

LAND AT WHITE HORSE BUSINESS PARK, NORTH BRADLEY, TROWBRIDGE

UTILITIES ASSESSMENT

CASTLEWOOD PROPERTIES VENTURES LTD
20 APRIL 2020



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1.0 Introduction

Context

- 1.1. This report has been prepared by Abley Letchford Partnership Ltd, on behalf of Castlewood Properties Ventures Ltd, in support of their planning application to Wiltshire Council for a proposed residential development on land located to the south of A363 Bradley Road, North Bradley, Trowbridge, Wiltshire (*The Development*).
- 1.2. The site is located approximately 2.2km south of Trowbridge town centre, with Woodmarsh to the west and A363 Bradley Road to the north (*The Site*).
- 1.3. The Site covers an area of circa 8.37 hectares (Ha), approximately centred on OS grid reference 385687E, 155814N. The Site in its local context is provided at **Appendix 1**.
- 1.4. This Utilities Assessment is to accompany the proposed outline application, from agricultural to the provision of up to 100 residential dwellings and a care home of up to 64 beds. Provision of public open spaces and greenspaces are included in the proposals.
- 1.5. The purpose of this report is to evaluate the existing and proposed services with respect to the impact of the proposed development and assess potential diversionary works and potential reinforcement and capacity constraints.

Development Proposals

- 1.6. The development proposals outlined are the provision of up to 100 residential dwellings and a 64 bed care home facility. The Illustrative Masterplan and Parameter Plan are appended to this report showing the layout of the proposed development.
- 1.7. Vehicular access to the site will primarily be provided from the A363 Bradley Road, with the primary access being a new priority junction with right turn lane arrangement. An access is shown to the south to a land parcel to be developed in the future.
- 1.8. The Illustrative Masterplan, Parameter Plan, and Proposed Site Access drawings are provided at **Appendix 1**.

Scope

- 1.9. This report will address the following:
 - Obtain existing service information from Statutory Utility Companies.
 - Define the proposed utility load requirements to support future use.
 - Establish the infrastructure requirements necessary to provide new utility services for the Development.



- Identify critical issues and key risks.
- Identify initial headline budget costs for new provisions and diversions.

Principles of Assessment

- 1.10. This report has been produced following a desk top study and site walkover.
- 1.11. Utilities providers were contacted to confirm the position of their existing apparatus and to identify future requirements and wherever possible, costs to supply the Development.
- 1.12. This report summaries information supplied by each of the key utility companies. The utilities under consideration include:
- Potable Water Supply;
 - Telecommunications;
 - Gas and;
 - Electricity.
- 1.13. The provision of surface water and foul water drainage infrastructure is considered within the Flood Risk Assessment and Drainage Strategy.
- 1.14. No invasive investigative work has been carried out; therefore, the actual positions of mains and services must be verified onsite before construction work is undertaken in accordance with NRSWA and CDM.
- 1.15. Budget costs and associated programmes will be incorporated once established through discussions with the relevant Statutory Utility Companies.
- 1.16. Upon Outline Planning Consent being granted, more detailed responses, including capacity assessment requests and investigations, and quotations for increase in capacity to serve the proposed development if required, will be sought once the development proposals have entered the detailed design stage.

Affected Utilities

- 1.17. The following utilities have provided asset details of their network. These assets are either directly affected by the Development or are in the immediate vicinity. Refer to the Existing Utilities Plan which shows indicative location of utilities in **Appendix 2** for further information.

Provider	Type
Wessex Water	Water Mains
Openreach	Telecoms/Cable
Virgin Media	Telecoms/Cable
Scottish and Southern Energy	Electricity
Wales & West Utilities	Gas
Wiltshire Highways/SSE	Street Light Cable Network



Exclusions

- 1.18. This report does not cover drainage proposals, but further details can be found within the supporting Flood Risk Assessment/Drainage Strategy. Asset Plan information relating to these existing assets have been included for completeness.

Liability

- 1.19. No warranty is given by Abley Letchford Partnership Ltd on the quality, accuracy or completeness of information provided by the Statutory Utility companies. All plant locations and explanatory descriptions are indicative only and must only be used as a guide. It is the responsibility of the site operative to identify and locate apparatus prior to construction activity.



2.0 Potable Water Supply

Existing Assets

- 2.1. Wessex Water are the regional provider to the Site.
- 2.2. Asset records show the following:
 - A 450mm diameter ductile iron water main crosses the western parcel of land routing from adjacent road Woodmarsh south eastwards towards Little Common. Along the route of the water main, there is an existing Washout Hydrant (W.O) for Wessex Water to use as an accessible valve in the water main to run dirty water out of the system following maintenance work. There is also a DAV Air Release Valve on site which reduces the presence of trapped air in the pressurised water pipeline. This has a 12m wide easement centred on the water main crossing the site.
 - A water main of unknown diameter and material is shown to route along the northern verge of the A363 Bradley Road to the north of the Site.

Diversions/Adjustments

- 2.3. The Illustrative Masterplan shows that proposed development will respect the location of the existing assets and therefore there should be no requirement to divert the existing Wessex Water water supply infrastructure.
- 2.4. Wessex Water will need to be contacted for their stand-off distances from their asset to plots that require piled foundations. The stand-off distances may vary dependent on the form of piling selected.

Future Development Supply Requirements

- 2.5. Detailed cost estimates should be obtained once masterplan is finalised.
- 2.6. Wessex Water will need to be contacted for a detailed capacity assessment in order to assess the capacity of the existing network and confirm extent of off-site upgrade works, together with the associated costs and timescales.
- 2.7. It is anticipated that the Development could be served by one of the water mains identified above. Given the options available, it is anticipated that there will be no major technical issues with providing potable water to the Development.



3.0 Telecommunications

Openreach

Existing Assets

- 3.1. Openreach service records indicate underground apparatus running along the development-side footway of the A363 Bradley Road and along both sides of the Woodmarsh to the west of the site.
- 3.2. Overhead apparatus and live poles are shown to be located in the south west corner of the site inside the Site that routes from Woodmarsh to the west of the site.

Diversions/Adjustments

- 3.3. Given the location of existing assets, there should be no requirement to divert the existing Openreach cables in order to enable the proposed development.
- 3.4. However, with consideration of existing Openreach apparatus in the southern highway verge of A363 Bradley Road, it is possible that minor service diversion or protection works will be required to maintain a suitable level of protection to services at the proposed site access. This will be considered in more detail at the appropriate stage of the design process.

Future Development Supply Requirements

- 3.5. It is likely that the site could be served from Openreach existing infrastructure on the development-side of A363 Bradley Road to the north of the site. Their networks could be extended into the site using additional connections and cabling as necessary to service all units.
- 3.6. Once the masterplan is fixed, Openreach must be approached to establish how new connections will be made and whether network reinforcement work will be required to serve the proposed development to confirm the likely scenario described above.
- 3.7. There is no technical reason why Openreach would not be capable of serving the proposed site.
- 3.8. Openreach has a “Universal Service Obligation” to provide network to the site boundary at their expense. Onsite civil engineering costs would be borne by the Developer. It would be prudent therefore to provide Openreach apparatus as an absolute minimum as this would provide Fibre to Premise capabilities to the Development.
- 3.9. Generally, Openreach finance offsite network reinforcement requirements to a limit, although offsite reinforcements are unlikely to be required on this Development.
- 3.10. Detailed cost estimates should be obtained once the masterplan is finalised.



Virgin Media

Existing Assets

- 3.11. Virgin Media apparatus is shown on the development-side footway of A363 Bradley Road to the north of the site. It is also shown on the western side footpath of Woodmarsh to the west of the site.

Diversions/Adjustments

- 3.12. With consideration of existing Virgin Media apparatus within the development-side verge of A363 Bradley Road, it is possible that minor service diversion or protection works will be required to maintain a suitable level of protection to services at the proposed site access. This will be considered in more detail at the appropriate stage of the design process.

Future Development Supply Requirements

- 3.13. It is anticipated that new supplies could be made by extending into the site from the existing network, using additional connections and cabling as necessary to service all units.
- 3.14. Once the masterplan is fixed, Virgin Media must be approached to establish how new connections will be made and whether network reinforcement work will be required to serve the proposed development.
- 3.15. Given the proximity of their existing assets, no major technical reasons are anticipated, should Virgin Media extend their apparatus into the Development.
- 3.16. Detailed cost estimates should be obtained once the masterplan is finalised.



4.0 Gas

Existing Assets

- 4.1. Wales & West Utilities is the primary gas transporter for the area.
- 4.2. There is an 8" Steel Low Pressure (LP) gas main that routes west-east along the northern side of the A363 Bradley Road to the north of the Site.
- 4.3. The records also show a 180mm Polyethylene (PE) Low Pressure Pipe that routes north-south on Woodmarsh to the west of the Site.

HSE Consultations Zone

- 4.4. The Health and Safety Executive (HSE) is a statutory consultee on developments in the vicinity of major hazard sites and major accident hazard pipelines.
- 4.5. The Site does not lie within the consultation distance of a major hazard site or major accident hazard pipeline; therefore, at present the HSE do not need to be consulted on any Development on this Site.

Diversions/Adjustments

- 4.6. It is anticipated that likely connection can be made to the existing gas network on the northern side of the A363 Bradley Road. This will require a junction and crossing the A363 Bradley Road and avoiding the existing services within the development-side footpath and verge of the A363 Bradley Road before extending into site. This would be subject to confirmation by Wales & West Utilities.
- 4.7. Detailed cost estimates should be obtained once sufficient additional detail is available.

Proposals

- 4.8. SGN must be approached in order to assess the requirements of the Development and their local gas network. Provision of capacity is not expected to be an issue.
- 4.9. The close proximity of the site to low pressure gas supplies should preclude the need for an on-site Pressure Reduction Installation (PRI)
- 4.10. Given the location of existing apparatus and opportunities for new supplies, there does not appear to be technical reason why connection to the existing local gas network cannot be made.



5.0 Electricity

Existing Assets

- 5.1. Scottish and Southern Electricity (SSE) are the regional statutory provider for the Site.
- 5.2. There is a Low Voltage (LV) main routing along the northern side of the A363 Bradley Road to the north of the site. This routes from Great Mills substation located outside Matalan in the nearby retail park along Drynham Lane to the A363 Bradley Road/Woodmarsh roundabout eastwards along the A363 Bradley Road.
- 5.3. An LV main is shown routing north-south on the western side of Woodmarsh to the west of the site.
- 5.4. Low voltage electricity service cables supplying the streetlights is shown on both sides of the A363 Bradley Road. This does not cover the entire length of the A363 Bradley Road.
- 5.5. There is an 11kV High Voltage (HV) network cable is shown routing west-east from the substation in the nearby electricity sub-station.

Diversions/Adjustments

- 5.6. The street lighting and associated cabling are likely to be affected by the proposed site access. It is possible that minor service diversion or protection works will be required to maintain a suitable level of protection to services at the proposed site access. This will be considered in more detail at the appropriate stage of the design process.
- 5.7. Given the location of existing assets, there should be no requirement to divert existing LV and HV cables.
- 5.8. It is anticipated that likely connection can be made to the existing electricity network on the northern side of the A363 Bradley Road. This will require a new HV circuit and crossing the A363 Bradley Road and avoiding the existing services within the development-side footpath and verge of the A363 Bradley Road before extending into site. This would be subject to confirmation by SSE.

Proposals

- 5.9. SSE should be approached to undertake a Feasibility Study for providing electricity to the Development.
- 5.10. New connections to SSE's infrastructure can be undertaken by either SSE or an Independent Connection Provider (ICP).
- 5.11. Site specific proposals for the onsite mains laying can be confirmed following Planning Approval. Once development commences, the Developer may receive a contribution towards the onsite infrastructure costs, depending upon the chosen provider.
- 5.12. It is envisaged that a new substation will be required within the Development itself. A suitable area for a standard Glass Reinforced Plastic (GRP) substation would be 4.0m x 4.5m. Developer built brick substations require slightly larger areas of 5.0m x 6.0m.
- 5.13. Given the location of existing apparatus and opportunities for new supplies, there does not appear to be major technical reasons why connection to the existing local electricity network cannot be made.



6.0 Summary and Conclusions

Summary

- 6.1. This report has been prepared by Abley Letchford Partnership Ltd, on behalf of Castlewood Properties Ventures Ltd, in relation to the proposed development at North Bradley, Trowbridge.
- 6.2. The purpose of this report was to assess the feasibility of providing the proposed residential development with all necessary utilities.
- 6.3. This report has identified, from a review of utility service records, that all major services (gas, electricity, potable water, telecommunications) are located within the vicinity of the Site.
- 6.4. Given the prevalence of existing infrastructure in close proximity to the site, it is not anticipated that there should be significant problems with provision of new supplies to the site.
- 6.5. Once planning approval is granted, detailed plans and service loadings will be submitted to the relevant utility companies so that detailed proposals can be obtained for provision of new supplies.
- 6.6. It is probable that some lowering, protection or minor diversionary works will be required to facilitate a suitable level of protection to assets within A363 Bradley Road where a proposed access is required.

Conclusion

- 6.7. Each utility has been examined to assess the potential to connect the proposed Development, and the availability of connections has been identified within the surrounding area.
- 6.8. Initial investigations have not highlighted concerns or engineering difficulties with servicing the proposed Development with new gas, water, electric or telecommunications.
- 6.9. Sufficient capacity is, or can be made available in order to serve the proposals.
- 6.10. There is no reason, from a utility constraint or supply availability perspective that would conflict with the planning submission.



Appendices



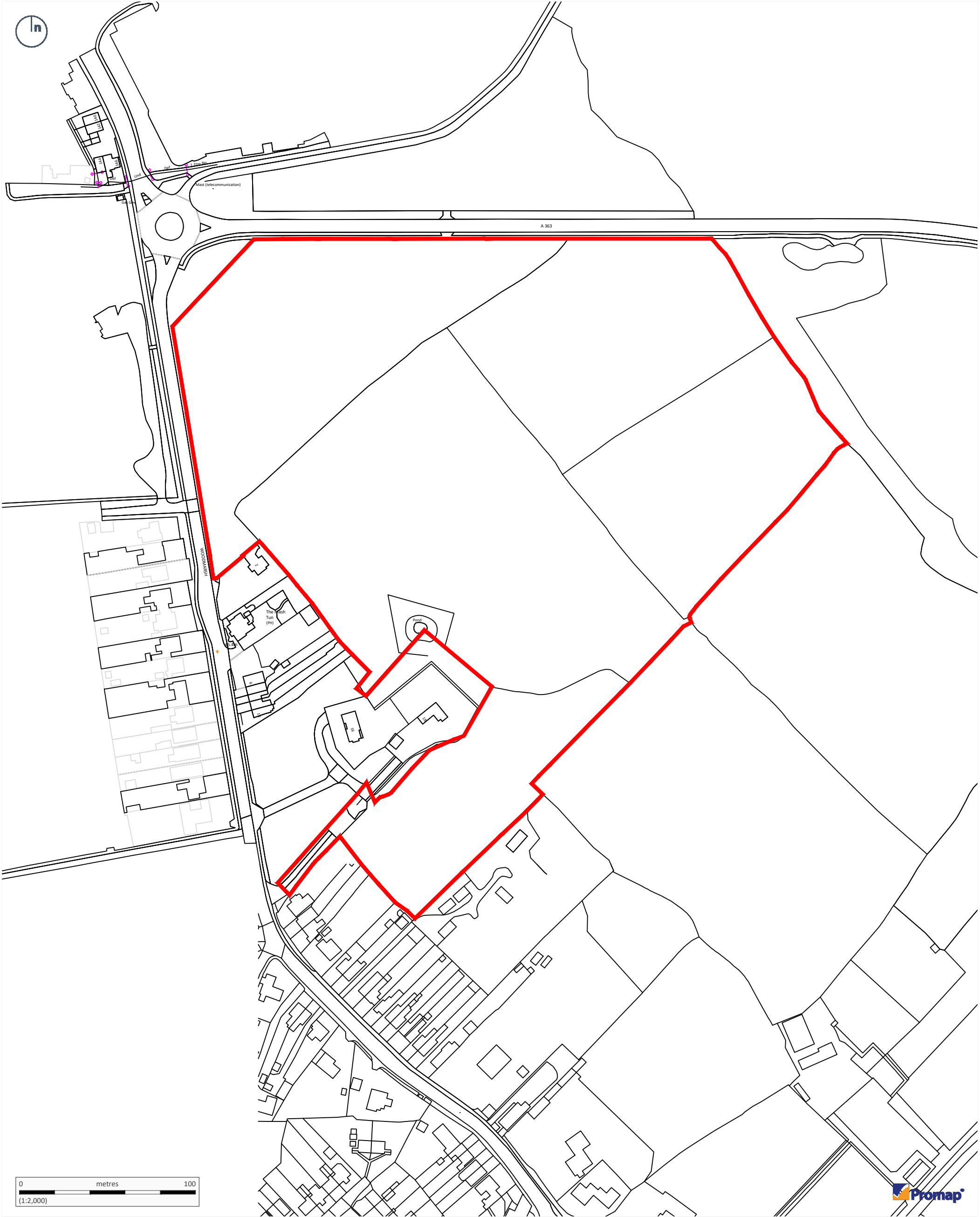
Appendix 1 – Planning Drawings

Red Line Plan

Illustrative Masterplan

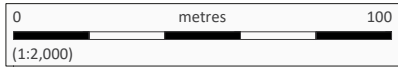
Parameter Plan

Proposed Site Access junction





Key Site Plan



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- Site boundary
- Residential land (Up to 2.5 storey)
- Residential land (Up to 3 storey)
- Green infrastructure
- Highways
- Indicative attenuation features
- Indicative primary highways route
- Proposed access points
- Future access points to adjacent development

CLIENT
Castlewood Properties Limited

PROJECT
Land off the A363 White Horse Business Park

DRAWING
Parameter Plan

PROJECT NUMBER
CASR3002

DRAWING NUMBER	CHECKED BY
5000	MR

REVISION	STATUS
D	DRAFT

DATE	SCALE
March 2020	1:2000 @ A3

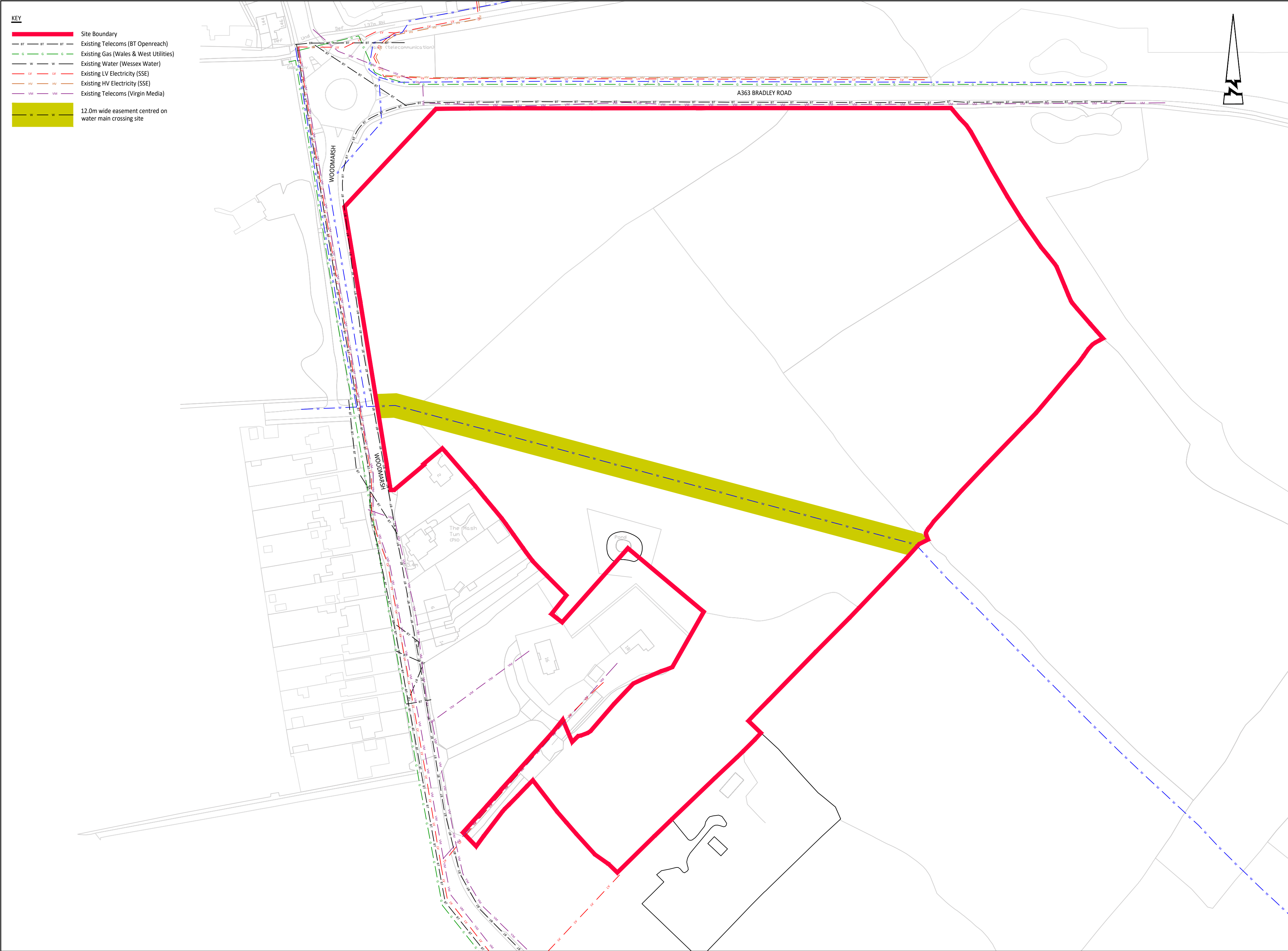
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Appendix 2

Existing Utilities Plan



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GENERAL NOTES

- Do not scale from this drawing.
- The information provided on this drawing about the existing utility services is based on service records provided by the statutory utilities in Groundwise Searches Ltd Desktop Utility Search (Ref. URO 6748.1DM). The actual position and status of any mains and services must be verified and established on site. This drawing is provided for information only.
- The information on this drawing is given without obligation or warranty. No liability of any kind whatsoever is accepted by ALP, its agents or servants for any errors or omissions.
- Services to buildings are generally not shown but it must be assumed that any existing building is served with live supplies until proven otherwise. Written confirmation that a supply is dead must be obtained from the relevant utility.
- Cables to street lights, road signs and illuminated bollards are generally not shown.
- The location of any mains and services must be undertaken by hand dug trial holes. The approval of the appropriate utility must be sought before any mechanical plant is used.
- Underground services must be located in accordance with HSE Guidance HS (G) 47.
- Overhead power lines must be dealt with in accordance with HSE Guidance Note GS 6 (3rd edition)
- For clarity, existing plant is represented by single lines. Please note, this does not indicate the number of cables, ducts and pipes that may exist in the location indicated.
- This drawing is to be read in conjunction with all other project drawings and notes. The appointed Contractor is to satisfy themselves that there are no discrepancies with any other plans before commencement on site. If in doubt, ask.

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Rev	Date	Description	Drawn	Checked

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Client:
CASTLEWOOD PROPERTIES VENTURES LTD

Project:
NORTH BRADLEY TROWBRIDGE

Title:
EXISTING UTILITIES PLAN

Status:
FOR INFORMATION

Scale	Date	Drawn	Checked
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development planning
infrastructure design
transport HIGHWAYS
drainage
CIVIL ENGINEERING
site appraisal
flood risk assessment
travel plans
masterplanning