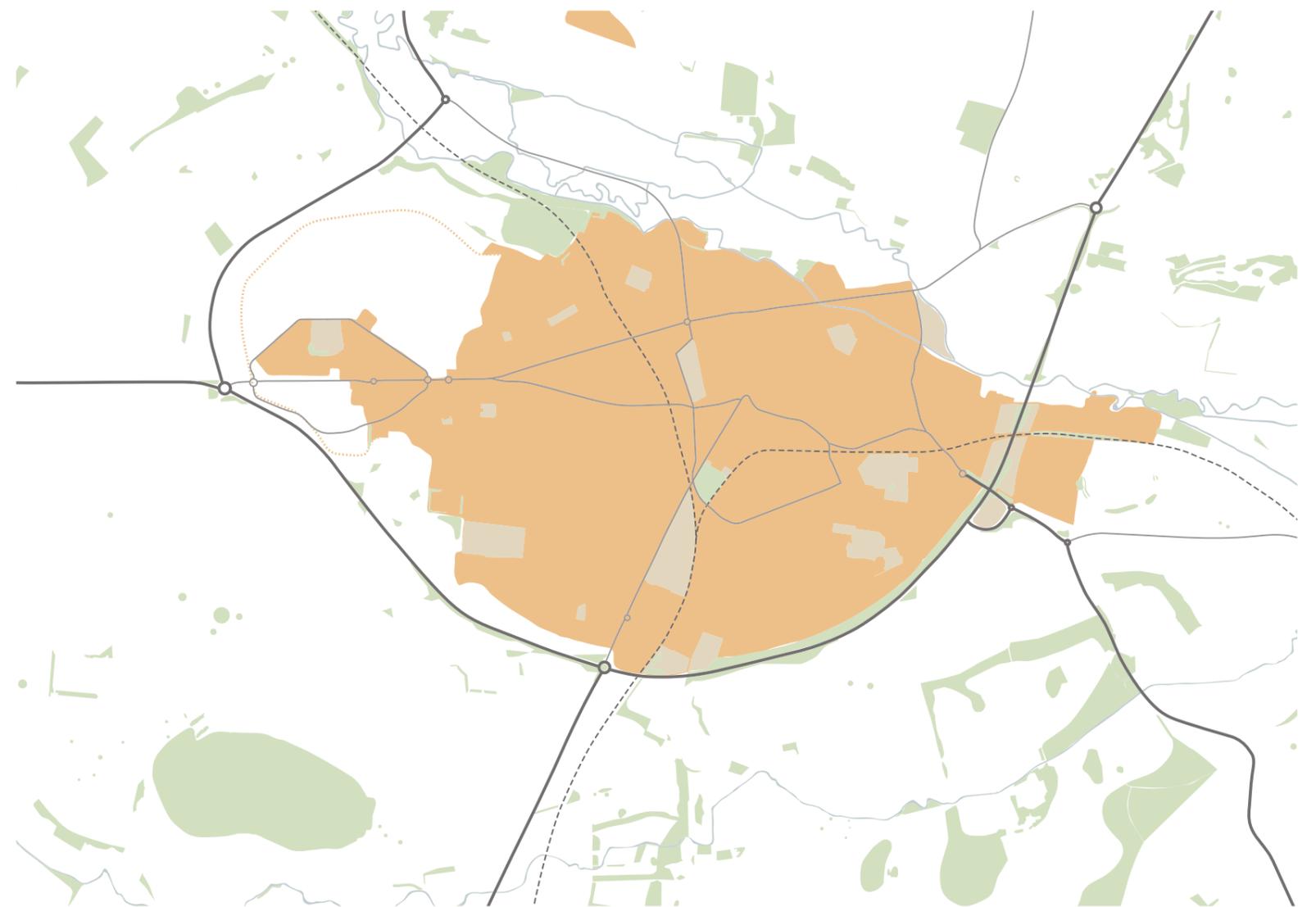
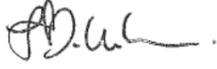


# Dorchester Park + Ride

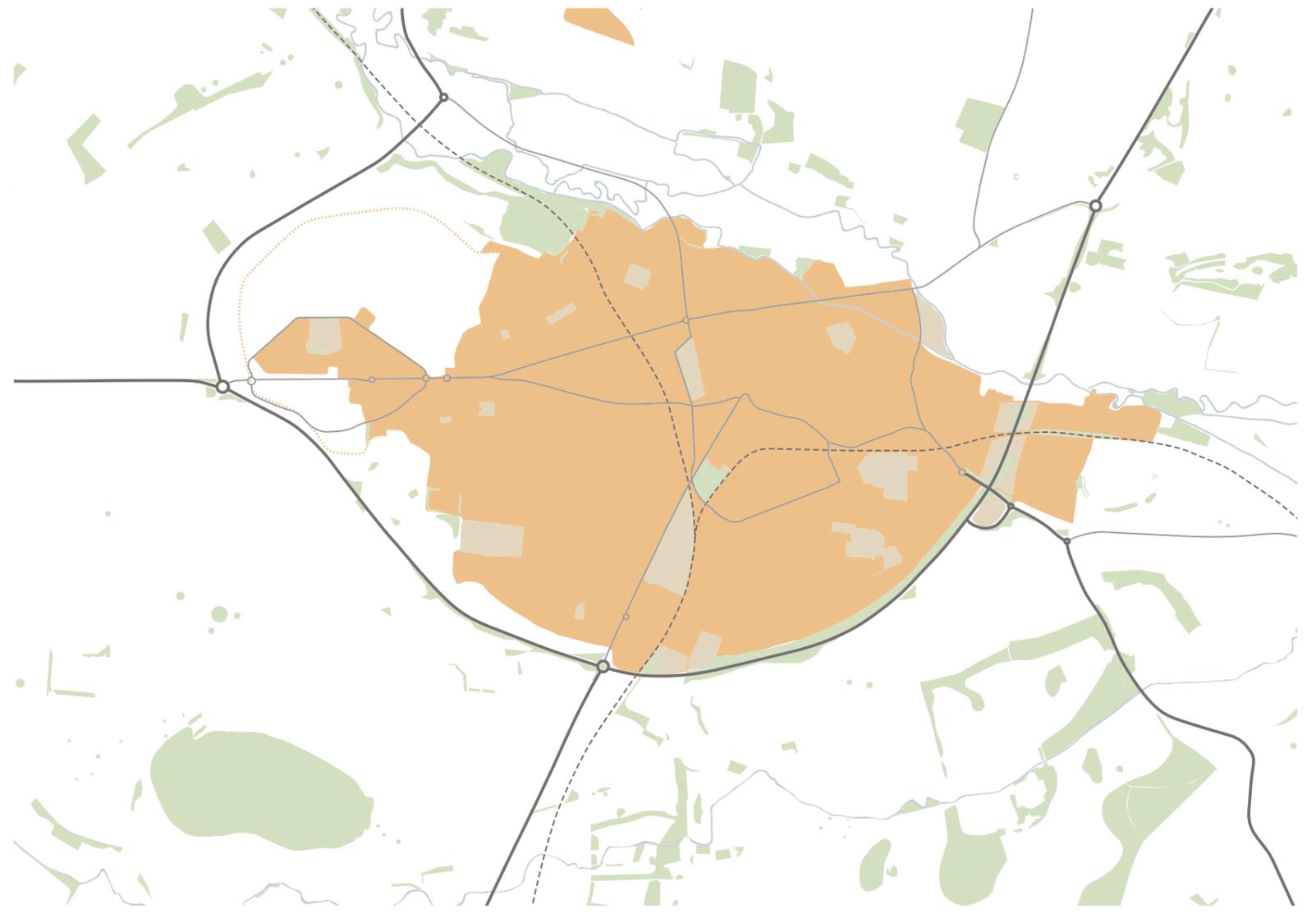
Stage 2 Report  
Preferred Options Indicative Masterplan  
October 2010



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Date	16/12/10

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# INTRODUCTION

Dorchester plays a key role within Dorset as a destination for visitors, service and employment centre, with a particular relationship with Weymouth from where a large proportion of the working population travel every day. Dorchester's strategic function in this respect and the finite level of parking available within the town centre require that opportunities for Park and Ride be explored.

An initial appraisal of park and Ride sites was undertaken by West Dorset District Council in 2007 which identified 20 potential locations. This work has been incorporated within Stage One of this study which reviewed all of the initial 20 sites to identify the most appropriate for further consideration. A four stage process, illustrated opposite, was applied to filter the 20 potential sites down to two. In summary, the process involved:

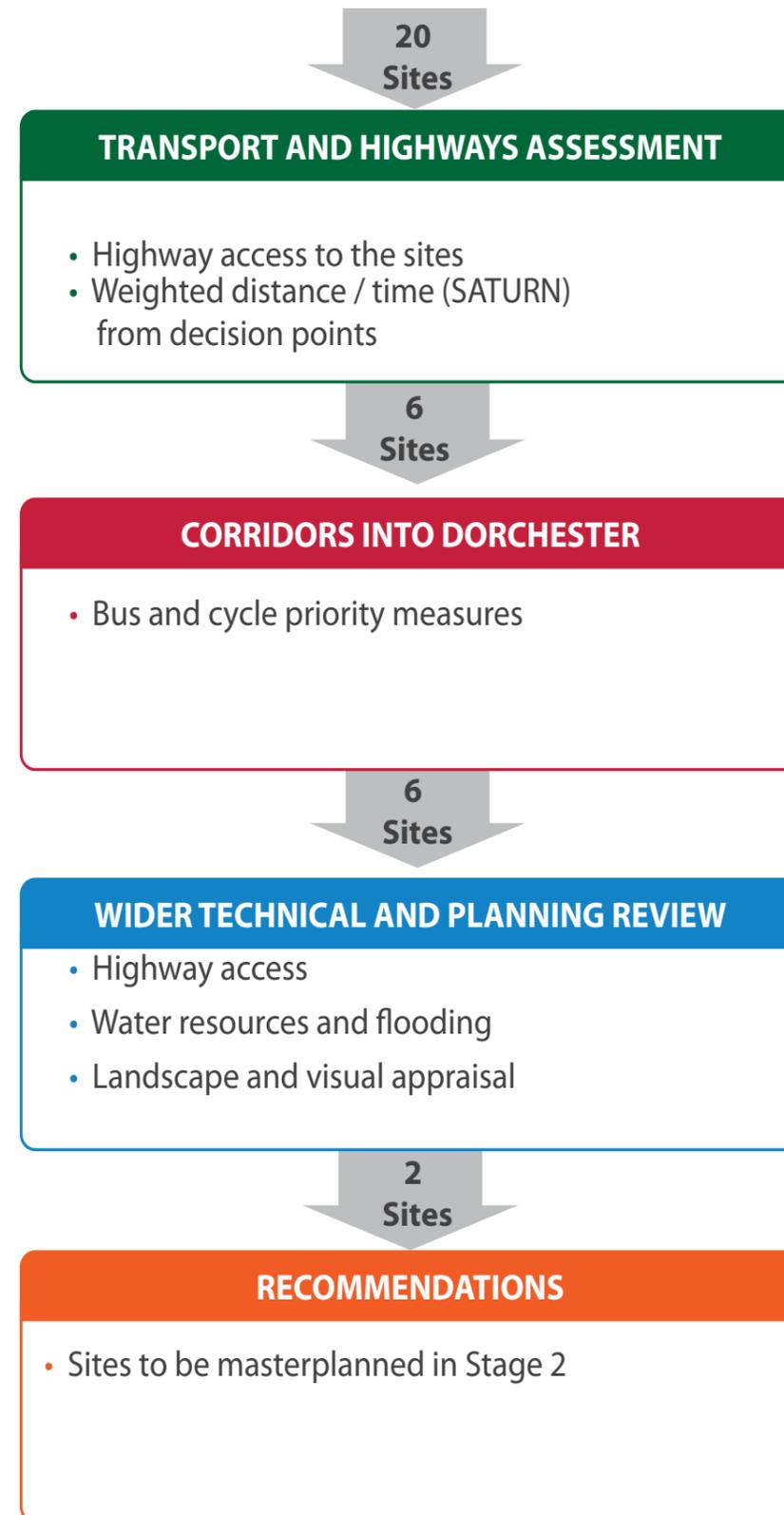
- An initial sift of sites on the basis of a transport appraisal. This ranked sites by assessing their potential catchment using measures of distance and journey time.
- A highways assessment of the opportunities to provide bus priority measures on routes between each of the sites and the town centre.
- The remaining (six) sites were subject of landscape and townscape, surface and groundwater, and transport and highways appraisals.

On the basis of these appraisals, it was recommended that sites to the south east of Stadium Roundabout (J) and west of Monkey's Jump (SR) be subject to the Stage Two preliminary masterplanning exercise.

This report constitutes (Stage Two) of the commission and presents the masterplan options for both sites. This report is structured to present how the masterplan developed and then consider the relative merits of each site.

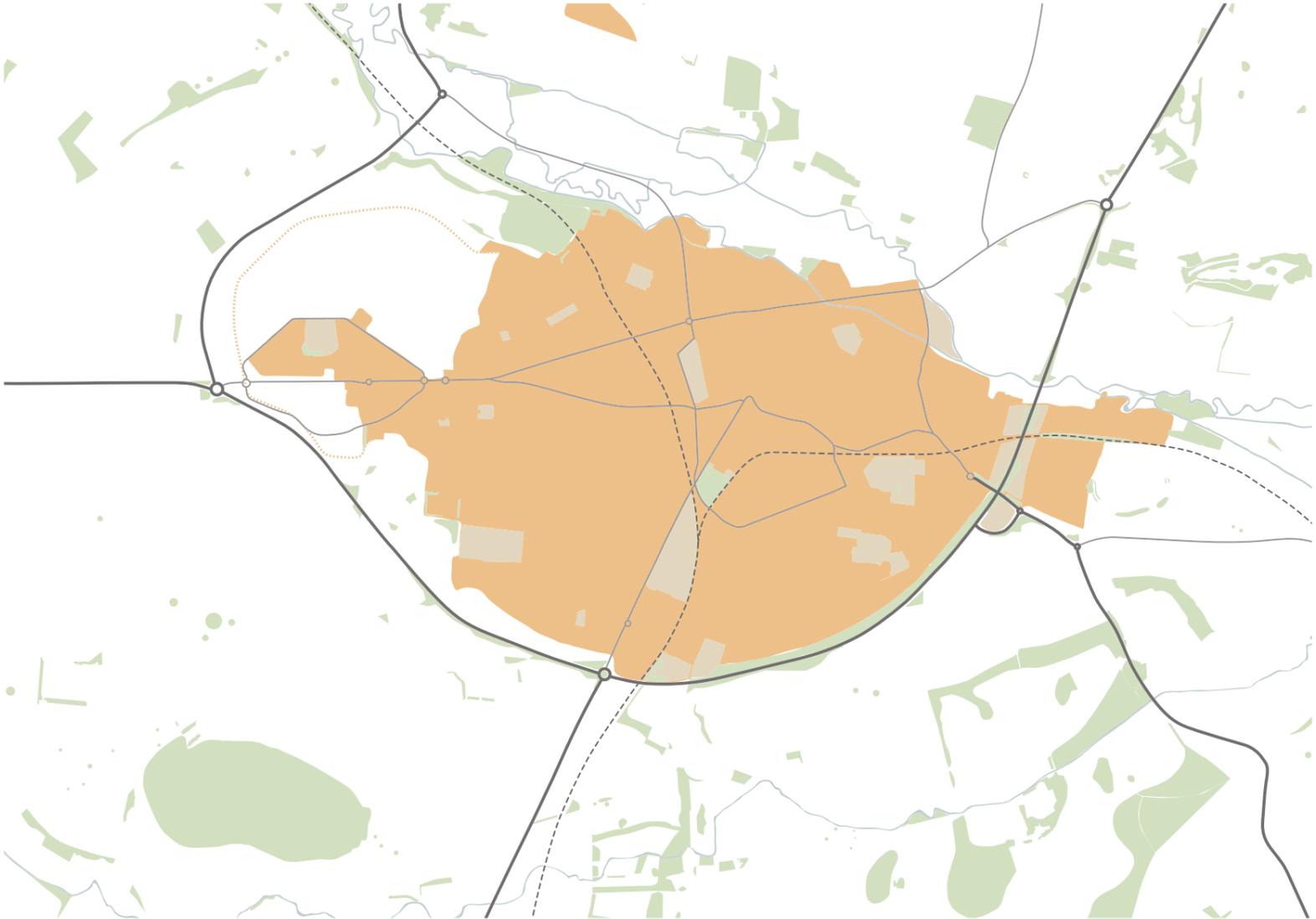
The following documents have also been prepared to support this report:

- Dorchester Park and Ride. Stage 1. Stage 1 Report. Feasibility Study September 2010.
- Dorchester Park and Ride. Stage 2 Report. Technical Appendix. December 2010





Site Development



# STADIUM ROUNDABOUT SITE J - PROCESS

The illustrative masterplan has been developed to respond to the local area, taking into account the wider context of Dorchester and the surrounding landscape. The landscape and setting of Site J allows for a considered and measured response to be formulated on the site providing an efficient use of the site area and internal movement.

The site is located to the south of Dorchester and the A35, lying between the railway and the Weymouth Road. It can be viewed from Maiden Castle against the backdrop of the wider setting of the railway and landscape in the distance. The western and northern boundaries are formed by a recently cut hedgerow of elm and local trees species and to the south by an open field and stand of woodland.

The site rises up from the northern end (A35) to a high point in the south-eastern corner of the site area. The Weymouth Road follows these contours rising alongside the site. A recently upgraded cycle-path is located on the site side of the Weymouth Road.

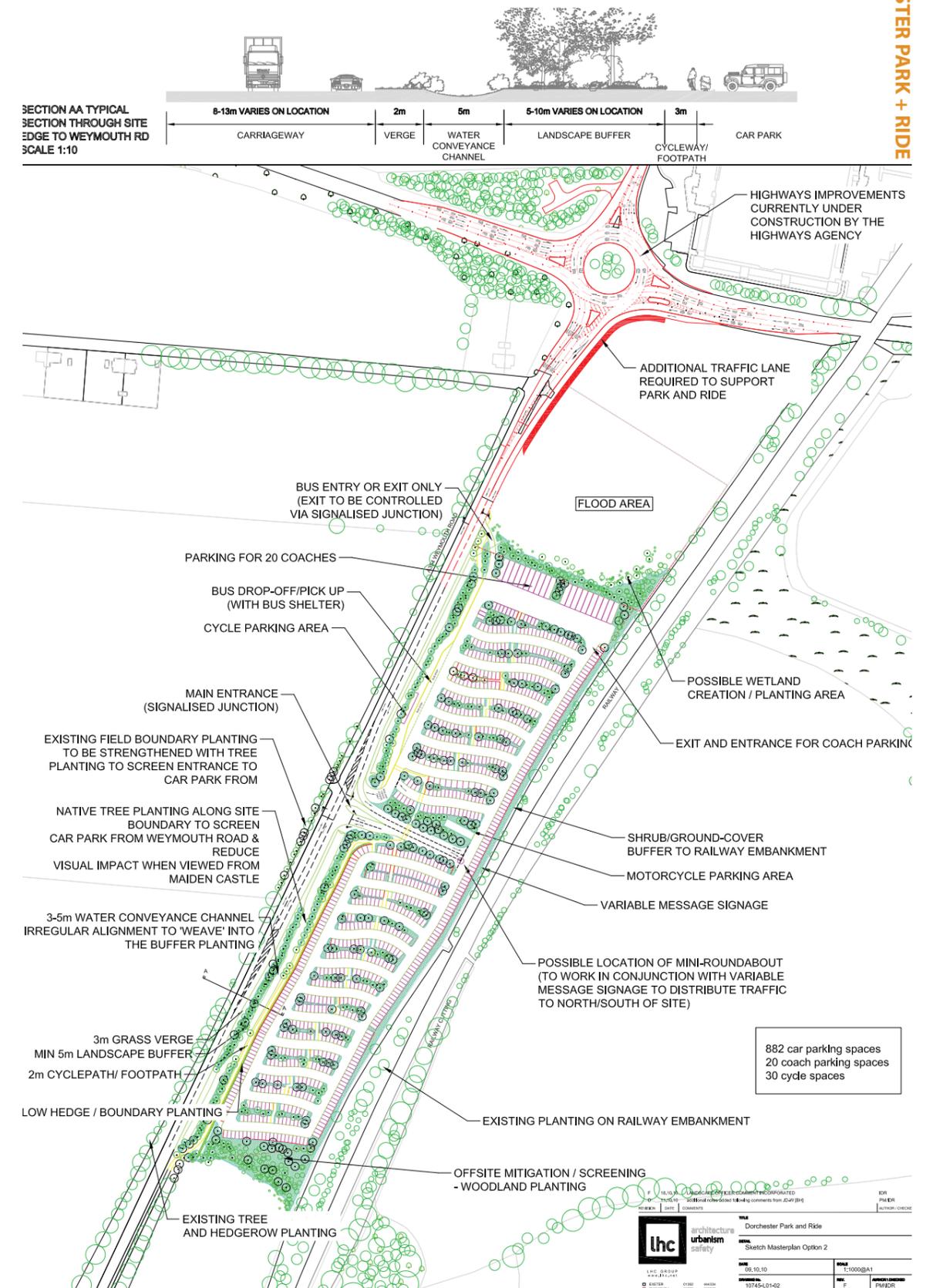
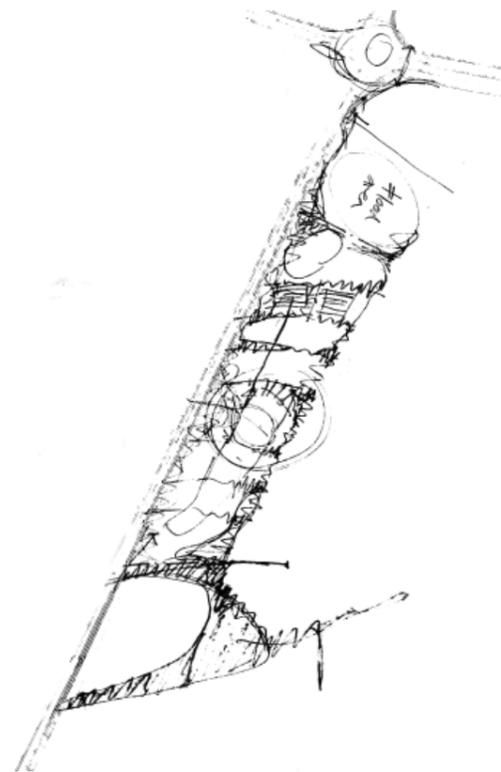
The layout has been developed along several key principles which are outlined in the following images and commentary. Analysis of the site has enabled 4 Masterplan Drivers to inform the plan layout through 4 Key Responses.

## Masterplan Drivers

- Flooding
- Site Capacity
- Landscape Quality
- Topography

## Key Responses

- Terraces and Drainage
- Movement Efficiency
- Landscape Mitigation
- Ecology



# MASTERPLAN DRIVERS

## FLOODING

The site incorporates an area that is prone to flooding, due to the flow of an ephemeral stream through the site from south-west to north-east.

This means that the available buildable land has been reduced.

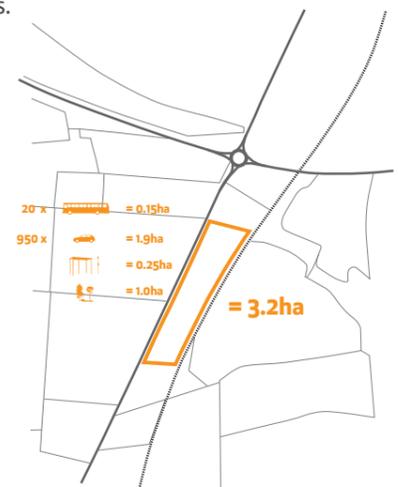


## SITE CAPACITY

The requirements for the site are the provision of:

- 950no. car parking spaces
- 20no. coach parking spaces
- Pick-up point for the P&R bus
- Area or small building for cycle storage, lockers, etc.

Due to the setting of the development, there is also a need for substantial areas of soft landscaping within the site, as well as on-site infrastructure such as pedestrian areas and cycleways.



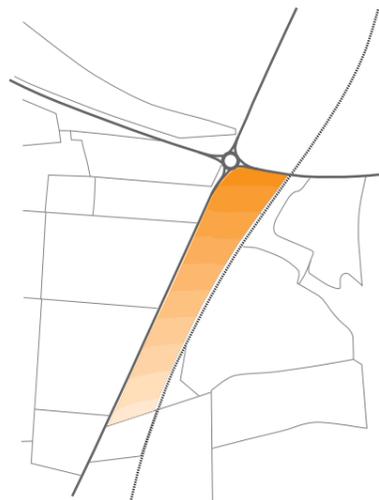
## LANDSCAPE QUALITY

The site sits within an Area of Outstanding Natural Beauty (AONB) and is overlooked by Maiden Castle to the west (a Scheduled Ancient Monument). The surrounding countryside generally consists of open, arable land with large fields bounded by hedgerows.



## TOPOGRAPHY

There is a gradual fall in the land from the south of the site to the north, thus making any development to the south of the site much more visually prominent. This fall in landform also means that there is a natural drainage flow that should be retained within any proposed scheme.



# KEY RESPONSES

## TERRACES & DRAINAGE

By rationalising the topography into terraces the most efficient layout of spaces can be attained, whilst also providing a legible movement structure. Through paying special attention to changes in level these terraces can incorporate means of sustainable drainage (eg SUDS).



## MOVEMENT EFFICIENCY

Due to the linear nature of the site it is imperative that the networks of vehicle and pedestrian movement are laid-out as efficiently as possible. The entrance to the site has been located centrally in order to minimise pedestrian travel distances whilst the road network has been laid out in order to minimise the distance a motorist should drive in order to find a free space.



## LANDSCAPE MITIGATION

In order to minimise the visual impact of the proposal on the surrounding landscape, extensive areas of soft landscaping have been incorporated into the scheme. The areas of hard-standing within the scheme that would traditionally be asphalt should be constructed from materials that reflect the rural setting of the site.



## ECOLOGY

The new areas of soft landscaping should have a positive impact on the local ecology. The linking of existing areas of planting will strengthen existing migration routes (e.g. bat-corridors) and through the careful design of sustainable drainage and attenuation there is opportunity to provide a area of wetland habitat.



# THE ILLUSTRATIVE MASTERPLAN

The Illustrative Masterplan responds to the key constraints and drivers by creating a legible and ordered layout based around the landscape and topography. The capacity is constrained by the shape and topography on the site and is unable to achieve 950 car parking spaces with 20 coach parking spaces. The site achieves 853 spaces with the required coach parking and cycle / motorcycle storage. Possibilities for expansion of the site lie to the south though this area becomes more visually sensitive with access and movement within the compromised.

## LAYOUT

The linear nature of the site requires careful consideration of the nature of the planting and arrangement of movement and parking within the space. The parking has been arranged to provide cross routes within the site which link to the distributor routes. These have been designed to be organic in layout rather than linear in order to provide interest and rhythm to the layout but more importantly to allow the planting to appear more naturalistic in its arrangement when viewed from outside the site and against the context of the surrounding landscape.

The existing cycleway has been brought into the site to provide a safer, more attractive route to Dorchester and to link into the park and ride network into the town centre. By moving this route away from the busy Weymouth Road it becomes a more attractive method of travel. Cycle parking can be provided within the site adjacent to the bus stop. This would be in the form of secure, lockable cycle parking units.

20 coach parking spaces have been located at the lowest point of the site (to the north), screened by the adjacent planting

Motorcycle parking is provided at the end of the main access road into the site with spatial provision for this to be secured / covered parking.

## MOVEMENT AND ACCESS

The layout has been developed to provide an efficient movement system for users and the buses servicing the site. There are two options for bus access into the site.

- Buses enter the site through the main entrance at the mid point of the frontage and exit the site through a dedicated signalised junction to the north reducing the potential impact on travel time caused by traffic using the Weymouth Road.
- Alternatively, buses can enter from Weymouth Road and exit via the main access. This removes the necessity for additional traffic signals on Weymouth Road.

Internal movement through the site is via the main distributor routes which run along the eastern and western edges of the site. These routes are linked by cross links.

## LANDSCAPE

The development is screened effectively through planting areas to the key boundaries (along the Weymouth Road, the north and to the south) which has been laid out to respect the local landscape context of stands of woodland and field patterns with hedgerow boundaries. Opportunity also exists for the creation of further woodland to the north of the site which would link into the adjacent woodland areas

The site sits within the route of a local ephemeral stream which flows across the site from the west to the lower ground at the north of the site. The area immediately adjacent to the northern boundary of the site is subject to flooding and is not included as part of the overall development area although possibilities for offsite landscape and ecological mitigation through the formation of a wetland or as wet woodland planting could be employed here. The water is directed along the western boundary of the site within a natural swale. This will be planted at its edges and form part of the verge to the Weymouth Road.

Planting on the boundaries and within the site should be native planting, to provide enhancement to local habitat

and ecology provision and to assist in reinforcing / creating fauna movement corridors.

## MATERIALS

The layout has been designed to utilise materials in a robust and rational fashion providing a high quality park and ride site which respects and responds to the needs and demands of users. To minimise the visual impact it is preferable that the minor access roads will be block paving with the main access routes (north-south) being laid in asphalt. Asphalt could be used to respond to the demands placed on the surfacing materials where buses and coaches are directed.

Prefeably footpaths and cycle-ways within the site will be surfaced with bound gravel or a similar low key natural surfacing with key pedestrian waiting areas and at the bus stops being paved in high quality concrete pavers.

Again, preferably car/coach parking bays would be permeable modular grid system, ecoblock or similar with a granular infill with soil/grass infill for bays at furthest distance from the main entrance (to the south) . These are

likely to be used last and therefore potentially the most visible within the landscape for longer periods during the day.

## TOPOGRAPHY

The site rises from the north to a high point at the south-eastern corner. The higher points of the site will be more visible and therefore need a careful landscape mitigation strategy to ensure that the development will not be visible from Maiden Castle and other areas. As part of the design strategy the site could be 'stepped' to form terraces which will have a gentle gradient to allow the water / runoff to be channelled into a sealed SUDS system for attenuation into the groundwater (see hydrology report for information). The layout also allows for the site to respond closely to the gradient on site with the SUDS system being contained within the parking areas as a sealed system allowing.



# THE ILLUSTRATIVE MASTERPLAN



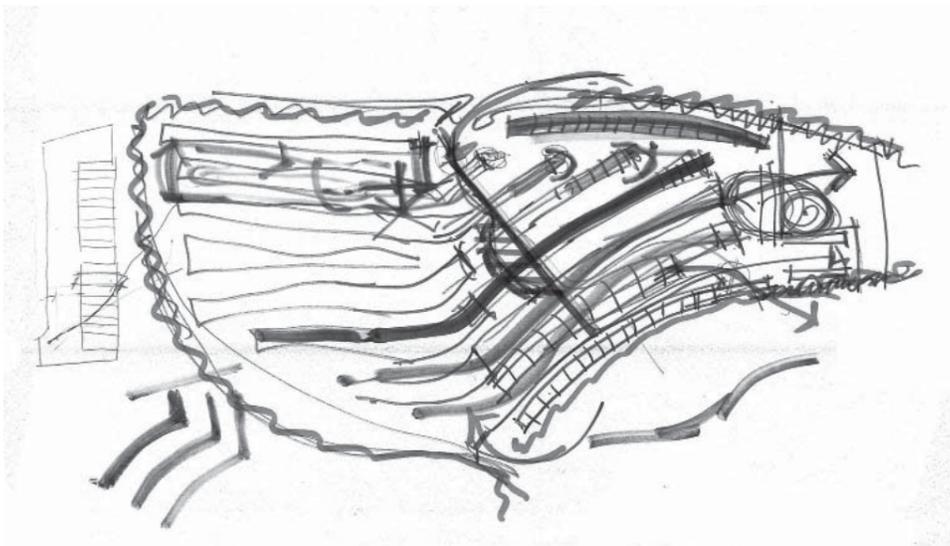
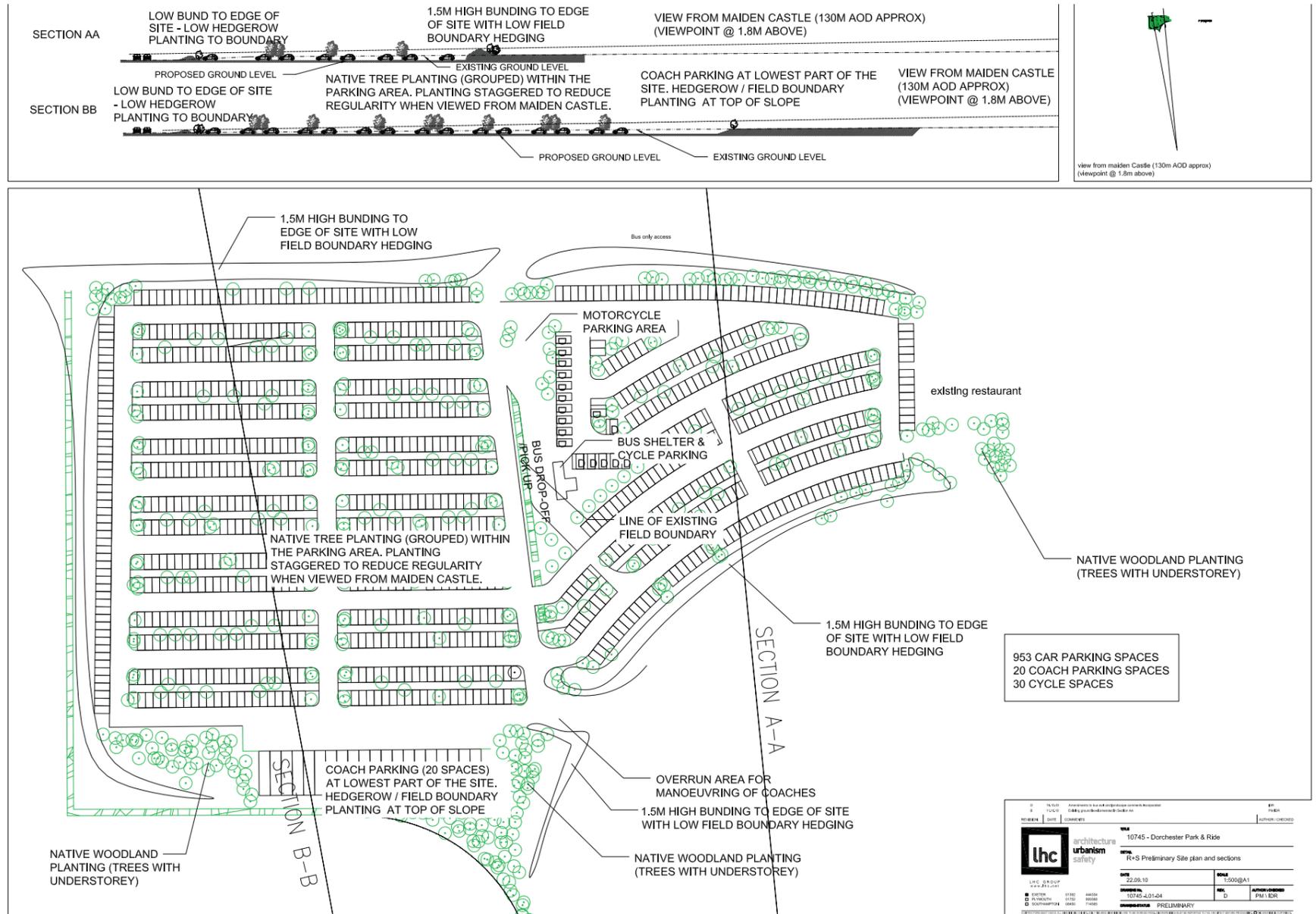
# MONKEYS JUMP SITE SR - PROCESS

The illustrative masterplan has been developed to respond to the local context, taking into account the wider context of Dorchester and the surrounding landscape. The landscape and setting of Site SR allows for a considered and measured response to be formulated on the site providing an efficient use of the site area and internal movement.

The site is located to the west of Dorchester adjacent to the A35, lying south of the A35 and adjacent to the main Dorchester / Poundbury roundabout. It can be viewed from Maiden Castle against the backdrop of the wider setting of the A35 and landscape in the distance and the open fields in the foreground. The edges are formed by low hedgerow field boundaries. Immediately to the east of the site is an existing McDonald's restaurant and parking enclosed by woodland planting further to the east.

The site rises up from the A35 to a low ridgeline that runs through the site. The A35 runs alongside the site maintaining an even level (approx 98m AOD) with a 5-10m wide grass verge between the site and the road.

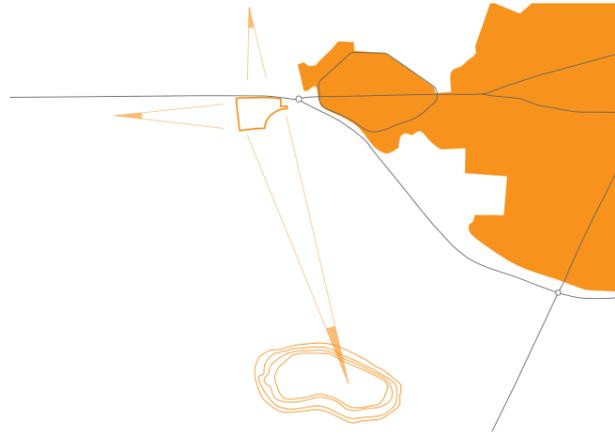
The layout has been developed along several key principles which are outlined in the following images and commentary. Analysis of the site has enabled 4 Masterplan Drivers to inform the plan layout through 3 Key Responses.



# MASTERPLAN DRIVERS

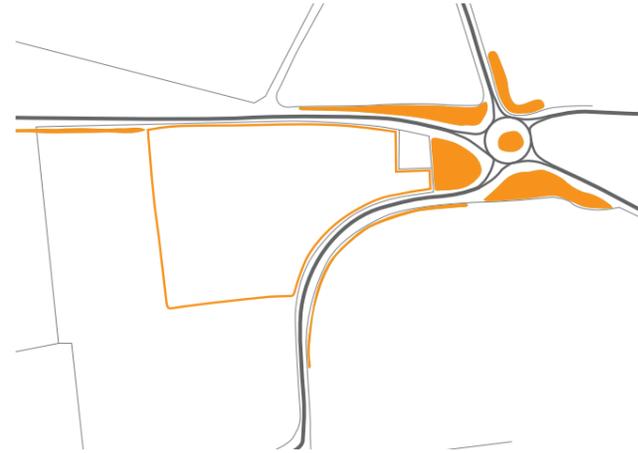
## VIEWS

The site is highly visible from Maiden Castle, the west (along the A35) and from the north at Charlton Down. The sensitivity of these views require consideration of suitable mitigation strategies based on local character and precedent. The site is set within an area of open fields with a broken backdrop of woodland planting to the north.



## LANDSCAPE QUALITY

The site sits within an Area of Outstanding Natural Beauty (AONB) and is overlooked by Maiden Castle from the south (a Scheduled Ancient Monument). The surrounding countryside generally consists of open, arable land with large fields bounded by hedgerows.

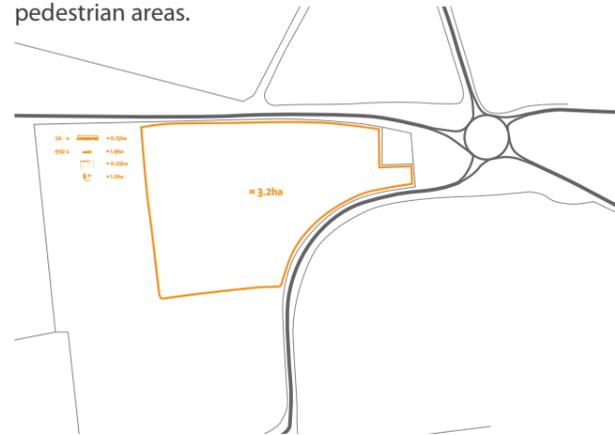


## SITE CAPACITY

The requirements for the site are the provision of:

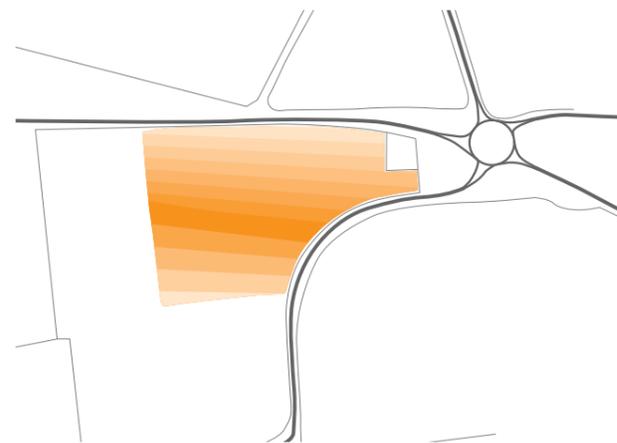
- 950no. car parking spaces
- 20no. coach parking spaces
- Pick-up point for the P&R bus
- Area or small building for cycle storage, lockers, etc.

Due to the setting of the development, there is also a need for substantial areas of soft landscaping within the site and its boundaries, as well as on-site infrastructure such as pedestrian areas.



## TOPOGRAPHY

The site rises gently to the south with a ridgeline running through the centre of the proposed site area. The land to the southern side of the site is higher than the A35 to the north.

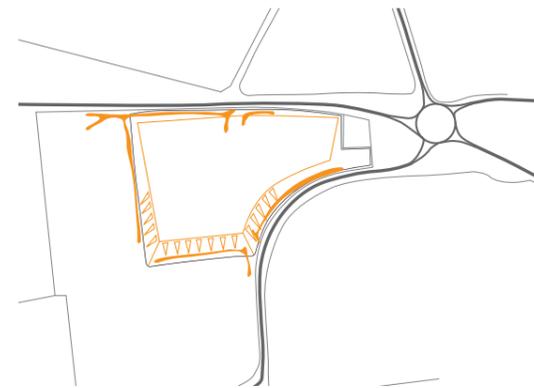


# KEY RESPONSES

## BUNDS AND CUTTING

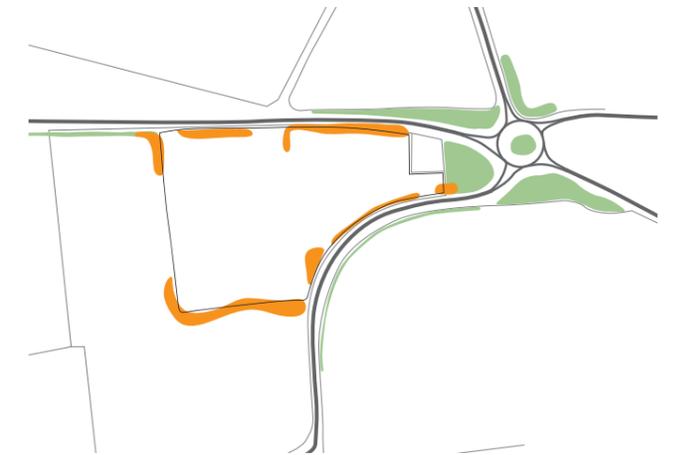
The site requires screening from the external views to the south west and north. Bunds and planting will assist in placing the development within the sensitive landscape. Cutting into the landscape, providing a level development area and utilising the natural rising ground to shield the development area from the north will seek to minimise the visual disturbance to the landscape.

The bunds can make reference to the local landscape and historic monuments in the area.



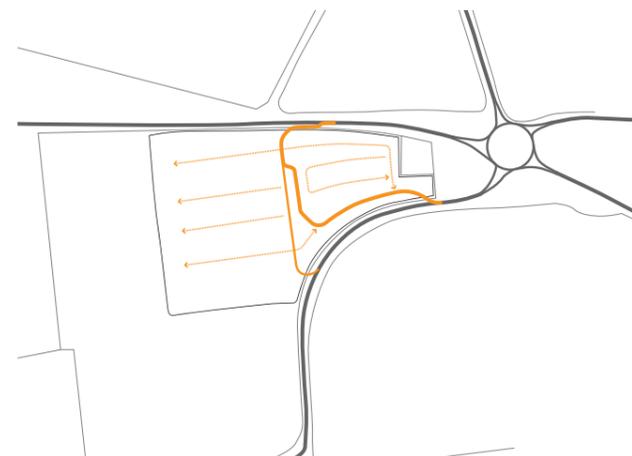
## LANDSCAPE MITIGATION

In order to minimise the visual impact of the proposal on the surrounding landscape, extensive areas of soft landscaping have been incorporated into the scheme. The areas of hard-standing within the scheme that would traditionally be asphalt should be constructed from materials that reflect the rural setting of the site.



## MOVEMENT EFFICIENCY

Due to the spatial nature of the site it is imperative that the networks of vehicle and pedestrian movement are laid-out as efficiently as possible to minimise the site area as far as possible. The entrance to the site has been located centrally in order to minimise pedestrian travel distances whilst the road network has been laid out in order to minimise the distance a motorist should drive in order to find a free space.



## THE ILLUSTRATIVE MASTERPLAN

The Illustrative Masterplan responds to the key constraints and drivers by creating a legible and ordered layout based around the landscape and topography. The site capacity is unconstrained by the surrounding landscape and therefore able to achieve the required numbers of spaces. Opportunity for expansion exists on this site though careful consideration of the impact this may have on the surrounding landscape would be required to facilitate this.

### LAYOUT

The flat nature of the site requires careful consideration of the nature of the planting and arrangement of movement and parking within the space. The parking has been arranged to provide cross routes within the site which link to the distributor routes. These have been designed to follow the southern edge of the site reducing the possibility of the planting and layout appearing as a traditional linear development on the landscape. It will add rhythm to the layout but more importantly to allow the planting to appear more naturalistic in its arrangement when viewed from outside the site and against the context of the surrounding landscape.

The existing cycleways can be linked into the site and provide a key transport hub for transfer into the town centre. Cycle parking can be provided within the site adjacent to the bus stops. This would be in the form of secure, lockable cycle parking units.

20 coach parking spaces have been located at the lowest point of the site (to the south), screened by the planting and bunding. The levels achieved here will allow the coach parking to be effectively screened from the south.

Motorcycle parking is provided at the end of the main access road into the site with spatial provision for this to be secured / covered parking.

### MOVEMENT AND ACCESS

The layout has been developed to provide an efficient movement system for users and the buses servicing the site. Buses enter the site through a dedicated bus only entrance at the mid point of the A35 frontage and exit the site through a dedicated signalised junction to the south east. Cars and coaches access and exit via a single access point from the roundabout on the A35 via minor road to the south. Internal movement through the site is via the main distributor routes which run around the edges of the site. These routes are linked by minor cross links.

### LANDSCAPE

The development is screened effectively through planting and bunding to the key boundaries (to the west, the north and to the south) which has been laid out to respect the local landscape context of stands of woodland and field patterns with hedgerow boundaries.

Planting on the boundaries and within the site should be native planting, to provide enhancement to local habitat and ecology provision and to assist in reinforcing / creating fauna movement corridors.

### MATERIALS

The layout has been designed to utilise materials in a robust and rational fashion providing a high quality park and ride site which respects and responds to the needs and demands of users. To minimise the visual impact the access roads should be block paving with the coach access routes being laid in asphalt. Asphalt will be used to respond to the demands placed on the surfacing materials where buses and coaches are directed. Footpaths and cycle-ways within the site should also be surfaced with bound gravel or a similar low key natural surfacing with key pedestrian waiting areas and at the bus stops being paved in high quality concrete pavers.

Preferably, car/coach parking bays should be permeable modular grid system, ecoblock or similar with a granular infill, with soil/grass infill for bays at furthest distance from the main entrance. These are likely to be used last and therefore potentially the most visible within the landscape for longer periods during the day.

### TOPOGRAPHY

The site rises from the north to a high ridge point within the site before falling slightly to the south again. The site is located within a generally flat landscape though is able to utilise the localised topography to screen the development. By cutting into the landscape and forming a level site area the development can be screened from the south as this will provide an approx 2m level change along the southern edge.



# THE ILLUSTRATIVE MASTERPLAN

