

MM PROPERTIES LTD

BROADFIELDS, EAST HORNDON

FLOOD RISK ASSESSMENT & DRAINAGE STRATEGY

REPORT REF. 2008543-01

PROJECT NO. 2008543

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DOCUMENT CONTROL SHEET

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1. INTRODUCTION

Background

- 1.1. Ardent Consulting Engineers has been commissioned by MM Properties (London) Ltd to undertake a Flood Risk Assessment (FRA) and preliminary foul and surface water drainage strategy, to support an outline planning application (with all matters reserved except for access), for the proposed development of the site known as Broadfields, located off Tilbury Road, East Horndon, CM13 3LS (hereafter referred to as the "Site").
- 1.2. This FRA has been prepared with specific reference to the requirements of National Planning Policy Framework (NPPF), updated in July 2021 and the Planning Practice Guidance (PPG), which superseded the Technical Guidance to the NPPF, updated in August 2022. The report aims to demonstrate to the Local Planning Authority and Statutory Consultees that the site can be suitably redeveloped whilst complying with the requirements of the NPPF in terms of flood risk.
- 1.3. This report will also consider the requirements within the Non-statutory Technical Standards for Sustainable Drainage Systems (March 2015) and CIRIA C753 The SuDS Manual (November 2015).

Scope

- 1.4. In accordance with the NPPF assessment criteria, this report and associated surface water drainage strategy will ultimately seek to:
 - Ensure that flood mitigation is provided within the project Site to avoid detrimental impacts to third parties;
 - Ensure that the impact of climate change is assessed;
 - Ensure impermeable areas within the proposed development are minimised where practicable; and
 - Ensure the use of sustainable drainage systems (SuDS) is optimised in line with current best practice.

2. SITE DESCRIPTION

Site Location and existing use

- 2.1. The Site is located off Tilbury Road, East Horndon, CM13 3LS, centred on National Grid Reference (NGR) 563381E, 189112N (TQ 63381 89212).
- 2.2. The Site comprises 12.1 hectares (ha) of undeveloped greenfield land, with the exception of areas adjoining the eastern boundary, which are currently occupied by residential properties and some small-scale commercial buildings and a yard.
- 2.3. The Site is bound to the north by the A127 Southend Arterial Road; to the east by Tilbury Road; by undeveloped greenfield land to the south and an ordinary watercourse to the west, with Woodside Farm and associated agricultural land beyond. Outside the north-eastern corner of the site lie a number of residential properties. A site location plan is shown in **Figure 2-1** below.



Figure 2-1: Site Location Plan

Proposed Development

2.4. The proposals seek outline permission for the comprehensive redevelopment of the site to deliver a Net Zero Carbon development of up to 32,000 sqm of employment floorspace within Use Classes E(g)(iii), B2 and B8 and including an Ultra Rapid Electric Vehicle Charging Facility, a start up and enterprise hub of lower cost small medium and micro accommodation as well as a children's play area and associated works. Refer to **Figure 2-2** below for an extract of the Proposed Development Layout. A full set of development plans are included in **Appendix A**.



Figure 2-2: Illustrative Masterplan

2.5. Industrial developments are classified as 'less vulnerable' under the NPPF.

Topography

- 2.6. A drone topographical survey was undertaken at the Site in October 2020. Refer to **Appendix B** for a copy of the topographical survey.
- 2.7. The survey indicates that the Site generally falls north-east to south-west, from a high point of 22.00m AOD at the north-eastern corner to 16.50m AOD at the Site's south-western corner.

Hydrology

- 2.8. An ordinary watercourse runs parallel to the west of the site flowing in a southerly direction, adjacent to the Phase 2 development. This watercourse originates in Thorndon Park to the north of the site, before being culverted under the A127. The watercourse then continues southbound to its confluence with the Mar Dyke approximate 2km to the south of the site. The location of this watercourse in relation to the Site is illustrated in **Figure 2-3** below.



Figure 2-2 Existing Ordinary Watercourses

- 2.9. Online mapping indicates the presence of a ditch crossing the southern portion of the site from east to west, starting from the western side of Tilbury Road, and joining the aforementioned watercourse. Refer to **Figure 2-4** below.



Figure 2-3: Historical watercourses

Geology and Ground conditions

- 2.10. According to the British Geological Survey (BGS) online datasets, the site is underlain by London Clay bedrock, with superficial deposits of Head – Clay, Silt, Sand and Gravel and Alluvium – Clay Silt Sand and Gravel to the southeast of the site (refer to extract in **Figure 2-5** and **2-6** below)

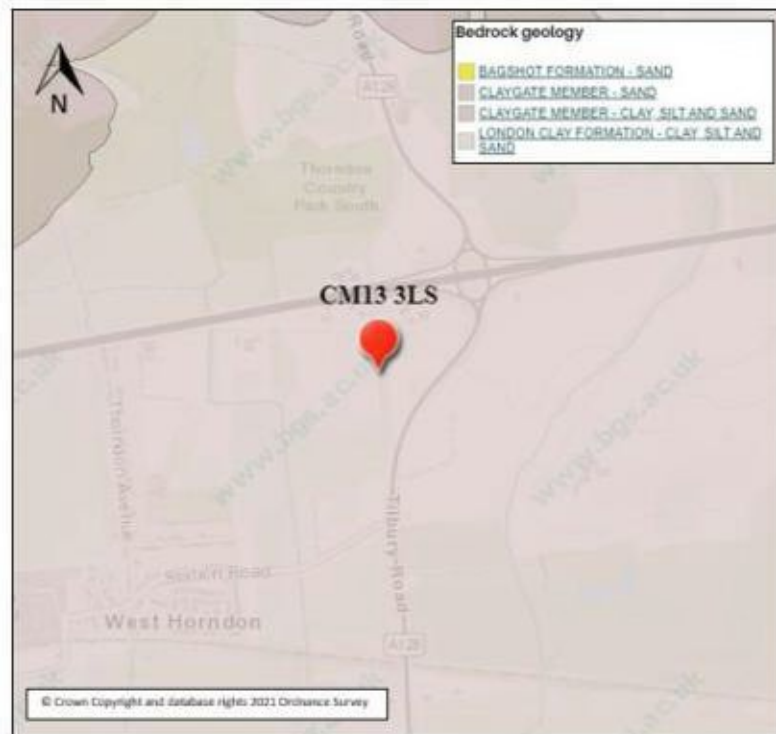


Figure 2-4: BGS Online Mapping- Bedrock



Figure 2-6: BGS Online Mapping- Superficial Deposits

- 2.11. Based on historic borehole records available on the BGS website, Groundwater was encountered in 2 No. boreholes in Tilbury Road (East) at depths of 10m below ground level, during an investigation in 1989.
- 2.12. An intrusive site investigation could be commissioned at the detailed design stage to investigate groundwater levels across the Site and identify any potential contamination issues.

Existing Sewer Infrastructure

- 2.13. Anglian Water Asset Location Plans are provided in **Appendix C**.
- 2.14. The plans show an Anglian Water Foul Water sewer entering the site from the west parallel to the Site's northern boundary, before running south for circa 130m, and turning east again crossing the eastern portion of the Site. The sewer continues south-east beyond the Site boundary. An excerpt of the sewer plan is shown in **Figure 2-6** below.
- 2.15. There are no public surface water drains/pipelines in the vicinity of the Site.

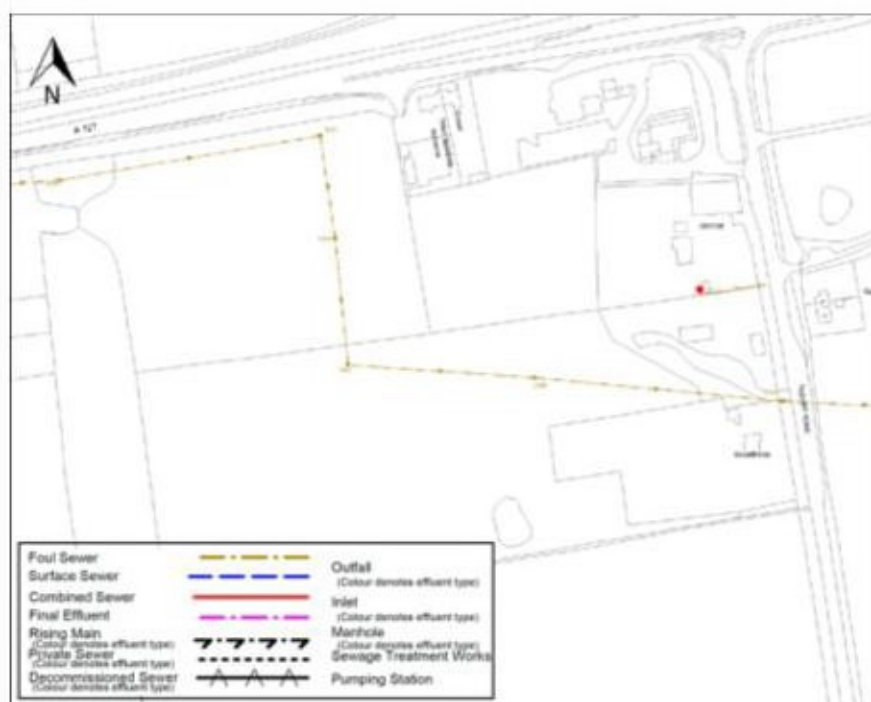


Figure 2-5: Thames Water Sewer Asset

3. POLICY CONTEXT

National Planning Policy Framework

- 3.1. The National Planning Policy Framework (NPPF) was revised in July 2021; where paragraphs 159 to 169 inclusive establish the Planning Policy relating to flood risk management. The Technical Guide to the NPPF has been superseded by the Planning Practice Guidance (PPG) in March 2014. The Flood risk and coastal change guidance was updated in August 2022.
- 3.2. The PPG states that when planning or decision making in terms of flood risk, the process followed should be to avoid, control, mitigate and manage residual risk.
- 3.3. 'Avoiding' risk relates to the application of the sequential and exception tests, as discussed in detail for the site in Section 6 and summarised below:
 - In plan-making, a sequential approach should be employed. This involves applying the 'Sequential Test' and, if needed, the 'Exception Test'
 - In decision-making, where necessary, planning authorities also apply the Sequential Test and, if needed, the Exception Test, to ensure that flood risk is minimised and appropriately addressed.
 - Where the sequential and the exception tests have been applied as necessary and not met, development should not be allowed.
 - Substitute lower vulnerability uses for higher vulnerability uses.
 - Within sites, using site layout to locate the most vulnerable aspects of development in areas of lowest flood risk, unless there are overriding reasons to prefer a different location. In addition, measures to avoid flood risk vertically can then be taken, by locating the most vulnerable uses on upper storeys, and by raising finished floor and/or ground levels, where

appropriate and that such techniques are suitably designed. Such measures should also account for residual flood risks from flood risk management infrastructure.

- 3.4. The PPG provides the methodology required to undertake the Sequential and Exception Tests and this should be applied to all sources of flooding.
- 3.5. 'Controlling' the risk relates to measures that will control the risk of flooding affecting the site. Early discussions with relevant flood risk management authorities, reference to Strategic Flood Risk Assessments and any programme of flood and coastal erosion risk management schemes will help to identify such opportunities.
- 3.6. 'Mitigating' the risk relates to the use of flood resistance and resilience measures to address any residual risks after the use of avoidance and control measures.
- 3.7. 'Managing' the risk relates to considering further management measures to deal with any residual risk remaining after avoidance, control and mitigation have been utilized such as providing safe access and escape routes and considering whether adequate flood warning would be available to people using the development. Residual risks will need to be safely managed to ensure people are not exposed to hazardous flooding.

Sustainable Drainage Systems - Non-statutory technical standards for sustainable drainage systems March 2015

- 3.8. The Non-statutory technical standards for sustainable drainage systems were published in March 2015. They should be used in conjunction with the Planning Practice Guidance. In addition, the Best Practice Guidance, prepared by LASOO, for the Non statutory technical standards was published in July 2015.
- 3.9. The Local Planning Authority (LPA) may set local requirements for planning permission that have the effect of more stringent requirements than these non-statutory technical standards.

- 3.10. In addition, SuDS should be designed in accordance with CIRIA 753 "The SuDS Manual", which represents current best practice.

***Essex County Council Local Flood Risk Management Strategy
(October 2018)***

- 3.11. The Essex County Council Local Flood Risk Management Strategy is a statutory document required by the Flood and Water Management Act (2010) to address the specific requirements to manage local flood risk. Local Flood Risk is defined by the Flood and Water Management Act (2010) as surface water flooding, ordinary watercourse flooding and groundwater flooding.
- 3.12. The nature of flood risk within Essex is extremely varied and widespread across the county. Essex has an extensive coastline and network of rivers and canals, combined with a large number of towns and urbanised areas, which means it is at risk of flooding from a range of different sources.
- 3.13. The document defines a set of objectives for the management of Local Flood Risk and sets out the LLFA's proposed measures for achieving the objectives. The measures are:
1. Investigating floods;
 2. Mapping local routes for water;
 3. Looking after watercourses;
 4. Planning for future floods;
 5. Influencing new development and drainage;
 6. Building flood defences; and
 7. Involving stakeholders.

***Brentwood Level 1 Strategic Flood Risk Assessment
(November 2018)***

- 3.14. The aim of the Level 1 SFRA is to characterise flood risk in the Borough of Brentwood, and provide an evidence base to support

spatial planning decisions at a Borough wide scale. The 2018 SFRA supersedes the 2011 Level 1 SFRA for Brentwood.

- 3.15. The document states that previous flood incidents in Brentwood are largely a result of rapid surface water runoff and ponding in areas such as low-lying roads.
- 3.16. Fluvial flood risk was found to be of limited spatial extent within the Borough and that the majority of the area covered by flood zones 2 and 3 is largely rural, with the exception of a few urban areas at risk including Heybridge, Ingatestone and areas to the east and west of Brentwood town.

Surface Water Management Plan for Brentwood (January 2015)

- 3.17. The Surface Water Management Plan (SWMP) for Brentwood enables local communities and organisations to gain a better understanding of flood risk and outlines the preferred surface water management strategy at a given location.
- 3.18. The SWMP for Brentwood aims to establish a long term action plan to manage surface water and will influence future capital investment, maintenance, land-use planning, emergency planning and future developments.
- 3.19. An intermediate assessment was undertaken across the whole of Brentwood Borough to determine the overall flood risk and to identify flooding hotspots. Flooding hotspots were identified around three main areas; West Horndon, Ingatestone, and Brentwood Town Centre. A number of borough-wide and site-specific options/measures were determined which could be implemented to reduce flood risk in the flooding hotspots within the Brentwood Borough.
- 3.20. West Horndon, which represents a predominantly rural area, was identified as a Study area within the SWMP. Site visits highlighted that the culvert at Station Road can become significantly blocked. The SWMP considers improving the conveyance of flow through the

culvert at Station Road, with water allowed to pond in the fields to the south. This would aim to reduce flooding across the road allowing access to West Horndon. Whilst West Horndon is in a different surface water catchment to the site, a robust surface water drainage scheme is considered important for the proposed development to benefit the wider water environment.

Brentwood Pre-Submission Local Plan (2016-2033)

- 3.21. The Pre-Submission Local Plan for Brentwood presents the local council's vision for the borough's development over the next 17 years. It sets out Spatial Strategy and supporting policies for achieving this vision.
- 3.22. The document defines its strategic objectives as:
- SO1: Manage Growth Sustainably.
 - SO2: Deliver a Healthy and Resilient Built Environment.
 - SO3: Deliver Sustainable Communities with Diverse Economic & Social-Cultural Opportunities for all.
 - SO4: Deliver Beautiful, Biodiverse, Clean and a functional Natural Environment.
- 3.23. **Policy BE01:** Future Proofing, refers to anticipating the future and developing methods of minimising the effects of shocks and stresses of future events. These methods consist of reactive measures which would be used for short-term 'shocks' (e.g., floods) and proactive strategies adapting to long-term changes caused by climate change and technology changes through effective means such as sustainable design.
- 3.24. **Policy BE08:** Sustainable Drainage, states all developments should incorporate Sustainable Drainage Systems for the disposal of surface water, in order to avoid any increase in flood risk or adverse impact on water quality.

3.25. In line with **Policy BE08**, SuDS features will be required to discharge to previous greenfield rates or achieve a 50% reduction of brownfield run-off rates. This is displayed in Section 5.

Climate Change

1.1 The Planning Practice Guidance states that to allow for the predicted impacts of climate change on surface water runoff within the Combined Essex Management Catchment, the following increases detailed in **Table 3-1** below to rainfall intensity should be allowed for. For development with a lifetime beyond 2100, the upper end allowances should be used.

Table 3-1: Combined Essex Management Catchment Peak Rainfall Allowances

	Central	Upper
3.3% annual exceedance rainfall event		
2050s	20%	35%
2070s	20%	35%
1% annual exceedance rainfall event		
2050s	20%	45%
2070s	25%	40%

1.2 Therefore, under the NPPF an allowance of 45% for the effects of climate change for the 1% annual **exceedance** rainfall event would achieve the policy requirements in designing the drainage elements for the proposed residential redevelopment.

Sequential Test

- 1.3 The objective of the Sequential Test is to steer new developments toward areas with the lowest probability of flooding from all other sources. Where there are no reasonably available sites in these areas, local planning authorities in their decision making should take into account the flood risk vulnerability of land uses and consider reasonably available sites in areas at medium risk of flooding from all other sources before areas at high risk of flooding from all other sources are considered.
- 1.4 Annex 3 of the NPPF of the Planning Practice Guidance (PPG) classes the proposed residential use as 'more vulnerable'. As discussed in **Section 4** the Site is shown to be in Flood Zone 1 in the Environment Agency's map for planning, therefore it is not necessary for the site to undergo the Sequential Test.

Exception Test

- 1.5 Table 2 of the PPG replicated below in **Table 3-2**, confirms that the Exception Test is not required for "More Vulnerable" uses in Flood Zone 1.

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	X	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	X	X	X	✓ *

Key:
 ✓ Exception test is not required
 X Development should not be permitted

Table 3-2: Extract from the PPG: Flood Risk Vulnerability

4. SOURCES OF FLOODING

4.1. The NPPF requires flood risk from the following sources to be assessed, each of which are assessed separately below:

- Fluvial sources (river flooding);
- Tidal sources (flooding from the sea);
- Groundwater sources;
- Pluvial sources (flooding resulting from overland flows);
- Drainage flooding;
- Artificial sources, canals, reservoirs etc.; and,
- It also requires the risk from increases in surface water discharge to be assessed (surface water management).

Fluvial/Tidal Flooding

4.2. According to the Environment Agency's (EA) flood map for planning, as illustrated in **Figure 4-1** below, the Site is located entirely within Flood Zone 1, defined as having a low risk of flooding (less than 1 in 1000-year annual probability of flooding) and being suitable for any type of development. Correspondence with the EA included in **Appendix D** confirms that the Site is located in Flood Zone 1.



Figure 4-1: EA Flood Zone Map (Flood Risk from Rivers and the Sea)

- 4.3. Considering the above, it is concluded that the proposed development is at very low risk of fluvial flooding.

Pluvial Flooding

- 4.4. The Environment Agency's surface water flood map shows parts of the Site are at "Low" and "Medium" risk of surface water flooding (**Figure 4-2**). This risk of surface water flooding relates to overland flow paths arising from Thorndon Country Park to the north of the A127 and spilling onto the Site during very extreme storm events (above a 1 in 100-year AEP).



Figure 4-2: EA Risk of Surface Water Flooding Map - Extents

- 4.5. Whilst the risk is considered to be 'low', during exceedance events (i.e., storm events exceeding an AEP of 1 in 100 years) any surface water run-off flowing onto the site from Thorndon Park and the A127 would be conveyed across the site via the proposed SuDS network towards the south, as per the existing scenario. Ground levels along the northern portion of the Site should be designed to allow the flow of exceedance overland flows across the site without increasing risk of flooding offsite.
- 4.6. The EA maps indicate the site is not at risk of flooding from events up to the 1 in 100 AEP ('Medium Risk'), with the exception of a very small, localised area. Predicted flood depths in these areas of the site for the Medium Risk Scenario are below 300mm and are associated

with small depression in the terrain (refer to **Figure 4-3** below). This localised risk will be managed through the implementation of the proposed drainage network.



Figure 4-3: EA Risk of Surface Water Flooding Map - Depths

4.7. Based on the above, risk of surface water flooding is assessed as low.

Sewer Flooding

4.8. There is an Anglian Water Foul Water sewer running in a south easterly direction through the Site. There are no surface water sewers in close vicinity of the Site based on the Anglian Water sewer records. Proposed connections to the public sewer will be fitted with non-return valves to protect the Site from sewer surcharge. The buildings

proposed have been sited to avoid the existing foul sewer. Therefore, the flood risk from sewer surcharge is assessed as low.

Groundwater Flooding

- 4.9. The British Geological Survey (BGS) Map, refer to **Figure 2-5** above, shows that the site is underlain by London Clay. Groundwater was encountered in 2 No. historic borehole records at depths of 10m.
- 4.10. The Level 1 SFRA states that there have been no records of groundwater flooding in the Borough of Brentwood.
- 4.11. The risk of groundwater flooding on the Site is considered to be low.

Artificial Sources

- 4.12. The Environment Agency's flood maps from reservoirs indicate that the site is not within an area as risk of flooding reservoirs, canals, or other artificial water bodies.
- 4.13. The risk to the site from reservoir flooding and artificial sources is therefore considered very low.

Existing Hydrological Catchments

- 4.14. The local topography separates the study area into two hydrological catchments which is displayed in **Figure 4-4** below. Our assessment of the land indicates that surface water flowing in each of the catchment areas ends up in separate watercourses. The watercourses belonging to the separate catchments are separated a minimum of 400m as they pass by West Horndon, and only converge upon their confluence with the Mar Dyke, 1.80 km to the south of West Horndon.

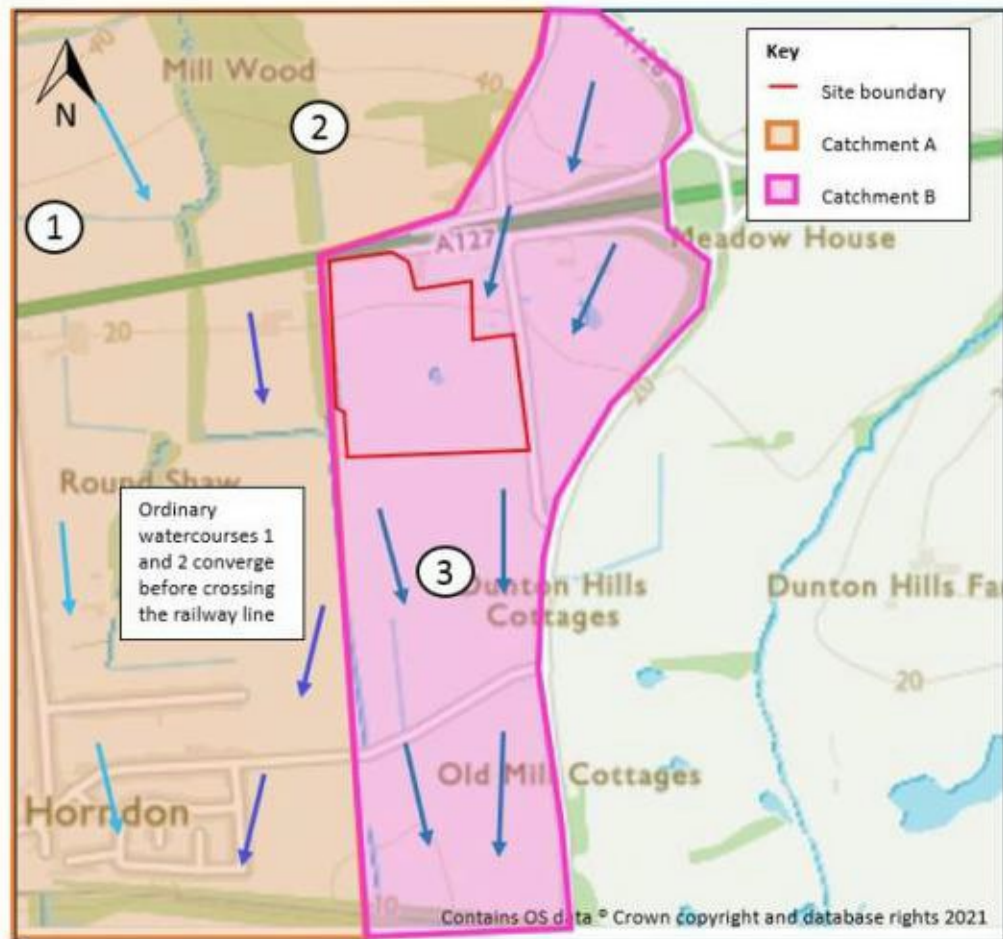
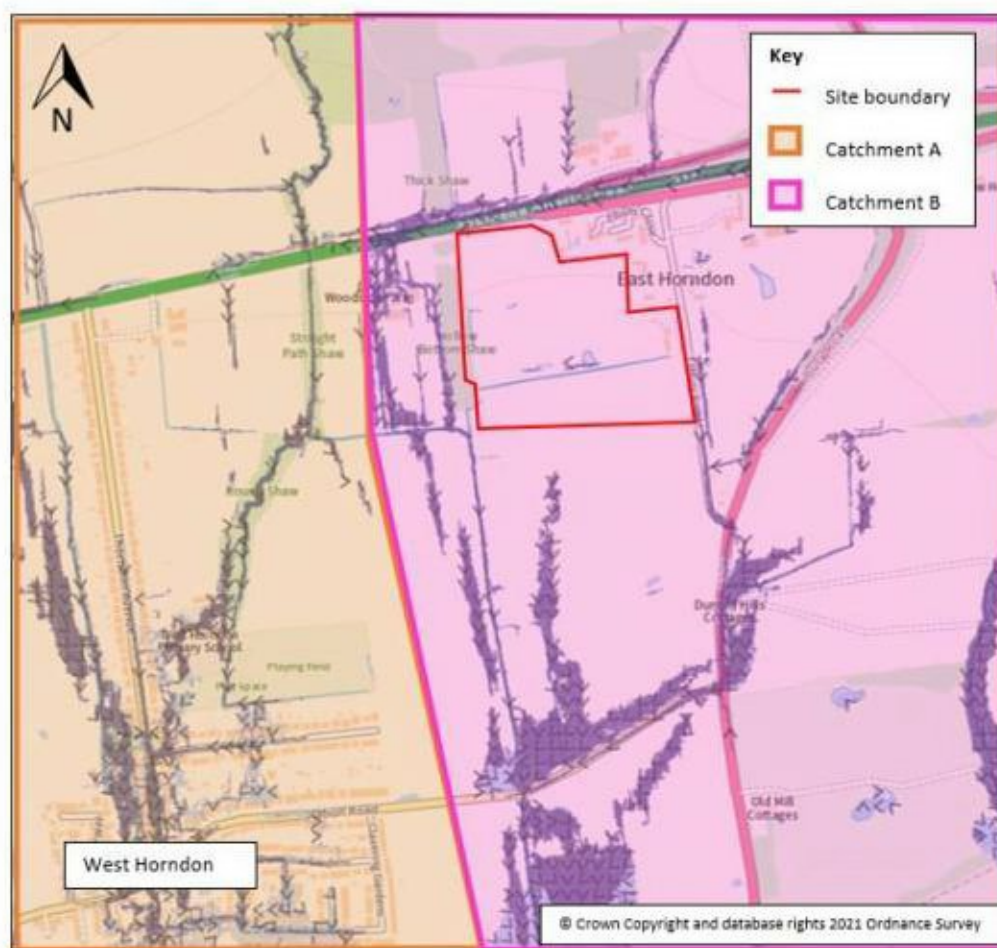


Figure 4-4: Hydrological Catchments

- 4.15. **Catchment A** contains the entire village of West Horndon and includes two unnamed watercourses (labelled 1 and 2 in **Figure 4-4** above) that run in a north-south direction. **Catchment B** contains the development site, a watercourse (labelled no.3) flows east to west and rainfall falling onto the site or its surroundings is conveyed towards the south and collected by watercourse 3.
- 4.16. The presence of these two separate catchments is additionally illustrated in the Environment Agency’s (EA) publicly available Flood risk from surface water maps. An extract of this mapping is provided in **Figure 4-5** below and shows predicted flow directions for a ‘Medium Risk’ flooding event, as per the Environment Agency’s hydraulic model.



**Figure 4-5: Extract from EA's flood Risk of Surface Water Maps:
Medium Risk**

4.17. Therefore, it was concluded that the development site will have no impact on the hydrology or level of flood risk of catchment A, including the residential extents of West Horndon. The development of the site could still have an impact on flood risk in Catchment B. However, this impact has been assessed and mitigated, and the proposed mitigation measures have been accepted, in principle, by the Environment Agency and Essex County Council.

5. SURFACE WATER DRAINAGE STRATEGY

Existing Surface Water Discharge

- 5.1. The planning redline boundary equates to 12.10 ha of predominantly greenfield land, of which 6.02 ha will be impermeable, following development. Based on the topography of the Site, greenfield runoff generated onsite will currently flow overland into the existing ditches running through the centre of the site, and south of the site before joining the watercourse to the west.
- 5.2. The existing greenfield runoff rates have been determined using the ICP SuDS Mean Annual Flow Method. The catchment size has been based upon the proposed developable area of 6.89ha. Peak Greenfield Runoff rates are presented in **Table 5-1** below. Full calculations can be found in **Appendix E**.

Table 5-1: Greenfield Discharge rates

Size (Ha)	Existing Greenfield Run-off rate (l/s)			
	Qbar	1 in 1 year	1 in 30 year	1 in 100 year
6.89	22.1	18.8	50.0	70.4

Proposed Sustainable Drainage Systems (SuDS)

- 5.3. In accordance with the NPPF Planning Practice Guidance, surface water runoff should be disposed of according to the following hierarchy:
1. Store rainwater for later use;
 2. Use infiltration techniques, such as porous surfaces in non-clay areas;
 3. Attenuate rainwater in ponds or open water features for gradual release;
 4. Attenuate rainwater by storing in tanks or sealed water features for gradual release;
 5. Discharge rainwater direct to a watercourse;
 6. Discharge rainwater to a surface water sewer/drain; and
 7. Discharge rainwater to the combined sewer.

- 5.4. As discussed in **Section 2**, the Site is underlain by London Clay which is incompatible with the use of infiltration systems. Therefore, infiltration has not been considered as a viable method of surface water disposal.
- 5.5. Based on the characteristics of the Site, it is proposed to discharge surface water runoff from the Site into the existing watercourse running through the centre of the site. Surface water will be attenuated within Sustainable Urban Drainage features prior to being discharged to existing ordinary watercourses at a controlled rate equivalent to the mean annual greenfield runoff rate for the developable area of the Site.
- 5.6. The constraints and opportunities for the use of SuDS techniques are appraised using the Management Train approach outlined in CIRIA C753 'The SuDS Manual' in **Table 5-1** below.

Table 5-2: C753 SuDS Management Train, Site Assessment

Type:	Infiltration Devices (Source Control)
Constraints:	Ground conditions onsite are not compatible with infiltration techniques.
Opportunities:	None.
Type:	Lined Permeable Paving (Source Control)
Constraints:	The use of permeable paving in an industrial site will be constrained by the proposed site activities and the volume of anticipated volume of HGVs.
Opportunities:	There are opportunities to use permeable paving in car parking areas.
Type:	Rainwater Harvesting (Source Control)
Constraints:	The benefits of rainwater harvesting on a specific design storm event cannot be quantified, due to the seasonal availability of storage within the structure.
Opportunities:	Opportunities in amenity areas to provide harvesting features such as raised planters and water butts exist. It would be difficult to quantify storage contribution, and therefore these features are not included within calculations as part of this surface water management strategy.
Type:	Swales, etc. (Permeable Conveyance)
Constraints:	In order to provide practicable attenuation benefits 1:3 side-slope swales tend to require a significant land requirement.
Opportunities:	Conveyance swales have not been incorporated into the proposed development site.
Type:	Attenuation Basin/Ponds (end of pipe treatment)
Constraints:	Significant land take.

Opportunities:	Efforts have been made to incorporate attenuation basins within the proposed layout
Type:	Attenuation Tanks (end of pipe treatment)
Constraints:	None.
Opportunities:	Oversized sewers and geo-cellular storage attenuation has been used in proposals
Type:	Proprietary SuDS – Downstream Defender (end of pipe system)
Constraints:	None.
Opportunities:	Downstream defenders could be used to improve the quality of surface water discharge offsite if required.

- 5.7. After consideration of the CIRIA C753 SuDS Management Train approach, the most viable SuDS option for this site are attenuation tanks, attenuation basins and oversized sewers. Permeable paving is also proposed in the parking areas in order to provide additional attenuation and a stage of treatment before discharging into the drainage system. Please refer to the proposed drainage strategy plan (**Drawing 2008543-001**) in **Appendix F**.

Proposed surface water runoff rates

- 5.8. Due to the risk of flooding within West Horndon, (although in a different catchment) flows will be restricted to a maximum discharge rate of 22.10 l/s (equivalent to Q_{bar}), for all rainfall events up to the 1 in 100 year plus a 45% allowance for climate change. This is a significant reduction on greenfield runoff rates during the extreme rainfall events.
- 5.9. MicroDrainage modelling results show there is no flooding on the Site during rainfall events up to the 1 in 100 year including 45% climate change rainfall event. MicroDrainage modelling results are included in **Appendix G**. Due to the levels on site, this small amount of flooding would be directed towards the watercourse and away from buildings.
- 5.10. Due to the shallow gradients of the site and levels within the existing watercourse, it is necessary to utilise a pumped surface water outfall. Options will be reviewed to achieve a gravity outfall as part of the wider development will be explored as the design progresses.

Long Term Storage and Urban Creep

- 5.11. It is proposed to restrict discharge rates from the development site to a discharge rate of 22.10 l/s, equivalent to Q_{bar} . As such, long term storage is not required.
- 5.12. It is proposed to develop the site for a commercial/industrial use. As such, urban creep has not been considered for this development.

Overland Flow Routes

- 5.13. The surface water drainage strategy has been designed to ensure no flooding occurs as a result of the 1 in 100-year rainfall event (including an allowance for climate change).
- 5.14. Site levels will be designed to ensure that exceedance flows are directed towards the proposed drainage network and away from buildings. Exceedance flows will be directed to attenuation tanks and conveyance swale.
- 5.15. Should the capacity of the surface water tanks be exceeded during an extreme rainfall event, surface water would flow towards the existing watercourse, currently flowing through the centre of the site.

Water Quality

- 5.16. Development proposals are for commercial/industrial use and ancillary office spaces. Based on Ciria753 Simple Index Treatment Method, the development would have an associated pollution hazard level of 'Medium' to 'High'. The recommended stages of treatment will be provided by the aforementioned attenuation basins and permeable paving. Refer to **Appendix H** for the simple Index Treatment Method calculations.

Maintenance and Management of System

- 5.17. The maintenance of all SuDS components will be in accord with the best practices and the CIRIA C753 The SuDS Manual. The recommended Operation and Maintenance requirements for the

proposed permeable paving, swale and attenuation basins are outlined in the Management Plan in **Appendix I**.

- 5.18. A management company will be appointed to maintain any parts of the network which are not to be offered for adoption to Anglian Water.

6. FOUL WATER DRAINAGE STRATEGY

- 6.1. It is proposed to develop the site to deliver a Net Zero Carbon development of up to 32,000 sqm of employment floorspace within Use Classes E(g)(iii), B2 and B8 and including an Ultra Rapid Electric Vehicle Charging Facility.
- 6.2. The peak foul flow rate for the proposed development has therefore been calculated to be 7.333 l/s. Refer to **Appendix J**.
- 6.3. It is proposed that foul flows from the development will discharge into the existing Anglian Water foul sewer that exists within the centre of the site. Refer to the preliminary drainage strategy drawing no. 2008543-001 provided in **Appendix F**.
- 6.4. Due to the topography of the site a private pumping station will be required.
- 6.5. A pre-planning application has been submitted to Anglian Water to confirm that the existing sewerage network has sufficient capacity to accommodate the proposed foul discharge from the proposed development. A response has not yet been received.

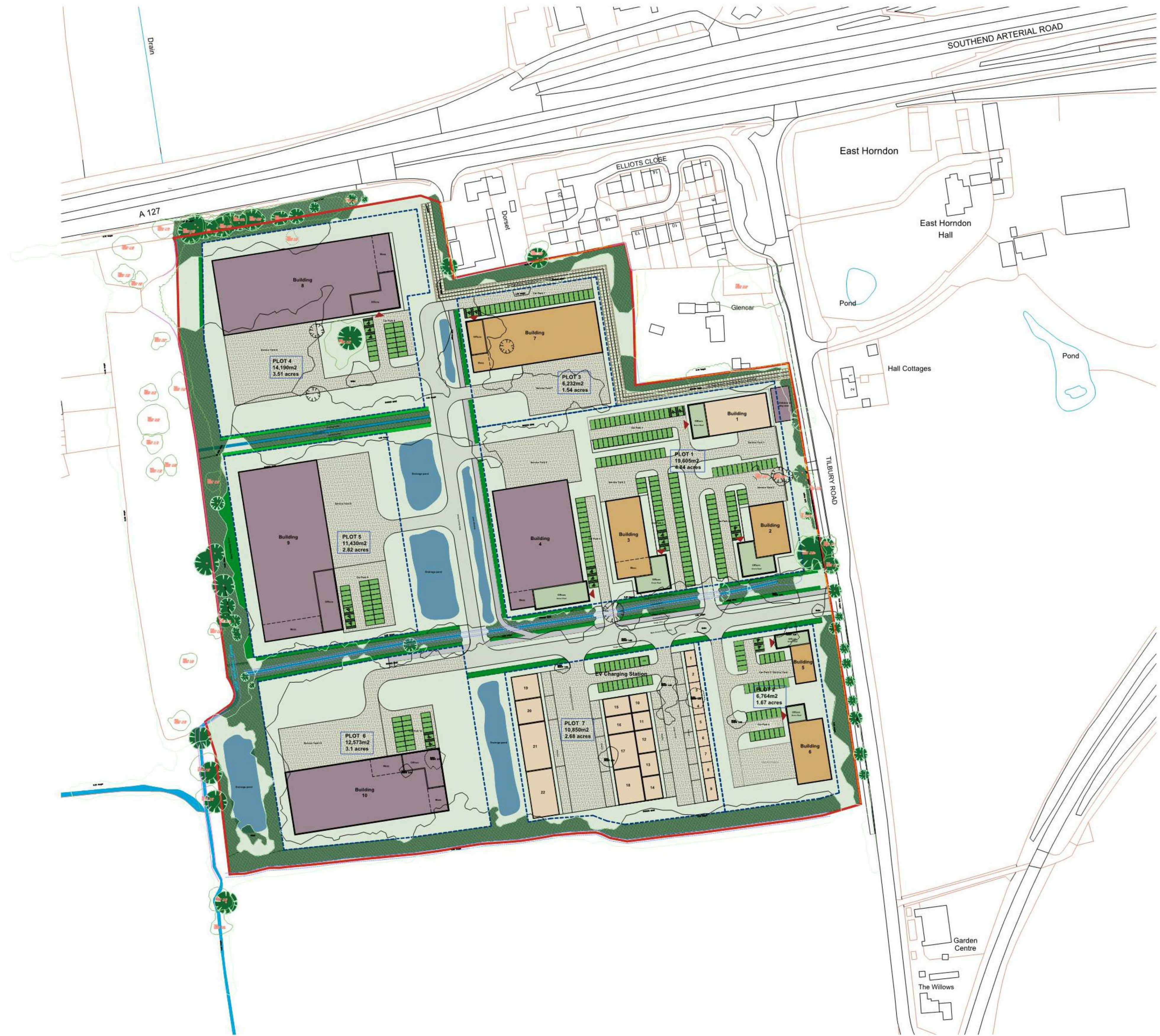
7. SUMMARY AND CONCLUSIONS

- 7.1. Ardent Consulting Engineers has been commissioned by MM Properties (London) Ltd to undertake a Flood Risk Assessment (FRA) and preliminary foul and surface water drainage strategy for the proposed development of the site known as Broadfields, located off Tilbury Road, East Horndon CM13 3LS (referred to as the "Site").
- 7.2. The Site is located entirely within Flood Zone 1, defined as having a low risk of flooding and being suitable for any type of development.
- 7.3. The Site is predominantly at 'Very Low' risk of surface water flooding, with the exception of the western portion of the Site which is considered to be at 'Low' risk, associated with overland flow paths generated in Thorndon Country Park, to the north of the A127.
- 7.4. The EA maps indicate the site is not at risk of surface water flooding from events up to the 1 in 100 AEP ('Medium Risk'), with the exception of a number of very small, localised areas. Predicted flood depths in these areas of the site for the Medium Risk Scenario are below 300mm and are associated with small depression in the terrain. This localised risk will be managed through the implementation proposed drainage network.
- 7.5. Based on the characteristics of the Site, it is proposed to discharge surface water runoff from the Site into the watercourse, currently running through the centre of the site. Surface water will be attenuated within Sustainable Urban Drainage features prior to being discharged to existing ordinary watercourse at a controlled rate equivalent to the mean annual greenfield runoff rate (Q_{bar}) for the developable area of the Site.
- 7.6. After consideration of the CIRIA C753 SuDS Management Train approach, the most viable SuDS option for this site are attenuation basins and attenuation tanks. Permeable paving is proposed in a number of areas in order to provide additional water attenuation and a stage of treatment before discharging into the drainage system.

- 7.7. The surface water drainage strategy has been designed to ensure no flooding occurs as a result of the 1 in 100-year rainfall event (including a 45% allowance for climate change).
- 7.8. In conclusion, this FRA demonstrates that the proposals are consistent with the aims of the NPPF and the Planning Practice Guidance to the NPPF along with the aims of the Strategic Flood Risk Assessment. The Site will not be at significant risk of flooding or increase the flood risk to others.

Appendix A

Development Proposals

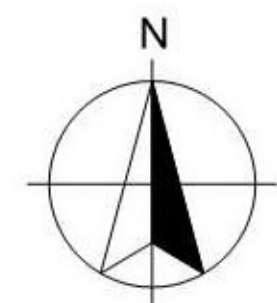


Indicative Site Layout

scale 1:1250 @ A1

Notes:
 All setting out of work to be checked before work commences.
 Any errors to be reported to Nicholas Webb Architects before any further work is carried out.
 Work only to measured dimension, do not scale.

Revision	Notes	Date	Drawn By	Checked By
-	Issued for review	21.09.2022	AS/DL	NW
A	Issued for review	22.09.2022	AS/DL	NW
B	Issued for planning	23.09.2022	AS/DL	NW



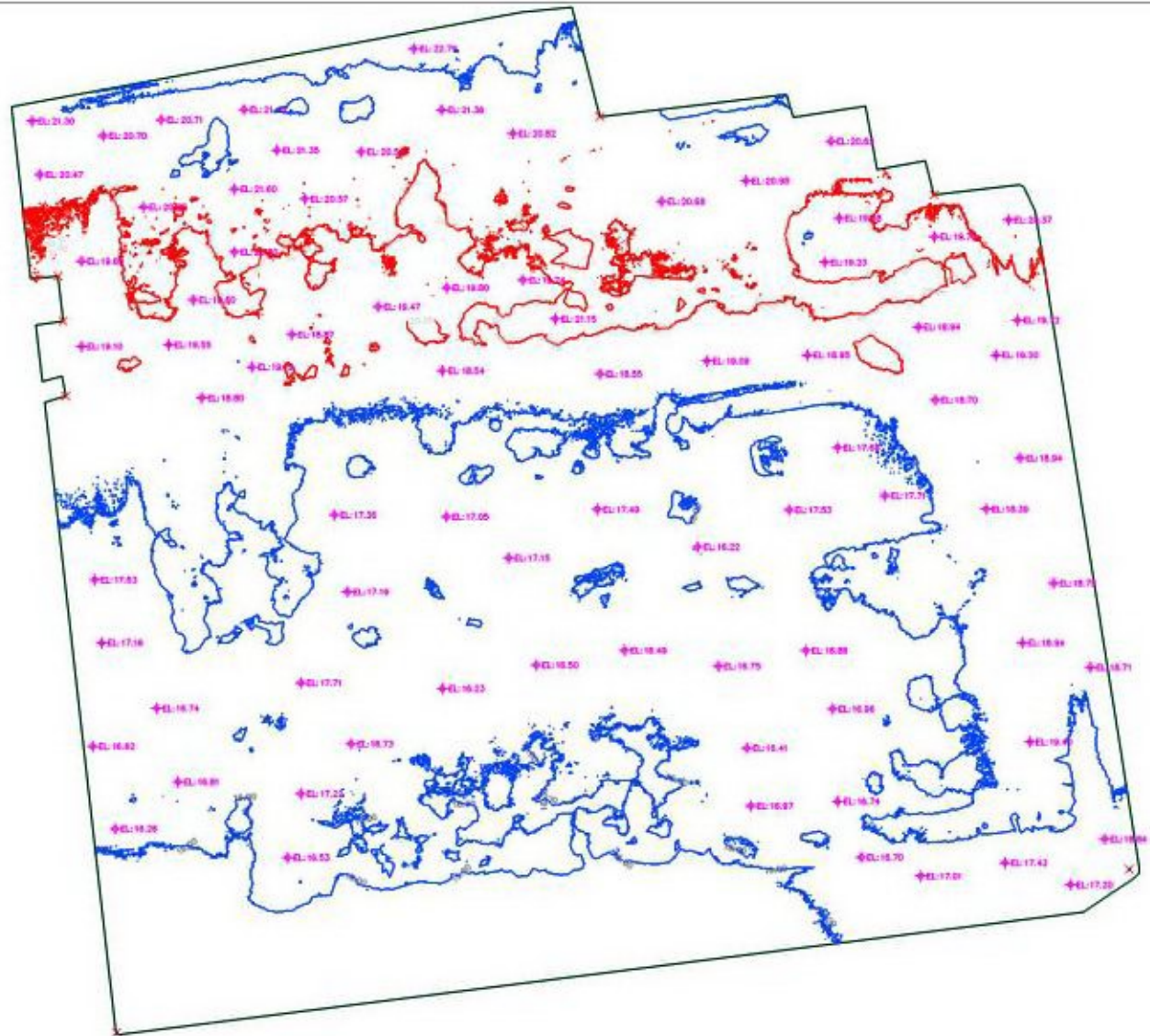
Project: Broadfields Innovation and Business Park	Client: MM Properties (London) Ltd.
Date: 23.09.2022	Title: Indicative Site Layout
Drawn: AS	Status: Planning
Checked: NW	Drawing: 0503-A20-007
Scale: 1:1250 @ A1	Rev: B



Nicholas Webb Architects plc
 The Old Dairy
 Harpendenbury Farm
 Redbourn
 Hertfordshire AL3 7QA
 Tel: 01582 792500
 Email: admin@nwarchitects.co.uk
www.nwarchitects.co.uk

Appendix B

Topographical Survey



Appendix C




Anglian Water Asset Plans

Utilities Report

Utility Type

	Electricity	AFFECTED
	Gas	AFFECTED
	Water and Sewerage	AFFECTED
	Telecoms	AFFECTED
	Other	AFFECTED

Report Information

	Works Description: Legal Conveyancing
	This is Batch A - Responses Enclosed
	Awaiting Further Responses

This report is issued for the site described as:

Land off Tilbury Road, West Horndon, BRENTWOOD

Report Reference:
103696471_1

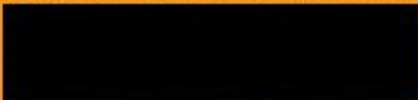
National Grid Reference:
563550,189170

Customer Reference:
LM / 50340

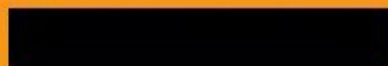
Report Date:
14/11/2016

CONTACT DETAILS

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



or by email at:



Utilities Report



Understanding This Report

We have asked a comprehensive list of Utility companies whether they have any apparatus or underground services in the vicinity of the site.

Location Map

This shows the plan that was dispatched to the Utility companies. The companies have been asked to return information on the area outlined, which will encompass your chosen site.

Request Status Report

This will confirm the current status of the information requests. We list which responses we have received and whether the company is affected. The Status Report will be divided into the following sections.

Affected Utilities - We have received plans/information

No response received - We are still awaiting a full response

Not affected utilities - We have received a not affected/no plant present response

Responses

Affected responses are listed by company.

Any responses from companies confirming they are not affected are provided at the back of the report for your records.



'Awaiting Further Responses' or 'Pack Complete' ?

We do not include Local Authority requests when indicating if the pack is 'Complete' or 'Awaiting Further Responses' as Local Authorities are not obliged to reply to these enquiries.

The local authority for the area is contacted to see if they have any council owned property that may be affected by works. In general, these plant enquiries go to the highways department for responses regarding street lighting and drainage. However, the responses we receive can vary each time depending on resources available at the council and we often don't receive replies from local authorities at all.

Response Times

We endeavour to obtain as much of the information as possible within the timescale of this report. Unfortunately, there are occasions when the response times of the utility companies mean we do not receive all information within the chosen timescale.

In these scenarios we will send all the information that is available as a first report. When we receive any remaining responses, the report will be re-issued in full incorporating the new information. This will continue until the report is complete. The front page of the report will confirm the batch (e.g. A, B or C) and whether responses are outstanding.

Terms and Conditions

Full Terms and Conditions can be found on the following link: <http://www.landmarkinfo.co.uk/Terms/Show/515>

Please note that Utility reports have a validity of 3 months from the date of purchase.

If you experience difficulties accessing our Terms and Conditions, please copy and paste the link directly into your browser, you will then be able to access our Terms and Conditions from there. Should you still experience difficulties, please telephone our Customer Service Team on 0844 844 9966.

Next Steps:

For any queries regarding the report content, or help with the report, contact your Landmark Customer Services team.

Utilities Report



Landmark Utilities Report Service PAS 128 Statement

Prepared for: **Landmark Information Group Ltd**

Practitioner: Atkins

Order Number: 50340

Site Name: Land off Tilbury Road, West Horndon, BRENTWOOD

Date of Order: 07/11/2016

Date of Issue: 14/11/2016

Thank you for using our Utility Report Service.

This report has been completed in accordance with the standards defined under Survey Category D of PAS128, a Publicly Available Specification for underground utility detection, verification and location published by the British Standards Institution.

Positional accuracy of plant is not guaranteed from information presented in a desktop search alone and the location of underground utilities should be verified through other means prior to breaking ground.

Information relating to the presence of Radio Frequency Identification Devices (RFIDs) has been requested from relevant utility companies or taken from mapping systems where available.

Utility companies who have not responded to enquiries are referenced on the enclosed Status Report accordingly. Their response will be chased and forwarded on for a period of up to four working weeks. Whilst we cannot guarantee that a utility company will respond to our enquiries, we endeavour to obtain responses from those that have not responded.

Any responses contained within this report have been obtained between the start date of the order and the date of issue.

If you want to discuss your report further with us please contact Landmark Customer Services.

Checked by **PS**



Please ensure that the search data covers the **COMPLETE AREA** within the boundary lines on this map. (marked by: **—**)

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

REFERENCE: 50340

SITE: Land off Tilbury Road, West Horndon, BRENTWOOD

POST CODES:

CM13 3LJ

SITE SIZE: 21.79 ha

MAP SCALE: 1:5000

COORDINATES:

1) 563546 189151; 2) 563823 189274; 3) 563625 189432; 4) 563326 189328; 5) 563486 188740;

Land off Tilbury Road, West Horndon, BRENTWOOD

OSGR: 563550,189170

Date Requested: 07-Nov-2016

CM13 3LP

Client Reference:

103696471_1

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

Utility	Category	Date Issued	Late Response Issue Date	Notes
Anglian Water	Water, Sewerage,	14 Nov 16		Sewer only.
Essex & Suffolk Water	Water,	14 Nov 16		
Essex County Council	Council,	14 Nov 16		See response.
LinesearchbeforeUdig	Pipeline,	14 Nov 16		Essex & Suffolk Water - Identified as affected. See separate response.
National Grid Gas	Gas,	14 Nov 16		
Openreach - [British Telecommunications]	Telecom,	14 Nov 16		
Plancast - [Interoute]	Telecom,	14 Nov 16		
SKY Telecommunications Services	Telecom,	14 Nov 16		See response.
UK Power Networks	Electric,	14 Nov 16		
Vodafone	Telecom,	14 Nov 16		Only affected sent.

No response received We are still awaiting a full response from the following companies.

Utility	Category	Date Issued	Late Response Issue Date	Notes
C.A. Telecom UK - [Colt Technology Services]	Telecom,			
Environment Agency	Environmental Agency,			
Instalcom - [Level 3, Global Crossing (UK) & PEC and Fibernet UK]	Telecom,			
McNicholas - [KPN International]	Telecom,			
McNicholas - [TATA Communications]	Telecom,			
Virgin Media	Telecom,			

Not affected utilities

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

Utility	Category	Date Issued	Late Response Issue Date	Notes
CityFibre	Telecom,	14 Nov 16		Website used.
Energetics	Gas, Electric, Water,	14 Nov 16		
GTC	Telecom, Gas, Electric, Water, Pipeline,	14 Nov 16		
Interoute Vtesse	Telecom,	14 Nov 16		
KCOM Group	Telecom,	14 Nov 16		
Network Rail	Rail,	14 Nov 16		
SSE	Telecom, Gas, Electric,	14 Nov 16		Website used.
Telent - [TeliaSonera]	Telecom,	14 Nov 16		
Trafficmaster	Other,	14 Nov 16		Website used.
Verizon	Telecom,	14 Nov 16		

Checked and Validated By Alison Friend

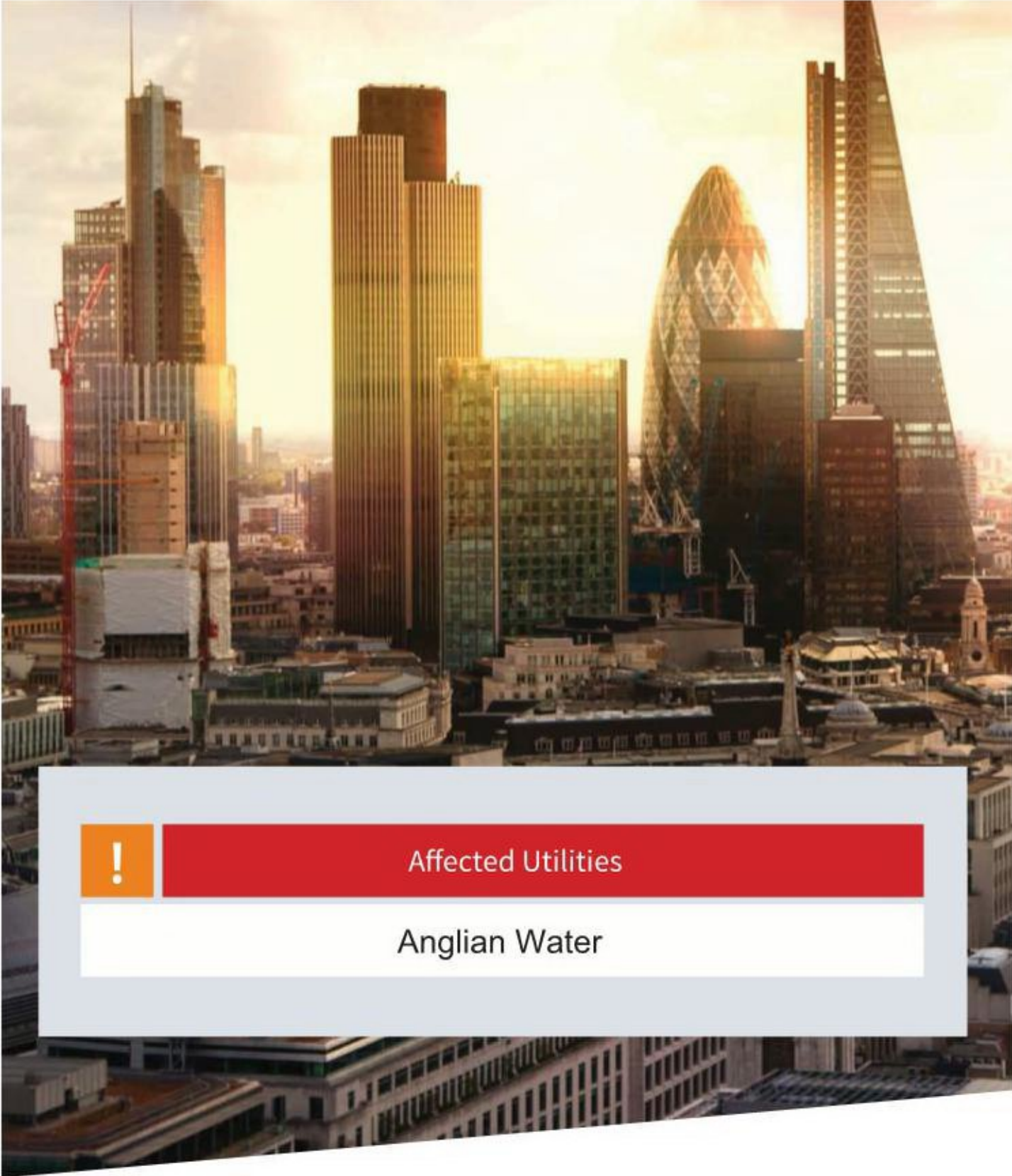
Date 14 November 2016



Definition of Terms

- Affected** Utility supplier is expected to be affected by any work carried out in the area searched as their records indicate their plant is in or close to the area searched. It is recommended to anybody carrying out works in the area that they should consult with the utility company as soon as possible and in any event prior to carrying out any works.
- No response received** At the date of sending the report no response has been received from the utility supplier.
- Not affected** Utility supplier is not expected to be affected by any work carried out in the area searched as their records indicate their plant is not in or close to the area searched.

Utilities Report



Affected Utilities

Anglian Water



CHECKED



Manhole Reference	Easting	Northing	Liquid Type	Cover Level	Invert Level	Depth to Invert
1100	563159	189155	F	18.615	17.345	1.27
1200	563152	189225	F	-	-	-
1201	563143	189282	F	20.394	17.604	2.79
2100	563262	189148	F	18.187	17.167	1.02
3100	563399	189135	F	19.437	-	-
4100	563491	189130	F	19.694	16.854	2.84
5100	563555	189122	F	19.628	16.708	2.92
6100	563642	189109	F	18.149	16.389	1.76
7000	563740	189055	F	18.148	16.389	1.76
8200	562855	189232	F	20.58	17.99	2.59
8800	563859	188864	F	-	-	-
8900	563808	188933	F	-	-	-
9200	562960	189254	F	20.776	17.911	2.865
9201	562999	189257	F	20.384	17.604	2.79
9700	563814	188773	F	-	-	-

Manhole Reference	Easting	Northing	Liquid Type	Cover Level	Invert Level	Depth to Invert
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Manhole Reference	Easting	Northing	Liquid Type	Cover Level	Invert Level	Depth to Invert
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Manhole Reference	Easting	Northing	Liquid Type	Cover Level	Invert Level	Depth to Invert
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Manhole Reference	Easting	Northing	Liquid Type	Cover Level	Invert Level	Depth to Invert
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Manhole Reference	Easting	Northing	Liquid Type	Cover Level	Invert Level	Depth to Invert
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Utilities Report



Affected Utilities

Essex & Suffolk Water

50340

LAND OFF TILBURY ROAD WEST HORNDON BRENTWOOD

CHECKED

Site Enquiry

Plan

We enclose Plan(s) showing the approximate position of the Company apparatus in the vicinity of the area of your enquiry.

1. The company is not responsible for private water supply pipes that connect the property to the public system and does not hold details of these.
2. Individual property services have not been shown although it should be assumed they exist.

General Notes

A copy of the standard conditions for working near Company apparatus is enclosed for your information. If you require any further assistance to identify Company apparatus, then do not hesitate to make contact with the Area Office at the contact number shown in the standard conditions.

Important:- Please ensure this detail is made available to anyone carrying out any works which may affect out apparatus.

From the 1st October 2011 there may be lateral drains and/or public sewers which are not recorded on the public sewer map.

Signed,

On behalf of Northumbrian Water, Essex & Suffolk Water

Date: 09/NOV/2016

Ref: 1136373

**STANDARD CONDITIONS FOR WORKING
NEAR ESSEX & SUFFOLK WATER APPARATUS**



NWG Property Solutions is part of Northumbrian Water Group (NWG)
Northumbrian Water and Essex & Suffolk Water are also part of NWG

**THE FOLLOWING CONDITIONS WILL APPLY TO ALL
WORKS IN THE VICINITY OF COMPANY APPARATUS**

1. Contact should be made with the appropriate Company Area Office prior to the commencement of any work. Arrangements can then be made for the local representative to visit the site and assist in the location and protection of any apparatus affected. The Company must be given two working days notice before any works, including trial holes, are carried out within their easements. Contact **08457 820 999**.
2. The information shown on any plan provided by the Company is for general guidance only. The position of apparatus shown should not be relied upon as being precise. No service pipes are shown on plans.
3. The actual position of apparatus must be established by taking trial holes in all cases. No machine excavation will be permitted within 1 metre side of a main. The actual position of any apparatus must be found by hand excavation.
4. Where Company apparatus is exposed by excavation, support and protection measures are to be agreed on site. Where excavations are taken out below the invert of a main, adequate support is to be provided to prevent collapse of the excavation and subsequent undermining of the main. Special attention is to be given to the compaction of selected backfill material under the main and the company may require the use of lean mix concrete to replace inadequately compacted or unsuitable support backfill material. The compaction of selected backfill material under, around and up to a level of 300mm above the top of any main shall be carried out by hand. Upon completion of operations, any excavation is to be left open until after inspection by Company's representative.
5. No installation of plant may take place within the Company's easements without the prior consent of the Company and with all special conditions and arrangements being finalised before commencement of work.
6. Indiscriminate crossing of the main by heavy construction plant will not be permitted. Where applicable, Crossing Points must be agreed by the Company and any protective measures necessary taken before work begins.
7. Surface boxes and covers should not be removed without obtaining prior consent of the Company. All surface covers to washouts, valves, air valves, hydrants, stopcocks etc., are to be kept clear of obstruction and with free access at all times. If surface boxes or covers have been temporarily removed, positions should be clearly marked.
8. Where the levels of carriageway and footpath surfaces are raised or lowered, then the Company's surface covers must be adjusted as appropriate.
9. No pipes or cables are to be laid or structures placed directly over the line of Company apparatus.
10. Where drains, pipes or cables cross over or under any mains, a minimum clearance of 300mm must be maintained. Where it is necessary for any plant to lay parallel to the pipelines, a minimum distance of 1 metre shall be maintained between the outside of the pipeline and any plant being installed, except in the case of small diameter plant where N.J.U.G 7 dimensions apply. The Company must agree exceptions to these conditions in writing.
11. All crossing of the company's pipelines and easements shall be at right angles where possible. Where skew crossings are necessary, no more than 3 metres of the Company's pipeline shall be exposed at any time.
12. The Company will require three copies of proposal drawings showing the details of any proposed crossing of pipelines above 300mm diameter. The drawings must show the Company's pipelines in relation to the proposed works, to a scale of no less than 1:500 and no work shall commence until the Company has given approval.
13. Where it is necessary to carry out piling works closer than 6m to the Company' apparatus, or to carry out works using plant that is likely to damage the integrity of the Company's apparatus, the Company will require a method statement of the works shall be consulted before work commences.
14. Where the Company's pipeline is protected by a cathodic protection system, the Company will require a suitable joint testing programme to be agreed before the application of any cathodic protection scheme proposed by another authority or utility undertaking. If any bond-wires or test leads associated with the Company's cathodic protection system are damaged, disconnected or found to be in poor condition, the Company should be notified so that repairs can be made.
15. In the case of Trunk mains which cross development sites, no development is to take place within an agreed distance either side of the pipeline. A guide showing the easement widths for the various diameters and depths of pipe is available from Asset Plans.
16. No tree planting or landscaping work is done in close proximity to Company apparatus unless otherwise agreed in writing by the Company. A planting guide is available from Asset Plans.
17. In the event of any damage to any of the Company's plant the Company must be informed immediately. Where any damage occurs to Company apparatus, the appropriate remedial work will be carried out by the Company and charged to the promoter of the works.
18. Every effort should be made to secure the site against vandalism of the Company's plant.
19. A copy of these conditions is to be made available to all Contractors or Sub-Contractors working in the vicinity of Company apparatus.



Valves/Regulators	Fittings/Symbols	Storage/Operations	Network Types	Specific Main Types	Area Types
P1 P2 P3 P4			Distribution Treated Raw Fire Supply	Abandoned Asbestos Abandoned Out of Commission Private	Water Quality District Metering Easement



User : DAWSJ1

Date : 09/11/2016 09:16:18

Title : 0000

Map Sheet : TQ6389

Centre Point : 563543,189088

Paper / Scale : A3@1:2700

The material contained on this plot has been reproduced from an Ordnance Survey map with permission of the controller of H.M.S.O. Crown Copyright Reserved. Licence No. 100022480. The information shown on this plan should be regarded as approximate and is intended for guidance only. No Liability of any kind whatsoever is accepted by Essex & Suffolk Water, it's servants or agents for any omission. The actual position of any mains shown on the plan must be established by taking trial holes in all cases. Essex & Suffolk Water must be given two working days notice of their intention to excavate trial holes. Private connections are not shown but their presence should be anticipated. **WARNING**...Where indicated on the plan there could be abandoned asbestos cement materials or shards of pipe. If excavating in the vicinity of these abandoned asbestos cement materials, the appropriate Health & Safety precautions should be taken. Essex & Suffolk Water accepts no liability in respect of claims, costs, losses or other liabilities which arise as the result of the presence of the pipes or any failure to take adequate precautions. Emergency Telephone Number: 0345 782 0999



Utilities Report



Affected Utilities

Essex County Council

Priya, Shubha

From: ESH BS Stats - [REDACTED]
Sent: 10 November 2016 21:29
To: Statutory Enquiries
Subject: RE: Urgent Plant Enquiry - 50340 - Land off Tilbury Road, West Horndon, BRENTWOOD - Please respond by 11/11/2016

STREETLIGHTING

Please see attached PDF/Map showing the marked area where we believe Essex County Council owned private cable networks to be present. Please refer to the below Terms below for the use of this information.

IMPORTANT READ THE TERMS OF USE SET OUT IN PARAGRAPHS 1 to 12 INCLUSIVE BELOW.

TERMS OF USE

1. *Essex County Council does not warrant that the information provided to you is correct. You rely upon it at your risk.*
2. *The information provided to you is that held in our electronic records at the date of its provision to you.*
3. *The information about electrical plant and/or electric lines provided to you belongs to and remains the property of Essex County Council. You shall not alter it in any respect.*
4. *The information provided to you about the electrical plant and/or electric lines depicted on the plans is **NOT** a complete record of such apparatus belonging to Essex County Council. The information provided relates to electric lines and/or electrical plant belonging to Essex County Council that it believes to be present but the plans are **NOT** definitive: other electric lines and/or electrical plant may be present and that may or may not belong to Essex County Council.*
5. *Apparatus not belonging to Essex County Council is not shown on the plans. It is your responsibility to make your own enquiries elsewhere to discover whether apparatus belonging to others is present. It would be prudent to assume that other apparatus is present.*
6. *Essex County Council will not supply paper copies of the plans made available to you through this email. You are responsible for ensuring:*
 - 6.1 *That the information made available to you through this email is passed to those acting on your behalf; and*
 - 6.2 *That all such persons also accept these Terms of Use.*
7. *Because the information provided to you may **NOT** be accurate you are recommended to ascertain the presence of all electric lines and/or electrical plant by the digging of trial holes. **Trial holes should be dug by hand only.** Excavations must be carried out in line with the Health and Safety Executive guidance document HSG 47.*
8. *Any work near to any overhead electric lines will be carried out by you in accordance with the Health and Safety Executive guidance document GS6 recommendations. The GS6 Recommendations may be purchased from HSE Books or downloaded from the Energy Networks Association's website www.hse.gov.uk*
9. *You are responsible for the security of the information provided to you.*
10. *The information that Essex County Council has provided to you must not be given or sold or made available upon payment of a fee to a third party.*
11. *Essex County Council has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise howsoever arising for any losses, damages, costs, claims, demands, or expenses that you may suffer or incur as a result of using the information provided to you whether for physical damage to property or for any economic loss (including without limitation loss of profit, loss of opportunity, loss of savings loss of goodwill loss of business loss of use) or any special or consequential loss or damage whatsoever.*
12. *If you wish to contact Essex County Council about this information you should contact: street.lighting@essex.gov.uk*



Draw Line on
Personal drawing layer
Line
Colour Width Style
Red [dropdown] [dropdown]

Priya, Shubha

From: Streetworks - [REDACTED]
Sent: 08 November 2016 17:36
To: Statutory Enquiries
Subject: FW: Urgent Plant Enquiry - 50340 - Land off Tilbury Road, West Horndon, BRENTWOOD - Please respond by 11/11/2016
Attachments: Site Details.pdf
Importance: High

Good Afternoon,

Although we may have apparatus within the vicinity that you have specified, we do not hold any records. We would therefore ask that you please hand dig this area with care.

Thank you

**Debbie Goddard / Streetworks Technician
Highways**

Ringway Jacobs | Essex County Council
Unit 36, Childerditch Industrial Park, Childerditch Hall Drive, Brentwood, CM13 3HD

[REDACTED]
W: www.essex.gov.uk/highways

From: Statutory Enquiries [REDACTED]
Sent: 08 November 2016 04:17
To: Streetworks [REDACTED]
Subject: Urgent Plant Enquiry - 50340 - Land off Tilbury Road, West Horndon, BRENTWOOD - Please respond by 11/11/2016
Importance: High

Urgent- It would be greatly appreciated if you could reply ASAP, where possible by 11/11/2016 Thanks in advance.

Our Reference: 50340
Site Name: Land off Tilbury Road, West Horndon, BRENTWOOD
Works Description: Development Appraisal
Site Grid References: 563534 189086,563773 189280,563376 189320,563619 189382,563486 188790

To whom it may concern,

Please find enclosed a plant enquiry for your attention.

We request plans showing the location of your company's affected plant in relation to the entire site area shown within the boundary on the attached map. Grid references and postcodes relative to the site boundary are provided on the attached map to help you locate the site.

Within your response please quote our reference number and the name of the site shown above. If you do not have any apparatus in this area, please could you send written confirmation to declare that no apparatus is affected. Please also include information relating to the use and location of Radio Frequency Identification Devices (RFIDs) where available.

Priya, Shubha

From: ESH BS Stats [REDACTED]
Sent: 10 November 2016 21:33
To: Statutory Enquiries
Subject: RE: Urgent Plant Enquiry - 50340 - Land off Tilbury Road, West Horndon, BRENTWOOD - Please respond by 11/11/2016

ITS MAINTENANCE – TRAFFIC SIGNALS

Dear Sir/Madam

Further to your recent email regarding the proposed works at:

Land off Tilbury Road, West Horndon, BRENTWOOD

I can confirm that we have no Traffic Control equipment underground services in the immediate vicinity of the proposed works detailed below.

If you have any queries please contact the ITS Maintenance team on the details below:

[REDACTED]
[REDACTED] (ITS Maintenance Fault Report Desk)

From: Statutory Enquiries [REDACTED]
Sent: 08 November 2016 04:17
To: [REDACTED] ESH BS Stats; Telenttelia [REDACTED]
Subject: Urgent Plant Enquiry - 50340 - Land off Tilbury Road, West Horndon, BRENTWOOD - Please respond by 11/11/2016
Importance: High

Urgent- It would be greatly appreciated if you could reply ASAP, where possible by 11/11/2016 Thanks in advance.

Our Reference: 50340
Site Name: Land off Tilbury Road, West Horndon, BRENTWOOD
Works Description: Development Appraisal
Site Grid References: 563534 189086,563773 189280,563376 189320,563619 189382,563486 188790

To whom it may concern,

Please find enclosed a plant enquiry for your attention.

We request plans showing the location of your company's affected plant in relation to the [entire site area shown within the boundary on the attached map](#). Grid references and postcodes relative to the site boundary are provided on the attached map to help you locate the site.

Within your response please quote our reference number and the name of the site shown above. If you do not have any apparatus in this area, please could you send written confirmation to declare that no apparatus is affected. Please also include information relating to the use and location of Radio Frequency Identification Devices (RFIDs) where available.