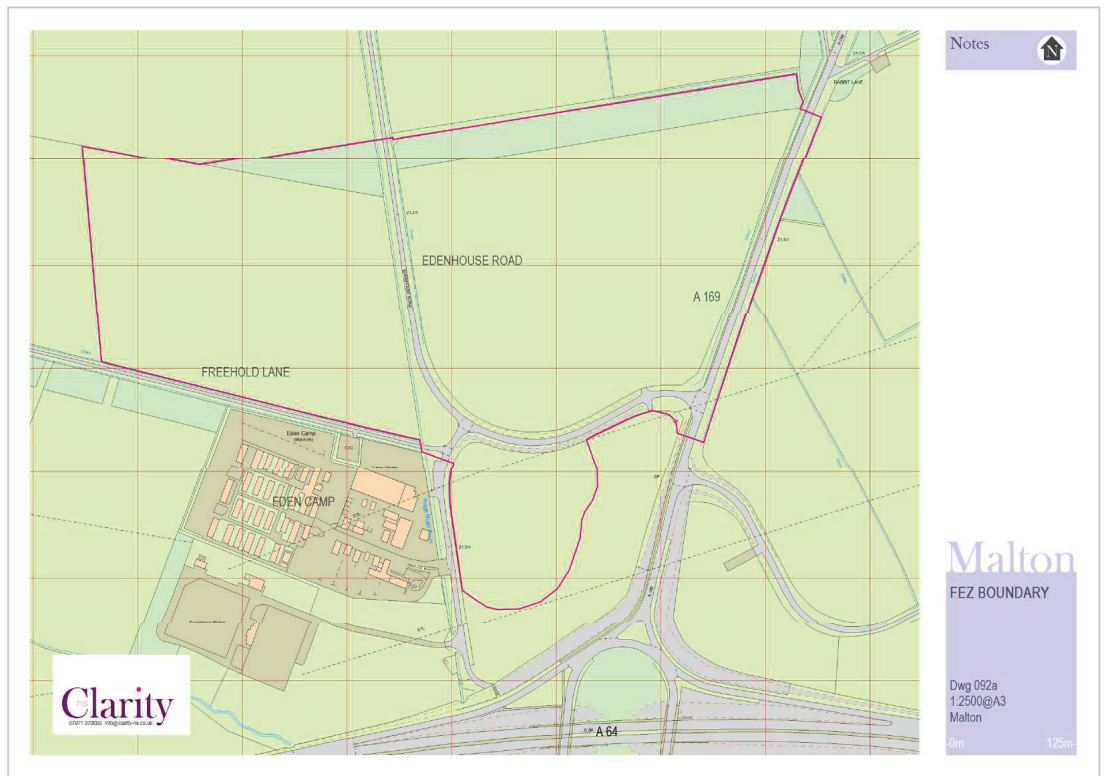


# MALTON FOOD ENTERPRISE ZONE

LOCAL DEVELOPMENT ORDER  
DESIGN CODE



9th December 2016

# INTRODUCTION

This design code forms part of the Malton Food Enterprise Zone Local Development Order (LDO) and should be read in conjunction with it. The purpose of the Design Code is to:

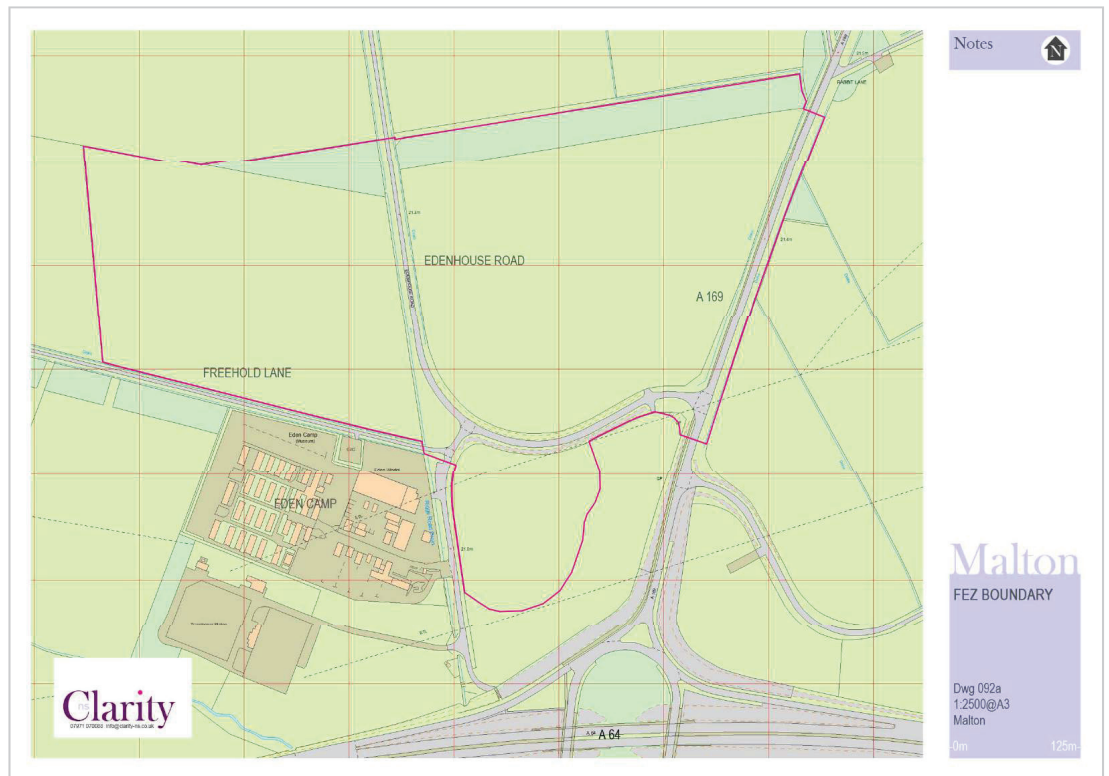
- Guide the strategic form and layout of the land within the LDO with reference to a development masterplan including building zones, access roads and landscaping
- Achieve a high quality development through a co-ordinated approach to building design, appearance, car parking and servicing provision
- Provide clarity to landowners, developers and businesses as to the form and type of development that is permitted by the LDO
- Set out specific design requirements, protocol and parameters where appropriate

For clarity, the Code is divided into six sections:

- 1-Plots and Building Design Standards
- 2-Roads, Parking and Access
- 3-Landscaping
- 4-Site Drainage
- 5-Construction Methods
- 6-Archaeology

#### Revision of the Design Code

As the Design Code forms part of the LDO, it is subject to the same provisions. A local planning authority can revoke an LDO at any time in which case the Design Code will cease to have effect. If a local planning authority wishes to modify an LDO, re-consultation will be necessary in accordance with the prescribed regulations.



The Malton FEZ Site

# 1 PLOTS AND BUILDING DESIGN STANDARDS

## 1.1 Masterplan

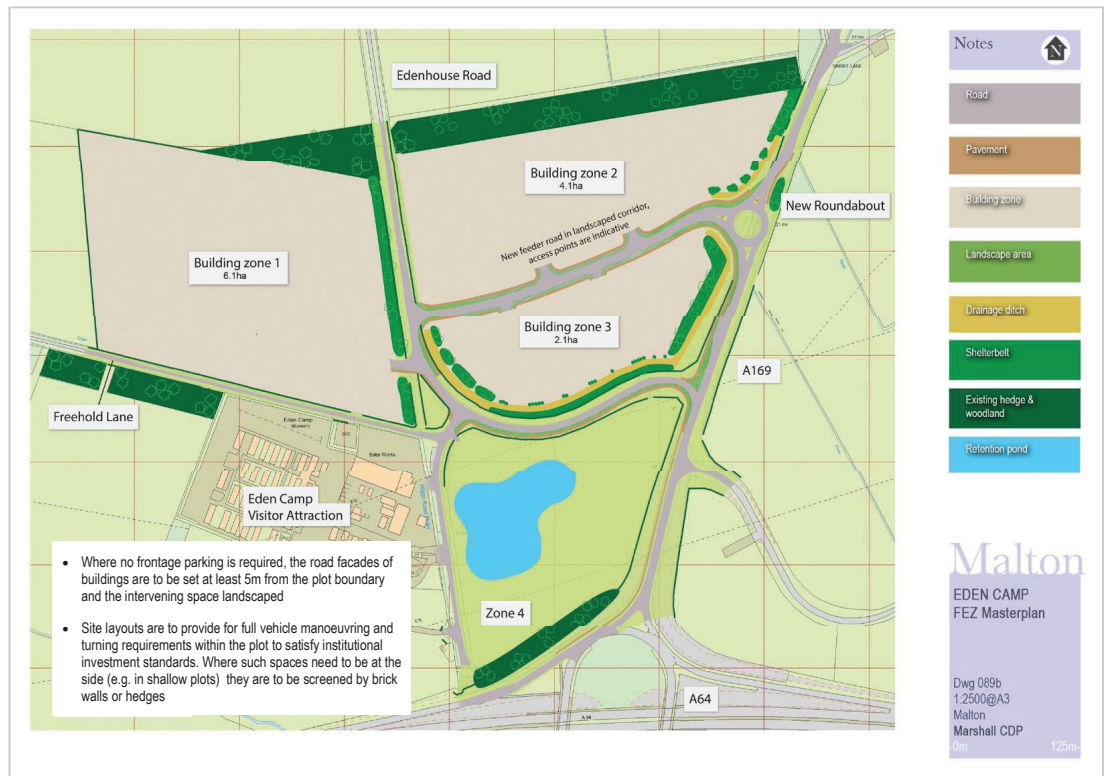
For the purposes of this Design Code, detailed illustrative layouts were felt to be too prescriptive: building sizes - and their required plots - will be determined by market demand. A Masterplan has therefore been developed which shows overall building zones rather than individual plots. These zones have effectively been defined by a combination of:

- Site access positions and internal distributor roads (these are described in detail in Section 2)
- The landscaping strategy (including existing hedges and woodland, new planted perimeter buffer zones and green corridors containing internal roads and paths, all described in detail in Section 3)
- The SUDS drainage strategy including perimeter ditches and major retention ponds, all described in more detail in Section 4. Please note that there will be a series of retention ponds or large ditches in Building Zone 1, but their precise type and disposition has not yet been concluded

Some major utilities also cross the sites and will impinge on development. These are shown in detail in Section 4- Services.

## 1.2 Plot Layout

- In principle, the public entrances to all buildings should face the estate roads in order to present the best aspect to the public realm, and bring as much life and passive supervision to these areas as possible
- Parking provision sufficient for the projected use (both staff and visitors/customers) should be included within each plot; parking on the estate roads will be discouraged
- Relatively small areas of parking in front of buildings will be permitted, but larger areas of parking and service areas should be concealed at the rear. Large areas of frontage parking destroy the character of the communal roadways and landscaped spaces and will be resisted



- Where no frontage parking is required, the road facades of buildings are to be set at least 5m from the plot boundary and the intervening space landscaped
- Site layouts are to provide for full vehicle manoeuvring and turning requirements within the plot to satisfy institutional investment standards. Where such spaces need to be at the side (e.g. in shallow plots) they are to be screened by brick walls or hedges

# 1 PLOTS AND BUILDING DESIGN STANDARDS

## 1.3 Building Design

It is important that, as a focus of the FEZ, the Eden Camp project is a suitably attractive and good quality development. One of the downfalls of industrial and business parks can lie in the uncoordinated nature of the building designs and their poor quality setting. Section 1.2 dealt with plot layout and Section 3- Landscape Design will outline how the communal areas will be treated to create a good public environment. Although variety and creativity in the design of individual buildings is to be encouraged, the aim of the following guidelines is to ensure that the development has an harmonious overall appearance:

- All of the buildings will have hipped roofs, in either artificial slate or dark grey standing seam metal, and make extensive use of buff brickwork, well detailed and of a good quality
- In Zones 2 & 3 - the most public side of the development - good quality, grey-finished, aluminium cladding panels could be introduced
- In Zone 1 areas of natural timber cladding may be introduced to reflect the site's more rural position
- Window frames will be in grey or black timber, steel or aluminium
- Building heights will range up to 11m to the ridge in Zones 1 & 2 and 13m to the ridge in Zones 3 & 4
- Lighting should be restrained but meet relevant standards
- Signage should also be restrained. Prospective occupiers will need to check whether advertisement consent is required for any proposed signage
- All common areas will be designed to cater for those with physical and mental challenges, putting them on an equal level with more able-bodied people. It is expected that the designers and developers of individual plots will take a similar approach and ensure compliance with all equality legislation
- Developers are encouraged to make sustainability and the efficient use of energy a high priority



Artificial slate roofing and cladding fits a modern building into its context



Timber cladding maintains a rural feel on an industrial building



Well-detailed buff brickwork will bring consistency to the site



Good quality cladding panels raise the standard above the normal industrial park

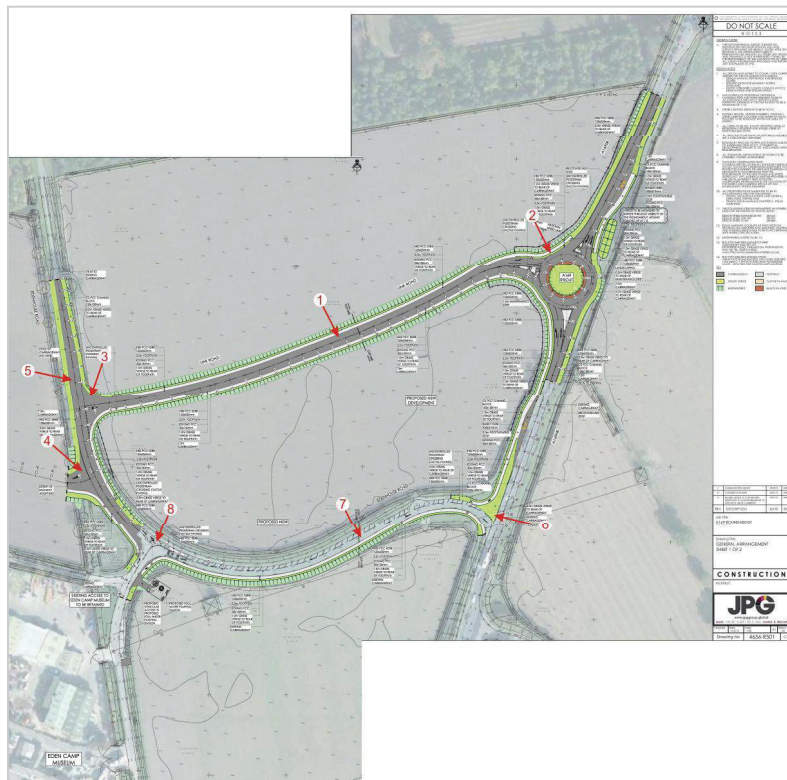


## 2 ROADS, PARKING AND ACCESS

### 2.1 Vehicular Access

Vehicular access to the site is shown on the JPG drawings 4656-R501 rev C and 4656-R502 rev B which include the following elements:

1. A new link road connecting the A169 and Edenhouse Road, located between Building Zone 2 and Building Zone 3
2. A new roundabout junction connecting the link road to the A169, located to the north of the current Edenhouse Road / A169 junction.
3. A priority junction arrangement between the link road and Edenhouse Road, at the western end of the link road.
4. A priority junction access into Building Zone 1 from Edenhouse Road, to the south of the link road / Edenhouse Road junction.
5. Edenhouse Road widened in the vicinity of the link road and Building Zone 1 access junctions.
6. The existing A169 / Edenhouse Road junction modified to permit left turn-in-only vehicle movements.
7. Edenhouse Road one way (westbound) between the A169 and the Eden Camp visitor attraction access.
8. The Edenhouse Road / Eden Camp visitor attraction access junction modified to permit left and right inbound manoeuvres, and left turn-out only.



# 2 ROADS, PARKING AND ACCESS

## 2.2 Visibility Splays

- Manual for Streets (MFS) 1 and 2 provide guidance in relation to the calculation and construction of visibility splays and envelopes, Figure 10.1 and Figure 10.2 from MFS2 provide diagrams indicating how these elements can be provided. NYCC standards must be met where appropriate.
- Visibility splays at junctions will be provided with an X distance (setback from the give-way line) of 2.4m, and a Y distance (clear sight line along the major road) appropriate to the design speed of the road.
- Visibility splays will be measured to the nearside edge of the kerb where possible, otherwise this will be to the nearside vehicle track, in accordance with MFS2 paragraph 10.5.3.
- Visibility in the vertical plane shall be provided between an Eye height of 1.05m to 2m, and an Object height of 0.6m to 2m, in accordance with MFS2 paragraph 10.2.3 and 10.2.4, and the diagram below.

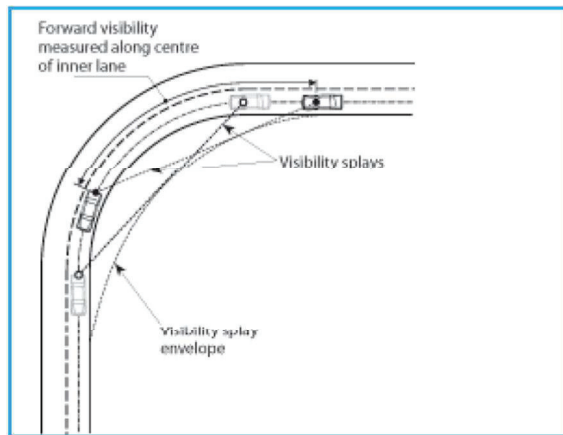


Figure 10.1 - Measurement of forward visibility

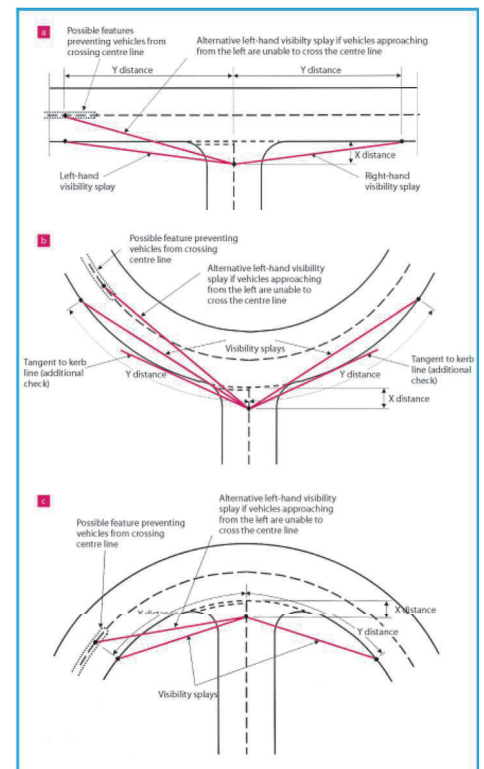
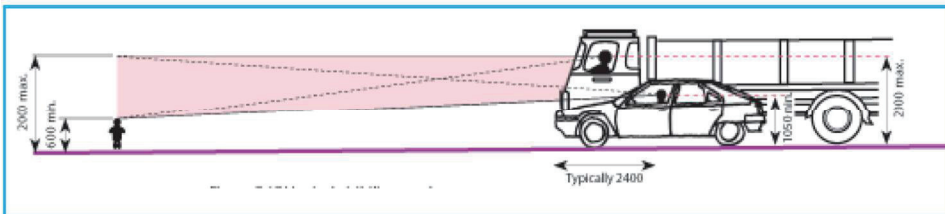


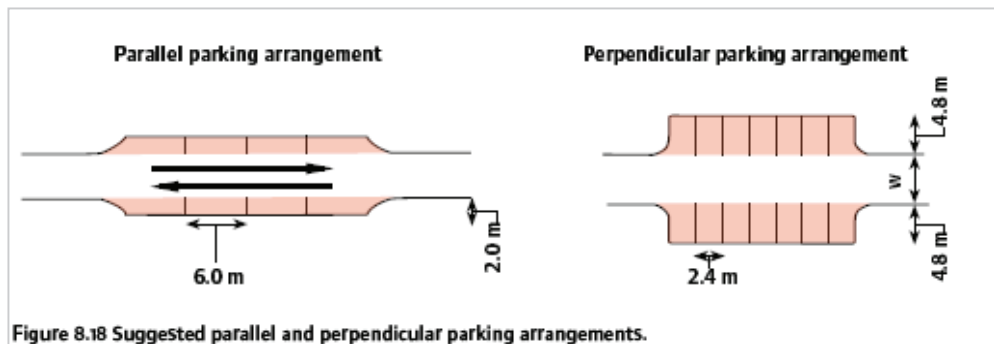
Figure 10.2

## 2 ROADS, PARKING AND ACCESS

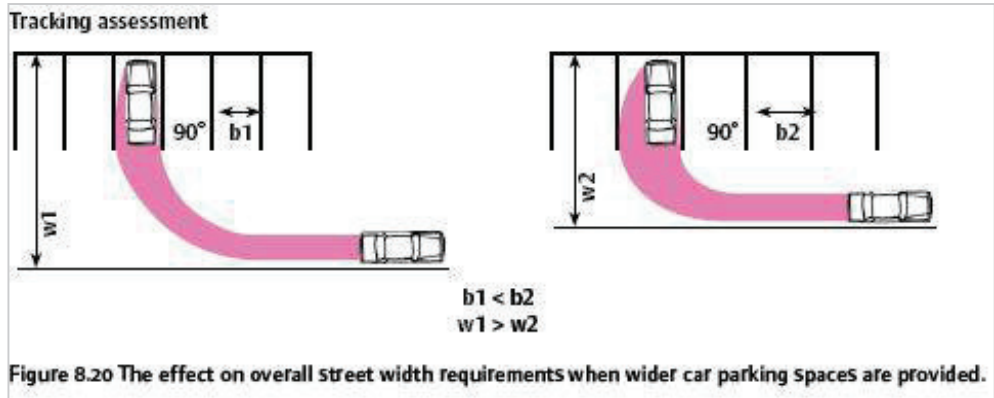
### 2.3 Parking

Car parking will be provided in accordance with local and NYCC standards as appropriate, having regard to the Ministerial Statement delivered on 25th March 2015 and to the specific operator's requirements for each development plot.

- Parking layout will be determined for each development plot on a case by case basis, having regard to operator requirements, but broadly following the approach set out below:
- In order to create an attractive environment only small areas of visitor parking may be located at the front (road side) of the buildings, with the rest at the side or rear
- Minimum car parking space size of 2.4m x 4.8m for perpendicular parking arrangements, and 2m x 6m for parallel arrangements, as indicated at Figure 8.18 of MIS1.
- Aisles will be generally at least 6m wide for two-way aisles, although this can be reduced if parking bays are made wider than the minimum dimensions. If necessary, the arrangement will be supported by swept path analysis, as indicated at Figure 8.20 of MIS1.



Cycle parking will be provided in accordance with local and NYCC standards as appropriate, having regard to specific operators' requirements for each development plot. These will be in the form of Sheffield hoops, or other dedicated cycle storage solutions.

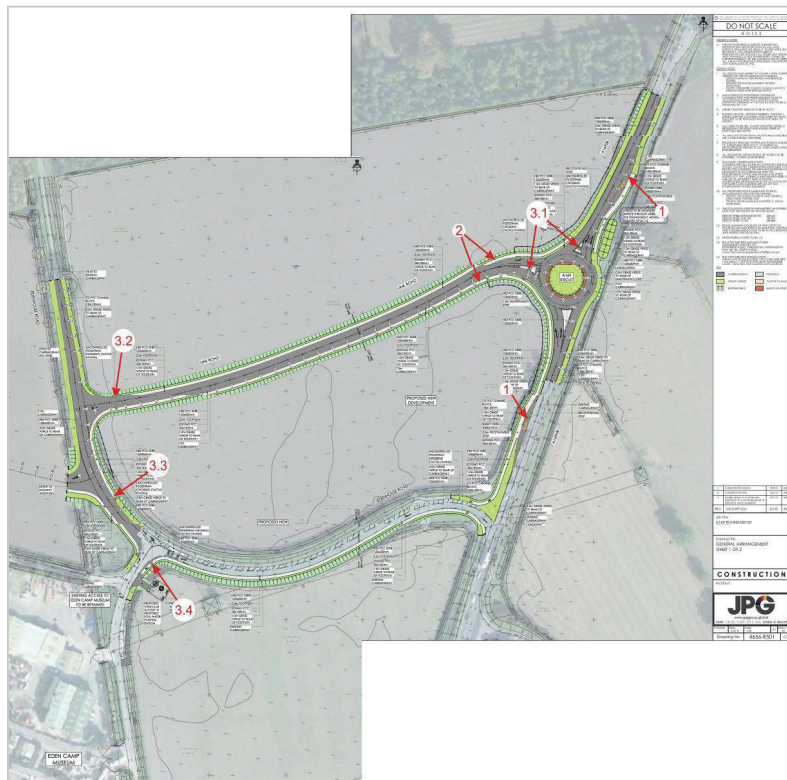


## 2 ROADS, PARKING AND ACCESS

### 2.4 Non-Car Access

In addition to the cycle parking provision, access to each development plot by non-car modes will be enhanced by the following elements:

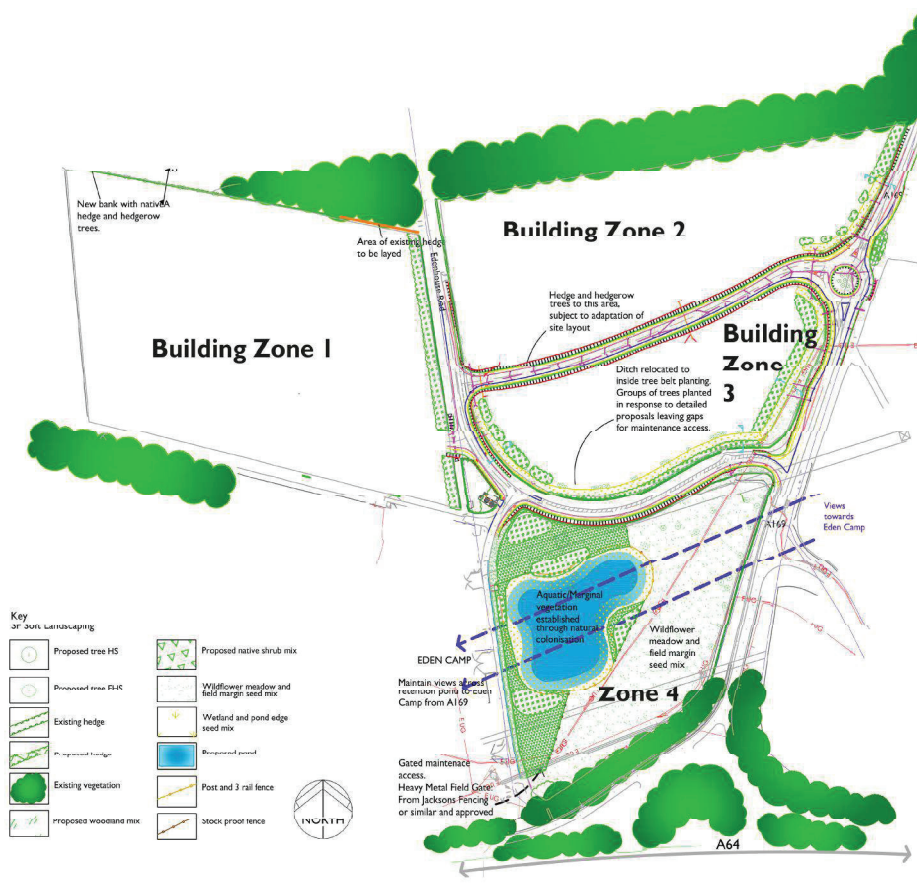
1. Bus stops on the approach to the A169 / Link Road roundabout.
2. Footway connections between the bus stops and the development plots.
3. Informal pedestrian crossings provided at:
  - 3.1 - The A169 / link road roundabout
  - 3.2 - The link road / Edenhouse Road junction
  - 3.3 - The Edenhouse Road / Building Zone 1 access junction
  - 3.4 - The modified Edenhouse Road / Eden Camp visitor attraction access.





## 3 LANDSCAPING

# Landscape Strategy



## AIMS AND OBJECTIVES:

### North of the proposed FEZ site:

- Existing woodland shelter belts are to be maintained and managed to ensure its long term future and retain wildlife habitats that already use the woodland.
- Established hedgerows will be retained and gaps in hedging to be filled as appropriate.

### West of Edenhouse Road (Building Zone 1):

- A landscape shelter belt approximately 10m wide, will be planted with native trees and shrubs will be created along the edge of the plot and Edenhouse Road. The landscape shelter belt will assist create habitats for wildlife and also provide some screening of the proposed development.

### East of Edenhouse Road (Building Zones 2 and 3):

- Groups of native trees and shrubs will be planted to form a shelter belt and screen to the development plots. The hedgerow will be replaced where required with the addition of hedgerow trees along the roadside. This will be planted in to allow maintenance access and in response to detailed plot development. The retention of glimpsed views through the site from the road is important.
- Future development will be accessed by a series of spine roads. These roads will run through 'green' corridors, with informal hedge and tree planting designed to complement the existing rural landscape character and help to create habitats for wildlife.

### Southern area, opposite Eden Camp (Zone 4):

- A large drainage attenuation pond, has already been implemented. Views are maintained across the site towards Eden Camp from the A169 and the A64 and provide a feeling of openness in this area.
- The retention pond in the field opposite Eden Camp will naturally colonise with aquatic and marginal vegetation. It provides an attractive landscape feature and is beneficial for wildlife.
- To the east of the southern field along the A169, the area will be seeded to create a hay meadow with some parkland scale trees.
- Tree and shrub planting will be implemented in the area around the pond to provide screening, enhance biodiversity and help integrate the development with the wider landscape.



Photograph of completed retention pond in the southern field opposite Eden Camp.

### Retention Ponds and Swales

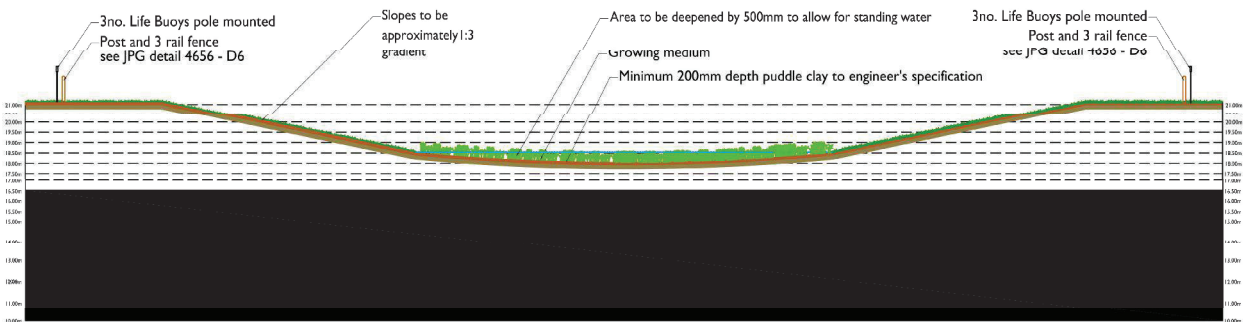
**LOCATION:** Throughout the site. This includes both retention ponds and swales. One large retention pond to the southern field, adjacent to Eden Camp has already been constructed, see photograph to the left, and further ponds will be included where necessary.

**AIM:** To create a sustainable drainage strategy across the site to accord with NYCC SUDs Design Guidance.

- There will be a sustainable drainage system, including swales and balancing ponds throughout the development. These will become landscape features and part of the 'green corridors' that run throughout the site.
- Balancing ponds will be functional but also provide an important opportunity to create a naturalistic aesthetic to assist the development to sit comfortably within the existing agricultural landscape context.
- The surface water retention pond within the southern plot has now been constructed. This is naturalistic in appearance, with sculpted edges, wildflower seeding and is establishing marginal and aquatic vegetation through natural colonisation.

### Retention Ponds:

- Ponds will have grassed sides at a maximum of 1:3 slope, seeded with a wetland edge wildflower seed mix. They will be enclosed by a timber post and rail fence to prevent people from wandering into the area. The retention pond opposite Eden Camp demonstrates this approach.
- Areas of the pond would be excavated to a further depth of approximately 500mm to create an area of standing water and encourage habitat creation for a greater range of wildlife and biodiversity to inhabit the pond.



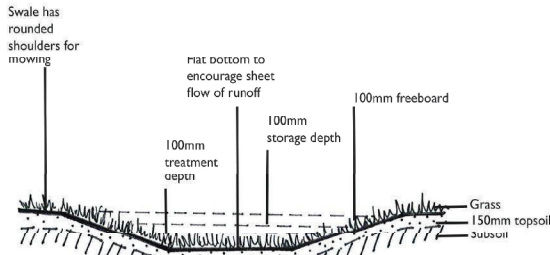
Illustrative section to show an example of the retention pond and associated soft landscaping and boundary treatment.



**Swales:**

- Swales will mainly be grassed ditches, sown with a wetland edge wildflower seed mix.
- Although an important part of the drainage structure, the swales will become attractive features within the landscape.
- Swales will become part of the 'green corridors' that run across the site and should encourage wildlife and biodiversity and help towards fulfilling the habitat creation aims for the site.

**Grassed Swales**



Illustrative section to show a grassed swale



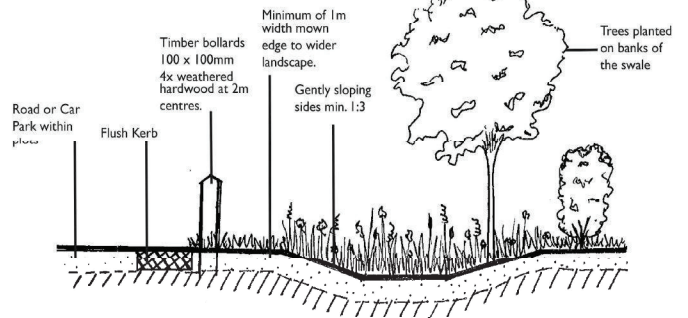
Elvetnam Heath, Cambridge

- Grassed swales will be located adjacent to roads and hard landscaped areas, where there is no space, or requirement for a hedge or tree planting.
- These will be sown with a wetland meadow mix such as John Chambers 80/20 Heritage Wetland Wildflower Mix (130JC4112A), or equal and approved.



Existing Drainage ditch on site

**Planted Swales**



Illustrative section to show a planted swale



Elvetnam Heath, Cambridge



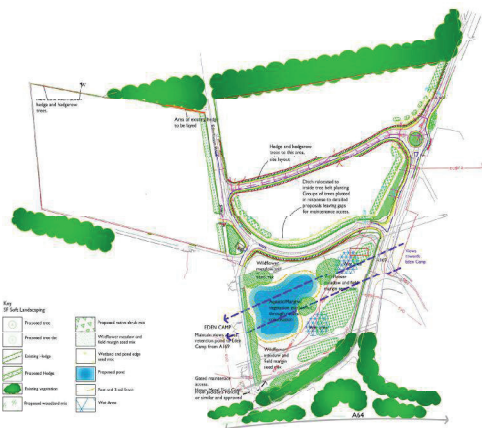
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Sudds for Roads, WSP Development and Transportation

- Planted swales would become a feature of the landscape where there is more space.
- These would be sown with a wetland meadow mix such as John Chambers 80/20 Heritage Wetland Wildflower Mix (130JC4112A), or equal and approved.
- Native trees and hedgerows will be planted along the swale to provide interest and biodiversity in accordance with the habitat creation measures listed above.
- Clef timber knee rails or fences will act as a barrier where appropriate.



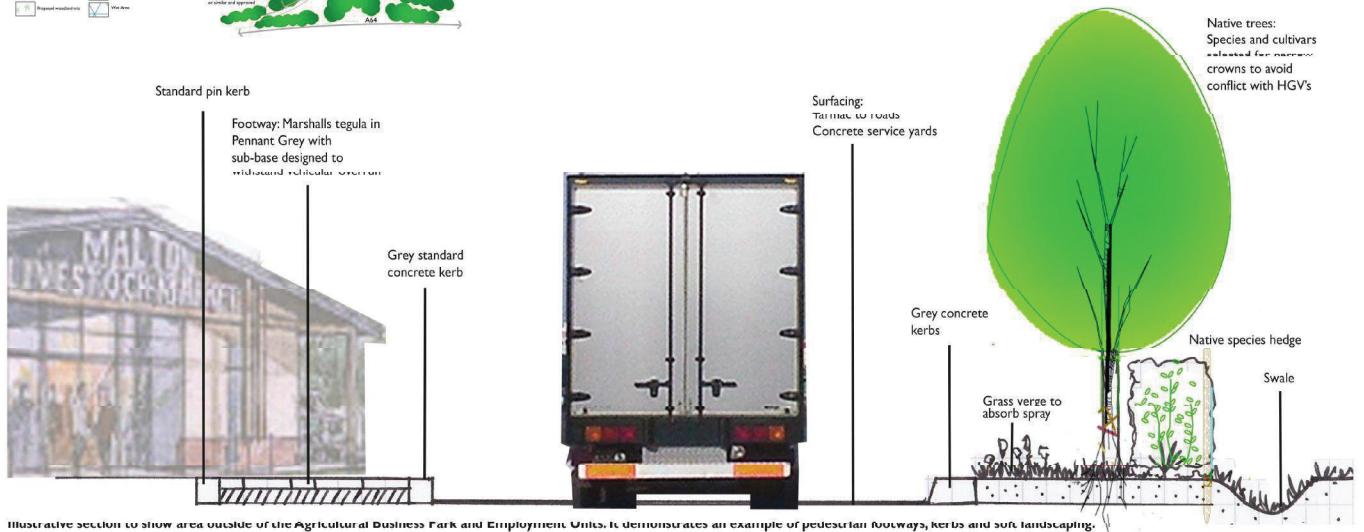


## Agricultural Business Park and Employment Units

**LOCATION:** Western site, accessed from Edenhouse Road.

**AIM:** Development of a new agri-business units associated with the Malton Food Enterprise Zone. The development will include a sustainable urban drainage system, green corridors and provide appropriate robust detailing for heavy vehicular usage.

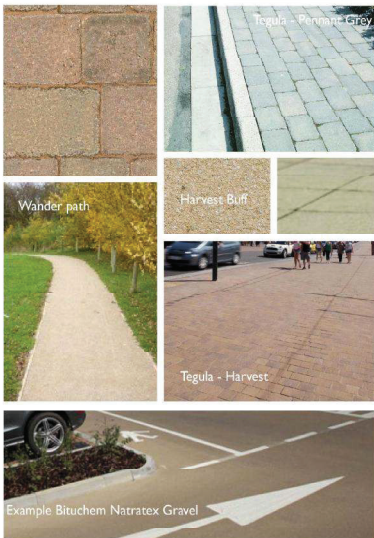
- Buildings will be clad in timber to reflect the sites more rural uses.
- Communal, occasional car-parking would be provided as a gravelled surface. Gravel surface will assist with the sustainable drainage strategy on site and also be in keeping with the rural aesthetic.
- Individual employment units will face onto the entrance roads and communal spaces where possible to ensure an attractive frontage. Service yards to the rear will be natural concrete. The landscape around the buildings will be naturalistic in style and consist of native hedgerows, wildflowers, with individual trees, planted as heavy standards.
- There will be green corridors throughout the site which will include swales and native, naturalistic planting to help the development sit within the context of the existing landscape. There will be a grass verge (minimum of 1m) to the edges of the distributor and spine roads to provide a neat, mown edge to the wider landscape and plots will be planted with a mix of native trees, hedges and wildflowers.
- Signage is to be included in a variety of materials but should provide continuity and linkages across the site.



Illustrative section to show area outside of the Agricultural Business Park and Employment Units. It demonstrates an example of pedestrian footways, kerbs and soft landscaping.

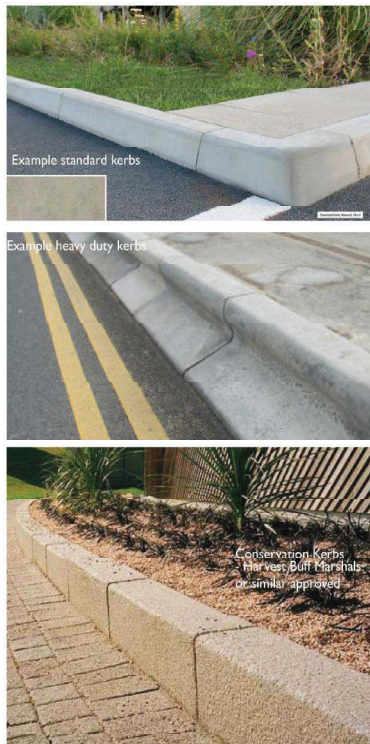
### Surfacing:

- Distributor roads will be blacktop with standard kerb edgings.
- Coloured tarmac such as Bituchem Natratex Gravel or equal, will be used for parking areas and roads within the development.
- Service Yards will be surfaced in natural concrete to allow heavy goods vehicles to manoeuvre and turn in these areas.
- Footways and parking areas will be in block paving. This would be a grey block such as Tobermore Tegula 'Pennant Grey' or similar approved with a grey standard kerb edging. This will provide a contrast to the blacktop road and clearly delineate pedestrian walkways and parking areas outside units. Grey is chosen to match the kerb colour and to differentiate this area from zones 2+3 which uses a buff coloured block.
- Footways within the development pockets will be in block paving, this would be a buff block such as Tobermore Tegula 'Harvest' or equal with a buff conservation kerb edging.
- Communal, occasional car parking areas (if required) will be surfaced with gravel in a plastic matrix, this would be surrounded by a native hedge. It would be used as additional car parking or for visitors to any retail shops and cafe.
- Pedestrian 'wander paths' around the site will be informal surfaced with self-binding gravel paths.



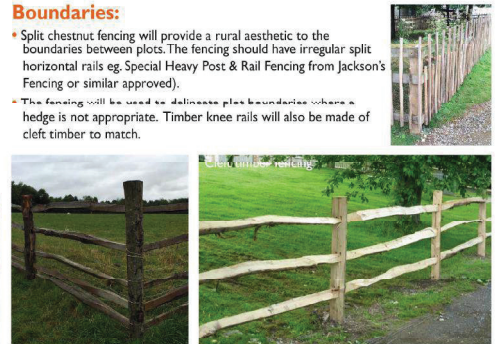
### Kerbs and Edgings:

- Kerbs will be formed from standard grey concrete kerbs throughout zone 1.
- Kerbs will be formed from Marshalls Conservation Kerb in Harvest buff around zones 2+3 to provide a clear indication of the different type of development in this location.
- Kerbs to be laid flush where adjacent to drainage swales
- Pin kerbs to footways will be formed from 'Edging kerbs' in grey.
- Heavy duty concrete kerbs will be used where necessary for large, heavy vehicles, especially around junctions and service yards.



### Boundaries:

- Split chestnut fencing will provide a rural aesthetic to the boundaries between plots. The fencing should have irregular split horizontal rails eg. Special Heavy Post & Rail Fencing from Jackson's Fencing or similar approved).
- The fencing will be used to delineate plot boundaries where a hedge is not appropriate. Timber knee rails will also be made of cleft timber to match.



### Signage:

- Signage will provide continuity throughout the site.
- Major signs will be similar to the Forestry Commission signage, in an appropriate material which will allow names of occupiers to be easily changed as necessary.
- This will include references to the agricultural nature of the area and reinforce the developments identity. Occupiers will need to check whether advertisement consent is required.



### Seating and spill out space:

- Timber seating with gabion baskets filled with stone. The stone within the gabions should be limestone to match the local buildings and palette of materials on site.
- Seating will be provided in break out spaces around individual units, this will provide social spaces and areas for relaxation.





**Soft Landscaping:**

Naturalistic plantings of hedgerows, individual trees and wildflower seeding will be used around the site. The planting within the development will be designed to create a rural aesthetic that is viewed within the context of an existing agricultural landscape. There will be opportunities to enhance plot boundaries with native hedgerows and trees and create new habitats for wildlife.

• Landscape areas across the site will include:

- Woodland structure tree planting
- Native hedge planting
- Wildflower seeding for meadows, swales and retention ponds
- Individual heavy standard trees of robust native species
- Green corridors

• **Hedges:** Areas of existing hedgerows are to be retained where necessary and gapped up in places with native hedge species. Some areas of existing hedgerow would be laid.

• **Trees:** Native species will be used for individual tree planting, these will mainly be Heavy Standard trees within hedgerows or to provide interest and screening around the units. Larger forest scale trees should be positioned in larger, more open spaces, whereas smaller trees can be planted adjacent to buildings. The tree species selected should be native such as Oak, Birch, Rowan, Cherry and Beech and chosen according to appropriate size.

• **Grass and Wildflower areas:** Any wildflower areas and swales will have a minimum 1m grass verge to the edge of the footway or road to ensure a tidy appearance.



**Wildflower Seed Mix**  
80/20 Professional Shaded Area/Hedgerows Grass and Wildflower Mix (130)C9006A)

**Swale and Pond Seed Mix**  
80/20 Heritage Wetland/Wildflower Mix (130)C4112A).

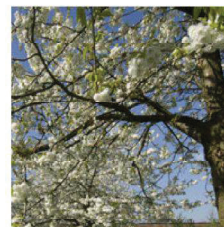
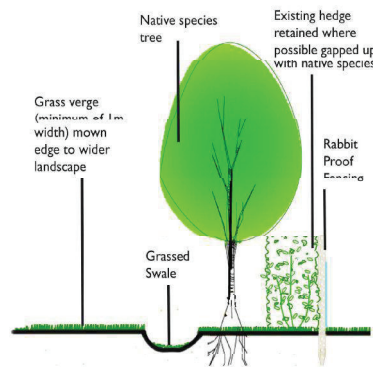
Both supplied by John Chambers Wildflowers  
[www.johnchamberswildflowers.co.uk/](http://www.johnchamberswildflowers.co.uk/) or similar approved.



**Native Tree Species Schedule (Individual trees)**

Code	Species	Specification
Ac	Acer campestre	12-14cm/Heavy Standard
Dp	Decula pendula	12-14cm/Heavy Standard
Fs	Fagus sylvatica	12-14cm/Heavy Standard
Qr	Quercus robur	12-14cm/Heavy Standard
Pa	Prunus avium	12-14cm/Heavy Standard
Sa	Sorbus aucuparia	12-14cm/Heavy Standard

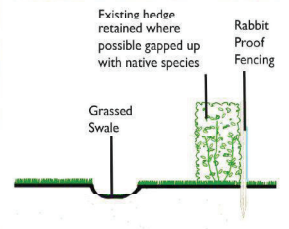
Tree species with narrow canopies will be planted adjacent to service yards and roads to ensure that they are not damaged by HGVs or other traffic.



**Native Hedge Species**

%	Species	Specification
8	Acer campestre	600-900, BR
70	Crataegus monogyna	600-900, BR
8	Corylus avellana	600-900, BR
8	Ilex aquifolium	600-900, BR
1	Rosa Canina	600-900, BR
5	Viburnum opulus	600-900, BR

Hedges to be planted at 5 per linear metre and gapped up where necessary.



# 4 SITE DRAINAGE

## 4.1 Foul Water Drainage

Domestic foul water from Building Zones 1-3 shall discharge to the drainage tails provided within the site, ultimately discharging to the foul water pumping station located centrally between Building Zones 1 & 3 southern boundaries.

The existing foul drainage system and pumping station is subject to an agreement and will ultimately be adopted and maintained by Yorkshire Water under Section 104 of the Water Industry Act 1991.

Domestic foul water flows may discharge unrestricted to the receiving network. Trade effluent flows shall be discussed with Yorkshire Water and an appropriate licence obtained.

The foul water drainage systems for the plots shall be designed in line with Building Regulations Approved Document H, BS EN 752 and Sewers for Adoption 7th Edition as applicable to pass flows based on the proposed occupancy of the site.

## 4.2 Surface Water Drainage

### Building Zone 1

Vale of Pickering Internal Drainage Board have agreed a restricted discharge of 10 litres/second from Building Zone 1 direct to Riggs Drain, this is based on the equivalent greenfield discharge rate of 1.4 litres/second/hectare for Building Zones 1 - 3.

Surface water attenuation shall be provided on Building Zone 1 as a consequence of the restricted discharge, it is proposed this will be provided in the form of an open attenuation basin. The basin and surface water infrastructure sewers will be provided by the site promoter and will allow an unrestricted discharge of surface water from the development plots based on an impermeable area equivalent to 50% of the plot's site area.

### Building Zones 2 & 3

Vale of Pickering Internal Drainage Board (VPIDB) have agreed a restricted discharge of 5 litres/second from Building Zones 2 & 3 direct to the watercourse named Riggs Drain which flows in a southerly direction adjacent the plots western boundary, this watercourse ultimately discharges to the River Derwent to the south in Old Malton. The discharge rate is based on the equivalent greenfield discharge rate of 1.4 litres/second/hectare for Building Zones 1 - 3.

Surface water attenuation is required for Building Zones 2 & 3 as a consequence of the restricted discharge. An open attenuation basin has been provided by the site promoter to the south on Building Zone 4, along with surface water infrastructure sewers and swales. Surface water runoff from Building Zones 2 & 3 may discharge unrestricted from the development plots to the perimeter surface water carrier swale based on an impermeable area equivalent to 80% of the plots site area.

The existing surface water infrastructure sewers are subject to an agreement and will ultimately be adopted and maintained by Yorkshire Water under Section 104 of the Water Industry Act 1991. The attenuation basin is subject to an agreement with VPIDB to maintain the basin in perpetuity.

### General

The surface water drainage systems for the plots shall be designed in line with Building Regulations Approved Document H, BS EN752, Sewers for Adoption 7th Edition and best practice guidance to pass the 1 in 2 year flow without surcharge in the system.

Sustainable methods of surface water collection, conveyance, disposal and attenuation shall be preferred over traditional methods and shall be implemented on each plot wherever practicable to CIRIA 697 (or latest equivalent guidance) to withstand flooding up to the 1 in 30 year return period. Guidance on the use of Sustainable Urban Drainage systems (SUD's) is available on the North Yorkshire County Council website:

<http://m.northyorks.gov.uk/CHttpHandler.ashx?id=30769&p=0>.

Flooding for flows up to 1 in 100 year return period + 20% allowance for climate change may be contained within low-risk areas such as car parks and landscaped areas within the plot boundary.

The drainage system from each plot shall require oil separators, grease traps and other containment at source, as necessary for the nature of each business.

Any oil, fuel or chemical storage tanks, buildings, ancillary handling facilities, filling, drawing and overflow pipes shall be enclosed within an impervious bunded area of at least 110% of the tank capacity and the bunded area shall be fully constructed in accordance with current Oil Storage Regulations before the relevant part of the development to which it first relates is first occupied or brought into use.

Parking areas in excess of 50 spaces, and areas accessed by commercial vehicles or HGV's, shall be drained to the drainage network via an on-site oil separator designed in accordance with Pollution Prevention Guidelines 'Use and Design of Oil Separators' (PPG3). Silt shall be managed at source.

In the event of a major pollution incident occurring on-plot, the system shall be isolated until the pollution incident has been cleaned up.

On-plot vehicle fuelling point or lorry/car washing facilities shall be isolated and any surface water runoff shall be passed through a suitable treatment facility to trap oil/detriment and remove suspended solid prior to discharge to the foul drainage system, subject to agreement with Yorkshire Water. Alternatively, this run-off shall be treated as trade effluent, and shall be isolated and taken off site for disposal at a licensed facility.

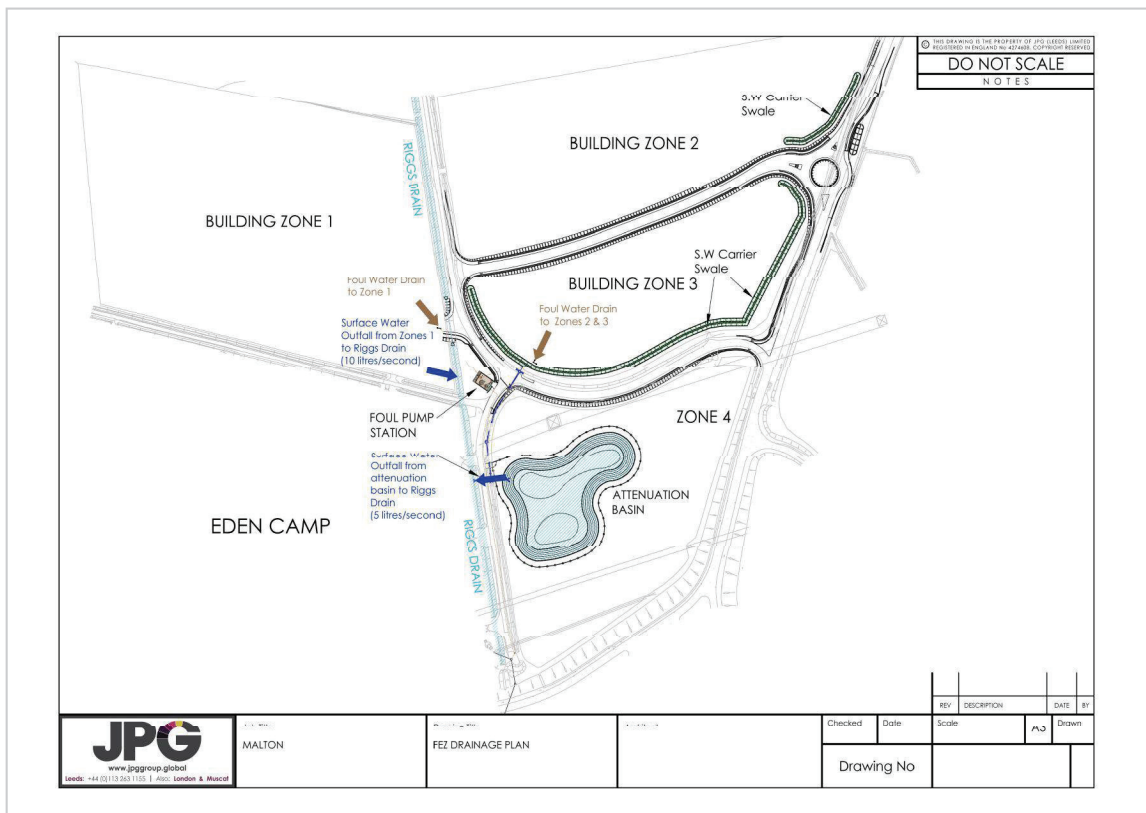
Surface water runoff from waste storage areas and any other high risk areas shall be treated appropriately and discharged in accordance with relevant Building Regulations, PPG and SUDS guidance.

## 4.3 Highway Drainage

Highway drainage from new access roads within the Building Zones will discharge into the surface water sewers to be adopted and maintained by Yorkshire Water, ultimately outfalling to Riggs Drain via the onsite attenuation systems.



# 4 SITE DRAINAGE



Drainage Strategy

# 5 CONSTRUCTION MANAGEMENT PLAN

## 5.1 Introduction

This Construction and Management Plan outlines the management procedures that will be adhered to during the construction period in order to maintain effective management of on-site operations.

## 5.2 Site Access and Parking

A car park area will be provided within the confines of the site throughout the construction period. All cars will be controlled and made to park on the clean hardcore carpark provided. Our site management will monitor this road to ensure that the condition and usage does not cause concern to other road users. The carpark will be surrounded by fencing and therefore once access is gained to the carpark all pedestrian access can be routed passed the site offices and via the 24/7 manned gatehouse. All persons accessing the site will be required to sign in and sign out with the gateman. A gatehouse will be established at the site entrance during establishment of the site set up. No off site car parking will be allowed, this will be expressed to subcontractors, suppliers and operatives within their orders and site induction. Stone topping will be provided to the carpark, unloading area and access routes on site. Clearly defined and prescribed routes will be formed to control vehicle movements, with all vehicle drivers being directed by the Site Management to the relevant area via the prescribed routes. Vehicles will not be allowed to deviate from the access routes. Orange barrier fencing will be erected along the routes and relevant site signage provided to reinforce the directions provided and establish the 5mph speed restriction. The access point will have either access gates or a barrier provided to provide vehicle control. Site Inductions for all Operatives and Subcontractors will explain the car parking and site traffic procedures and rules. A Traffic Management Plan will be developed and enforced and necessary signage will be in place to direct traffic on site along the prepared onsite haul roads to their required destination.

## 5.3 Delivery and Storage of Material

All loading and unloading will be carried out within the confines of the site on temporary hardcore surfaced areas. Unloading arrangements will be planned in advance of all deliveries and will be detailed in the orders provided to all suppliers. Subcontractors unloading will also be planned and agreed in advance so that preparations can be made for their arrival. No unplanned deliveries will be accepted on site so that site will not be overloaded with materials. No offloading will be permitted on the highway. All deliveries to site of plant and materials will be directed by the Site Management at the site entrance into the unloading area, via clearly marked traffic routes, on site where all materials will be offloaded. Storage of plant and materials will be within designated areas on site. The main materials storage area will be on the unloading/storage area and on the proposed service yard areas. Sections of the external slabs may be cast early to accommodate this. These areas will allow storage throughout the project without obstructing the construction works. All vehicles entering and leaving the site will be travelling forwards. A turning area is located adjacent to the entrance of the site which will allow vehicles to turn and exit if they have not already turned on site. Generally all delivery vehicles will be required to have an integrated off load facility i.e. hiab, which will be used to offload the materials from the vehicle.

## 5.4 Mud and Debris Control

To prevent the deposit of mud and debris on the highway a high pressure washer will be used, as required, to clean any vehicles prior to leaving the site, the vehicle will be sited on a run off/cleaning area surfaced with large stone and the wheels cleaned using a high powered jet wash. The water run-off will be collected in a filtered sump and reused where possible. The jetwash will use water only – no detergents. The gateman will ensure that all vehicles leaving the site have suitably clean wheels/undercarriage. As a further measure, a good quality road sweeper will be used to clean the highway should it be required, to ensure that there is no mud taken onto the adjacent roads and access routes. We are conscious that we are working in an environment which needs to be maintained clear from any debris or mud on access routes and also that any site mud or silt is to be prevented from entering watercourses/public drains. The control of mud, grit and dirt will be continually monitored by our Site Management.

## 5.5 Highway Conditions and Maintenance

A detailed 'dated' photographic dilapidations survey was carried out before the project commenced. A copy of this survey has been issued to the Local Highways Authority and the client for record purposes. Stone topping will be provided to the access routes around site. Clearly defined, and prescribed routes will be formed to control vehicle movements, with all vehicle drivers being directed by the gateman/ site management to the relevant area via the prescribed routes. Vehicles will not be allowed to deviate from the access routes. Orange barrier fencing will be erected along the routes and relevant site signage provided to reinforce the directions provided. Site Inductions for all Operatives and subcontractors will explain the site traffic procedures and rules.

## 5.6 Security Hoarding

The site boundary has been secured using Heras-type fencing (Mesh Fencing with Concrete feet). The entrance to site has been secured with lockable Heras-type gates. The fencing will be maintained throughout the project by our Site Management, who will inspect the fencing periodically to ensure it is still in good work condition and continues to provide the required safety to both the general public and our site operatives. Where possible sections of the permanent proposed perimeter fencing will be erected in-situ as soon as the ground works permit.

## 5.7 Protection of Planting Strips

The areas of proposed planting strips in Building Zones 1, 2 and 3, as identified in the Landscaping Strategy on page 9, will be fenced off prior to commencement of each phase of development. This will ensure that the storage of materials associated with the development does not damage the soil structure in these locations. The fencing material will be 1.8m high weldmesh fencing supported on scaffolding posts set into firm ground.

## 5.8 Traffic Signage

Signage will be erected on and around site to inform and remind vehicular traffic of the following:

- Speed Limits – Site Speed limit is 5mph
- Vehicle Routing – Directional signage will direct traffic onto site via Roach Bank. Once on site there will be directional arrows detailing delivery areas and car parking.
- Warning Signs – Advising any activities which may affect the works and also reminding the need for action i.e. Provision of Banksmen when reversing.

All signage will be reflective where required and sized accordingly. All details of these signs will be discussed with Operatives during their Site Inductions. If required, these signs will be reviewed by our Site Management if and when there is a change to the site's requirements.

## 5.9 Excavation Proposals

Final levels are yet to be determined but the site excavation involves a possible cut and fill operation to establish required level plateaus to suit the design. The initial site surface will be scraped and the material removed from site, however the intention is that the general levels are established to retain existing materials on site and minimise the need to bring in further materials.

There will not be any explosives used in the excavation or any intended operations associated with this development.

# 5 CONSTRUCTION MANAGEMENT PLAN

## 5.10 Site Preparation & Vibration Monitoring

The building foundations design may require the use of a piling solution to achieve the required bearing. The type of piling is still being considered pending further site investigation works. However, Non percussive bored piling and driven piles are both possible solutions. If driven piling is chosen, pre-boring would be carried out to materials which would give rise to vibration. Advice will be sought from our structural engineers as to the likely peak particle velocity anticipated from these operations and the permitted velocities at the site boundary in line with British Standards. Vibration monitoring will be established at the boundary to ensure that these permissible levels (in line with the BS) are not exceeded.

## 5.11 Site Craneage

Site craneage will be brought onto site on an 'as and when' basis. This project does not require the use of a static tower crane but will require the use of a mobile cranes i.e. during the steel erection period. A self-erecting tower crane may be required for the unloading and placement of cladding materials on the roof, however this will be required for short periods i.e. 1-2 days at a time. Mobile craneage may also be required for the placement of any permanent high level mechanical plant that is required as part of the design.

## 5.12 Dust Control

The site will be kept clean & tidy at all times & will accord with any statutory requirements. Dust suppression measures will be employed as & when required and particularly during dry spells of weather. Haul roads, hardcore areas and unsurfaced areas will be continually monitored and damped down/sprayed as required using a towed bowser fitted with a spray mechanism to prevent dust becoming airborne. Vehicle wheels will be checked for cleanliness prior to exiting the site with wheel cleaning facilities deployed at the exit to ensure no debris migrates on to the public highway. Vehicles delivering and removing materials of a dusty nature will be sheeted over. The site layout is to be planned, where possible, with dust minimisation a consideration. All cutting equipment will use water as a suppressant where possible. Fine material is to be stored in enclosures/ delivered in a contained form. Vehicles on site, awaiting entry, must not be left idling; engines are to be turned off. Site Roads to be regularly brushed and/or damped down to minimise dust. No burning will be allowed on site at any time. External Carpark Areas and Concrete Yards, where possible, will be surfaced as early as possible. The weather reports are continually reviewed by our Site Management. Potentially affected works are planned accordingly or delayed to avoid environmental issues. Consideration will be made on the likely seasonal conditions which will change as the project progresses. We are conscious that we are working in an environment which needs to consider and prevent the creation of dust. Dust Levels will be continually monitored by our site management and works will be programmed and sequenced with Dust Control and mitigation in mind.

## 5.13 Waste Recycling and Disposal

Waste from construction operations will be segregated into categories in line with the Site Waste Management Plan (SWMP). Waste is to be designed out where possible. The SWMP will be completed and managed throughout the contract period. Subcontractors waste will also be monitored with waste carriers details/disposal information required. Proof of Waste Licences and Duty of Care. Statements are required from all Waste Disposal Contractors. At least 70% of construction waste by volume of non-hazardous waste generated by the project is to be diverted from landfill. Targets for the minimisation of waste will be set in the SWMP using the Bream target/m<sup>3</sup> of waste (per 100m<sup>2</sup> gross internal floor area). There is no general demolition involved in this project.

## 5.14 Emergency Vehicle Access

Fire Brigade has been sent a courtesy letter advising them of the commencement date and the period on site. The site is secured 24hours/day and therefore 24hour access is available for the emergency services. Local Hospital Details and routes are displayed in the site accommodation areas. Access to the building areas and site accommodation areas will be via the site access routes established and utilised by construction vehicles.

## 5.15 Energy Consumption

Monthly meter readings will be taken to record all site energy usage, i.e. Electric supply, generator supplies. These meter readings will then be used to calculate site CO<sub>2</sub> emissions. At the end of each month a graph will be updated to show changes in CO<sub>2</sub> emissions. These targets will be displayed in a prominent position and communicated to all.

## 5.16 Water Consumption

Monthly meter readings will be taken to record water usage on site. At the end of each month the water usage will be reviewed and a target set for the following month. These targets will be displayed in a prominent position and communicated to all. Means of recycling/re-using site water to be considered.

## 5.17 Noise Control

No works audible at the site boundary are to be carried out outside normal working hours (0730-1800 Mon-Fri, 0800-1300 Sat). Likely sources of noise to be identified, and a noise assessment to be carried out where necessary. No works outside these hours to be undertaken without the prior approval of the Local Planning Authority. However a dispensation will be required to be requested for potential Powerfloating operations outside these hours. Generally the slabs will be cast within a clad building which will naturally afford some sound reduction. A reasonable sound reduction is anticipated due to distance alone. The concrete will be placed during the working hours, works beyond will be powerfloating only. The powerfloats will be regularly serviced and maintained. Site will be issued with Sound Decibel meters to record the sound levels at the boundary. All Plant to be serviced regularly, provided with silencers where possible. All deliveries to be carried out during the working hours. No wagons to be left idling – engines to be switched off. Minimise use of static generators – mains power will be applied for and used if possible for 24hour supplies i.e. gatehouse. Local generators (screened if necessary) to be used in working hours only are to be located away from sensitive areas. Amplified music will not be allowed on site

## 5.18 Complaints Procedure

Any complaints received by construction staff of a management or environmental nature are to be recorded in writing and appended to this Plan. Regular reviews will take place to identify any changes in procedures that may be necessary. This Plan will be updated as work proceeds to reflect any revised control measures that may need to be implemented.

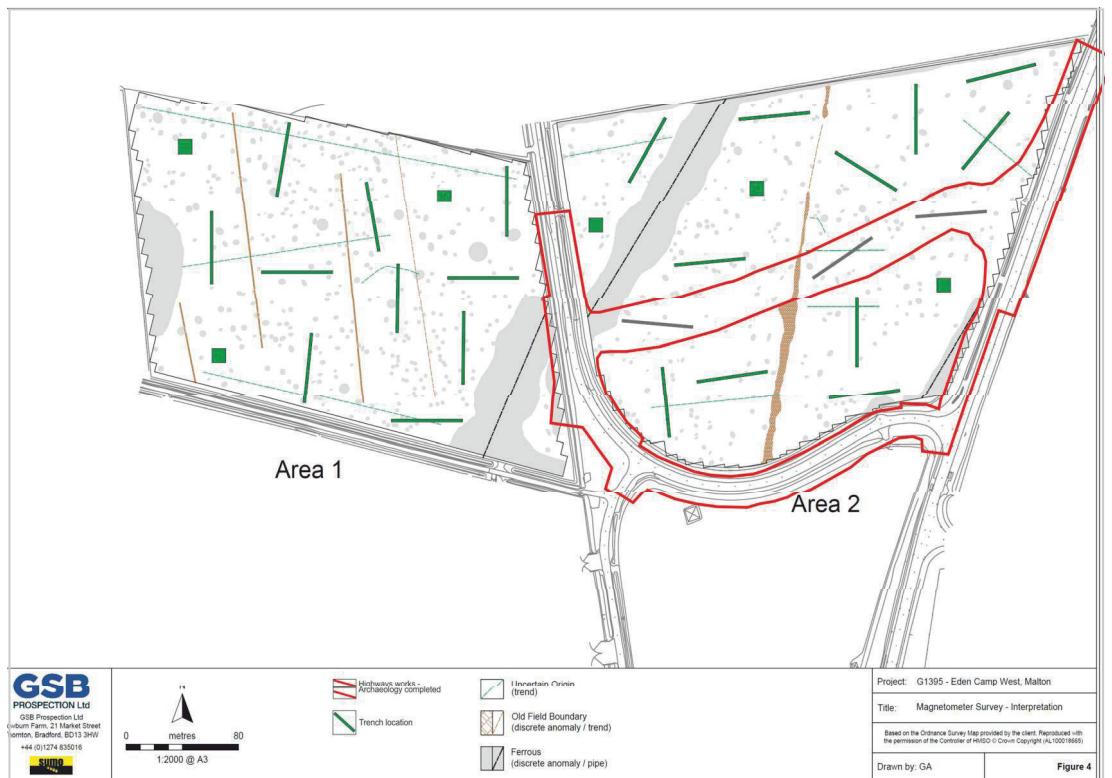
# 6 ARCHAEOLOGY

The site has been assessed for its archaeological potential through desk-based assessment and geophysical survey.

Archaeological monitoring was maintained throughout the topsoil stripping of the attenuation pond in the south-eastern area. This identified a 19th century ditch and the foundation trench of a small modern building, the latter probably being the remains of an agricultural building.

Three archaeological evaluation trenches were excavated prior to the road being constructed. These did not identify any archaeological features.

Further trial trenches are still required as development proceeds. A programme of archaeological evaluation trenches has been designed and approved in conjunction with North Yorkshire County Council and is shown in the adjoining plan. This work will need to be undertaken by a suitably qualified field archaeologist prior to the commencement of any individual phase of development. The trial trenching must be carried out in accordance with the agreed archaeological programme including, where relevant, recording and reporting of any artefacts discovered in accordance with the conditions prescribed in the LDO.



Archaeological Excavations