



Proposed Residential Development  
Land off Bishopstone Road  
Stone, Aylesbury  
Buckinghamshire

## **Incoming Services Appraisal**

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Proposed Residential Development  
Land off Bishopstone Road  
Stone, Aylesbury  
Buckinghamshire

**Incoming Services Appraisal**

JPP Consulting Ltd., Cedar Barn, White Lodge, Walgrave, Northampton, NN6 9PY			
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Report Reference	R-SA-S7326PM-01-0
Date	December 2014

**Report Originators**

Prepared by



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## 1.0 Introduction

### 1.1 Instructions

1.1.1 This report describes an incoming services assessment for a proposed residential development comprising up to 12 dwellings located off Bishopstone Road, Stone, Buckinghamshire. The National Grid reference for the site is E478530, N212230. This report has been prepared by JPP Consulting Limited acting on instruction received from Manor Oak Homes. The benefit of this report is limited to our instructing Client.

### 1.2 Objectives

1.2.1 The objective of this report is to advise interested parties in the development to the potential of servicing the site with respect to normal incoming utilities and the disposal of storm and foul water.

1.2.2 This report has been prepared to support a detailed planning application.

### 1.3 Site Location

1.3.1 Figure 1.3.1 presented below shows the location of the site.

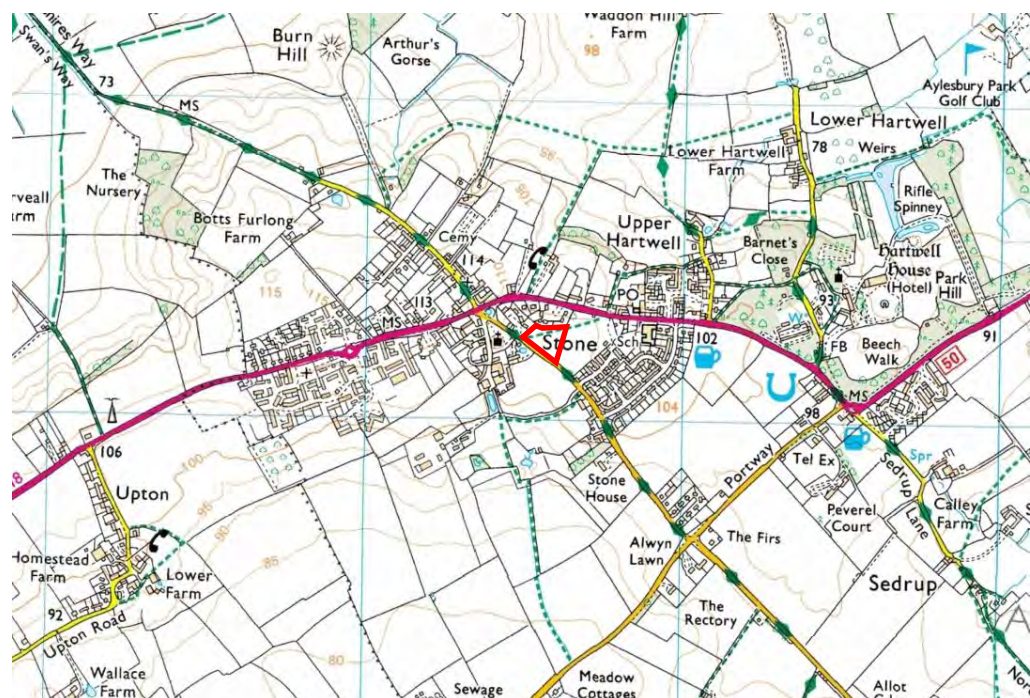


Figure 1.3.1, Site location plan. Approximate site boundary outlined in red.

1.3.2 The proposed development is bound by existing residential developments to the north and north west, sports pitches to the east and Bishopstone Road to the south and south west.

## **2.0 Drainage and Water Supply**

### **2.1 Existing Infrastructure on site**

2.1.1 The nearest Thames Water assets are located within Bishopstone Road as shown on the asset plans enclosed in Appendix A.

### **2.2 Surface Water Drainage**

2.2.1 Full details of the surface water drainage strategy are enclosed within the Flood Risk Assessment prepared by JPP reference R-FRA-S7326PM-01. Surface water from all dwellings, private drives and adopted roads will be drained via permeable paving.

### **2.3 Foul Water drainage**

2.3.1 Foul water will discharge to Thames Water's sewer network located in Bishopstone. Thames Water have confirmed that their sewer has adequate capacity to accommodate the proposed development.

### **2.4 Water supply**

2.4.1 Thames Water has confirmed that they are able to supply the site with water, see correspondence enclosed in Appendix B.

## **3.0 Electricity Supply**

### **3.1 Existing infrastructure**

3.1.1 UK Power Networks has an existing low voltage network along Bishopstone Road.

### **3.2 Supply**

3.2.1 UK Power has confirmed that they can serve the proposed development with electricity. Serving the proposed development with electricity would require extending the existing low voltage network from the existing substation. A copy of correspondence with UK Power Networks is enclosed in Appendix C.

## **4.0 Telecommunications**

### **4.1 Supply**

4.1.1 Openreach has a Universal Service Obligation which by law obligates them to provide a service to any Single House, Business Units or Large Development with no cost impact to the development. The proposed development can therefore be provided with telecommunications.

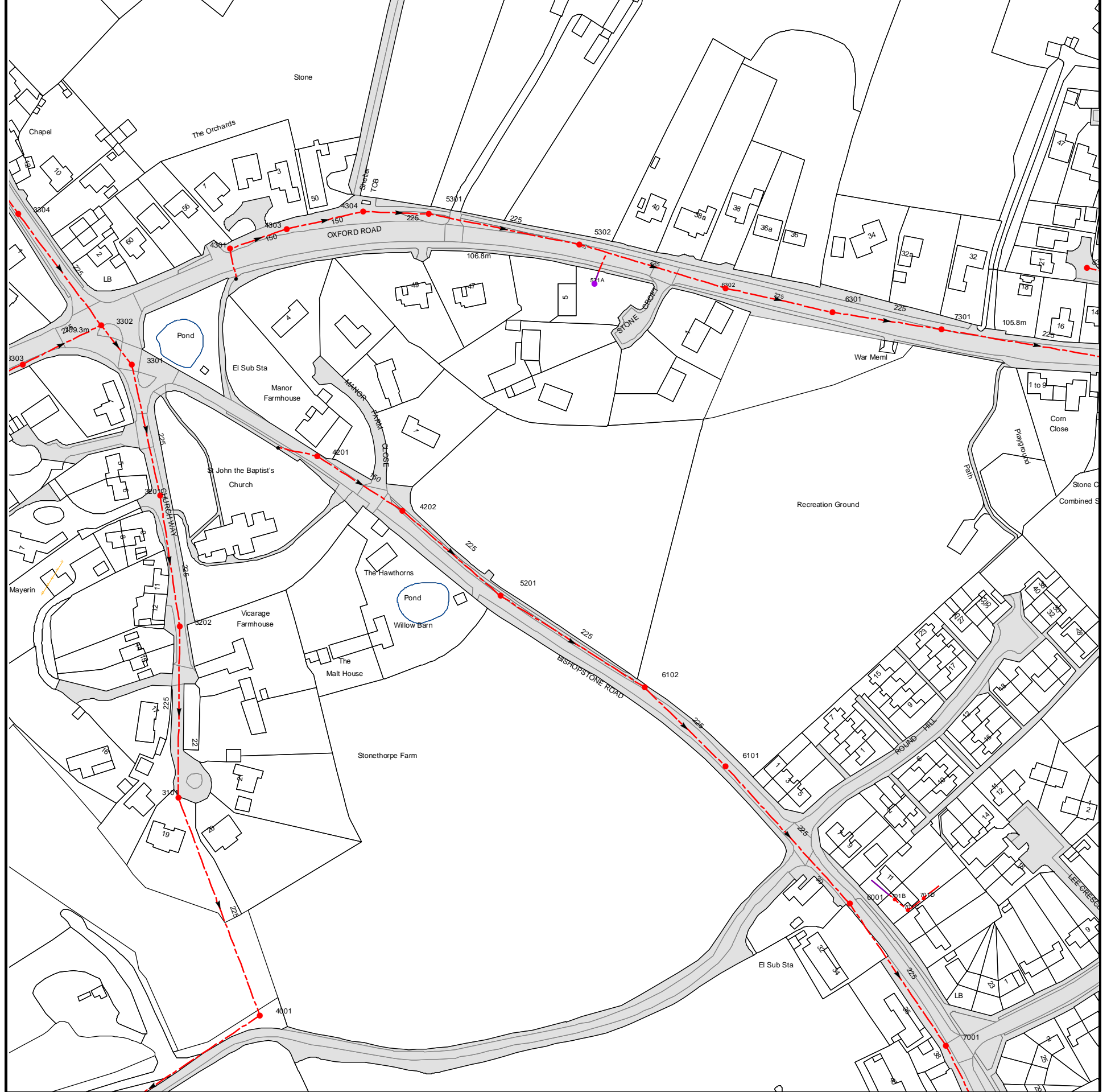
## **5.0 Gas**

### **5.1 Supply**

5.1.2 SGN Connections have confirmed that they can provide the proposed site with gas, see correspondence enclosed in Appendix D.

**Appendix A**  
**Thames Water Asset Plans: Foul and Surface**

**CommercialDW Drainage and Water Enquiry Sewer Map- CDWS/CDWS Standard/2014\_2771489**



The width of the displayed area is 500m  
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.  
Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.



NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no survey information is available.



















<b>Manhole Reference</b>	<b>Manhole Cover Level</b>	<b>Manhole Invert Level</b>
4202	105.17	103.43
5201	104.73	102.97
6102	104.02	102.39
6101	104.04	102.03

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.








# Sewer Key - Commercial Drainage and Water Enquiry

## Public Sewer Types (Operated & Maintained by Thames Water)

-  **Foul:** A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
-  **Surface Water:** A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
-  **Combined:** A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
-  Trunk Surface Water
-  Trunk Foul
-  Storm Relief
-  Trunk Combined
-  Vent Pipe
-  Bio-solids (Sludge)
-  Proposed Thames Surface Water Sewer
-  Proposed Thames Water Foul Sewer
-  Gallery
-  Foul Rising Main
-  Surface Water Rising Main
-  Combined Rising Main
-  Sludge Rising Main
-  Proposed Thames Water Rising Main
-  Vacuum





## Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

-  Air Valve
-  Dam Chase
-  Fitting
-  Meter
-  Vent Column




## Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

-  Control Valve
-  Drop Pipe
-  Ancillary
-  Weir






## End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

-  Outfall
-  Undefined End
-  Inlet






## Other Symbols

Symbols used on maps which do not fall under other general categories








-  /  Public/Private Pumping Station
-  Change of characteristic indicator (C.O.C.I.)
-  Invert Level
-  Summit

## Areas

Lines denoting areas of underground surveys, etc.

-  Agreement
-  Operational Site
-  Chamber
-  Tunnel
-  Conduit Bridge

## Other Sewer Types (Not Operated or Maintained by Thames Water)

-  Foul Sewer
-  Surface Water Sewer
-  Combined Sewer
-  Gully
-  Culverted Watercourse
-  Proposed
-  Abandoned Sewer

### Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or '0' on a manhole level indicates that data is unavailable.

- 6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Searches on 0118 925 1504.

**CommercialDW Drainage and Water Enquiry Water Map-CDWS/CDWS Standard/2014\_2771489**



The width of the displayed area is 500m



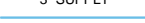




The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.







# Waterworks Key - Commercial Drainage and Water Enquiry


## Water Pipes (Operated & Maintained by Thames Water)

- 
**4" Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
- 
**16" Trunk Main:** A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
- 
**3" SUPPLY Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
- 
**3" FIRE Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
- 
**3" METERED Metered Pipe:** A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
- 
**Transmission Tunnel:** A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
- 
**Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

## Valves

-  General Purpose Valve
-  Air Valve
-  Pressure Control Valve
-  Customer Valve

## Hydrants








-  Single Hydrant

## Meters










-  Meter

## End Items

Symbol indicating what happens at the end of a water main.

-  Blank Flange
-  Capped End
-  Emptying Pit
-  Undefined End
-  Manifold
-  Customer Supply
-  Fire Supply



## Operational Sites

-  Booster Station
-  Other
-  Other (Proposed)
-  Pumping Station
-  Service Reservoir
-  Shaft Inspection
-  Treatment Works
-  Unknown
-  Water Tower

## Other Symbols

-  Data Logger

## Other Water Pipes (Not Operated or Maintained by Thames Water)

-  **Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
-  **Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

**Appendix B**  
**Thames Water Correspondence**



**Katherine Jenner**

JPP CONSULTING  
CEDAR BARN  
WHITE LODGE  
WALGRAVE  
NORTHAMPTONSHIRE  
NN6 9PY

**Thames Water Utilities Ltd.  
Developer Services**

Our ref IR1012336552  
Phone 0800 009 3921  
E-Mail [developer.services@thameswater.co.uk](mailto:developer.services@thameswater.co.uk)

21<sup>st</sup> November 2014

Dear Kathtine

**Clean Water Budget Estimate, Bishopstne Road, Stone, Aylesbury,  
Buckinghamshire, HP17 8QX.**

Thank you for your correspondence regarding the above development.

Please be aware that this assessment is based upon the details and drawings provided. Should there be any subsequent changes to the details and information on your drawing, the contents of this report would become invalid and would necessitate a new assessment.

Please find listed below the approximate costs for mains and services to serve the site. Subject to survey, additional costs for traffic management and parking bay suspensions may be applicable.

#### **Contaminated Land:**

Should the site be deemed 'contaminated' for the use of plastic pipe work, following the assessment of your full soil report, mains will be provided in Ductile Iron, and service connections in barrier pipe.

#### **Diversiory Works:**

According to our records, it is anticipated that no diversory works are required to accommodate your development proposals.

#### **Network Capacity:**

This site will require a flow & pressure test on the distribution main/s to which it will be connected. This will demonstrate if the existing network has sufficient capacity to provide the additional demand without unduly affecting existing customers.

The cost of this test is £770 + VAT (£924.00 inclusive) payable in advance to Thames Water Ltd. This should be sent marked for my attention to:

Thames Water Utilities Ltd  
Developer Services  
3<sup>rd</sup> Floor West  
Clear Water Court  
Vastern Road  
Reading  
Berkshire  
RG1 8DB

T 0845 850 2777  
I [www.thameswater.co.uk](http://www.thameswater.co.uk)

Registered in England and Wales  
No. 2366661, Registered office  
Clearwater Court, Vastern Road,  
Reading, Berks. RG1 8DB

Developer Services  
Third Floor West  
Clearwater Court  
Vastern Road  
Reading  
Berkshire  
RG1 8DB

**Offsite Main Reinforcement:**

This can only be determined once the flow and pressure test has been completed.

**Onsite Main Laying:**

Lay approximately 150 metres of 90mm HPPE water main in unmade ground.

Budget full costs £12,000.00

Lump sum contribution payable based on 12 dwellings £1,402.29

**Service Connections:**

12 x 25mm diameter metered individual supplies £7,344.00

**Infrastructure Charges:**

12 x £347.00 for Water Infrastructure Charges = £4,164.00

12 x £347.00 for Sewerage Infrastructure Charges = £4,164.00

**Building Water:**

A charge is made for water used for building purposes where an existing un-metered supply is used. The charge will be based upon the amount of water used or as a percentage of the contract value, which is currently 0.17%.

**Water Quality and Hardness:**

Please use the link below to check water quality in your area.

<http://secure.thameswater.co.uk/dynamic/cps/rde/xchg/corp/hs.xsl/899.htm>

**Extracts of Water and Waste Water Mains & Apparatus:**

Please use the link below to our Property Searches Team to ask for Extracts of Water and Waste Water Mains & Apparatus.

<http://www.thameswater-propertysearches.co.uk/>

**Disconnection:**

Please use the link below if you would like to permanently disconnect your existing water supply.

<http://secure.thameswater.co.uk/dynamic/cps/rde/xchg/corp/hs.xsl/15131.htm>

**All information enclosed in this letter is for budgetary purposes only and should by no means be taken as the actual cost for serving this development site.**

I trust this information will be of assistance in your proposals, however should you require any further information, please do not hesitate to contact me.

Yours sincerely

Asset Development  
Thames Water



**Appendix C**  
**UK Power Networks Correspondence**

Miss Katherine Jenner  
JPP Consulting  
Cedar Barn  
White Lodge  
Walgrave  
Northampton  
NN6 9PY

1st October 2014  
Our Ref: 401653512/QID223713

Dear Miss Jenner

Site Address: Bishopstone Road, Stone, HP17 8QX

Thank you for your recent enquiry regarding the above premises. I am writing to you on behalf of Eastern Power Networks PLC the licensed distributor of electricity for the above address trading as UK Power Networks.

I am pleased to be able to provide you with a budget estimate for the work. It is important to note that this budget estimate is intended as a guide only. It may have been prepared without carrying out a site visit or system studies. No enquiry has been made as to the availability of consents or the existence of any ground conditions that may affect the works. It is not an offer to provide the connection and nor does it reserve any capacity on UK Power Networks' electricity distribution system.

## 1. Budget estimate

The budget estimate for this work is:

**£35,000.00** (exclusive of VAT) if the Point Of Connection (POC) is to our Low Voltage network along Bishopstone Road. This estimate includes extending the low voltage network approximately 150m from outside the existing substation. A section of this extension will need to be carried out in road construction due to the lack of footpath or verge on part of the route. It also includes low voltage mains and services on site for 30x gas-heated dwellings.

## 2. Budget estimate assumptions

This budget estimate is based on the following assumptions:

- The most appropriate Point of Connection (POC) is as described above.
- A viable cable or overhead line route exists along the route we have assumed between the Point of Connection (POC) and your site.
- Where electric lines are to be installed in private land UK Power Networks will require an easement in perpetuity for its electric lines and in the case of electrical plant the freehold interest in the substation site, on UK Power Networks terms, without charge and before any work commences.
- You will carry out, at no charge to UK Power Networks, all the civil works within the site boundary, including substation bases, substation buildings where applicable and the excavation/reinstatement of cable trenches.

- Unless stated in your application, all loads are assumed to be of a resistive nature. Should you intend to install equipment that may cause disturbances on UK Power Networks' electricity distribution system (e.g. motors; welders; etc.) this may affect the estimate considerably.
- All UK Power Networks' work is to be carried out as a continuous programme of work that can be completed substantially within 12 months from the acceptance of the formal offer.

Please note that if any of the assumptions prove to be incorrect, this may have a significant impact on the price in any subsequent quotation. You should note also that UK Power Networks' formal connection offer may vary considerably from the budget estimate. If you place reliance upon the budget estimate for budgeting or other planning purposes, you do so at your own risk.

If you would like to proceed to a formal offer of connection then you should apply for a quotation, Please refer to our website [http://www.ukpowernetworks.co.uk/internet/en/help-and-advice/documents/the\\_connection\\_process.pdf](http://www.ukpowernetworks.co.uk/internet/en/help-and-advice/documents/the_connection_process.pdf) for '**The connection process**' which details our application process. To help us progress any future enquiry as quickly as possible please quote the UK Power Networks Reference Number from this letter on all correspondence.

If you have any questions about your budget estimate or need more information, please do not hesitate to contact me. The best time to call is between the hours of 9am and 4pm, Monday to Friday. If the person you need to speak to is unavailable or engaged on another call when you ring, you may like to leave a message or call back later.

Yours sincerely

Angela Freeman  
Project Designer  
Tel: 01279 824622  
Email: PrelimsEPN@ukpowernetworks.co.uk

**Appendix D**  
**SGN Correspondence**

Our Ref: 879285  
Your Ref: S7326PM



Katherine Jenner  
JPP Consulting  
Cedar Barn  
White Lodge  
Walgrave  
Northampton  
NN6 9PY

SGN Connections Limited  
St. Lawrence House  
Station Approach  
Horley  
Surrey  
RH6 9HJ  
Tel: 0845 070 1431

27/11/2014

Dear Ms Jenner,

**RE: New connection(s): Land off Bishopstone Road, Aylesbury, Buckinghamshire  
HP17 8QX**

Further to your request dated 25/11/2014 regarding the new connection(s) at the above site, please find a budget indication quote detailed below.

**Works to be carried out:** SGN Connections to connect to the existing 63mm LP PE main in Bishopstone Road and lay a new approach main approximately 80m along the carriageway to the site entrance. Enter site & install new LP PE mains & services to serve 12 new dwellings. Terminate with 3/4" capped ECV's in 12 x external meter boxes to suit. No meters or meter works are included in this quotation.

SGN Connections will provide all excavation and reinstatement of the trenches up to your site boundary.

You are to provide all the pre-excavation, back-fill and reinstatement within the site boundary.

**Your Budget Indication is: £35,400 (inc.VAT)**

Please note that this figure is a budget indication only and does not represent an offer to carry out the work. This budget cost is based on the information we have been provided with by you.

Upon acceptance of a firm quotation, Southern Gas Networks will need to run further analysis to ensure that the existing gas infrastructure can manage your new gas loads (Security of Supply Check). If the existing infrastructure requires reinforcing to accommodate your loads, then this will incur time delays to the installation of your gas supplies. Reinforcement costs will be met by Southern Gas Networks and we will contact you where required.

It is assumed that no easements or third party permissions are required to carry out all works.

Please note that this budget indication does not take into account for any existing Southern Gas Networks infrastructure that may require diverting. Details of these can be obtained from **Southern Gas Networks Diversions/Isolations – 0845 070 3497, or at the following email address: [planning&design\\_diversions@sgn.co.uk](mailto:planning&design_diversions@sgn.co.uk)**

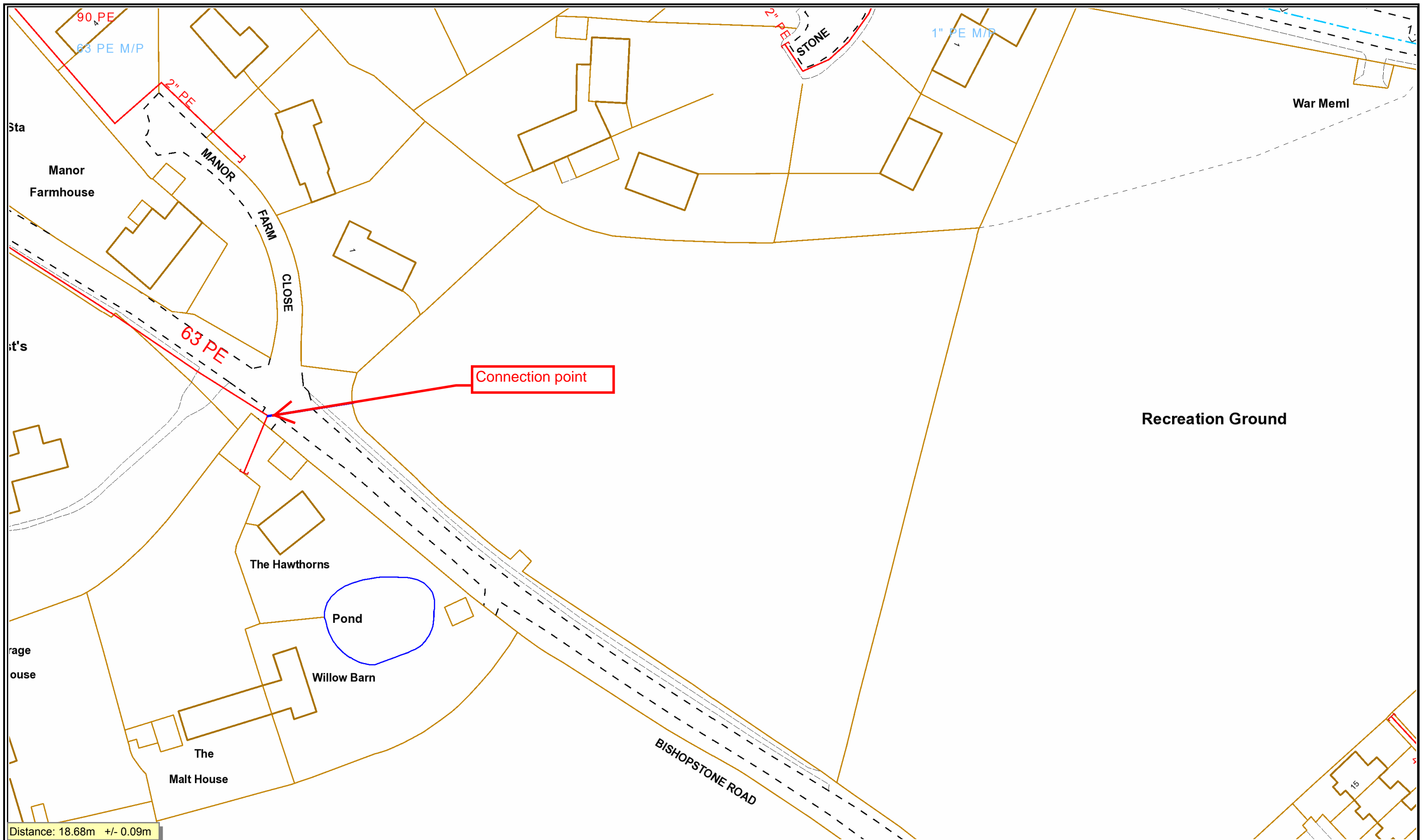
If you have any further queries relating to this budget indication, please feel free to contact me on the telephone number at the top of this letter.

Yours sincerely,

Kevin Wort  
Design Assistant

24 hour gas escape number 0800 111 999\*  
\*Calls will be recorded and may be monitored

SGN Connections is part of Scotia Gas Networks  
Registered in England No. 05618886  
Registered Office: St. Lawrence House, Station Approach, Horley, Surrey, RH  
9HJ  
[www.sgn.co.uk](http://www.sgn.co.uk)



Distance: 18.68m +/- 0.09m

SCALE : 1 : 750  
 USER ID : kw61873  
 DATE : 27/11/2014  
 INTERNAL USE ONLY  
 GRID REFERENCE :  
 E478570,N212257,SP 78 12

LP MAINS	
MP MAINS	
IP MAINS	
LHP MAINS	
HISTORY DATA	
LAs	
GTs	
SSSIs	

This plan shows the location of those pipes owned by Scotia Gas Networks (SGN) by virtue of being a licensed Gas Transporter (GT). Gas pipes owned by other GTs or third parties may also be present in this area but are not shown on this plan. Information with regard to such pipes should be obtained from the relevant owners. No warranties are given with regard to the accuracy of the information shown on this plan. Service pipes, valves, siphons, sub-connections etc are not shown but their presence should be anticipated. You should be aware that a small percentage of our pipes/assets may be undergoing review and will temporarily be highlighted in yellow. If your proposed works are close to one of these pipes, you should contact the SGN Plant Protection Team on 08450703497 for advice. No liability of any kind whatsoever is accepted by SGN or its agents, servants or sub-contractors for any error or omission contained herein. Safe digging practices, in accordance with HS (G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that plant location information is provided to all persons (whether direct labour or sub-contractors) working for you on or near gas apparatus. Information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Some examples of Plant Items

Valve		Syphon		Depth of Cover		Diameter Change		Material Change	
-------	--	--------	--	----------------	--	-----------------	--	-----------------	--

Intranet WebGIS 2.1  
 Buckinghamshire County Area  
 This plan is reproduced from or based on the OS map by Scotia Gas Networks plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved.