colour (Blue and Yellow/Gold) and be wildlife friendly for biodiversity benefits.

Suggested palette of tree species:

- *Ginkgo biloba*
- *Betula utilis* var. *jacquemontii*
- *Liquidambar styraciflua*
- *Liriodendron tulipifera* 'Fastigiata'



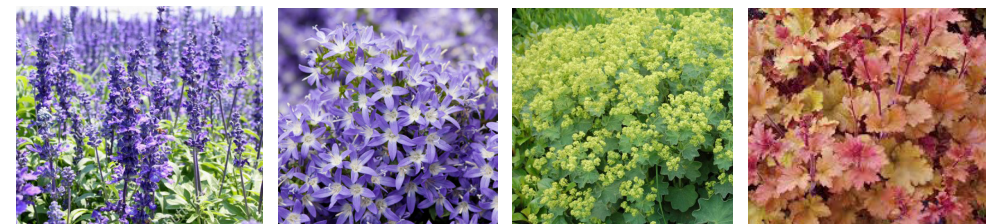
Existing trees



Green Wall



Suggested species to match with Maidstone colour palette



## 07. MAINTENANCE



### Hard Landscape

Hard landscape materials, unit sizes and laying patterns have been carefully considered in order to maximise longevity and maintainability of the wearing course. This is essential for a scheme that expects high footfall in terms of public urban realm usage.

Appended to this report is the manufacturers product literature for each paving type proposed.

As part of the proposals a series of paving trial areas shall be installed on site. These areas shall contain the range of product currently under consideration. Paving trials shall be laid in the same colour and textures proposed.

### Soft Landscape

Minimal soft landscape is proposed across the scheme.

Tree planting shall be in the form of semi mature trees within tree pits. The surface treatment for new trees shall be metal tree grilles. Existing trees shall predominately have resin bound gravel applied to their base and formed by a flush metal edge.

New tree pits shall include underground guying and aeration/irrigation pipes.

Species shall be chosen for low maintenance. When selecting final species consideration shall be made to the form of the canopy to avoid future conflict with the built form and vehicular routes.

Green walls are proposed within Week Street. These shall take the form of a modular system with integral irrigation.

Green walls shall be installed high enough to be out of the reach of the general public.

The green wall supplier offers an ongoing maintenance service as part of the installation package which could be considered.

### Street Furniture

Benches shall take the form of solid stone units. Their simple rectilinear design means cleaning around them shall be minimal. Some of the benches will have a hard wood seat to the top. Hard wood has been chosen for its longevity and minimal maintenance requirements.

A series of bins shall be placed with selected benches in key locations to minimise waste. The bin unit is in keeping with the bench design.

Wayfinding signs are proposed and shall be manufactured in metal work. It is envisaged that the final surface shall have a anti graffiti treatment to avoid anti social behaviour.



GALLAGHER GROUP  
LEITRIM HOUSE  
LITTLE PRESTON  
AYLESFORD  
MAIDSTONE  
KENT, ME20 7NS

**BS EN 771-6:2011**

**Category II Natural Stone Masonry Units**

## KENTISH RAGSTONE

Petrographic Examination:	Glauconitic Limestone
Dimensions:	As per delivery document
Configuration:	As per delivery document
Apparent Density:	2640 Kg/m <sup>3</sup>
Apparent Density after Thermal Shock:	2650 Kg/m <sup>3</sup>
EN 772-1 Compressive Strength:	159 Mpa
EN 772-1 Compressive Strength LEV:	123 Mpa
EN 772-1 Compressive Strength after freeze thaw (56 cycles):	159 Mpa
EN 772-1 Compressive Strength LEV after freeze thaw (56 cycles):	124 Mpa
BSEN 12372 (3Pt) Flexural Strength:	14.5Mpa to 10.1Mpa
Slip Resistance Dry:	65
Slip Resistance Wet:	52
Specific Heat Capacity:	1000 J/(Kg.K)
Water Absorption:	0.60%
Water Absorption by Capillary:	1.1 g.m <sup>-2</sup> .s <sup>-0.5</sup>
Water Vapour Resistance Factor - Dry:	250
Water Vapour Resistance Factor - Wet:	200
Open Porosity:	1.3 % by vol
Open Porosity after Thermal Shock:	1.1 % by vol
Abrasion:	18.5mm
Design Thermal Conductivity:	2.3 W/(m.K)-1
Breaking load at Dowel hole 50mm thick:	3000 N
Reaction to Fire (Declared value):	A1

Copies of our full BRE test results can be supplied on request



## 1 INITIAL MAINTENANCE

### MAINTENANCE, CLEANING AND SEALING OF INTERLOCKING CONCRETE PAVEMENTS

When properly installed, precast concrete pavements have very low maintenance and provide an attractive surface for decades. Under foot and tyre traffic, concrete pavements often become exposed to dirt, stains and wear. This is common to all pavements.

During the initial life of the pavement the joints between the pavers will be relatively porous. The ingress of water will consolidate the jointing sand and it is important that the joints are regularly filled with jointing sand to replace the sand consolidated by rainwater.

The joints will soon become semi-impervious due to detritus tending to seal the joints. Until this has occurred the paving should only be brushed by hand. Mechanical sweepers and in particular sweepers with high suction forces should not be used. If they are used there is a real risk of loss of jointing sand from between the pavers.

A liquid substance, which stabilises joint filling sand, impedes its unwanted removal by suction cleaners and at the same time helps to prevent the ingress of water during the early life of the pavement may be used.

If any form of surface sealing is used on the pavers it must be applied in strict accordance with the manufacturers instructions and it must be accepted that it may have an effect on the colour of the paving, its slip/skid resistance and may require on-going maintenance.

## 2 GENERAL GUIDELINES FOR THE REMOVAL OF STAINS AND GROWTHS FROM CONCRETE & CLAY PRODUCTS

These notes are intended for general guidance and are not intended to be exhaustive.

Some of the cleaning methods described involve the use of chemicals, which could be dangerous if not used correctly. It is important that any safety warnings issued by the chemical suppliers should be read carefully and strictly adhered to.

In general the following precautions should be taken:



- (a) When using chemicals, protective clothing such as gloves, goggles, boots and overalls should be worn.
- (b) Adequate ventilation is required in confined spaces when using chemicals.
- (c) When using flammable materials; cigarettes, naked flames and other sources of ignition should be carefully controlled.
- (d) When diluting acids, ALWAYS add acid to water and not water to acid.
- (e) Any clothing, which is contaminated with chemicals should be disposed of safely.
- (f) When using any chemicals care must be taken not to damage, contaminate or stain any adjoining material.
- (g) Care must be taken to protect personnel operating in the area of the cleaning from any injury or hazard created by the cleaning.

It is particularly important with all cleaning methods that trials should be carried out on a small, preferably inconspicuous area, to determine the effect of the chemicals before treating a large area.

## 3 ACID WASHING

Light stains can often be removed without markedly affecting the texture and appearance of the concrete.

With deeper stains a degree of acid treatment is required to remove the stain, which in some cases can result in an acid, etched appearance.

When using an acid cleaner, protective clothing (gloves, boots, goggles etc) should be worn. Anything, which might be affected by the acid e.g.: metals should be covered.

The procedure for cleaning is firstly to dampen the concrete with water; this prevents the acid being sucked into the surface rather than reacting with the surface layer. Secondly brush the acid over the concrete surface (typically 10% Hydrochloric acid is used.) The area is then washed clean of the acid using clean water.

Repeated applications may be required to remove deep stains. Wherever possible a trial in an inconspicuous area is advised.



## EFFLORESCENCE

Efflorescence or lime bloom is a transient phenomenon of Portland cement. Its effect is to lighten the colour of the concrete.

Efflorescence, also known as lime bloom, appears as a white deposit covering part or the entire surface of cement-containing products.

The result of light deposits is the lightening of the surface colour; the heavier the deposit, the lighter the colour.

Except in very severe cases, the phenomenon disappears completely when the blocks are wet and reappears as the blocks dry out.

### Occurrence

Efflorescence is a temporary, naturally occurring phenomenon that occurs to a varying extent on all items containing cementitious binders. Mortar is particularly prone to efflorescence and this can contaminate other products. It is formed by soluble salts from the cement migrating to the surface where they react with the atmosphere to produce the white powder (Calcium Carbonate) known as efflorescence. Individual crystals are very small and are not firmly fixed to the surface. The smallest of the crystals linked with their optical properties causes them to become invisible when wet. As they dry out, they become visible and are unchanged.

Products are most susceptible to efflorescence under damp conditions as this aids the movement of the soluble salts.

Efflorescence in no way affects the structural integrity of the items.

### Treatment

The phenomenon is temporary and will, with time, disappear as a result of normal weathering. The length of time depends on many factors such as rainfall, atmospheric pollution, etc.

Efflorescence can, however, be removed chemically by using an acid washing agent (dilute Hydrochloric acid). The product should first be thoroughly soaked with clean water followed immediately by the application of a commercial acid washing material (available from most builders' merchants) in accordance with the manufacturer's instructions.

As the efflorescence dissolves, there will be some frothing (effervescence) and



once this has finished, the whole surface should be rinsed thoroughly with clean water. In the vast majority of cases, one treatment should be all that is required, but in some cases, re-treatment may be required in the future.

## 4 GENERAL DIRT AND DETRITUS

To remove general dirt and detritus, scrubbing with soap and water is normally sufficient. This can be done either by hand or by using an industrial cleaner.

If a power hose is used, then care must be taken to avoid the removal of the jointing material (sand or mortar).

Ensure soap has been thoroughly washed from the surface on completion of the cleaning and the resulting run-off is carefully channelled to either drainage or containers where it can be safely disposed of.

## 5 RUST STAINS

a) First of all, action must be taken to eliminate the sources of staining.

To remove the rust stain, washing the affected area with 10% Hydrochloric acid solution normally suffices. However, acid attacks concrete and might leave a slightly roughened surface, so care must be taken when using the cleaner and all manufacturer's instructions must be strictly adhered to (see Acid Washing).

b) The first requirement is to eliminate the source of the staining.

To remove the rusty stain, again the surface should be made wet and then the affected area treated with a 10% Hydrochloric acid solution or 10% Oxalic acid solution. After cleaning, the chemical contaminant should be carefully disposed of.

Buff pavers should **NOT** be treated with acid without first discussing the stain with the supplier of the paver.

## 6 OIL STAINS

Oil penetrates readily into concrete, but it should not stain if any spillages are removed promptly with an absorbent material, e.g.: paper towel or cloth.

Do not wipe, as this will drive the oil into the concrete.

If the stain persists, then an emulsifying degreaser should be employed. Brush the cleaner onto the affected area and then wash the emulsified oil away with

# MAINTENANCE SPECIFICATION FOR CONCRETE PAVING



plenty of water.

Alternatively the surface could be scrubbed with a strong detergent and then washed away with hot water but care must be taken as this method might also result in the leaching out of some pigment.

## 7 BITUMEN STAINS

Bitumen does not penetrate readily into concrete. The method for removal is to allow the bitumen to cool, then cover with ice until it becomes brittle. Then chip or scrape off the bitumen. Any residue should be removed with an abrasive powder and finally the whole area rinsed clean with water.

## 8 GRAFFITI & PAINT STAINS

Fresh wet paint should be soaked up with an absorbent material without wiping, as this will spread the stain. The area should then be scrubbed with scouring powder until no more improvement is seen.

With dried paint, the paint should be scrapped off as far as possible and then an appropriate paint remover should be applied, following the manufacturers instructions.

Graffiti can be very difficult to remove because of the variety of different paints and inks that are used, so prevention is always better than cure. There are several manufacturers who produce specially manufactured products for graffiti removal and they should always be consulted.

## 9 EPOXY & POLYESTER STAINS

Areas of solidified epoxy and polyester resin can be removed by carefully burning off with a blowtorch, but care must be taken with any fumes given off.

If a black stain remains this can be removed by scrubbing with soap and water.

For larger areas grit blasting is an alternative.

## 10 SMOKE, FIRE & TOBACCO STAINS

Generally these stains can be removed by scrubbing with soap and water.

Where the stains persist household bleach can be used, but care must be taken when using the bleach and it must be totally rinsed away with clean water.



## 11 BEVERAGE STAINS

Scrub the stain with hot soapy water. If the stain is persistent apply a bleach solution and finally rinse with clean water.

## 12 CHEWING GUM

Chewing gum is one of the most difficult substances to remove from concrete. Newly discarded gum can be scraped off using a scraper.

Inground gum can be removed by either freezing the gum and chiselling it off the concrete or for larger areas use a high pressure steam cleaner to remove the gum.

## 13 MOSS, LICHENS & ALGAE

In circumstances where moss, lichens and algae are considered undesirable a toxic wash (proprietary brand fungicide etc) is required to kill them off. These washes take a few days to be fully effective so they should be applied during a spell of dry weather. The washes work best if any thick growths are scraped off first and the wash is well brushed in. Some toxic washes leave a residue to discourage the re-growth of the moss and algae but this effect is unlikely to last more than 2 – 3 years.

## 14 MAINTENANCE

Areas, which have been sealed, require maintenance to retain its appearance.

### (a) Oil Spillages

If oil, foodstuffs, drinks, grease etc are spilled simply apply a mild detergent using a soft scrubbing brush and rinse away. Stubborn stains can usually be removed using a steam cleaner or water jetter.

### (b) Algae/Moss

As the surface is now sealed, this problem will have been greatly reduced, however, in areas where there is a high degree of foliage or dampness, growth can reoccur. Washing and gentle scrubbing on a regular basis will remove such growth matter.



### (c) General Cleaning

Over a period of time the surface will lose its lustre through atmospheric borne detritus, wear etc, hence regular cleaning is recommended. This can be achieved by the use of a detergent and scrubbing brush or of a power washer or steam cleaner. Natural detergent should only be used as the use of strong detergents such as alkaline cleaners may damage the surface.

### (d) Weed & Grass Growth

If the area has been correctly sealed, this should not occur. However, sometimes, small areas of sand may not have been fully coated with sealant and grass may appear. Remove weeds by hand and brush a small amount of sealant into the affected joints.

### (e) Recoating

Coating life will depend on traffic and environmental conditions. Typical time will be 4 – 5 years. Areas subjected to heavy traffic can have single re-coats as necessary.

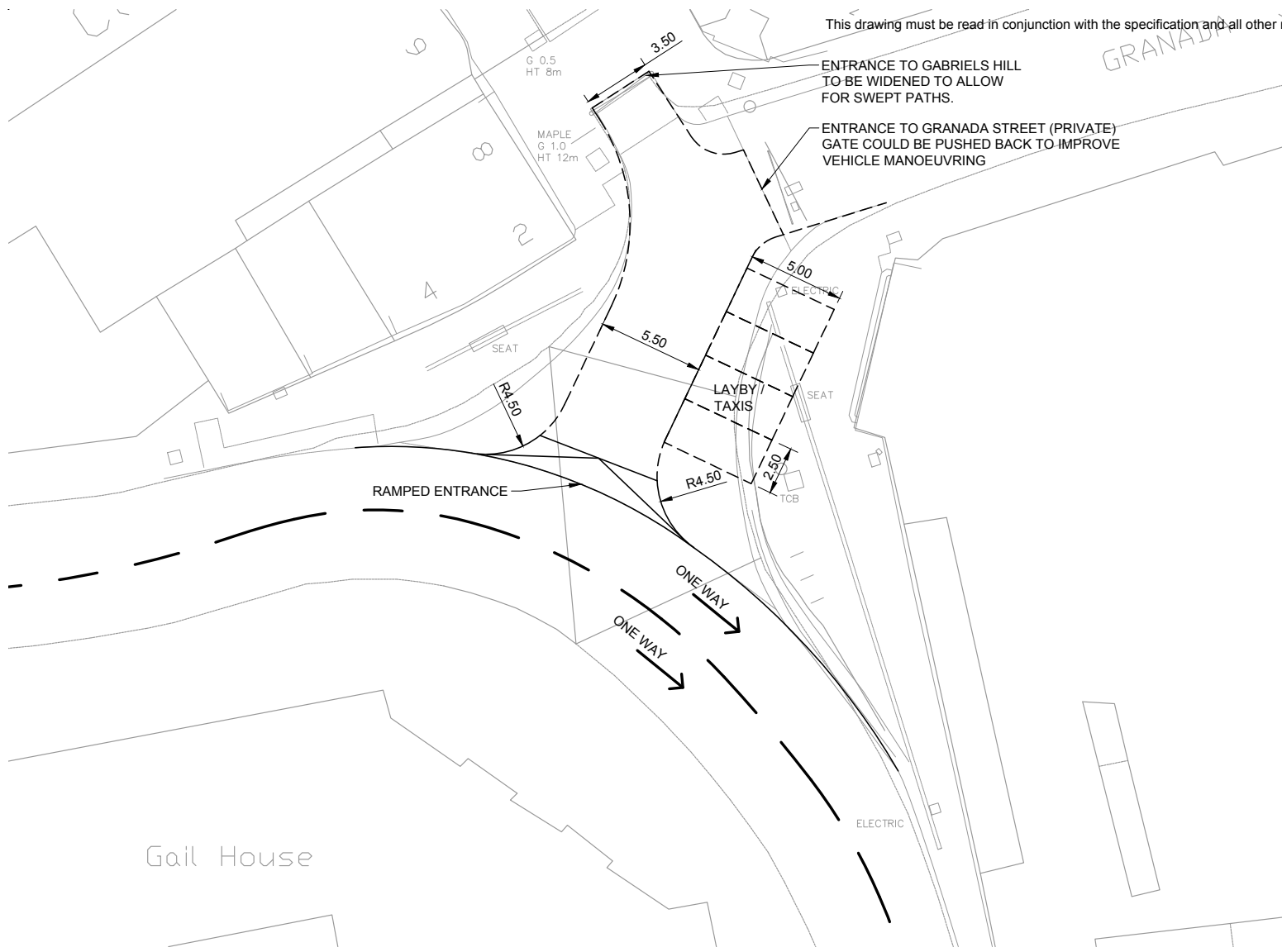
## 08. APPENDICES



GABRIEL'S HILL OPTION 2



# GABRIEL'S HILL OPTION 3



## NOTES

1. OPTION FORMALISES DROP OFF / PICK UP ARRANGEMENTS WHILE PRIORITISING PEDESTRIAN SPACE. ALLOWS FOR 4 VEHICLES AT ONE TIME.
2. LIKELY CONFLICT WITH CARS MANOEUVRING INTO THE PARKING SPACES, CARS LEAVING THE BINGO HALL CAR PARK, SERVICE VEHICLES ACCESSING GABRIEL'S HILL, AND PEDESTRIANS.
3. BAYS WILL REQUIRE CONTROL, EITHER THROUGH T.R.O. OR YELLOW LINES (NOT PREFERABLE).
4. BAYS REDUCE PEDESTRIAN SPACE IN FRONT OF GALA BINGO AND INTRODUCE CARS INTO PEDESTRIAN REALM.
5. UPSTAND MAY BE REQUIRED TO BACK OF BAYS TO AVOID VEHICLES OVERSAILING AND REDUCING PEDESTRIAN SPACE.
6. LEVELS DIFFERENCE WILL NEED TO BE ADDRESSED ON FOOTWAY BETWEEN GALA BINGO AND PALACE AVENUE. LEVELS TO BE RAISED OR BARRIER MAY NEED TO REMAIN.
7. LEVELS NEED TO BE CAREFULLY DESIGNED AND DRAINAGE WILL NEED TO BE IMPROVED.
8. ENTRANCE GATE TO GRANADA STREET MAY NEED TO BE PUSHED BACK TO ALLOW BETTER VEHICLE MANOEUVRING.
9. ENTRANCE TO GABRIEL'S HILL SHOULD BE WIDENED TO ALLOW FOR SWEEP PATH AND REDUCE RISK OF CONFLICT WITH MAPLE TREE.
10. SCHEME CAN BE EASILY INCORPORATED INTO ANY FUTURE 'RAISED TABLE' ACROSS PALACE AVENUE (NOT CURRENTLY PROPOSED). SUCH A SCHEME WOULD HELP REDUCE VEHICLE SPEEDS AND ALLOW SAFER ACCESS / EGRESS.

## NOT FOR CONSTRUCTION

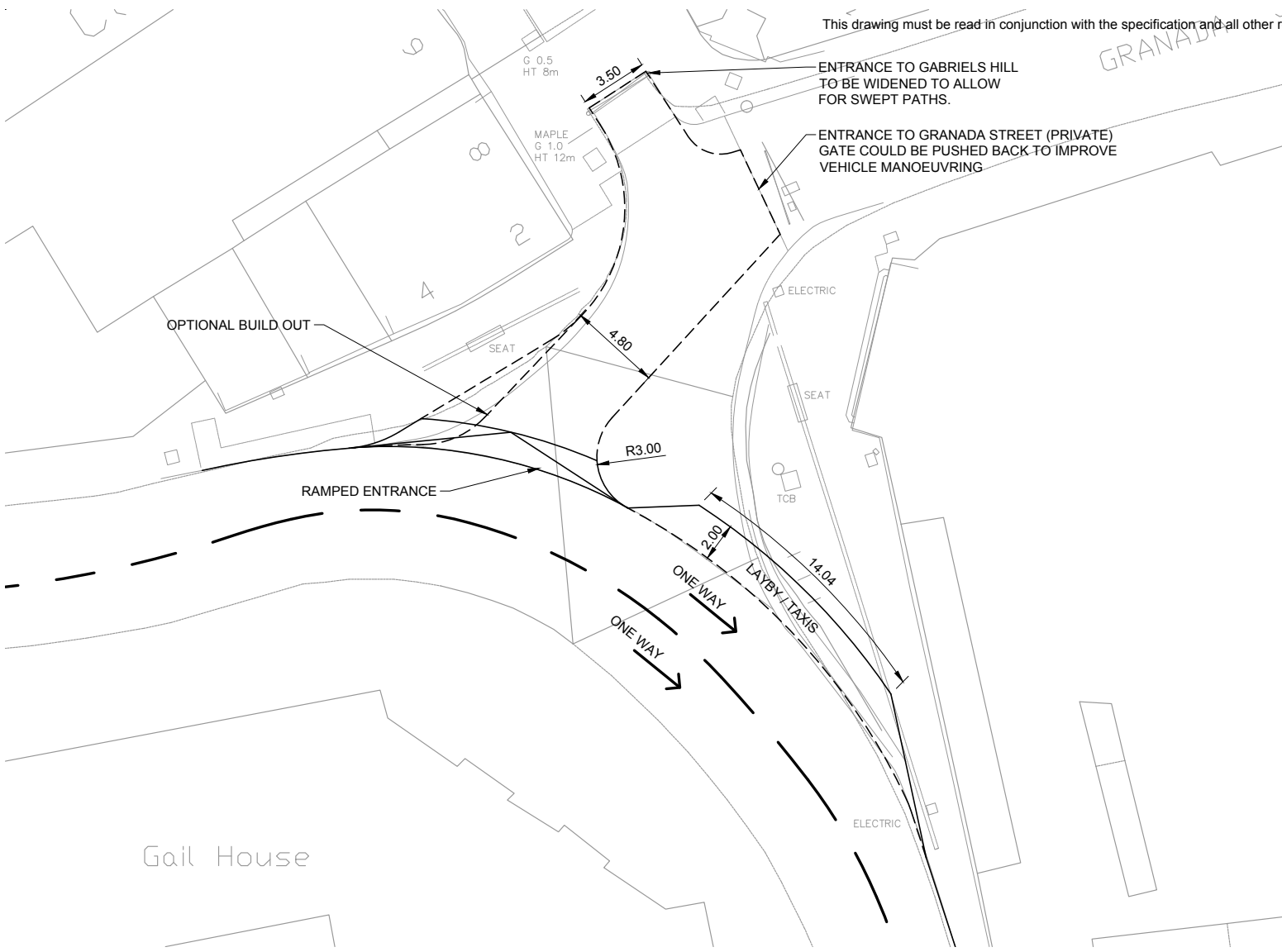
**conisbee**  
Consulting Structural Engineers  
Consulting Civil Engineers

1-5 Offord St  
London N1 1DH  
Tel: 020 7700 6696  
Fax: 020 7700 6696  
design@conisbee.co.uk  
www.conisbee.co.uk

Project  
MAIDSTONE PUBLIC REALM  
  
Title  
GABRIEL'S HILL DROP OFF  
OPTION 3

Rev	Date	Description	Drawn	Check
Drawing Status		Project No		
PRELIMINARY		160561		
Date	Drawn	Drawing No		
MAR 2017	TN	SK-C-002		
Scale	Engineer	Revision		
1:200 @ A3	TN	P2		

# GABRIEL'S HILL OPTION 4



### NOTES

1. OPTION PROVIDES GREATER SEPARATION BETWEEN PEDESTRIAN AREAS AND ROAD BY KEEPING LAY-BYS ON CARRIAGEWAY AND REDUCING CONFLICT.
2. LIKELY CONFLICT WITH CARS MANOEUVRING INTO THE LAYBY, CARS LEAVING THE BINGO HALL CAR PARK, SERVICE VEHICLES ACCESSING GABRIEL'S HILL, AND PEDESTRIANS, LESS CONFLICT THAN COMPARED TO OPTION 3.
3. REDUCED BAY CAPACITY COMPARED TO OPTION 3.
4. NEED TO CAREFULLY CONSIDER VISIBILITY FOR DRIVERS EXITING THE LAYBY AND MERGING WITH TRAFFIC ON PALACE AVENUE. DRIVERS WILL NEED TO LOOK OVER THEIR RIGHT SHOULDER AS THEY EXIT THE SPACE AND YOU ARE LIKELY TO GET A HIGH PROPORTION OF OLDER DRIVERS DROPPING-OFF/PICKING-UP FROM THE BINGO;
5. BAYS WILL REQUIRE CONTROL, EITHER THROUGH T.R.O. OR YELLOW LINES.
6. MAY NEED TO MARK INDIVIDUAL SPACES WITHIN THE LAYBY TO MANAGE THE USE OF THE SPACE EFFECTIVELY, AND TO PREVENT ADDITIONAL VEHICLES ATTEMPTING TO PARK AND OVERHANGING THE CARRIAGEWAY;
7. LEVELS DIFFERENCE WILL NEED TO BE ADDRESSED ON FOOTWAY BETWEEN GALA BINGO AND PALACE AVENUE. LEVELS TO BE RAISED OR BARRIER MAY NEED TO REMAIN.
8. LEVELS NEED TO BE CAREFULLY DESIGNED AND DRAINAGE WILL NEED TO BE IMPROVED.
9. ENTRANCE GATE TO GRANADA STREET MAY NEED TO BE PUSHED BACK TO ALLOW BETTER VEHICLE MANOEUVRING.
10. ENTRANCE TO GABRIEL'S HILL SHOULD BE WIDENED TO ALLOW FOR SWEEP PATH AND REDUCE RISK OF CONFLICT WITH MAPLE TREE.
11. SCHEME CAN BE EASILY INCORPORATED INTO ANY FUTURE 'RAISED TABLE' ACROSS PALACE AVENUE (NOT CURRENTLY PROPOSED). SUCH A SCHEME WOULD HELP REDUCE VEHICLE SPEEDS AND ALLOW SAFER ACCESS / EGRESS.

### NOT FOR CONSTRUCTION

**conisbee**  
Consulting Structural Engineers  
Consulting Civil Engineers

1-5 Offord St  
London N1 1DH  
Tel: 020 7700 6696  
Fax: 020 7700 6696  
design@conisbee.co.uk  
www.conisbee.co.uk

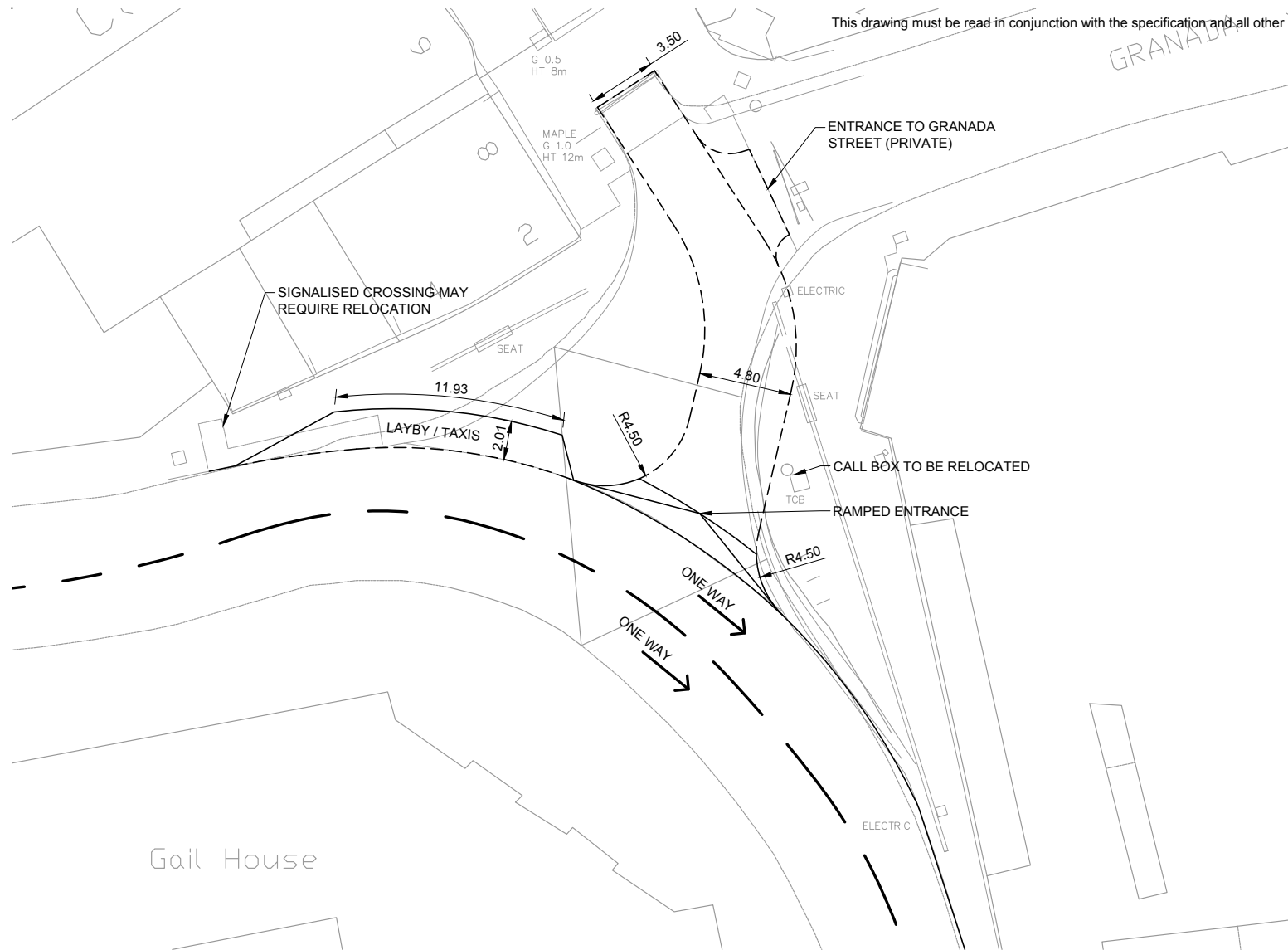
Project  
MAIDSTONE PUBLIC REALM

Title  
GABRIEL'S HILL DROP OFF  
OPTION 4

Rev	Date	Description	Drawn	Check
Drawing Status		Project No		
PRELIMINARY		160561		
Date		Drawn	Drawing No	
MAR 2017		TN	SK-C-003	
Scale		Engineer	Revision	
1:200 @ A3		TN	P2	



## GABRIEL'S HILL OPTION 5



This drawing must be read in conjunction with the specification and all other relevant drawings. Do not scale from this drawing.

## NOTES

1. OPTION PROVIDES GREATER SEPARATION BETWEEN PEDESTRIAN AREAS AND ROAD BY KEEPING LAY-BYS ON CARRIAGEWAY AND REDUCING CONFLICT.
2. LIKELY CONFLICT WITH CARS MANOEUVRING INTO THE LAYBY. CARS LEAVING THE BINGO HALL CAR PARK. SERVICE VEHICLES ACCESSING GABRIEL'S HILL, AND PEDESTRIANS. LESS CONFLICT THAN COMPARED TO OPTION 3.
4. REDUCED BAY CAPACITY COMPARED TO OPTION 3 AND OPTION 4 BUT MUCH INCREASED SPACE FOR PUBLIC REALM.
5. NEED TO CAREFULLY CONSIDER VISIBILITY FOR DRIVERS EXITING THE LAYBY AND MERGING WITH TRAFFIC ON PALACE AVENUE. DRIVERS WILL NEED TO LOOK OVER THEIR RIGHT SHOULDER AS THEY EXIT THE SPACE AND YOU ARE LIKELY TO GET A HIGH PROPORTION OF OLDER DRIVERS DROPPING-OFF/PICKING-UP FROM THE BINGO;
6. BAYS WILL REQUIRE CONTROL, EITHER THROUGH T.R.O. OR YELLOW LINES.
7. MAY NEED TO MARK INDIVIDUAL SPACES WITHIN THE LAYBY TO MANAGE THE USE OF THE SPACE EFFECTIVELY, AND TO PREVENT ADDITIONAL VEHICLES ATTEMPTING TO PARK AND OVERHANGING THE CARRIAGEWAY;
8. LEVELS DIFFERENCE WILL NEED TO BE ADDRESSED ON FOOTWAY BETWEEN GALA BINGO AND PALACE AVENUE. LEVELS TO BE RAISED OR BARRIER MAY NEED TO REMAIN.
9. LEVELS NEED TO BE CAREFULLY DESIGNED AND DRAINAGE WILL NEED TO BE IMPROVED.
10. ENTRANCE GATE TO GRANADA STREET MAY NEED TO BE PUSHED BACK TO ALLOW BETTER VEHICLE MANOEUVRING.
11. BEST ALIGNMENT FOR APPROACH TO ENTRANCE OF GABRIEL'S HILL.
12. THE ENTRY AND EXIT TAPERS TO THE LAYBY MAY NEED TO BE INCREASED TO MAKE IT EASIER FOR VEHICLES TO ACCESS/EGRESS THE LAYBY, AND TO PREVENT VEHICLES FROM OVERHANGING THE CARRIAGEWAY
13. EXISTING SIGNALISED CROSSING WOULD NEED TO BE RELOCATED AND POTENTIALLY REDUCED IN WIDTH. COULD BE OMITTED IF SCHEME IS EXTENDED TO RAISED TABLE (SEE NOTE BELOW).
14. SCHEME CAN BE EASILY INCORPORATED INTO ANY FUTURE 'RAISED TABLE' ACROSS PALACE AVENUE (NOT CURRENTLY PROPOSED). SUCH A SCHEME WOULD HELP REDUCE VEHICLE SPEEDS AND ALLOW SAFER ACCESS / EGRESS.

**NOT FOR CONSTRUCTION**

Rev	Date	Description	Drawn Check
Drawing Status			Project No
PRELIMINARY			<b>160561</b>
Date	Drawn		Drawing No
MAR 2017	TN		<b>SK-C-004</b>
Scale	Engineer		Revision
1:200 @ A3	TN		<b>P2</b>

**conisbee**  
Consulting Structural Engineers  
Consulting Civil Engineers

1-5 Offord St  
London N1 1DH  
Tel 020 7700 6666  
Fax 020 7700 6686  
design@conisbee.co.uk  
www.conisbee.co.uk

Project  
MAIDSTONE PUBLIC REALM

Title  
GABRIEL'S HILL DROP OFF  
OPTION 5

PRP