

Issue Control Document

Site & Client Information

Site: Royal Heights, Reading
Project No: 603401
Client: Reading Heights Ltd (London)
FAO: Mario Balducci
Copied to:
Issue No: 1
Date: 22 February 2018

Premier House
Daux Road
Billingshurst
West Sussex
RH14 9SJ

T 01403 740 240

Description:

Site Investigation Report

Summary:

- Site Investigation Report attached.

Action required:

- Please review report.
- Discuss with Premier Energy if required.

Please note the following:

Authorised:

Matthew Newton

For and on behalf of:

Premier Energy Services Ltd



Premier Energy Services Ltd.
Registered office as above.
Incorporated in England and Wales No. 3023958



Royal Heights

Clarendon House
59-75 Queens Road
Reading
RG1 4BN

16/02/2018

PROJECT NO.

603401

ISSUE NO.

1

STATUS

For Information

ALLIES

Consultancy
Site Investigation



Contents

1. Introduction	4
Site Access	4
General Note on Diversions	4
Site Information	5
Type of Heating	5
Drawings	5
Accommodation Schedule	5
Residential	5
Commercial	5
2. Executive Summary	6
3. Electric	9
3.1. Existing Network	9
3.2. New Connections	10
4. Water	12
4.1. Existing Network	12
4.2. New Network (Mains)	13
4.3. New Connections (Services)	13
4.4. Infrastructure Charges	14
5. Drainage	15
5.1. Existing Network	15
6. Gas	16
6.1. Existing Network	16
6.2. New Connections	17
7. Openreach	18
7.1. Existing Network	18
7.2. New Connections	19
8. Virgin Media	20
8.1. Existing Plant	20
8.2. New Connections	21
9. Independents	22
9.1. GTC	22
9.2. Energetics	22
9.3. Other IDNOs/IGTs	22
10. Other	22



10.1. LinesearchbeforeUdig	22
11. Communications	24
11.1. Vodafone Ltd	24
11.2. Colt	25
11.3. TATA	25
11.4. KPN	25
11.5. SKY Telecommunications	25
11.6. Interoute (inc 51 Degrees)	25
11.7. SOTA	25
11.8. Instalcom (multiple co's)	25
11.9. Verizon	26
11.10. Vtesse Networks	26
11.11. TeliaSonera	27
11.12. euNetworks	27
11.13. SSE Telecoms	27
11.14. CityFibre	28
11.15. Mast Data	29
12. Tunnels & Pipelines	30
12.1. BT Deep Level Tunnels	30
12.2. Thames Water Ring Main	30
12.3. Thames Tunnel	30
12.4. Post Office Tunnels	30
13. Transport	30
13.1. Docklands Light Railway	30
13.2. London Underground	30
13.3. LUL HV Power Assets	30
13.4. Crossrail	30
13.5. Network Rail	31
13.6. Transport for London	31
13.7. Trafficmaster	31
14. Important Information	32
14. Important Information	33
Relevant Documents	33
Basic Risk Assumption for all Services	33
Plant Found Within Site Boundaries	33
15. Enclosures	34
16. Acronyms Key	36



1. Introduction

This report investigates the utility companies' existing plant within the vicinity of the site and the ability and capacity of this plant to serve the proposed development.

The report identifies and comments on any potential adverse effects the proposed development may have on the existing plant. The report also recommends further items of investigation and action where appropriate.

The report is based on the information provided by the client about the proposed development and the information provided by the utility and service organisations about their plant and networks. The information contained in this report is primarily based on desk research although a visual site inspection was made on 12/02/2018.

All costs given are budget only and therefore should not be used for contract purposes. Formal quotations can be provided for both new supplies and any diversions when the site has full planning permission and detailed plans are submitted to each utility.

Utility infrastructures are dynamic systems with new loads affecting them in different ways and new developments coming on stream all the time. The difficulty for site appraisal is that load cannot be secured until the formal site supply quotations have been applied for, accepted and paid. Therefore, it must be clearly understood that the information and budget costs given in this report could be superseded by load demand take-up at any time.

Site Access

There is currently no proposed vehicle access as site layout drawings are not available. Existing vehicle access is from the car park to the rear of Clarendon House.

During the access construction, caution will need to be exercised when working around the existing plant and temporary protection works may be necessary. Some utilities may also require the installation of spare ducts across the access for future use.

Hand dug trial holes should be carried out at proposed access roads to determine the exact depth and location of any plant. Costs can then be obtained based on the results of these trial excavations.

General Note on Diversions

Companies such as Premier Energy Surveys can carry out EML (Electromagnetic Location) and GPR (Ground Probing Radar) surveys to determine depth and location of plant, although their accuracy can be impaired due to congestion of plant or variations in ground conditions/plant material types.

We recommend, as a minimum, that an EML/GPR survey is carried out to determine the location of all utility plant in the vicinity of the site to establish the extent and necessity of all diversions. From this survey, further trial holes may be recommended to verify the exact location of services and possible diversions.



Site Information

Type of Heating

All units to be heated by gas.

Drawings

Location plan ref: N/A

Site layout ref: N/A

Accommodation Schedule

Residential

Dwelling Type	No. of Beds	Total
Flat	1	56
Flat	2	39
Flat	3	0
(49 flats in refurbished office, 4 on new floors above, 42 in new build to rear)		
Total		94

Commercial

Unit	Use	Area (m ²)
N/A		

Prepared by

Anthony Higgs

Signed off by

Jason Raymond



Premier Energy Services Ltd has taken all reasonable steps, within the timescales, to obtain the most robust information in this report but accepts no liability for the accuracy of such information or report and in addition to any limitation of liability under its Standard Terms and Conditions. These services are provided subject to our standard Scope of Services, the Supplementary Terms and our Standard Terms and Conditions.

This report is for the private and confidential use of the client for whom the report is undertaken and should not be reproduced in whole or in part or relied upon by third parties for any use whatsoever without the express authority of Premier Energy Services Ltd.

2. Executive Summary

The following summary is a collation of the information contained within this report and is not a complete schedule of costs. It may consist of a combination of costs provided by the utilities, PES's estimation of PC sums or other sources of information. Additional costs may be incurred, as further information is known about the development proposals and utility infrastructure requirements. It is recommended that full quotations are obtained if this is critical for contractual purposes.

Electric



Disconnections

A contingency of **£5,000** should be allowed for cutting off existing LV cabling to Clarendon House if this is not required for the refurbishment units. EML/GPR survey and trial holes recommended for rear car park.

Diversions

Not anticipated.

Reinforcement

Not anticipated, based on 2x LV points of connection to Queens Road. If total load of 375kVA is exceeded due to the additional life safety requirements a substation could be required on-site.

New Connections

SSE budget cost of up to **£167,000** has been provided (on-site plant only) but this covers the worst-case scenario of an on-site substation. LV points of connection as suggested by the PoC quotation could reduce this figure.

Water



Disconnections

A contingency of **£2,000** should be allowed for cutting off existing supplies to Clarendon House if they are not required for the refurbishment units. EML/GPR survey and trial holes recommended for rear car park.

Diversions

Not anticipated.

Reinforcement

Not anticipated.

New Network (Mains)

No new on-site mains network anticipated.

New Connections (services)

Thames Water budget cost for 90mm bulk connection and 95x internal fit water meters is **£15,147**. Modification of any existing Clarendon House supply may be possible and requires further investigation.

Infrastructure Charges

Residential charges for water and sewerage approx. **£34,300** at new April 2018 rates, based on all units requiring new connections. Credits may be available for previous usage.



Gas



Disconnections

A contingency of **£6,000** should be allowed for cutting off existing supply to Clarendon House if it is not required for the refurbishment units. EML/GPR survey and trial holes recommended for rear car park.

Diversions

Not anticipated.

Reinforcement

Not anticipated.

New Connections

AWH budget costs of **£8,716** apply for 95x gas-heated units via a single bulk supply to a ground floor plant room in Clarendon House. Use of the existing SGN connection may be possible and requires further investigation and liaison with SGN.

Openreach



Diversions

Diversions are not anticipated. Disconnection budget cost likely to be **£nil** if a copper system, or **£4,000** per fibreoptic connection. EML/GPR survey and trial holes recommended for rear car park.

New Connections

Rebate to the developer of **£4,900** based on 95x flats. Fibre to the premise (FTTP) available.

Virgin Media



Diversions

Not anticipated. EML/GPR survey and trial holes recommended for rear car park.

New Supplies

New connections possible. Further investigation required.

Other



LinesearchbeforeUdig – Zayo Group

Diversions are not anticipated.

Vodafone Disconnections

Vodafone budget cost of **£3,000 inc. VAT** to remove their plant from Clarendon House.

Instalcom

Diversions are not anticipated.



SSE Telecoms

Diversions are not anticipated.

CityFibre

Diversions are not anticipated.

Mast Data

Vodafone/O2 mast base station located on the roof of Clarendon House. Further investigation and liaison with the mobile operators required.



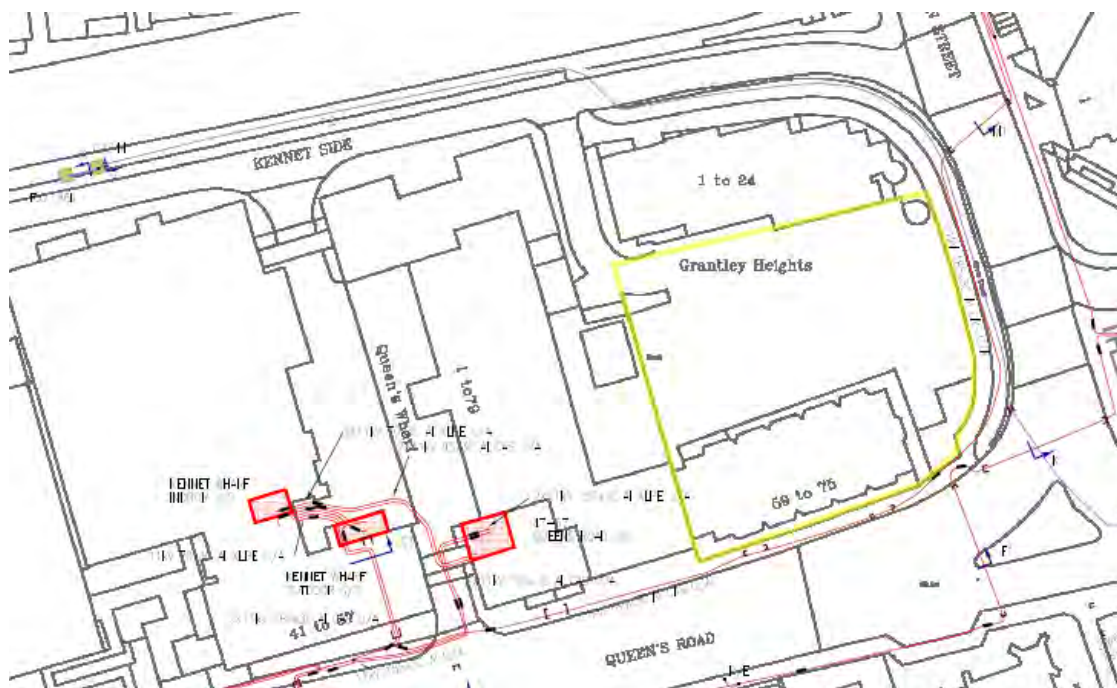
3. Electric

The Distribution Network Operator is SSE Networks.

3.1. Existing Network

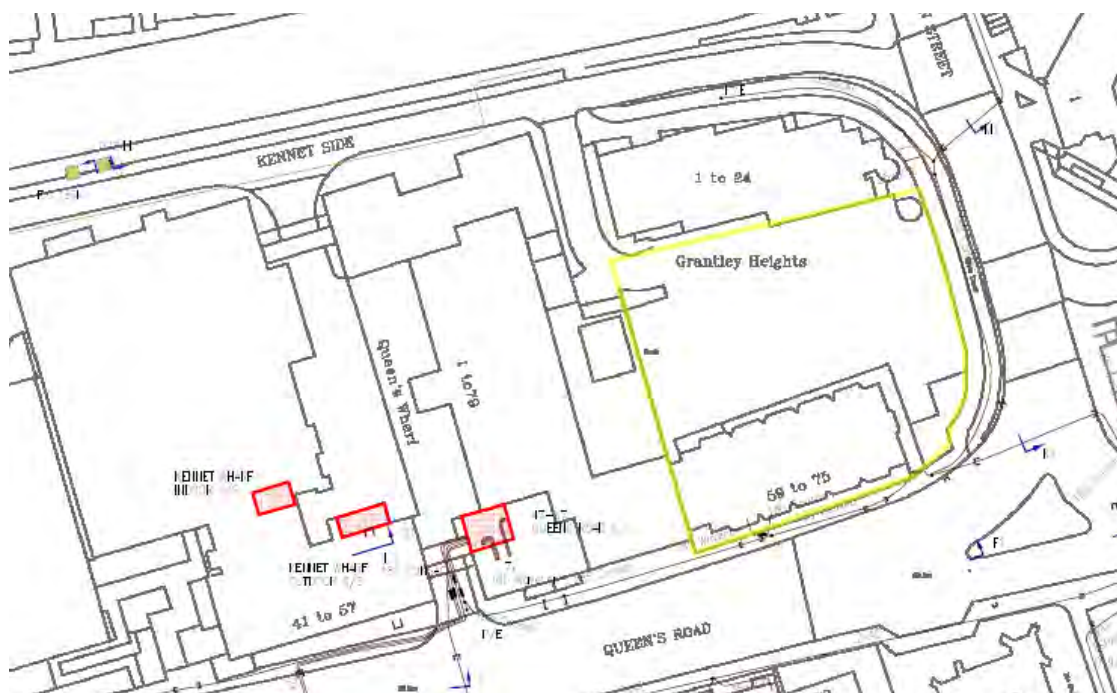
Based on the utility asset maps there is HV/LV apparatus in the vicinity of the site.

Figure 1 – SSE existing HV network



Source: SSE

Figure 2 – SSE existing LV network



Source: SSE



HV and LV cables are present in the footway of Queens Road adjacent to Clarendon House. An LV service connection into the building is visible connecting to the LV main on this frontage.

Further HV and LV mains are present in the vicinity of the site, mostly connecting to the group of 3x substations to the west in Queens Wharf and Kennet Wharf. The 47-57 Queens Road substation appears to be a network distribution substation whereas the 2x Kennet Wharf substations appear to be dedicated to their development.

SSE Telecoms fibreoptic cable is also in the vicinity (shown in purple on the HV layer plan). See section 11.13 for further commentary.

As site proposals are currently unclear without a layout, it is not known whether you will need to disconnect Clarendon House and obtain a brand new connection to the refurbished units in this building and the new units for the proposed extra stories, or whether the existing LV connection can be modified to serve these 53x units. Assuming the worst case scenario that a disconnection budget cost is required, please allow a PC sum of **£5,000** to cut off existing LV cabling.

During the site survey a number of street lights were noted in Queens Road and Watlington Street, as well as the rear car park. You are advised to contact the local lighting authority (often the local council) to ascertain ownership and electricity cable arrangements as they are not marked on utility asset maps and may be fed via private cable networks.

Please note that not all service connections or private apparatus are shown on the utility asset maps. Redundant services will require disconnection prior to starting on-site.

Having reviewed the utility asset maps and your development proposals, diversions of the electric network would not appear to be necessary. This is based on the use of existing vehicle access to the rear car park.

An EML/GPR survey and trial holes are recommended in the rear car park as the 42x new flats will be located somewhere in this area.

We recommend that the client's legal team check for wayleaves, easements or leases to see if there are any legal conditions associated with removing plant that could affect lead times and costs.

Indicative costs

Disconnections

A contingency of **£5,000** should be allowed for cutting off existing LV cabling to Clarendon House if this is not required for the refurbishment units. EML/GPR survey and trial holes recommended for rear car park.

Diversions

Not anticipated.

3.2. New Connections

SSE have provided a budget estimate of up to **£167,000** to serve the site. This is for on-site costs only and assumes that an on-site substation will be required (however see PoC response below).

SSE state that a network feasibility study will be necessary to determine full load availability on the network at a cost of £600+VAT, alternatively a formal quotation could be sought once a site layout is available.

SSE's supplies are extended into the apartments where the meters will be located. Other ICP/IDNO network specifications may differ.



In addition, a formal point of connection (PoC) quote from SSE has been received. They have provided a cost of **£864** for a connected load of 375kVA onto the local LV network at 2x locations in Queens Road close to the site. Additional costs will apply to bring the LV supply to site and then to be distributed to individual meter positions. These works/costs could be via an ICP or IDNO. As this is a formal quotation, its confirmation of an LV PoC is more reliable than SSE's budget cost assumption that an HV PoC and substation would be required, so that should be treated as the worst case scenario.

If you wish to secure this load it may be worth considering paying the PoC quote although final design of the site may alter the capacity and the PoC may need updating.

Neither SSE response makes allowance for the existing load/connections to Clarendon House. The building can be assumed to be drawing load from the network (even if only for the mast on the roof, see section 11.15) and the removal of this load may make further capacity available. This will require further liaison with SSE to confirm.

Also, depending on how the building is refurbished and where you intend to site service risers etc. it may be possible to use the existing LV connection to Clarendon House to serve some or all of the flats within the building. This will depend on the capacity of the existing connection and your site proposals and will require further liaison with SSE.

Since receiving the point of connection quotation the electrical engineer at Quinn Ross has requested an additional 140kVA life safety supply. Please be aware that it is SSE's policy to not provide these additional supplies. If the existing building supply cannot be re-used it is likely that a new substation will be required.

If a substation does become required, a space of at least 4m x 4m should be allowed for a substation in a GRP kiosk. A space of 5m x 6m should be allowed for a brick-built substation enclosure. The developer is responsible for obtaining planning permission for brick-built enclosures. Vehicular access will be required to the substation position at all times.

At least 4-6 months should be allowed for a new substation to be installed and commissioned.

Indicative costs

Reinforcement

Not anticipated, based on 2x LV points of connection to Queens Road. If total load of 375kVA is exceeded due to the additional life safety requirements a substation could be required on-site.

New Connections

SSE budget cost of up to **£167,000** has been provided (on-site plant only) but this covers the worst-case scenario of an on-site substation. LV points of connection as suggested by the PoC quotation could reduce this figure.

SSE note that if the price of the electricity connections is critical to your decisions or financial commitment to this project, you are strongly advised to consider the option of asking them to provide a formal quotation.



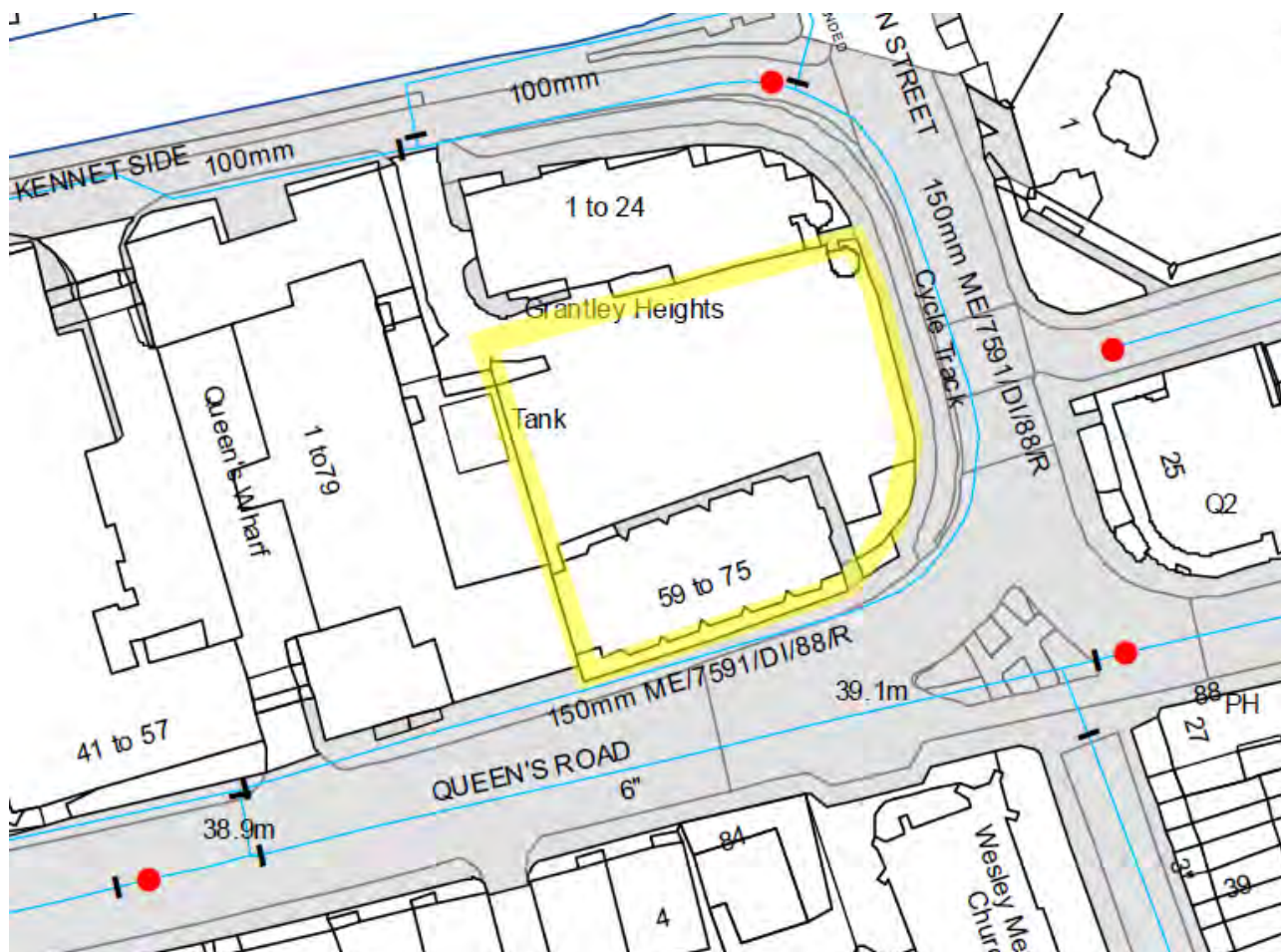
4. Water

The local incumbent water company is Thames Water.

4.1. Existing Network

Based on the utility asset maps there are various water mains in the vicinity of the site.

Figure 3 – Thames Water existing network



Source: Thames Water

A 150mm main (material unclear but could be ductile iron) is located in the footway of Queens Road adjacent to the southern site boundary. This main moves into the carriageway along the eastern boundary of the site.

A 100mm main is present in the carriageway of Kennet Side and a 6" main is in the carriageway of Queens Road.

As site proposals are currently unclear without a layout, it is not known whether you will need to disconnect Clarendon House and obtain a brand new connection to the refurbished units in this building and the new units for the proposed extra stories, or whether the existing water connection(s) can be modified to serve these 53x units. Assuming the worst case scenario that a disconnection budget cost is required, please allow a PC sum of **£2,000** to cut off supplies to the building.

Please note that not all service connections or private apparatus are shown on the utility asset maps. Redundant services will require disconnection prior to starting on-site.



Having reviewed the utility asset maps and your development proposals, diversions of the water network would not appear to be necessary. This is based on the use of existing vehicle access to the rear car park.

An EML/GPR survey and trial holes are recommended in the rear car park as the 42x new flats will be located somewhere in this area.

Indicative costs

Disconnections

A contingency of **£2,000** should be allowed for cutting off existing supplies to Clarendon House if they are not required for the refurbishment units. EML/GPR survey and trial holes recommended for rear car park.

Diversions

Not anticipated.

4.2. New Network (Mains)

Premier Energy Services has made enquiries to Thames Water regarding the capacity of their mains and their ability to serve the development.

Due to the proposed site layout and the proximity of the existing network, on-site mains should not be necessary. Instead the site will be served via bulk connections to a boosted cold water system (with private on-site service pipes).

Indicative costs

Reinforcement

Not anticipated.

New Network (Mains)

No new on-site mains network anticipated.

4.3. New Connections (Services)

A 90mm bulk supply will be extended into the site to serve boosted cold water tanks and internal fit water meters. Thames Water's budget cost for the provision of this and 95x internal meters is **£15,147**.

If Clarendon House is already served with a suitably sized connection it may be possible to utilise this for part of the site. Further investigation and liaison with Thames Water will be required.



Indicative costs

New Connections (services)

Thames Water budget cost for 90mm bulk connection and 95x internal fit water meters is **£15,147**. Modification of any existing Clarendon House supply may be possible and requires further investigation.

4.4. Infrastructure Charges

These will be payable for each dwelling at the rate set by Ofwat. This is currently set at £365.45 for water and £365.45 for sewerage. However rates are changing shortly, and for the year 2018-19 from April onwards the rates will be £140 for potable water and £210 for waste water, giving a total charge of **£34,300**. This is based on all 95x units having new connections, if any existing supplies are modified this figure could change. Credits may also be available for previous usage by Clarendon House, providing adequate evidence is produced and the usage has been within the last 5 years.

These charge rates will change every April according to Thames Water's requirements and therefore could rise or fall if you do not pay for all connections and infrastructure charges up front. These costs will include all provision for network reinforcement.

Indicative costs

Infrastructure Charges

Residential charges for water and sewerage approx. **£34,300** at new April 2018 rates, based on all units requiring new connections. Credits may be available for previous usage.



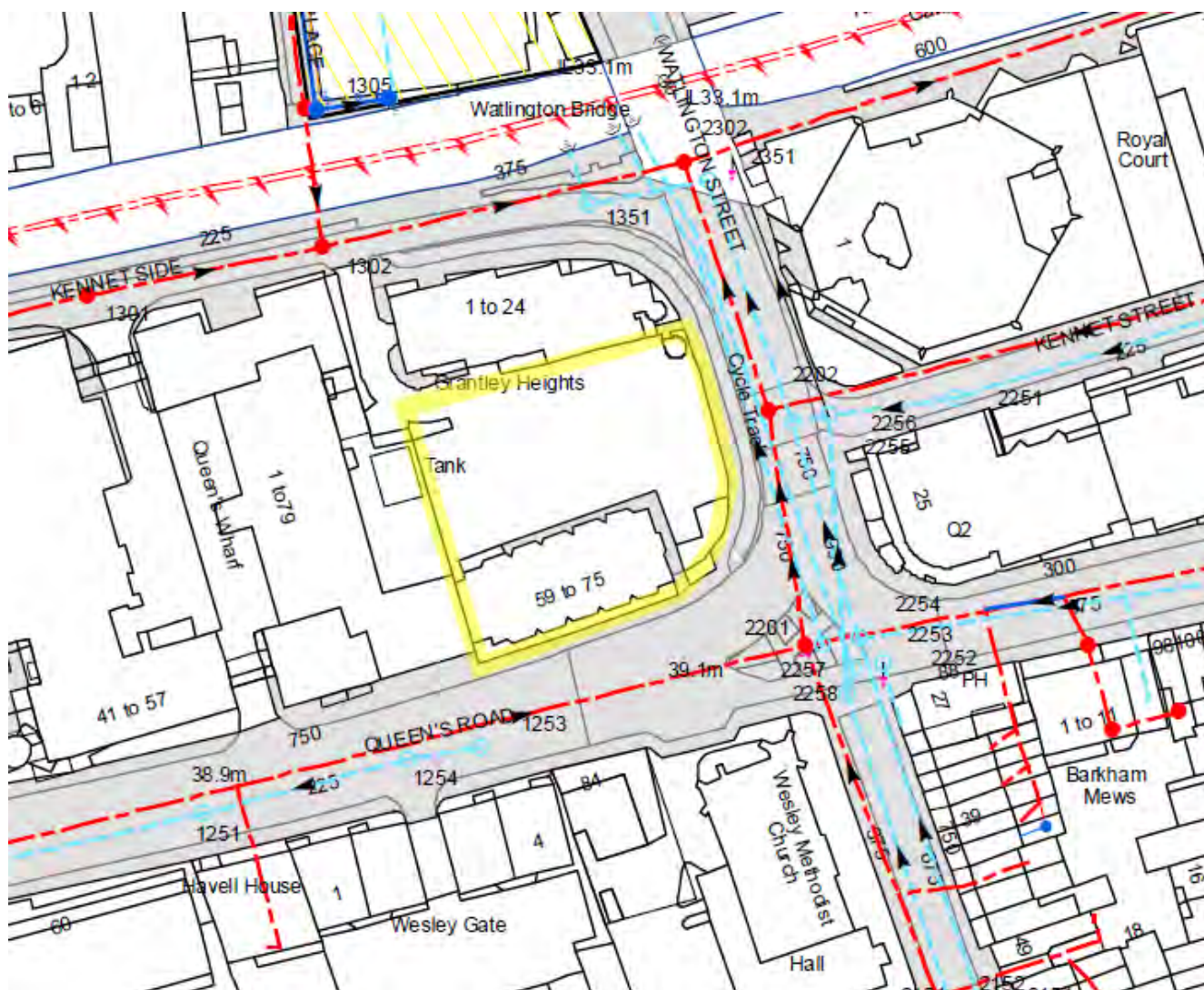
5. Drainage

The local incumbent drainage company is Thames Water.

5.1. Existing Network

Utility asset maps are enclosed for information only.

Figure 4 – Existing Thames Water drainage network



Source: Thames Water



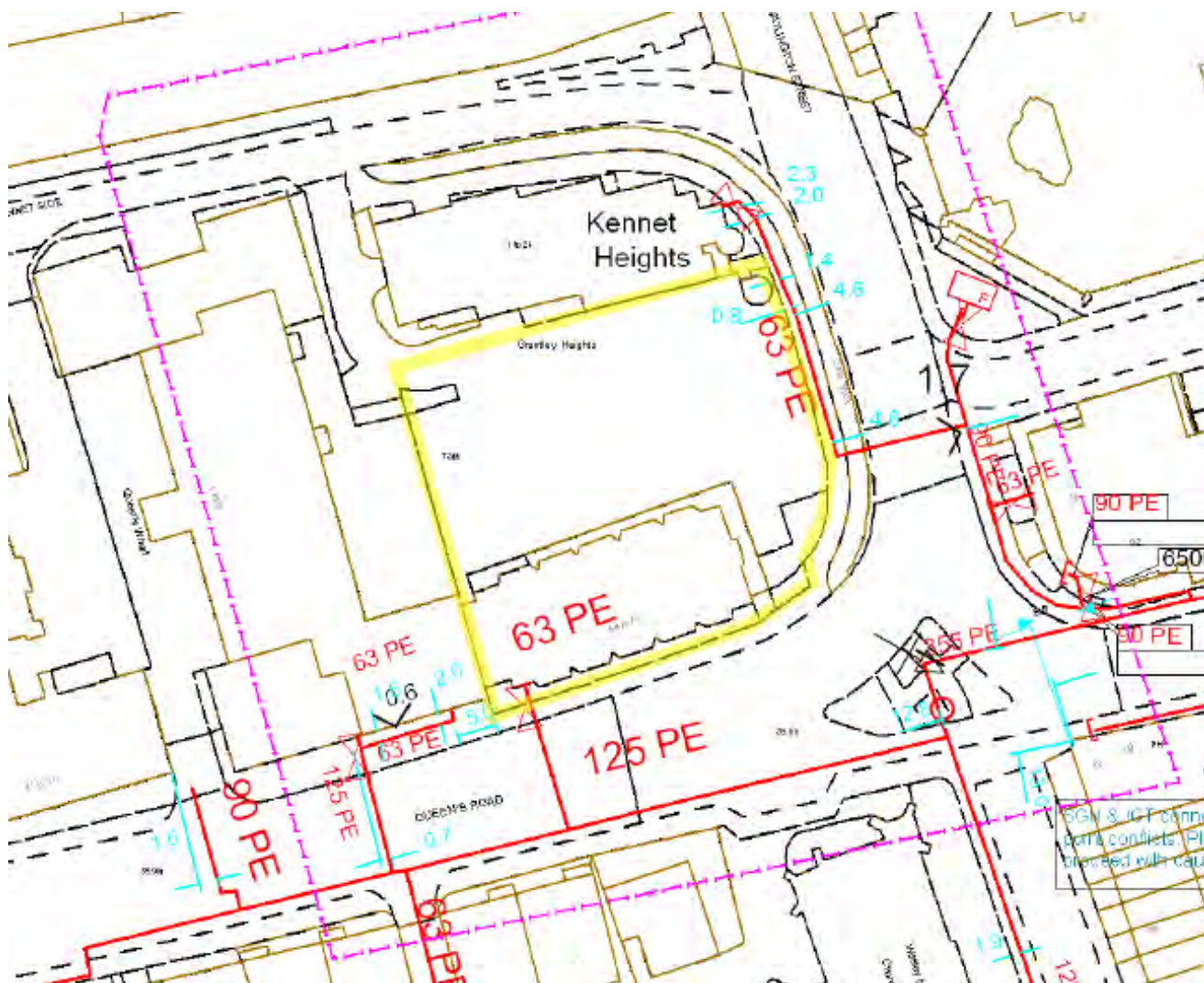
6. Gas

The Gas Distribution Network is SGN.

6.1. Existing Network

Based on the utility asset maps there are various gas mains in the vicinity of the site.

Figure 5 – SGN existing network



Source: SGN

A 63mm PE LP pipe is shown serving Clarendon House off the 125mm PE LP main in the carriageway of Queens Road.

A 63mm PE LP main runs in the footway of Watlington Street adjacent to the eastern site boundary and appears to serve Kennet Heights.

As site proposals are currently unclear without a layout, it is not known whether you will need to disconnect Clarendon House and obtain a brand new connection to the refurbished units in this building and the new units for the proposed extra stories, or whether the existing gas connection can be modified to serve these 53x units. Assuming the worst case scenario that a disconnection budget cost is required, please allow a PC sum of **£6,000** to cut off supplies to the building.

Having reviewed the utility asset maps and your development proposals, diversion of the gas network would not appear to be necessary. This is based on the use of existing vehicle access to the rear car park.



An EML/GPR survey and trial holes are recommended in the rear car park as the 40x new flats will be located somewhere in this area.

Indicative costs

Disconnections

A contingency of **£6,000** should be allowed for cutting off existing supply to Clarendon House if it is not required for the refurbishment units. EML/GPR survey and trial holes recommended for rear car park.

Diversions

Not anticipated.

6.2. New Connections

SGN have confirmed that the nearest main with sufficient capacity is adjacent to the site boundary and is a 63mm PE LP main. Depending on the requirements for the refurbished units in Clarendon House it may be possible to use the existing connection but this will require liaison with SGN and a formal application.

AWH has provided a budget cost of **£8,716** for a new bulk supply to the site with a peak hourly load of 892kWh. This assumes a connection to a ground floor plant room. No allowance has been made for steelwork or manifold arrangements. This cost is based upon no off-site reinforcement works being required.

Indicative costs

Reinforcement

Not anticipated.

New Connections

AWH budget costs of **£8,716** apply for 95x gas-heated units via a single bulk supply to a ground floor plant room in Clarendon House. Use of the existing SGN connection may be possible and requires further investigation and liaison with SGN.



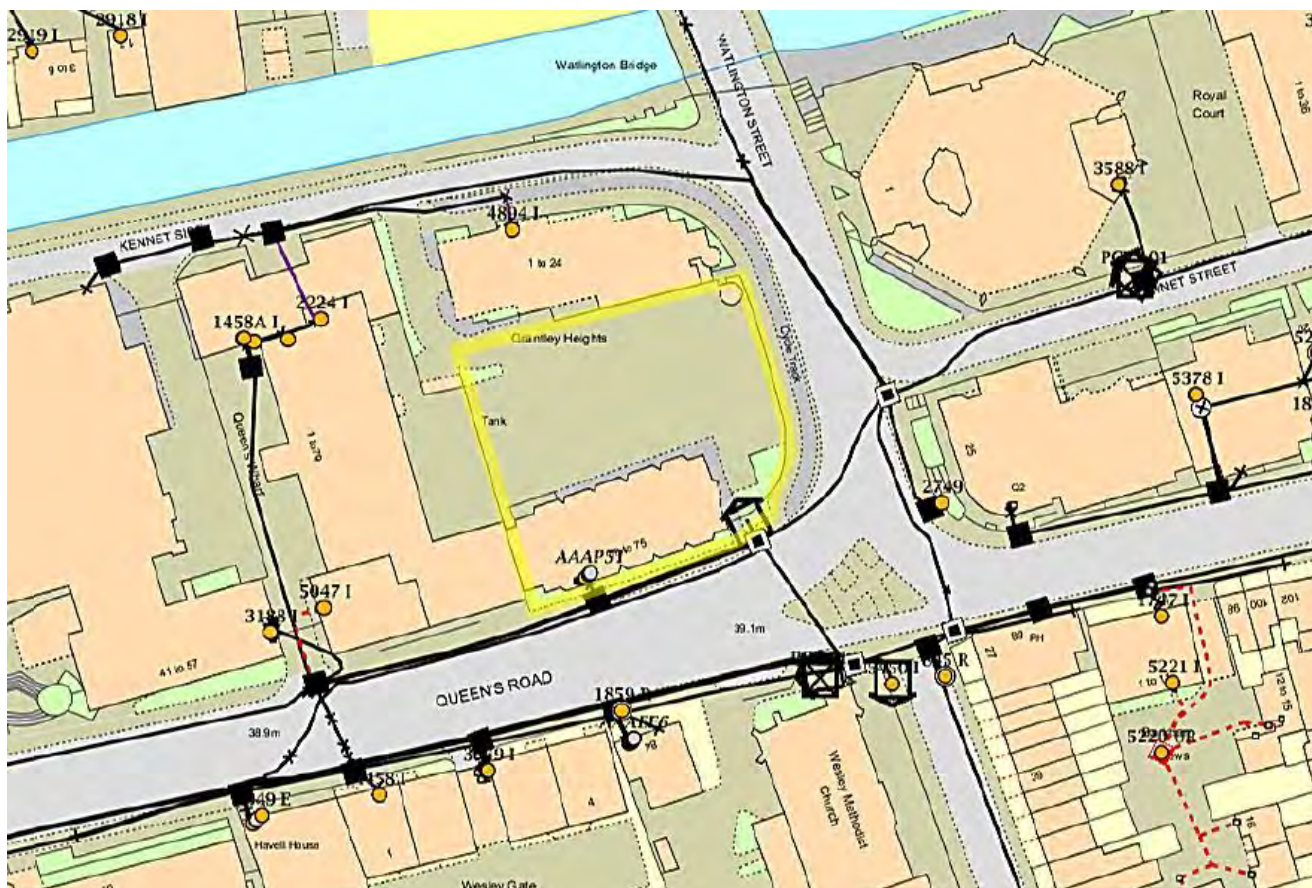
7. Openreach

Openreach is the local telecommunications company.

7.1. Existing Network

Based on the utility asset maps there are various underground ducts, chambers and other surface equipment in the vicinity of the site.

Figure 6 – Openreach existing network



Source: Openreach

A duct and chamber route is present in the footway of Queens Road adjacent to the site, which continues in the carriageway of Watlington Street.

An Openreach cabinet is shown adjacent to the boundary which would initially suggest that the cabinet shown in Figure 7 belongs to them. However, this cabinet does not fit the usual Openreach pattern and the chamber at its base is marked as Virgin Media. The Virgin Media asset maps (see section 8.1) do not show a cabinet so it is unclear who this belongs to. If you intend to undertake works in the area of this cabinet further investigation will be required.

Having reviewed the utility asset maps and your development proposals, diversions of the Openreach network would not appear to be necessary. This is based on the use of existing vehicle access to the rear car park.

An EML/GPR survey and trial holes are recommended in the rear car park as the 42x new flats will be located somewhere in this area.

Figure 7 – Cabinet in Queens Road adjacent to Clarendon House



Source: PES site survey

It is likely that disconnection of the existing Openreach network to Clarendon House will be required and a new fibre to the premise (FTTP) solution installed. If the existing network is copper this usually costs **£nil** but if Clarendon House has an existing fibreoptic connection these can cost **£4,000** each to disconnect.

Indicative costs

Diversions

Diversions are not anticipated. Disconnection budget cost likely to be **£nil** if a copper system, or **£4,000** per fibreoptic connection. EML/GPR survey and trial holes recommended for rear car park.

7.2. New Connections

Openreach will usually carry out any off-site works to bring their supply network to the site at no cost to the developer. However, if costs exceed £3400 per plot Openreach will charge the excess to the developer.

The on-site duct and joint box installation can be undertaken by the developer in accordance with standard Openreach design proposals and specifications. These works are carried out under contract to Openreach at a rate agreed by the House Builders Federation. These rates are currently set at £50 per flat and either £140 or £151 per house depending on the site location. Openreach will offer to provide new fibre to the premise (FTTP) services for all new sites that exceed 30 residential units.

The rebate for the residential element is expected to be **£4,900** based on 95x flats.

Indicative costs

New Connections

Rebate to the developer of **£4,900** based on 95x flats. Fibre to the premise (FTTP) available.

Based on the site postcode and BT's broadband speed checker, BT estimates the future broadband connection speed to be 10-19.5 Mbps. Fibre broadband could increase this to 79-80 Mbps.



8. Virgin Media

Virgin Media can provide phone, cable television and broadband services.

8.1. Existing Plant

Based on the utility asset maps there are various underground ducts, chambers and other surface equipment in the vicinity of the site.

Figure 8 – Virgin Media existing network



Source: Virgin Media

A duct route approaches from the south, crossing Queens Road and following the southern and eastern site boundaries in the adjacent footways. The chamber locations are inaccurate – the chamber shown in Figure 7 is at the southeast corner of the Clarendon House building and is clearly marked as Virgin Media.



Having reviewed the utility asset maps and your development proposals, diversions of the Virgin Media network would not appear to be necessary. This is based on the use of existing vehicle access to the rear car park.

An EML/GPR survey and trial holes are recommended in the rear car park as the 42x new flats will be located somewhere in this area.

Indicative costs

Diversions

Not anticipated. EML/GPR survey and trial holes recommended for rear car park.

8.2. New Connections

Virgin Media has implemented strict financial controls for any new network projects. They do not guarantee to provide cable services to any site because each development is subject to a financial appraisal.

If the site passes the financial criteria then the developer, under contract to Virgin Media, can undertake the installation.

Indicative costs

New Supplies

New connections possible. Further investigation required.

When the site is ready to proceed, Virgin Media will raise a business case proposal – this may include costs for the developer to bear.



9. Independents

IDNOs, IGTs and multi-utility water and fibre networks.

9.1. GTC

GTC has confirmed plant is not affected.

9.2. Energetics

Energetics has confirmed plant is not affected.

9.3. Other IDNOs/IGTs

Desk research indicates no further IDNOs/IGTs in the vicinity of the site.



10. Other

Various other statutory undertakers.

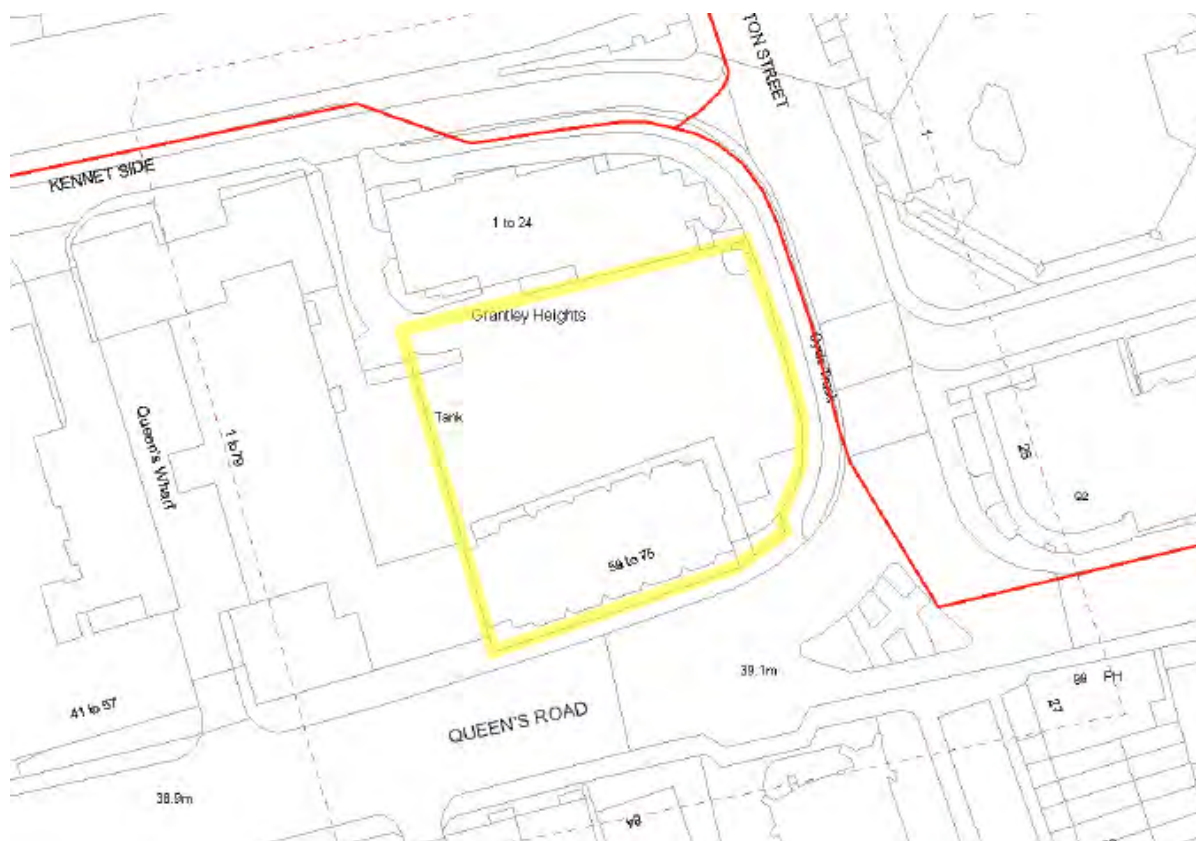
10.1. LinesearchbeforeUdig

AWE Pipeline, BOC Ltd, BP Exploration Operating Co Ltd, BPA, Carrington Gas Pipeline, CATS Pipeline c/o Wood Group PSN, Cemex, Centrica Storage Ltd, CLH Pipeline System Ltd, Concept Solutions People Ltd, ConocoPhillips (UK) Ltd, DIO (MoD Abandoned Pipelines), E.ON UK CHP Ltd, EirGrid, Electricity North West Ltd, ENI & Himor c/o Penspen Ltd, EnQuest NNS Ltd, EP Langage Ltd, ESP Utilities Group, ESSAR, Esso Petroleum Company Ltd, Fulcrum Pipelines Ltd, Gamma, Gateshead Energy Company, Gigaclear Plc, GTT, Humbley Grove Energy, IGas Energy, INEOS FPS Pipelines, INEOS Manufacturing (Scotland and TSEP), INOVYN Enterprises Ltd, Intergen (Coryton Energy or Spalding Energy), Mainline Pipelines Ltd, Manchester Jetline Ltd, Manx Cable Company, Marchwood Power Ltd (Gas Pipeline), Melbourn Solar Ltd, National Grid Gas and Electricity Transmission, Northumbrian Water Group, Npower CHP Pipelines, Oikos Storage Ltd, Orsted, Perenco UK Ltd (Purbeck Southampton Pipeline), Petroineos, Phillips 66, Premier Transmission Ltd (SNIP), Prysmian Cables & Systems Ltd c/o Western Link, Redundant Pipelines (Land Powers Defence Act 1958), RWEpower (Little Barford and South Haven), SABIC UK Petrochemicals, Scottish Power Generation, Seabank Power Ltd, Shell (St Fergus to Mossmorran), Shell Pipelines, SSE (Peterhead Power Station), Total (Finaline, Colnbrook & Colwick Pipelines), Transmission Capital, UK Power Networks, Uniper UK Ltd, Vattenfall, Veolia ES SELCHP Ltd, Western Power Distribution, Westminster City Council, Wingas Storage UK Ltd are not affected.

For SGN see section 6.1.

JSM have advised that Zayo Group have a duct route located adjacent to the site. This is located in the footway of Watlington Street and is not expected to affect the site based on works not extending to this area.

Figure 9 – Zayo Group existing network



Source: JSM

Indicative costs

LinesearchbeforeUdig – Zayo Group

Diversions are not anticipated.



11. Communications

Telecoms, fibreoptic and mobile communications.

11.1. Vodafone Ltd

Atkins has confirmed Vodafone plant is in the vicinity.

Figure 10 – Vodafone existing network



Source: Atkins

A Vodafone duct enters Clarendon House from a chamber located in the footway of Queens Road.

A separate duct and chamber route is located adjacent to the eastern site boundary in the footway of Watlington Street.

Vodafone have provided a budget cost of **£3,000 inc. VAT** to disconnect and remove their plant from Clarendon House.



Indicative costs

Vodafone Disconnections

Vodafone budget cost of **£3,000 inc. VAT** to remove their plant from Clarendon House.

11.2. Colt

CA Telecom has confirmed Colt plant is not affected.

11.3. TATA

TATA has confirmed plant is not affected.

11.4. KPN

Instalcom has confirmed plant is not affected.

11.5. SKY Telecommunications

Sky has confirmed plant is not affected.

11.6. Interoute (inc 51 Degrees)

Plancast has confirmed Interoute plant is not affected.

11.7. SOTA

Desk research indicates SOTA plant is not in the vicinity of the site.

11.8. Instalcom (multiple co's)

Instalcom has confirmed that a duct route which could contain Level 3, Global Crossing UK, Global Crossing PEC, Fibernet UK and FibreSpan plant is located in Kennet Side to the north of the site.

This is not expected to affect the site based on your works not extending to this area.

Figure 11 – Instalcom existing plant in Kennet Side



Source: Instalcom

Indicative costs

Instalcom

Diversions are not anticipated.

11.9. Verizon

Verizon has confirmed plant is not affected.

11.10. Vtesse Networks

Vtesse has confirmed plant is not affected.

11.11. TeliaSonera

Telent has confirmed TeliaSonera plant is not affected.

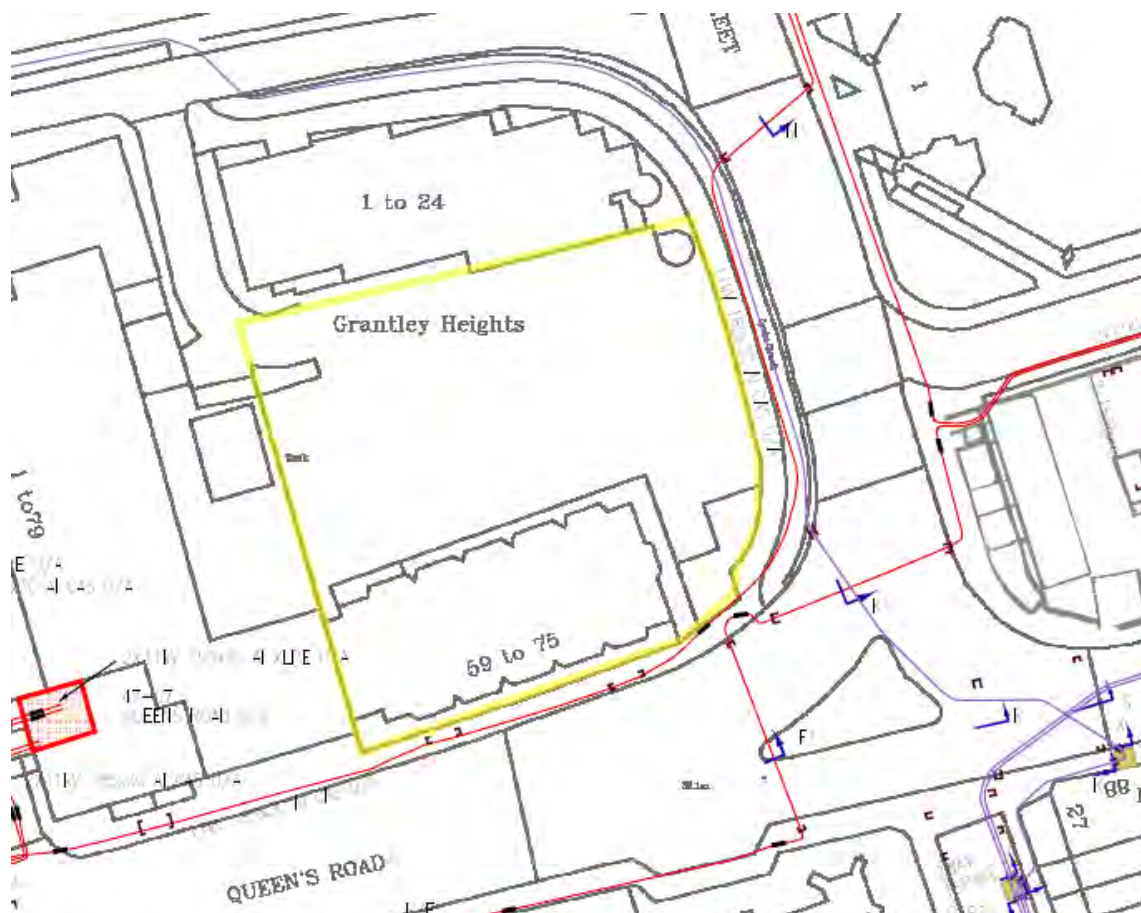
11.12. euNetworks

Desk research indicates euNetworks plant is not in the vicinity of the site.

11.13. SSE Telecoms

SSE asset maps indicate that fiberoptic plant is located adjacent to the site in the footway of Watlington Street. This is not expected to affect the site based on your works not extending to this area.

Figure 12 – SSE Telecoms existing network (in purple)



Source: SSE

Indicative costs

SSE Telecoms

Diversions are not anticipated.

11.14. CityFibre

CityFibre has confirmed plant is located adjacent to the site in the footway of Queens Road and Watlington Street.

Figure 13 – CityFibre existing network



Source: CityFibre

The two chambers shown were identified during the PES site survey, one is labelled Torch Telecom (taken over by KCom and then CityFibre) and the other is of the same type but with the Torch labels apparently scratched off.

CityFibre have confirmed that despite the duct route ending adjacent to Clarendon House that they have no plant serving this building and therefore no disconnection or diversion costs are anticipated.

Indicative costs

CityFibre

Diversions are not anticipated.

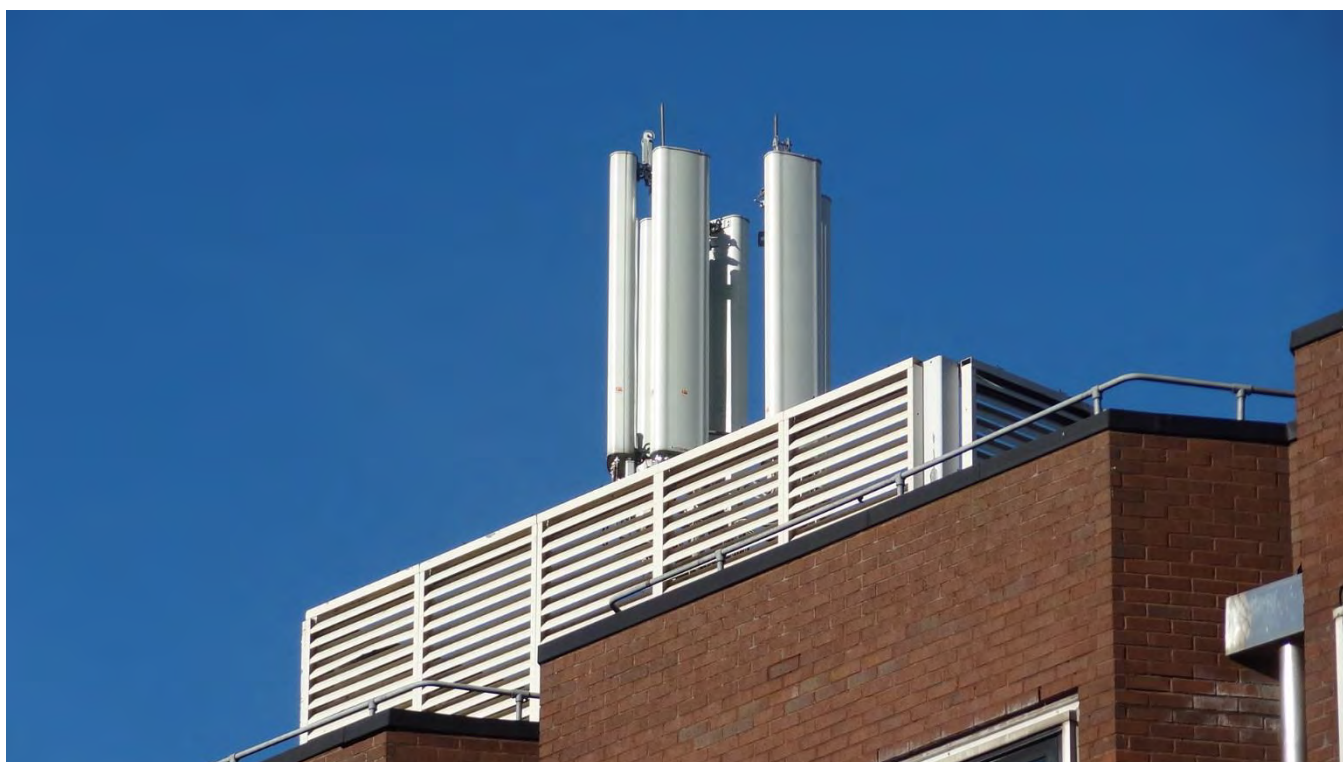
11.15. Mast Data

A mobile mast base station operated by Vodafone and O2 is located on the roof of Clarendon House and we recommend that checks are made regarding possible easements/wayleaves etc. and health & safety issues.

It is likely that the mast array will be served by electric and Openreach service connections which are not shown on utility asset maps.

It is assumed that because the development proposals include the addition of new flats above the existing structure of Clarendon House that this installation will be removed as part of the development works. Liaison will be required with Vodafone, O2 and/or their agents to begin this process.

Figure 14 – Mobile mast on Clarendon House roof



Source: PES site survey

Indicative costs

Mast Data

Vodafone/O2 mast base station located on the roof of Clarendon House. Further investigation and liaison with the mobile operators required.



12. Tunnels & Pipelines

Underground structures linked to utility networks.

12.1. BT Deep Level Tunnels

Desk research indicates BT Deep Level Tunnels plant is not in the vicinity of the site.

12.2. Thames Water Ring Main

Desk research indicates that the ring main is not in the vicinity of the site.

12.3. Thames Tunnel

Desk research indicates there are no planned Thames Tideway Tunnel works in the vicinity.

12.4. Post Office Tunnels

Desk research indicates Post Office Tunnels are not in the vicinity of the site.



13. Transport

Road and rail plant networks.

13.1. Docklands Light Railway

Desk research indicates Docklands Light Rail is not in the vicinity of the site.

13.2. London Underground

Desk research indicates LUL plant is not in the vicinity of the site.

13.3. LUL HV Power Assets

Desk research indicates LUL HV Power Assets (the electricity cable network of the London Underground) are not in the vicinity of the site.

13.4. Crossrail

Desk research indicates Crossrail is not in the vicinity.



13.5. Network Rail

Unless the site is adjacent to the railway line Network Rail will not respond. Desk research shows this site is clear of the line.

13.6. Transport for London

Desk research indicates TfL plant is not in the vicinity of the site.

13.7. Trafficmaster

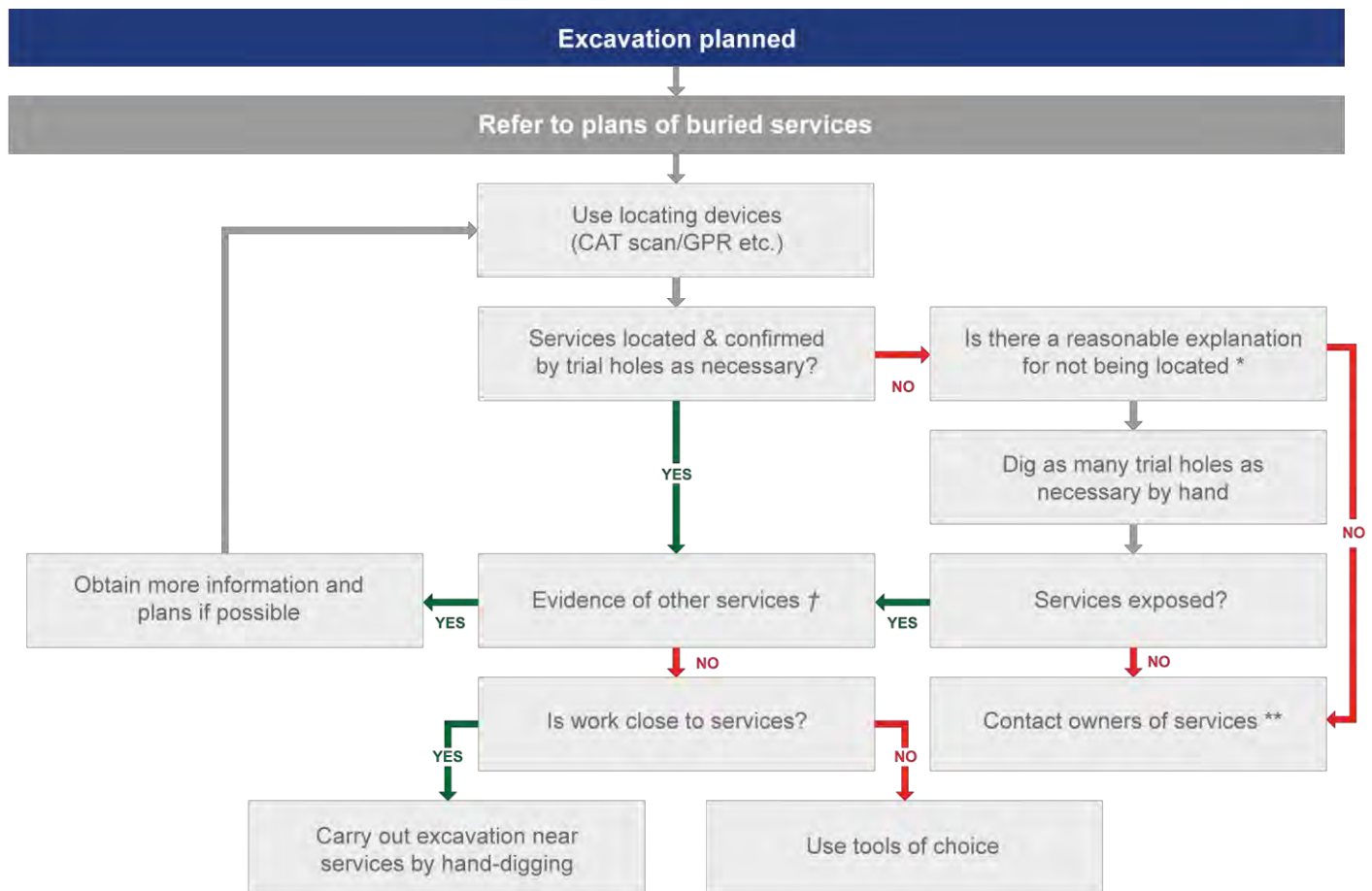
Desk research indicates Trafficmaster apparatus is not in the vicinity.



14. Important Information

This flow diagram is intended to help give an understanding of the process from referring to plans on-site through to the start of excavation, for example when excavating in a road or footway. However it:

- Describes only part of the process; it does not, for example, describe planning the work, including reference to plans at the design stage;
- Is a simplified picture and not a substitute for reading the text;
- Is not a substitute for a suitable and sufficient risk assessment;
- Does not take account of a number of other situations, e.g. cable embedded in concrete or those situations where resiting services is proposed.



* For example, could services be non-metallic pipes? Please refer to HS (G) 47 text for further information.

† In particular; visual evidence. Ensure that the presence of services, which may be unmarked on plans or for which no plans are available, has been considered, for example service connections.

** If there is visual evidence of services, but owners cannot be traced, despite all reasonable attempts to do so, any excavation could proceed but using hand-dug trial holes and proceeding with great care.



14. Important Information

Relevant Documents

The following documents must be referred to before work commences in the vicinity of existing services:

- Health and Safety Booklet HS (GS) 6 Avoidance of Danger from Overhead Electric Lines.
- General Safety Measures to Avoid Injury and Damage to Gas Apparatus.
- HSE Guidance Note HS (G) 47 Avoiding Danger from Underground Services.
- National Joint Utilities Group (NJUG) Publications Vol. 1.
- CDM Regulations 2015.
- PAS 128:2014 Specification for Underground Utility Detection, Verification and Location.

Basic Risk Assumption for all Services

When dealing with existing services the following assumptions must always be accepted:

- All existing buildings have gas, water, electric and telecoms supplies to them until proven otherwise.
- Any supply to an existing building, no matter how old the building is or how deteriorated the supply may appear, is taken to be live until proven otherwise.
- All open land, vacant lots and derelict sites are deemed to have services beneath them until proven otherwise.
- The only acceptable proof that a service is dead and can be removed is written confirmation from the owner of the service.
- The quality and accuracy of information provided by utilities about their existing plant is indicative and no warranty is made as to its accuracy. Therefore, any utility asset maps and/or marked up drawings provided by each utility must only be used as a guide and the actual location of plant should be verified by EML/GPR survey or trial holes before construction works commence.

Please note not all service connections are shown on the utility asset maps.

Plant Found Within Site Boundaries

Where utility plant is found within the site boundary, it is recommended for the client to check for legal easements or wayleaves.

Diversions of plant within site boundaries can be expensive and time consuming to relocate. Further investigation of costs and timescales are recommended. Please ask PES for further details.



15. Enclosures

Type	Company	In Vicinity	Desk Research	Awaiting Response
Electricity	SSE Networks			
Water	Thames Water			
Drainage	Thames Water			
Gas	SGN			
Openreach	Openreach (formerly BT)			
Virgin Media	Virgin Media			
Independents	GTC			
	Energetics			
Comms.	Vodafone Ltd			
	Colt			
	TATA			
	KPN			
	SKY Telecommunications			
	Interoute			
	SOTA		✓	
	Instalcom (multiple co's)			
	Verizon			
	Vtesse Networks			
	TeliaSonera			



	euNetworks		✓
	SSE Telecoms		
	CityFibre		
	Mast Data		
Tunnels & Pipelines	LinesearchbeforeUdig		
	BT Deep Level Tunnels		✓
	Thames Water Ring Main		✓
	Thames Tunnel		✓
	Post Office Tunnels		✓
Transport	Docklands Light Railway		✓
	London Underground		✓
	LUL HV Power Assets		✓
	Crossrail		✓
	Network Rail		✓
	Transport for London		✓
	Trafficmaster		✓

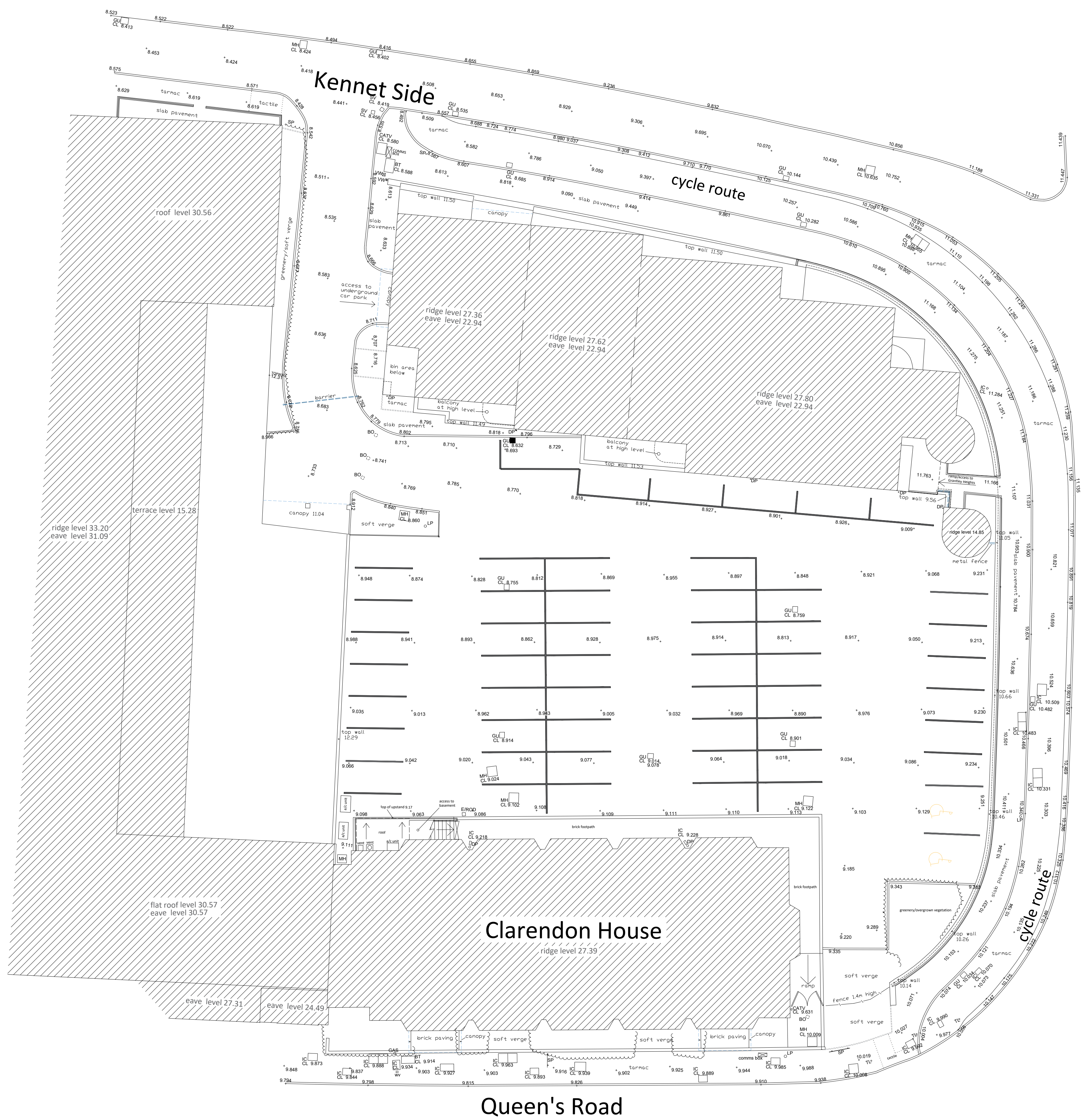


16. Acronyms Key

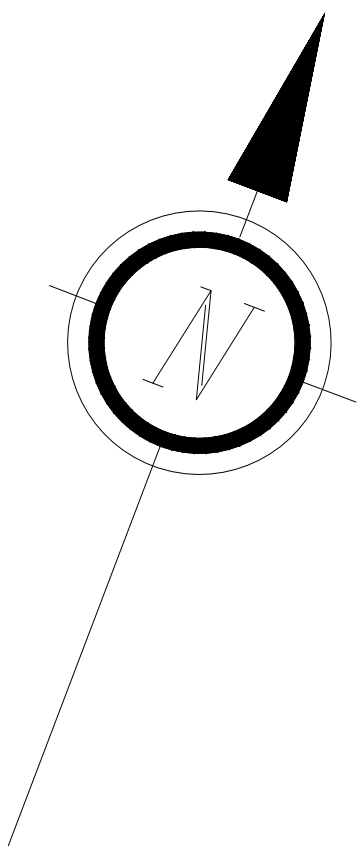
Apparatus			
Electric			
DNO	Distribution Network Operator	kVA	Kilo Volt Amperes
IDNO	Independent Distribution Network Operator	MVA	Mega Volt Amperes
ICP	Independent Connections Provider	AC	Alternating Current
LV	Low Voltage	S/S	Substation
HV	High Voltage	PMT	Pole Mounted Transformer
EHV	Extra High Voltage		
Water			
SLO	Self Lay Organisation	WRAS	Water Regulation Advisory Scheme
Incumbent	Local Water or Water & Sewerage Company		
Gas			
GDN	Gas Distribution Network	LP	Low Pressure
IGT	Independent Gas Transporter	MP	Medium Pressure
UIP	Utility Infrastructure Provider	IP	Intermediate Pressure
PRS	Pressure Reducing Station (Governor)	HP	High Pressure
Others			
PES	Premier Energy Services	CATV	Cable Television
PE	Polyethylene	FTTP	Fibre to the premise
DI	Ductile Iron	FTTC	Fibre to the cabinet
ST	Steel	l/min	Litres per minute
CI	Cast Iron	H&S	Health & Safety
SI	Spun Iron	HBF	House Builders Federation
HPPE	High Performance Polyethylene	TPO	Tree Preservation Order
MDPE	Medium Density Polyethylene	TBC	To be confirmed
GRP	Glass Reinforced Plastic	N/A	Not Applicable







Watlington Street



ABBREVIATIONS			
AB	Air Brick	IRF	Iron Rolling Fence
B	Ballard or Bottom Heights	IWF	Interwoven Fence
BB	Bellish Beacon	KO	Kerb Outlet
BD	Block Drop	L	Light
BH	Borehole or Beam Height	LP	Lamp Post
BL	Bed Level	MH	Manhole
BP	Brick Paviors	MKR	Marker
BRW	Brick Retaining Wall	OV	Over Flow Pipe
BS	Bus Stop	O/H	Overhead
BT	British Telecom	P	Post
BTGB	BT Control Box	PALF	Palisade Fence
EW	Brick Wall	PF	Picket Fence
BWF	Barbed Wire Fence	PIT	Pit
C	Window Cill Height	PL	Pavement Light
CB	Control Box	PM	Parking Meter
CBF	Close Boarded Fence	PRF	Post & Rail Fence
CBW	Concrete Block Wall	PWF	Post & Wire Fence
CCB	Cable TV Control Box	R	Render
CIF	Corrugated Iron Fence	RAD	Radiator
CL	Cover Level	RE	Rodding Eye
CLF	Chain Link Fence	RG	Rough Ground
CLSF	Chain Link Security Fence	RS	Road Sign
CPF	Concrete Panel Fence	RSJ	Roller Steel Joist
CPS	Concrete Paving Slabs	RWP	Rain Water Pipe
CR	Arch Crown Height	S	Spread or Stone
CRW	Concrete Retaining Wall	SC	Stop Cock
CSU	Ceiling Slopes Up	SL	Soft Level or Skylight
CTV	Cable Television	SP	Arch Springer Height
CW	Concrete Wall	SPS	Stone Paving Slabs
D	Diameter or Doors	SW	Stone Wall
DH	Duct Height	TCSU	Traffic Control
DP	Down Pipe	T	Top Heights
ECB	Electricity Control Box	TL	Traffic Light
ELEC	Electricity	TP	Telephone Pole
EP	Electricity Pole	TPS	Tactile Paving Slabs
FB	Flower Bed	UTL	Unable To Lift
FH	Fire Hydrant	V	Vent
C	Gully	VP	Vent Pipe
GV	Gas Valve	W	Window
H	Height in Metres	WL	Water Level
H	Window Head Height	WM	Water Meter
HT	Height	WMF	Wire Mesh Fence
IC	Inspection Cover	WPF	Wooden Panel Fence
IL	Invert Level	WV	Water Valve
		Ø	Diameter

	Banks
	Drop Kerbs
	Overhead Detail
	Change in Elevation
	Fences
	Overhead Cables
	Change in Surface
	Edge of Vegetation
	Floor to Ceiling Height
	False Ceiling Height
	Gate
	Survey Station
	Foul Water Sewer
	Surface Water Sewer
	Combined Sewer

NOTE:
All levels and coordinates relate to an arbitrary grid.

Rev	Detail	By	Auth	Date
Revisions				

Engineering & Management Consultants
60 CATTERICK WAY
BOREHAMWOOD
WD6 4QT
tel +44 (0) 208 207 4719
mobile +44 (0) 790 306 1454
e-mail contact@hertsengineering.co.uk
www.hertsengineering.co.uk

Client
SHP

Project
Clarendon House-Reading

Drawing Title
Topographical survey

Scale	1:250	Sheet Size	A1	Drawing No.	01
Date	10.06.17	Drawn	LAR	Checked	CL
				Revision	0

DESK RESEARCH



Project No:	603401
Date:	4 th January 2018
Client:	Reading Heights/Allies Property
Site:	Royal Heights, Clarendon House, 59-75 Queens Road, Reading

Postcode:	RG1 4BN
OS Ref:	SU 72193 73293
National Grid Ref:	Easting: 472193 Northing: 173293

UTILITIES

OPENREACH & DEEP LEVEL TUNNELS			SIGNED
Asset map requested?	Yes ☒	No ☐	AA
Is the Openreach plan marked with hatching in the vicinity of the site?	Yes ☐	No ☒	
If yes, email enquiry to Openreach	Sent ☒		
Broadband check made (USIR only)?	Yes ☒	N/A ☐	

GAS NETWORK			SIGNED
GT and IGT asset maps requested?	Yes ☒	No ☐	AA

VIRGIN MEDIA			SIGNED
Asset map requested?	Yes ☒	No ☐	AA

COMMUNICATIONS

SOTA			SIGNED
Is the site in Kent?	Yes ☐	No ☒	AA
If yes, email enquiry to McNicholas	Sent ☐		

KCOM			SIGNED
Is the site in the vicinity of Hull?	Yes ☐	No ☒	AA
If yes, email enquiry to KCOM	Sent ☐		

SSE TELECOMS			SIGNED
Is the site in the vicinity of SSE Telecoms?	Yes ☒	No ☐	AA
If yes, print asset map	Done ☒		

CITYFIBRE			SIGNED
Is the site in the vicinity of CityFibre?	Yes ☒	No ☐	AA
If yes, enquiry to CityFibre	Done ☒		

MAST DATA			SIGNED
Is the site in the vicinity of a base station?	Yes ☒	No ☐	AA
If yes, print details of base station	Done ☒		

TUNNELS & PIPELINES

LINESEARCH			SIGNED
Linesearch confirmed plant in vicinity?	Yes ☒	No ☐	AA
If yes, send enquiry to plant operator	Sent ☒		

DESK RESEARCH

THAMES WATER RING MAIN Is the site in the vicinity of the TWU Ring Main? If yes, ensure TWU asset map shows Ring Main	Yes ☐	No ☒	SIGNED AA
--	------------------------------	--	--------------

THAMES TUNNEL Is the site in the vicinity of any planned works? If yes, print details	Yes ☐ Done ☐	No ☒	SIGNED AA
--	---	--	--------------

TRANSPORT

NETWORK RAIL Is the site either (a) immediately adjacent to or above major Network Rail infrastructure such as substations or (b) on land formerly owned by Network Rail? If yes, email enquiry to Network Rail	Yes ☐ Sent ☐	No ☒	SIGNED AA
--	---	--	--------------

CROSSRAIL Is the site in the vicinity of Crossrail? If yes, email enquiry to Crossrail	Yes ☐ Sent ☐	No ☒	SIGNED AA
---	---	--	--------------

TRAFFICMASTER Is the site adjacent to a Trafficmaster installation? If yes, email enquiry to Trafficmaster	Yes ☐ Sent ☐	No ☒	SIGNED AA
---	---	--	--------------

GREATER LONDON

YES ☐ NO ☒

euNETWORKS Is the site in the vicinity of euNetworks plant? If yes, email enquiry to euNetworks	Yes ☐ Sent ☐	No ☐	SIGNED
--	---	-----------------------------	--------

If site is within a Greater London Borough, send enquiries to: TRANSPORT FOR LONDON LUL HV POWER ASSETS LONDON UNDERGROUND Check enquiry area, send if required	Sent ☐ Sent ☐ Sent ☐ N/A ☐	SIGNED
--	--	--------

INNER LONDON

YES ☐ NO ☒

DOCKLANDS LIGHT RAIL Is the site close to the DLR? If yes, email enquiry to DLR	Yes ☐ Sent ☐	No ☐	SIGNED
--	---	-----------------------------	--------

POST OFFICE TUNNELS Is the site close to the tunnels? If yes, only piling or similar depth works will affect plant	Yes ☐	No ☐	SIGNED
---	------------------------------	-----------------------------	--------

Watch it!

Safety advice brought to you by Scottish and Southern Electricity Networks

These notes are intended to help all those who have to work in the vicinity of electrical apparatus. Employers have a legal obligation to ensure that their operatives are fully instructed in the correct procedures.

The Electricity at Work Regulations 1989 impose health and safety requirements upon employers, employees and self-employed persons with respect to electricity at work. The regulations impose restrictions on persons being engaged in work activities on or near live conductors.

Regulation 14 requires that: "No person shall be engaged in any work activity on or near any live conductor (other than one suitably covered with insulating material so as to prevent danger) that danger may arise unless:

- ◆ it is **unreasonable** in all circumstances for it to be dead; and
- ◆ it is **reasonable** in all circumstances for him to be at work on or near it while it is live; and
- ◆ suitable precautions (including where necessary the provision of suitable protective equipment) are taken to prevent injury."

The purpose of the regulations is to require precautions to be taken against the risk of death or personal injury from electricity in work activities.

Publications

The Health and Safety Executive have produced a document entitled 'Avoiding Danger from Underground Services', and the Appendix 1 deals specifically with electric cables. Copies are available from the HSE's Accredited Agents and good booksellers, Ref. HS (G) 47.

Copies of Health and Safety Guidance note GS 6 relating to safe working in proximity to overhead lines, are available from the Health and Safety Executive's website - www.hse.gov.uk.

Note

In situations of emergency or danger, or where the advice contained in these notes cannot be followed, you must consult Scottish and Southern Electricity Networks immediately. Tel. 08457 708090 for southern England or 0800 300999 for Scotland.

Additional copies of these "Watch it!" leaflets can be obtained from our Asset Data Team office upon request. Tel. 01256 337294, or Fax 01256 337295.

You must read and accept the following safety notes as part of the contract to receive our network plans. You will have the option to print these and issue them to site staff.

Watch it! - Working in the vicinity of underground cables

Our plans show the positions and normal depths for the buried cables and pipes at the time when they were installed. However, alterations to road alignments surface levels and buildings may have occurred subsequently without our knowledge. If you discover plant or cables that are not marked or incorrectly marked, then you are required to contact us as soon as possible to give us the opportunity to amend our plans.

These plans show the equipment owned by Scottish and Southern Electricity Networks. There may be other privately owned plant in the area, which is outside of our control. You should always check with the Local Authority, National Grid Company, Department of the Environment, other Electricity Companies and other utilities before proceeding.

It is not intended that the issue of these plans will absolve either party from their obligation under any of the acts that control digging in the public highways.

Supplies To Properties, etc.

The location of cables supplying individual properties, street lighting, traffic signs, telephone kiosks etc. are not always shown on the plans. You should assume that each property, streetlight etc. will have its own supply cable.

Major Circuits

Where our plans indicate the presence of cables with a voltage exceeding 11,000 volts, you are advised to contact our local depot (telephone number is on the plans), before commencing any excavations within the vicinity of these cables. These major circuits form an extremely important link in Scottish and Southern Electricity Networks' networks, and damaging or modifying these circuits is a major and costly undertaking. Any development should therefore be designed to allow these circuits to remain undisturbed and accessible in their present location.

For your own and your workmates' safety, please follow the **do's** and **don'ts** listed below:

- ✓ **do** make sure you have plans of the underground cables in the area **before** any excavation work starts. Remember that some cables may not be shown on plans. If carrying out emergency work, excavate as though there are buried live cables in the vicinity.
- ✓ **do** use a cable locator to determine the position of existing cables in the work area. The positions should be marked and tests made as work proceeds. **If in doubt, get advice from your supervisor.**
- ✓ **do** ask for a cable to be made dead if it is buried in concrete.
- ✓ **do** watch for signs of cables as work progresses. Note any marker-tape or cable-cover, which may be exposed

- ✓ **do** backfill carefully, using stone-free soil around the cables, replacing marker-tapes and / or covers.
- ✓ **do** notify us immediately if you accidentally damage our cables. Arrange to keep people well clear of a cable that has been damaged until we have confirmed it has been made safe.
- ✓ **do** make sure before starting to demolish a building that all cables have been disconnected. We welcome prior notice of the intention to demolish buildings. This enables us to ensure that the site has been made safe electrically.
- ✓ **don't** operate a bulldozer, scraper, dragline or excavator; unless you are satisfied that there are no buried cables in the working area.
- ✓ **don't** use picks, pins, forks or pointed instruments in soft clay or soil when cables are present. Exercise extreme caution where such instruments are used to free lumps of stone, or break up firmly compacted ground. **Never** throw a fork or sharp instrument into the ground.
- ✓ **don't** dig trial holes over the indicated route of the cable. Excavate alongside instead.
- ✓ **don't** use exposed cables as a convenient step or handhold.
- ✓ **don't** handle or attempt to alter the position of any cable.

Remember that a damaged cable may cause extensive loss of supplies, make expensive repairs necessary and cause serious or even fatal injury.

If effective measures are not adopted to protect our equipment, we will take steps to recover the cost of any damage caused. Persons causing damage resulting in loss of supply to customers can be held legally responsible for any claims made by those customers. Promptness in reporting an incident will minimise costs.

In most cases it is not practicable to make cables dead without interrupting supplies to our customers. But given adequate notice, we will wherever possible, give advice regarding special precautions which may be necessary on any site where particular problems are likely to be encountered. The right is reserved to make a charge for this service.

Electricity cables can exist anywhere - under paths or roads, in gardens or driveways, on new housing or industrial development sites or even farmland.

Watch it! - Working in the vicinity of overhead lines

For your own and your workmates' safety, please follow the **do's** and **don'ts** listed below

- ✓ **do** carefully note the position of all overhead lines before commencing work.
- ✓ **do** co-operate with us during planning and sitework stages.
- ✓ **do** follow the advice given in HSE Guidance Note GS 6 when siting barriers, goal posts, bunting etc.
- ✓ **do** keep overhead lines in view when moving scaffolding or machinery and take special care when felling or lopping trees.
- ✓ **do** remember that the raising or slewing of a crane or excavator jib may cause danger when operating near an overhead line.

- ✓ **do** avoid any machinery that is in contact with an overhead line until we confirm that conditions are safe.
- ✓ **do** warn others to keep well clear.
- ✓ **don't** drive a high vehicle below an overhead line when an alternative route is available.
- ✓ **don't** raise the bed of a tipper lorry beneath an overhead line or drive under the line with the body of the vehicle raised.
- ✓ **don't** steady any suspended load until you are satisfied that there is no danger from overhead lines.
- ✓ **don't** handle or use scaffold platforms, poles, pipes or ladders unless they are at a safe distance from overhead lines.
- ✓ **don't** transport long objects beneath overhead lines, unless they are carried in a horizontal position.
- ✓ **don't** approach or touch any broken or fallen overhead lines.

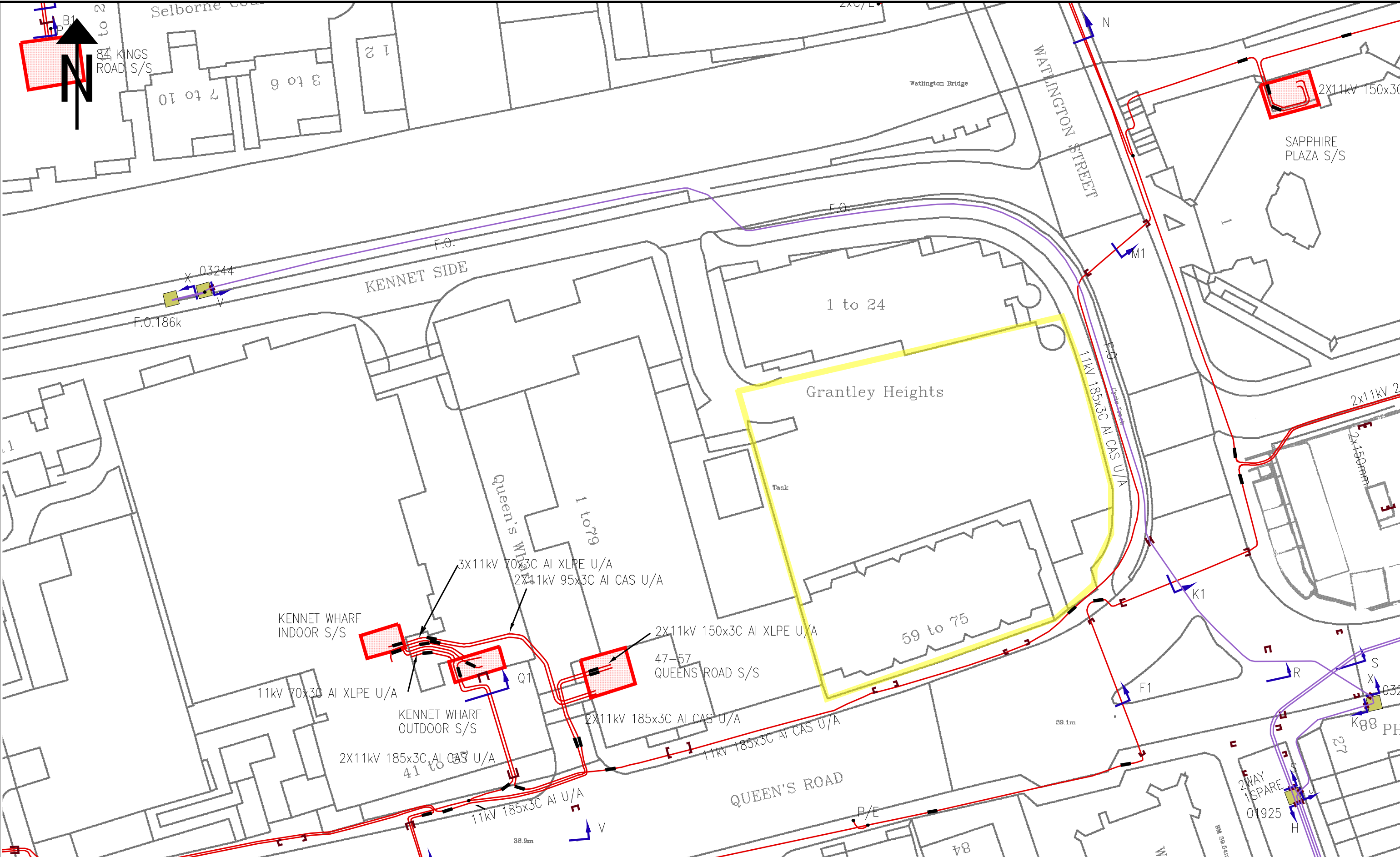
Always remember that:

- Electricity can jump gaps.
- Contact or near contact with a crane jib, scaffold or ladder can cause a discharge of electricity with a risk of fatal or severe shock and burns to any person in the vicinity.

If effective measures are not adopted to protect our equipment, we will take steps to recover the cost of any damage caused. Persons causing damage resulting in loss of supply to customers can be held legally responsible for any claims made by those customers. Promptness in reporting an incident will minimise costs.

In most cases it is not practicable to make overhead lines dead without interrupting supplies to customers. However, provided adequate notice is given, then we will, whenever possible, give advice regarding special precautions which may be necessary on site where specific problems may be encountered. The right is reserved to make a charge for this service.

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459; Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460 (all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales No. 04094290 having its Registered Office at No.1 Forbury Place 43 Forbury Road Reading RG1 3JH which are members of the SSE Group www.ssen.co.uk



NORMAL DEPTH TO THE TOP OF THE CABLE WHEN LAID					WARNING There may have been subsequent alterations to the surface levels. Trial holes must be taken to determine positions and depth of cables. HS (G) 47 Booklet from the Health and Safety Executive – Avoiding Danger from Buried Cables – should be consulted before commencing excavation work. (available from the HSE) WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTE G56 SHOULD BE CONSULTED. (AVAILABLE FROM THE HSE)	BASED UPON THE ORDNANCE SURVEY MAP WITH THE SANCTION OF THE CONTROLLER OF H.M. STATIONERY OFFICE. CROWN COPYRIGHT RESERVED.				
services	l.v.	h.v.	e.h.v.			This copy has been made by or with the authority of Southern Electric Power Distribution plc. pursuant to section 47 of the Copyright, Designs and Patents Act 1988 ('the Act'). Unless the Act provides a relevant exception to copyright, the copy must not be copied without the prior permission of the copyright owner. Template: SIAS MRSWA COL A3 plot		hv_1250_500		Grid Ref: su72167329
FOOTPATH	0.40m	0.45m	0.60m	0.75m		Southern Electric Power Distribution plc. Registered in England No. 04094290 Registered Office: No. 1 Forbury Place, 43 Forbury Road, Reading, RG1 3JH	READING 01189–126500		Scale: 1:500	
ROAD CROSSING	0.60m	0.60m	0.75m	0.90m			UNCONTROLLED COPY Subject to Revision Master held at		Date: 05/01/2018	
l.v./services	– up to 1000V.									HV
h.v.	– over 1000V. to 11,000V.									
e.h.v.	– 22,000V. to 132,000V.									

GIS Electric Symbols for Southern England (SEPD)

	LV Underground service cable
	LV Underground mains cable
	2kV-3.3kV Underground cable
	6.6kV Underground cable
	11kV Underground cable
	22kV Underground cable
	33kV Underground cable
	66kV Underground cable
	132kV Underground cable
	LV Overhead cable
	2kV-3.3kV Overhead cable
	6.6kV Overhead cable
	11kV Overhead cable
	22kV Overhead cable
	33kV Overhead cable
	66kV Overhead cable
	132kV Overhead cable
	Fibre optic cable
	Pilot cable
	Circuit breaker
	Switch connector
	Pole box
	Straight joint
	Tee joint
	Trifurcating joint
	Pot end joint
	Capped end joint
	Sealing end joint
	Service connector joint
	O/H Connector joint
	Wall box joint

	Pole
	Pole mounted transformer
	Substation
	Link box
	Pillar
	Major pipeline
	Assumed route
	Cross section
	Ducting
	Flying stay
	PME Earth
	Neutral earth
	Oil/Gas gauge
	Oil/Gas tank
	Balancer
	Regulator
	Pit
	Schematic connector
	Supply location-property
	Supply location-other
	Supply location-street furniture

GIS Environment Guide

Countryside Agency

-  Areas of Outstanding Natural Beauty (AONB)
-  National park

Environment Agency

-  Borehole
-  Water extraction point
-  Sensitive waterway
-  Source protection zone
-  Vulnerability zone

Forestry Commission

-  Access
-  Ownership

English Heritage / Historic Scotland

-  Monuments

SEPA

-  Flood Area
-  Flood Location

English Nature / Scottish Natural Heritage

-  Site of Special Scientific Interest (SSSI)
-  National Nature Reserve (NNR)
-  RAMSAR
-  Special Area of Conservation (SAC)
-  Special Protection Area (SPA)
-  Ancient Woodland

Areas of Concern

-  Contaminated
-  Cadmium
-  Methane
-  Heavy Metal-Unclassified
-  Asbestos
-  Ordnance
-  Mercury
-  Restricted Access

If in doubt ask Scottish & Southern Energy Power Distribution
mapping.services@sse.com

Anthony Higgs

From: Keogh, Sean <sean.keogh@sse.com>
Sent: 10 January 2018 11:21
To: Anthony Higgs
Cc: Keogh, Sean
Subject: EKV752/1 - 59-75 Clarendon House, Queens Road, Reading, Berkshire, RG1 4BN.
Attachments: EKV752_001_20180110_QUOTELETTER.pdf

Dear Anthony,

In response to your request for a budget estimate for costs for a new supply at the above mentioned site, we have estimated the price to be between £154,000.00-£167,000.00 which allows for the installation of equipment within the site boundary as on-site works ONLY.

This price does not include any possible 2nd-comer reinforcement charges that may apply, and does not confirm that there is available capacity on the network to meet the required demand.

For confirmation of the load availability on the network you can choose to apply for a network feasibility study at £600 + VAT.

If you'd like a formal quotation for the new supply then please apply accordingly, where the network study would also be carried out so we can allow for the necessary off-site works to the point of connection that would be identified following your application. The formal quotation would be provided free of charge following your application and would allow you to secure the capacity for the site should you accept the quotation upon receipt.

If you need anything else, please let me know.

Best Regards,

Séan Keogh



Séan Keogh

Connections Designer

T: +44(0)1753 695 611

Internal: 12919

E: sean.keogh@sse.com

Slough Depot, Primary Road, Chalvey, Slough, SL1 2UD.

www.ssen.co.uk



Our reference: EKV752/1

Your reference:

Premier Energy Services
Mr Anthony Higgs
Premier House Daux Road
Billingshurst
West Sussex
RH14 9SJ

SSE
Primary Road
Chalvey
Slough
SL1 2UD



01753 695 611



01753 695 751



Sean.keogh@sse.com



www.ssepd.co.uk

10/01/2018

Dear Mr Anthony Higgs,

Budget Quotation for New Development at 59-75 Clarendon House, Queens Road, Reading, Berkshire, RG1 4BN.

Thank you for your recent enquiry. I am pleased to provide you with my budget estimate for the new electricity connections at the above development. My initial proposals will be subject to our obtaining all necessary legal consents to carry out the work as indicated, including any consents required from third parties.



**154,000.00 to
167,000.00**

This budget estimate has been calculated exclusive of VAT and does not constitute an offer of terms

You should be aware that this estimate reflects the current situation and cannot be guaranteed into the future. Before making any financial commitments based on the indicative price above, please contact me to request a firm quotation.



The budget estimate has been calculated based on a high level assessment, my local knowledge and experience, the information you have provided and the assumptions listed overleaf. It is my best estimate of the costs you would incur for this proposal and is intended for budgetary proposes only.

I trust the information I have provided is of assistance and if I can help further please do not hesitate to contact me. Alternatively, you may find answers to any questions you may have on our web site www.ssepd.co.uk.

Yours sincerely,

Sean Keogh
Connections Designer

New Development at 59-75 Clarendon House, Queens Road, Reading, Berkshire, RG1 4BN

Additional assumptions and charges

- I have assumed that there is no need for reinforcement works to accommodate your new connections. This may not be the case. I can include these costs (or confirm that none apply) if you pay for a feasibility study or request a firm quotation.
- All on site excavation and reinstatement will be provided by the developer.
- All internal containment for rising mains cables (flats) will be provided by the developer.
- Our initial proposal includes installing cable on third party land. Legal consent, from third parties, may not be readily forthcoming and could cause delays in providing your connection. This may also affect the cost for the proposed connection.
- Some Highway Authorities are proposing to introduce "Lane Rental Charges" where Utility Companies carry out excavations in the Public Highway. These costs will be passed through to you, together with a small administration cost, should this affect your connection. This charge has not been included in this estimate.

Important notice: Traffic Management Act - Street Works Permit schemes

Local Authorities in England and Wales are likely to introduce a new Permit Scheme for street works that will include charges for providing the permits. It is not clear at this time which Local Authorities will introduce this scheme, when the scheme will be introduced, which streets will be affected or what the level of charges will be. These charges are not within Southern Electric Power Distribution plc's control, and cannot be absorbed by us.

This quotation excludes any charges that may be levied by the Local Authority in respect of these charges. It is important to note that any such charges which are relevant to this project will be subsequently passed on to you through a separate invoice. In addition to the actual charges from the Local Authority, we will charge £25.00 + VAT to cover our administrative charges. Acceptance of this quotation means that you also accept these additional charges.

You may wish to seek clarification on how these charges may affect you from the relevant Local Authority.

Safety

We ask you to take note of the following:-

In accordance with the Health & Safety Guidance Note GS6, you are required to take every precaution to ensure that cranes, tipper lorries, scaffolding, ladders and other plant employed on your works are kept at a safe distance from overhead electric lines and their supports and that such supports are not disturbed by excavations. Goal posts with height restriction will need to be placed at appropriate locations for vehicles passing underneath Scottish and Southern Energy Power Distribution's overhead lines.

In accordance with Health & Safety Executive Guidance Note HS (G) 47 care will also be necessary when digging in proximity to underground cables, particular if mechanical excavators are used.

Overhead lines, underground cables and other electrical plant must be regarded as being "live". Before commencing work in proximity to such plant written notification must be given to Scottish and Southern Energy Power Distribution.

If during the course of your works, any cable should be damaged by you/or your contractors, then this fact must be reported to our Emergency Service Centre on 08000 72 72 82 (Southern Electric Power Distribution plc) immediately. The cost of any repairs will be fully rechargeable.

Locating cables on site

To obtain the latest copies of our cable records please send a plan of the area in question together with your contact details to:

Mapping Services
Scottish and Southern Energy Power Distribution
P O Box 6206
BASINGSTOKE
RG24 8BW

Tel: 01256 337294
Fax: 01256 337295

requesting details of any Scottish and Southern Energy Power Distribution plant and cables in the area. You must excavate hand-dug trial holes to establish the actual positions of all cables before any mechanical excavation works commence.

Our reference: EKV757/1

Your reference:

Mr Anthony Higgs
Premier Energy Services
Premier House
Daux Road
Billingshurst
West Sussex
RH14 9SJ

Rasha Nabulsi
**Southern Electric Power
Distribution plc**
Connections And Engineering
Walton Park
Walton Road
Cosham
PO6 1UJ



01753 695 777



rasha.nabulsi2@sse.com



www.ssen.co.uk

19 January 2018

Dear Sirs

Clarendon House, 59-75 Queens Road, Reading.

Thank you for your recent enquiry. We are pleased to provide you with an Offer on behalf of Southern Electric Power Distribution plc, for the Non-Contestable Works associated with providing a Point of Connection at the above development. This letter (including the pages attached to it which contain the Breakdown of Charges and Additional charges and assumptions, the Acceptance, and the Information Pack), together with the enclosed Standard Terms and Conditions constitutes our Offer.

Our Offer is subject to our obtaining all necessary legal consents to carry out the work as planned, including any consent required from third parties. Please refer to our website for more detailed information at www.ssen.co.uk/LandRights.

 **864.04**

This Offer for Non-Contestable Works has been quoted including VAT (as applicable). Our Offer remains open for acceptance for the period stated in the enclosed Standard Terms and Conditions.

You can see a Breakdown of Charges included in our Offer on the next page. Please note that we will not be able to schedule works until you have accepted this Offer and we have received all sums due and payable on acceptance for the works detailed in this Offer. Where your Offer includes reinforcement or you are a Second Comer and the initial connector has not yet been energised, then your connection cannot be energised until these works are complete. Upon completion of the electrical works you are also required to pay any applicable 'Second Comer' charge as set out in this Offer, in accordance with the Electricity (Connection Charges) Regulations 2017 (ECCR).



There may be other parties competing to deliver the connections for this development, who have or will receive a competing Point of Connection (POC) offer from .The acceptance of this Offer is conditional upon any other such offers not having been accepted. Upon acceptance of any other such offer, the facility to accept this Offer will no longer be available and the Offer will be withdrawn.

The quotation has been calculated based on the information provided to date but please be aware that we will charge for any additional work required that has not been included in this Offer. It is

Inveralmond House, 200 Dunkeld Road, Perth PH1 3AQ  **www.ssen.co.uk**

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459; Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460; (all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales No. 04094290 having its Registered Office at No.1 Forbury Place, 43 Forbury Road, Reading, RG1 3JH which are members of the SSE Group www.ssen.co.uk

important that you check the Offer thoroughly to avoid incurring any further charges.



We reserve the right to terminate our contract with you in certain circumstances where the works have not commenced or did commence but were then delayed. Our right to terminate is set out in clause 11 of the Standard Terms and Conditions enclosed with this Offer Letter. For the purposes of clause 11 the period specified is 12 months from the date of your acceptance of this Offer.

We have enclosed with this Offer an Information Pack, which contains information relevant to the work for which you have been quoted. Our **Statement of Methodology and Charges for Connection** provides detailed information regarding our charges. You can download our **Statement of Methodology and Charges for Connection** from our website at www.ssen.co.uk/Library/ChargingStatements. We trust the information we have provided is of assistance and if we can help further please do not hesitate to contact us. Alternatively, you may wish to visit our website at www.ssen.co.uk for further information.

Yours sincerely,

Rasha Nabulsi
Network Connections Designer

Glossary of Defined Terms

“Adoption Agreement”	An agreement for us to adopt the Contestable Work, subject to the satisfaction of certain conditions.
“Connections Regulations”	Means regulations made in relation to connections standards of performance under section 29A of the Electricity Act 1989.
“Contestable Works”	Also known as Contestable Connection Activities, are works necessary for the provision of the Connection which can also be undertaken by an ICP or an IDNO.
“Distribution Code”	Means the Distribution Code that Scottish Hydro Electric Power Distribution plc and Southern Electric Power Distribution plc is required to maintain in force.
“DNO”	Means Distribution Network Operator. Electricity distribution networks carry electricity from the high voltage transmission grid to industrial, commercial and domestic users. Scottish Hydro Electric Power Distribution plc and Southern Electric Power Distribution plc are licensed distribution network operators (DNOs).
“Licence”	Also known as Electricity Distribution Licence means an electricity distribution licence granted or treated as granted under section 6 (1) (c) of the Electricity Act 1989 that authorises a electricity distributor to distribute electricity.
“Non-Contestable Works”	Also known as Non-Contestable Connections Services, are those services which are necessary for the provision of a connection and in accordance with our Connection Charging Statement, cannot be provided by a person other than Scottish Hydro Electric Power Distribution plc or Southern Electric Power Distribution plc.
“Point of Connection”	The point (or points) of physical connection to our existing Distribution System.
“Second Comer”	Any connectee who subsequently connects to and benefits from infrastructure paid for by an earlier connectee and is therefore liable to pay for their share of incurred costs under the Electricity (Connection Charges) Regulations.
“Statement of Methodology and Charges for Connection”	The Connection Charging Methodology is a complete and documented explanation of the methods, principles and assumptions for our connection charges. The Connection Charging Statement sets out the basis of charges for the provision of a connection.
“The Electricity (Connection Charges) Regulations or (ECCR)”	Any connectee who subsequently connects to and benefits from infrastructure paid for by an earlier connectee and is therefore liable to pay for their share of incurred costs under the Electricity (Connection Charges) Regulations.

Offer to provide Non-Contestable Works Only

What you need to do



You are required to ensure that all works on your own electrical installations are carried out by a qualified electrical contractor. Statutory qualification schemes, for Building Regulation purposes, are currently run by NICEIC, SELECT, ECA, NAPIT, ELECSA, British Standards Institution and BRE Certification.



Please enclose either a cheque or, if paying by Bank Transfer, make payment before acceptance. Alternatively, you may call to pay by credit/debit card or use our online services.

Please note



Southern Electric Power Distribution plc is the Distribution Network Operator (DNO) for the area in which your project is located.



This Offer serves as a notice under Section 16A (5) of the Electricity Act 1989. Should you have any concerns relating to this Offer please contact us using the details on the first page of this letter and we will try to resolve any issues directly with you. If you still then have concerns, Section 23 of the Act allows for any unresolved disputes relating to the provision of this Offer to be determined by the Gas and Electricity Markets Authority (the "Authority"). The dispute must be referred to the Authority within 12 months following the date of connection. The dispute may be determined either by an Order of the Authority, or referred by the Authority for arbitration. An order made in relation to the dispute shall be final and binding on the parties and may include a direction to pay costs and expenses.

Breakdown of Charges

Description of non-contestable charges

PoC 1 for 153kVA - Breach joint 185mm Consac Cable (subject to disconnection of existing services) , POC 2-222kVA LV breach joint onto 185mm consac cable which is presently potended outside the substation.	
POC and Network Assessment, Design Approval (where relevant)	£185.00
Final connection	£677.04
Inspection & Monitoring	£2.00
Total non-contestable charges	£864.04

TOTALS

Net total at standard rate VAT	£0.00
Net total at low rate VAT	£0.00
Net total at zero rate VAT	£864.04
VAT at standard rate (20%)	£0.00
VAT at low rate (5%)	£0.00
Total charge to applicant	£864.04

Please refer to our enclosed Detailed Cost Breakdown for further information.

Please note, you are required to submit a design to us (for our approval or for our review if self-design approval) and to enter into an Adoption Agreement with us, for the Contestable Works to be adopted by us, prior to final connection. More details on what is required for design approval can be found on our website at www.ssen.co.uk/CompetitionInConnections/.

Additional charges and assumptions

We reserve the right to amend the charges at any time after the date of this Offer as a result of variations to material or labour costs which will impact upon the costs incurred by us in providing the Connection. Please note that whilst such changes in costs may occur at any time due to contractual variations and/or our rights and/or obligations to recover costs incurred pursuant to legislation or our licence, such a change is very likely to be relevant where the estimated date of completion of the Distribution Works is in excess of 12 months from the date of this Offer.

Land Rights (including wayleaves), Planning and Other Consents

We have identified that third party consents are likely to be required for the Non-Contestable Works and have assumed that they will be granted without dispute and in accordance with Southern Electric Power Distribution plc's standard land rights' style agreements.

Where we are unable to obtain third party consents, the design and terms of our contract with you may need to be revised and you will need to meet any associated additional costs that may be incurred by us or such third party, arising from but not limited to:

Land rights

- Legal and other professional fees and expenses incurred by us and any third party in connection with securing the required land rights;
- Wayleave fees levied by third parties to process wayleave agreements; and
- Costs associated with any compulsory purchase or necessary wayleave applications, which may have to be submitted under the Electricity Act 1989. Timescales and costs for determination of a compulsory purchase or wayleave consent will depend on the specific circumstances of the application. An application for a compulsory purchase or necessary wayleave does not guarantee a positive determination. The decision to pursue a compulsory purchase or necessary wayleave remains at the sole discretion of Southern Electric Power Distribution plc.

Other consents

- Specialist ecology surveys;
- Tree cutting compensation and sterilisation;
- Archaeology investigations including watching briefs; and
- Damage claims and any associated surveyor's fees where the damage is over and above what is reasonably necessary to undertake the works.

Important notice: Traffic Management Act – Street Works Permit schemes

Local Authorities in England and Wales are likely to introduce a new Permit Scheme for street works that will include charges for providing the permits. It is not clear at this time which Local Authorities will introduce this scheme, when the scheme will be introduced, which streets will be affected or what the level of charges will be. These charges are not within Southern Electric Power Distribution plc's control.

This Offer excludes any charges that may be levied by the Local Authority in respect of these costs. It is important to note that any such charges which are relevant to this project will be subsequently passed on to you through a separate invoice. In addition to the actual charges from the Local Authority, we will charge £25.00 + VAT to cover our administrative charges. Acceptance of this Offer means that you also accept these additional charges.

You may wish to seek clarification on how these charges may affect you from the relevant Local Authority.

Job reference: EKV757/1

Offer for PoC 1 for 153kVA - Breach joint 185mm Consac Cable (subject to disconnection of existing services) , POC 2- 222kVA LV breach joint onto 185mm consac cable which is presently potended outside the substation. maximum 222kVA . at Clarendon House, 59-75 Queens Road, Reding

Please indicate your acceptance of this:

☐ Non-Contestable Works only

You can pay the charges set out in this Offer by credit or debit card, cheque or bank transfer, either by post, by phone or via our website (if you are registered). Please note that we only accept card payments for charges up to £5,000 in value (including VAT).

If you wish to pay by credit or debit card, please call our payment line on 0800 197 5527 and complete this form and return it to us by post or email:

Attn. Quote Acceptance, Connections and Engineering
Scottish and Southern Electricity Networks
Walton Road
Cosham
PO6 1UJ

E-mail: quote.acceptance@sse.com

If paying by cheque, please make it payable to Southern Electric Power Distribution plc. Please complete this form and return it with your cheque to the address above.

If paying by bank transfer, you must instruct your bank to transfer funds **before** returning this form to the above address. Please ask your bank to label your payment with the job reference as given above. Our bank account details are:

Account name:	Southern Electric Power Distribution plc
Bank:	NatWest
Sort code:	60-17-21
Account number:	89542592
IBAN code:	GB17 NWBK 601721 89542592
Swift No (BIC):	NWBK GB 2L
UTR:	64581 10616
VAT registration number:	553 7696 03

Amount Paid:



Choose your method of payment:

☐ Cheque ☐ Bank Transfer ☐ Credit/Debit Card

If you wish to accept this Offer please provide the payer's name and address.

**PRINT
payer's
name and
address:**

Inveralmond House, 200 Dunkeld Road, Perth PH1 3AQ  **sse.co.uk**

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459;
Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460;
(all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales
No. 04094290 having its Registered Office at No.1 Forbury Place, 43 Forbury Road, Reading, RG1 3JH which are members of the SSE Group www.sse.co.uk

If you wish to accept this Offer please date and sign the acceptance at the end of this acceptance form.



Once we have received your payment in cleared funds we will issue a receipt to you at the address you have notified to us, or to such alternative address as you advise us prior to issue of the receipt.



If we receive your payment without this completed acceptance form, we shall be entitled but not obliged to treat your payment as acceptance of our Offer.



If you cancel the works referred to in this Offer before commitment or commencement of any associated tasks, we will return any sums paid to us minus administration costs. If you entered into a contract with us as a consumer the terms of our Supplementary Consumer Terms and Conditions will apply in respect of your cancellation and refund rights.



If you cancel the works before completion, we will deduct any costs incurred which will include the costs of any site visits conducted, drawings and plans produced for your works and administration costs incurred prior to receipt of your cancellation notice. If you entered into a contract with us as a consumer the terms of our Supplementary Consumer Terms and Conditions will apply in respect of your cancellation and refund rights.

If you are accepting this Offer as a consumer our Standard Terms and Conditions are varied by the enclosed Supplementary Consumer Terms and Conditions. Please note that your rights as a consumer mean that you are entitled to cancel the contract within 14 days following your acceptance of our Offer and we must refund any payment you have made to us in respect of the works. We are not allowed to commence the works during this 14 day period, unless you consent to this. If you want us to undertake the works at the earliest possible date and where possible to start during the 14 day cancellation period please confirm by marking an "X" in the box below.

☐ I confirm that I consent to the provision of the works during the 14 day cancellation period and that I have read the enclosed Supplementary Consumer Terms and Conditions.

Please note that it may not be possible for us to commence the works during the 14 day cancellation period and your consent does not mean that we are under any obligation to do so.

I confirm that I have read, understood and accept the terms and conditions set out in and accompanying this Offer.

Signed: _____ **Date:** _____

**Name
(PRINT)** _____

**Position
(PRINT)** _____

Please use this sheet as a return address.

Quote Acceptance Team
Connections and Engineering
Scottish and Southern Electricity Networks
Walton Road
Cosham
PO6 1UJ

Inveralmond House, 200 Dunkeld Road, Perth PH1 3AQ  **ssen.co.uk**

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459;
Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460;
(all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales
No. 04094290 having its Registered Office at No.1 Forbury Place, 43 Forbury Road, Reading, RG1 3JH which are members of the SSE Group www.ssen.co.uk



Information pack

We have enclosed this Information Pack which we trust you will find useful. This pack contains information relevant to the Offer made. However, if you have any further questions, please don't hesitate to contact us.

Contents

Safety

When we carry out any job, Safety is our first priority. Your safety is important to us. Our motto is, "We do it safely, or not at all". Please read the enclosed information carefully and if in any doubt, please ask us to explain.

Connections Guaranteed Standards of Performance

The Connections Guaranteed Standards of Performance are guaranteed standards of service levels set out under the Connections Regulations and must be met by each distribution company. These standards have been set to guarantee a level of service that is reasonable to expect companies to deliver.

If the distribution company fails to meet the level of service required, it may be obliged to make a payment to the customer. To find out what these guaranteed standards of performance cover please visit our website at www.ssen.co.uk/CustomerService/PerformanceStandards.

Please visit the Gov.uk website at www.legislation.gov.uk/ukxi/2015/698/made if you require more information in relation to guaranteed standards in respect of demand connections. For generation connections Ofgem's Distributed Generation Standards Direction Guidance Document can be located at www.ofgem.gov.uk/publications-and-updates/distributed-generation-standards-direction-guidance-document.

Your Point of Connection details

This details what size (capacity) and voltage your connection(s) will be.

This also gives your Point of Connection and details of any special or unusual load you may have requested to be included in your connection such as motors and welders.

Safety

We ask you to take note of the following:

In accordance with the Health and Safety Executive Guidance Note GS6, you are required to take every precaution to ensure that cranes, tipper lorries, scaffolding, ladders and other plant employed on your works are kept at a safe distance from overhead electric lines and their supports and that such supports are not disturbed by excavations. Goal posts with height restriction will need to be placed at appropriate locations for vehicles passing underneath Southern Electric Power Distribution plc's overhead lines.

In accordance with Health and Safety Executive Guidance Note HSG47 care will also be necessary when digging in proximity to underground cables, particularly if mechanical excavators are used.

Overhead lines, underground cables and other electrical plant must be regarded as being "live". Before commencing work in proximity to such plant, written notification must be given to Southern Electric Power Distribution plc.

If during the course of your works, any cable should be damaged by you/or your contractors, then this fact must be reported to our Emergency Service Centre on 08000 72 72 82 immediately. You will be liable to us for the full cost of any repairs.

Locating cables on site

Any drawings that we have enclosed with this Offer may not be suitable for locating cables on site due to scaling issues. If you wish to obtain the latest copies of our cable records please send a plan of the area in question together with your contact details to:

Mapping Services
Scottish and Southern Electricity Networks
P O Box 6206
BASINGSTOKE
RG24 8BW

Tel: 01256 337294

Fax: 01256 337295

E-mail: mapping.services@sse.com

Please contact our Mapping Services requesting details of any Southern Electric Power Distribution plc's plant and cables in the area.

You must excavate hand-dug trial holes to establish the actual positions of all cables before any mechanical excavation works commence.

Your Point of Connection details

LV Point(s) of Connection Point of Connection 1

We have calculated the voltage drop at the Point of Connection as 0.42% and an earth loop impedance of 0.021 ohms using a modelling tool (WinDebut) – this figure assumes that the general load is split equally over the three phases, and that no motors are starting. The fault level at the Point of Connection is 4.39kA but could rise to 25.00kA and you are advised to design your network accordingly.

The connection will be 3-phase, 230 - 400 Volts, and alternating current at 50 Hz, with a maximum capacity of 153kVA. Where your connection involves multiple phases you will need to balance the electrical load evenly across the phases to avoid overloading.

A Network to be adopted by Southern Electric Power Distribution plc

For any network subsequently to be adopted by Southern Electric Power Distribution plc, your design of any Contestable Works, including substation buildings and plinths must comply with our Standards and Specifications and the process for adoption of these assets will be as laid out in documents on our website. Access to our Standards and Specifications, network information and GIS is via a secure login applied for and accessed at: www.ssen.co.uk/CompetitionInConnections.

Please be advised that it is vital that the Adoption Agreement is properly entered into by BOTH parties BEFORE any works commence on site. Any plant or cable installed before the Adoption Agreement is entered into is at your own risk and any costs incurred in carrying out inspections and making these assets subsequently fit for adoption will be borne by you. Southern Electric Power Distribution plc will not be responsible for any delays to the programme which may result.

The current model of Adoption Agreement can be viewed on our website.

You will require to carry out the contestable works to be adopted subject to the necessary safety precautions, consents and wayleaves and other appropriate conditions, agreements and standards and specifications being satisfied including:

- Design for the connection downstream from the Point of Connection to the existing assets.
- Procurement and provision of the required materials.
- All excavation, trenching and reinstatement (whether temporary or permanent) including excavations for the non-contestable final connection joint.
- Provision and installation of all mains and service ducting.
- Recording of work, location of cable routes and equipment and the provision of this information to us.
- Making provision for the installation of metering equipment by an approved Meter Operator.

All jointing will be in accordance with our approved design within the scope and authorisation level of our current Safety Management Procedures.

The contestable works and your installation must be designed and installed in accordance with the technical engineering requirements of the Distribution Code and the following Engineering Recommendations:

- (i) Engineering Recommendation G5/4 ("Planning Levels for Harmonic Voltage Distortion and the Connection of Non-Linear Equipment to Transmission Systems and Distribution Networks in the United Kingdom")
- (ii) Engineering Recommendation P28 ("Planning Limits for Voltage Fluctuations caused by Industrial, Commercial and Domestic Equipment in the UK")

Your Point of Connection details

LV Point(s) of Connection Point of Connection 2

We have calculated the voltage drop at the Point of Connection as 0.010% and an earth loop impedance of 0.010 ohms using a modelling tool (WinDebut) – this figure assumes that the general load is split equally over the three phases, and that no motors are starting. The fault level at the Point of Connection is 14.28kA but could rise to 25.00kA and you are advised to design your network accordingly.

The connection will be 3-phase, 230 - 400 Volts, and alternating current at 50 Hz, with a maximum capacity of 222kVA. Where your connection involves multiple phases you will need to balance the electrical load evenly across the phases to avoid overloading.

A Network to be adopted by Southern Electric Power Distribution plc

For any network subsequently to be adopted by Southern Electric Power Distribution plc, your design of any Contestable Works, including substation buildings and plinths must comply with our Standards and Specifications and the process for adoption of these assets will be as laid out in documents on our website. Access to our Standards and Specifications, network information and GIS is via a secure login applied for and accessed at: www.ssen.co.uk/CompetitionInConnections.

Please be advised that it is vital that the Adoption Agreement is properly entered into by BOTH parties BEFORE any works commence on site. Any plant or cable installed before the Adoption Agreement is entered into is at your own risk and any costs incurred in carrying out inspections and making these assets subsequently fit for adoption will be borne by you. Southern Electric Power Distribution plc will not be responsible for any delays to the programme which may result.

The current model of Adoption Agreement can be viewed on our website.

You will require to carry out the contestable works to be adopted subject to the necessary safety precautions, consents and wayleaves and other appropriate conditions, agreements and standards and specifications being satisfied including:

- Design for the connection downstream from the Point of Connection to the existing assets.
- Procurement and provision of the required materials.
- All excavation, trenching and reinstatement (whether temporary or permanent) including excavations for the non-contestable final connection joint.
- Provision and installation of all mains and service ducting.
- Recording of work, location of cable routes and equipment and the provision of this information to us.
- Making provision for the installation of metering equipment by an approved Meter Operator.

All jointing will be in accordance with our approved design within the scope and authorisation level of our current Safety Management Procedures.

The contestable works and your installation must be designed and installed in accordance with the technical engineering requirements of the Distribution Code and the following Engineering Recommendations:

- (iii) Engineering Recommendation G5/4 ("Planning Levels for Harmonic Voltage Distortion and the Connection of Non-Linear Equipment to Transmission Systems and Distribution Networks in the United Kingdom")
- (iv) Engineering Recommendation P28 ("Planning Limits for Voltage Fluctuations caused by Industrial, Commercial and Domestic Equipment in the UK")

The Company's Standard Terms and Conditions

Definitions:

The "Company":	Shall mean either Scottish Hydro Electric Power Distribution plc or Southern Electric Power Distribution plc as specified in the Offer Letter;
The "Adoption Agreement":	The agreement between the Customer and the Company for adoption of any Contestable Connection Works undertaken by the Customer;
The "Agreement":	The agreement constituted by the Offer and the Customer's acceptance and any permitted variation from time to time;
The "Agreement Date":	The date of the Customer's acceptance of the Offer;
The "Company's Requirements":	The Company's technical requirements as set out on the Website and the Offer;
The "Connection Agreement":	The agreement between the Company and the Customer relating to the connection of the Customer's premises;
"Consumer":	Means an individual acting for purposes which are wholly or mainly outside the individual's trade, business, craft or profession;
"Consumer Terms and Conditions":	Means the Supplementary Consumer Terms and Conditions attached to these Standard Terms and Conditions
The "Contestable Connection Works":	The part of the Works that the Customer may elect to undertake or appoint an appropriate third party to undertake;
The "Cost Apportionment Contribution":	A financial contribution made with respect to the costs of connection from the Company in favour of the Customer;
The "Customer":	The person, firm or company whose name and address is shown in the Offer Letter;
The "Equipment":	The equipment, plant and/ or apparatus the Company will supply as detailed in the Offer Letter;
The "Land Rights":	Means rights in, under or over land for the construction, installation, operation, repair, maintenance, renewal or use of the Contestable Connection Works and/or the Works;
The "Land Rights Criteria":	The criteria as set out on the Website providing the Company's requirements for Land Rights;
The "Offer":	These standard terms and conditions and the Offer Letter;
The "Offer Letter":	The letter and attached pages sent to the Customer by the Company setting out details of the Works, the Quotation and other matters relating to the connection;
The "Quotation":	The Quotation for the Works as set out in the Offer Letter;
The "Site Information & Customer Requirements":	The customer requirements document supplied with the Offer;
The "Website":	The website at www.ssen.co.uk or at such other domain name as the Company may use from time to time;
The "Works":	The works that the Company will carry out as detailed in the Offer; and
"Second Comer Charge":	Means any amounts payable by the Customer pursuant to The Electricity (Connection Charges) Regulations 2017.

- The Offer remains open for acceptance in writing for 90 days from the date of issue, unless notified by the Company in writing to the contrary. The Company reserves the right to amend or withdraw the Offer at any time prior to the Customer accepting it.
- If the Customer has entered into the contract as a Consumer, the Consumer Terms and Conditions shall be incorporated into these terms and conditions and to the extent of any inconsistency, the terms of the Consumer Terms and Conditions shall prevail.
- The Customer will provide the Company with the facilities reasonably necessary to enable it to complete the Works in the most economical manner. In default the Customer shall pay the Company such reasonable additional costs that may result.
- Where any changes to the Works are required other than as a result of the Company's negligence the Company shall submit written details of the additional cost to the Customer who shall be entitled to terminate the contract upon giving the Company written notice within 5 working days of the date of submission of such details. In the event of termination the Customer shall pay the Company's reasonable charges for the work done or committed and materials purchased prior thereto and reimburse any costs or expense incurred or committed by the Company in obtaining any wayleaves and consents.
- In accordance with the Land Rights Criteria, the Customer will (i) grant any Land Rights for cables, overhead lines, substations and all other apparatus to be installed over or within their property, (ii) provide and install ducts for on site road crossings and for service cable entry and (iii) agree service terminations in a position acceptable to the Company and provide and install service tubes from the back of the footpath to the premises to which the connection is required terminating where possible in an external meter reading cabinet.
- The Customer will meet (i) their own agent's legal and other fees and expenses, (ii) the legal and other fees and expenses of the Company, and (iii) the legal and other expenses of any consenter or other third party in connection with the grant of the Land Rights.
- The Company reserves the rights not to install the Works on contaminated land. Where contamination is found by or becomes known to the Company, additional charges may be rendered to the Customer in accordance with Condition 4.
- The Customer will, at no cost to the Company and to a satisfactory standard reasonably specified by the Company, be responsible for carrying out all on site cable trenching for services, LV and HV mains cable, other than within substation sites and for backfilling and trench reinstatement once the Company has laid and covered the aforesaid cabling.
- The Customer will be responsible for all building costs associated with the supply intake and any meter cabinets.
- The Customer will provide service termination facilities, in a position acceptable to the Company.
- The Company shall be entitled to terminate the contract constituted by your acceptance of the Agreement by written notice to you, at any time following the expiry of the period specified in the Quotation, if the works referred to in the Quotation have not commenced or did commence but subsequently ceased and such delay in commencing or completing the works is not attributable to the act or omission of the Company. If the Company terminates before commitment or commencement of the works referred to in the Quotation and/or any associated tasks, the Company will return any sums paid to us minus administration costs. If the Company terminates before completion of the works referred to in the Quotation but after commitment or commencement of any associated tasks, the Customer will be liable for any reasonable charges for the work done or committed and materials purchased prior to termination and any costs or expense incurred in relation to obtaining any wayleaves or consents or other such land rights. The Company will be entitled to deduct such amounts, together with administration costs from any sums paid to us.
- The Offer is subject to the Company obtaining all required Land Rights and statutory consents for carrying out the Works. Unless otherwise stated the Offer assumes that all plant and equipment will be placed in the adopted public highway or land owned or controlled by the Customer who will provide all Land Rights free of charge. The Customer will pay the full cost of obtaining any Land Rights required from third parties (including settlement of all properly reimbursed claims thereunder) in addition to the charges identified in the Quotation provided that where these have a significant impact on the overall cost the Customer shall be entitled to terminate the contract upon written notice to the Company. In the event of termination the Customer shall pay the Company's reasonable charges for the work done or committed and materials purchased prior thereto and reimburse any costs or expense incurred or committed by the Company in obtaining any Land Rights.
- It is assumed that the Company will carry out all Works during normal working hours. There will be an additional charge for any overtime working at the Customer's request.
- The Quotation is based on material and labour costs prevailing at the date of the Offer Letter. The Company shall have the right to vary the Quotation in accordance with any variations in the material or labour costs subsequent to the date of the Offer Letter (unless otherwise stated in the Offer Letter) upon submitting written details of the additional cost to the Customer who shall be entitled to terminate the contract upon giving the Company written notice within 5 working days of the date of submission of such details. In the event of termination the Customer shall pay the Company's reasonable charges for the work done or committed and materials purchased prior thereto and reimburse any costs or expense incurred or committed by the Company in obtaining any Land Rights.
- Unless otherwise agreed the Company requires full payment of the amount due on acceptance 30 days prior to commencement of the Works. All other arrangements will be subject to status.
- The Company may submit progress invoices to the Customer, in respect of the amount of labour expended and materials delivered to site and the Company's stores up to the date of the progress invoice.
- Adjustments will be made to the rates of VAT to those applicable at the date of invoice or payment, whichever is the earlier.
- The Company will issue a further invoice to the Customer on completion of the electrical works in respect of the Second Comer Charge.

Inveralmond House, 200 Dunkeld Road, Perth PH1 3AQ  **ssen.co.uk**

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459;
Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460;
(all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales
No. 04094290 having its Registered Office at 55 Varners Road Reading Berkshire RG1 8BU which are members of the SSE Group www.ssen.co.uk

The Company's Standard Terms and Conditions

Definitions:

The "Company":	Shall mean either Scottish Hydro Electric Power Distribution plc or Southern Electric Power Distribution plc as specified in the Offer Letter;
The "Adoption Agreement":	The agreement between the Customer and the Company for adoption of any Contestable Connection Works undertaken by the Customer;
The "Agreement":	The agreement constituted by the Offer and the Customer's acceptance and any permitted variation from time to time;
The "Agreement Date":	The date of the Customer's acceptance of the Offer;
The "Company's Requirements":	The Company's technical requirements as set out on the Website and the Offer;
The "Connection Agreement":	The agreement between the Company and the Customer relating to the connection of the Customer's premises;
"Consumer":	Means an individual acting for purposes which are wholly or mainly outside the individual's trade, business, craft or profession;
"Consumer Terms and Conditions":	Means the Supplementary Consumer Terms and Conditions attached to these Standard Terms and Conditions
The "Contestable Connection Works":	The part of the Works that the Customer may elect to undertake or appoint an appropriate third party to undertake;
The "Cost Apportionment Contribution":	A financial contribution made with respect to the costs of connection from the Company in favour of the Customer;
The "Customer":	The person, firm or company whose name and address is shown in the Offer Letter;
The "Equipment":	The equipment, plant and/ or apparatus the Company will supply as detailed in the Offer Letter;
The "Land Rights":	Means rights in, under or over land for the construction, installation, operation, repair, maintenance, renewal or use of the Contestable Connection Works and/or the Works;
The "Land Rights Criteria":	The criteria as set out on the Website providing the Company's requirements for Land Rights;
The "Offer":	These standard terms and conditions and the Offer Letter;
The "Offer Letter":	The letter and attached pages sent to the Customer by the Company setting out details of the Works, the Quotation and other matters relating to the connection;
The "Quotation":	The Quotation for the Works as set out in the Offer Letter;
The "Site Information & Customer Requirements":	The customer requirements document supplied with the Offer;
The "Website":	The website at www.ssen.co.uk or at such other domain name as the Company may use from time to time;
The "Works":	The works that the Company will carry out as detailed in the Offer; and
"Second Comer Charge":	Means any amounts payable by the Customer pursuant to The Electricity (Connection Charges) Regulations 2017.

19. The Customer must settle invoices within 30 days of the date of the invoice.
20. If any amount remains unpaid after the due date, the Company shall (in addition to any other remedies) be entitled to charge interest on the amount unpaid at the annual rate of 3% over the base rate of the Bank of England from the due date to the date of payment in full.
21. The Company reserves the right to require that the Customer provides security for any payment which may become due pursuant to this Offer and/or section 19 of the Electricity Act 1989. The Company may automatically apply any such security in cash against any such sums as they become due.
22. Unless otherwise agreed in writing by the Company time is not of the essence in relation to the Company's Works.
23. The Company shall have no liability to the Customer whether in contract, tort or delict (including negligence), for breach of statutory duty, or otherwise arising under or in connection with this Agreement for any indirect or consequential loss, any loss of profit, revenue, generation, business, savings, (anticipated or otherwise) or any other form of economic loss (whether or not occurring in connection with physical damage) provided that this Condition 20 shall not exclude or restrict the liability of the Company for death or personal injury or any other liability which cannot be limited or excluded by applicable law.
24. The Company's liability under or in connection with this Agreement shall be limited to £1 million in the aggregate. This limit shall apply however that liability arises, including, without limitation, a liability arising by breach of contract, arising by tort or delict (including negligence) or arising by breach of statutory duty provided that this Condition 21 shall not exclude or restrict the liability of the Company for death or personal injury or any other liability which cannot be limited or excluded by applicable law.
25. The Customer acknowledges and confirms that it does not enter into the Agreement in reliance on any oral representation, warranty or undertaking not fully reflected in the terms of the Agreement and that no amendment, modification or substitution to the Agreement shall be effective unless executed in writing by both parties.
26. The Equipment shall at all times remain the property of the Company. On completion of the Works and, with respect to any Contestable Connection Works undertaken by the Customer, the Customer both satisfactorily completing any Contestable Connection Works and an Adoption Agreement with the Company covering the Contestable Connection Works, the whole of the Works, Equipment and the aforesaid Contestable Connection Works shall become the property of the Company. The Customer shall protect the Equipment from any damage or interference between delivery to the site and completion of the Works and shall indemnify the Company for any loss or damage to the Equipment during such period. The Company shall be responsible for the final connection of the Works to its distribution system.
27. The Quotation is net of any Cost Apportionment Contribution due to the Customer and no further contributions or allowances are applicable. The value of the Cost Apportionment Contribution has been calculated on the basis of, inter alia, the Equipment specified in the Offer Letter, the available capacity agreed for the development, the build rate and the electrical heating the Customer

- has declared will be installed. The value of Cost Apportionment Contribution made in favour of the Customer by the Company will be indicated in the attached Quotation and its value may be recalculated by the Company to reflect any alteration to the basis of the calculation and the Customer will refund any excess Cost Apportionment Contribution made by the Company upon demand. The Customer shall be liable to pay to the Company the full value of the Cost Apportionment Contribution received from the Company in the event this Agreement is terminated prior to the completion of the Connection. In such event, the Customer shall be liable to pay to the Company a proportion (to be determined by the Company) of the Cost Apportionment Contribution.
28. It is a condition of the Offer that the Customer **or the end customer who will be responsible for the associated charges** shall (where applicable) enter into a Connection Agreement with the Company prior to energisation of the Connection.
 29. The Customer will carry out the site work specified in the Site Information & Customer Requirements document.

Inverlmond House, 200 Dunkeld Road, Perth PH1 3AQ  **sssen.co.uk**

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459;
Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460;
(all having their Registered Offices at Inverlmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales
No. 04094290 having its Registered Office at 55 Varners Road Reading Berkshire RG1 8BU which are members of the SSE Group www.ssen.co.uk

Supplementary Consumer Terms and Conditions

1. Application of these Terms and Conditions

These Supplementary Consumer Terms and Conditions apply to an Offer issued by Southern Electric Power Distribution plc to a consumer. Where applicable these Supplementary Consumer Terms and Conditions shall be incorporated into the terms of the Offer and where inconsistent with any term of the Offer, these Supplementary Consumer Terms and Conditions shall prevail.

2. Right to Cancel

You have the right to cancel your contract with us within 14 days of us receiving your acceptance without giving any reason. The cancellation period will expire after 14 days from the day we receive your acceptance. This right is in addition to any other right to cancel that you have under our standard terms and conditions.

To exercise the right to cancel, you must inform us of your decision to cancel this contract by a clear statement (e.g. a letter sent by post or e-mail). You may use the attached model cancellation form, but it is not obligatory.

To meet the cancellation deadline, it is sufficient for you to send your communication concerning your exercise of the right to cancel before the cancellation period has expired.

3. Effect of Cancellation

If you cancel the contract in accordance with paragraph 2 above, we will reimburse to you all payments received from you.

We will make the reimbursement without undue delay, and not later than 14 days after the day on which we are informed about your decision to cancel the contract.

We will make the reimbursement using the same means of payment as you used for payment, unless you have expressly agreed otherwise; in any event, you will not incur any fees as a result of the reimbursement.

If you requested that we begin the performance of works during the cancellation period, you shall pay us an amount which is in proportion to what has been performed prior to your cancellation of the contract, in comparison with the full works provided for in the contract.

MODEL CANCELLATION FORM

(Complete and return this form only if you wish to withdraw from the contract)

To: Connections And Engineering
Walton Park
Walton Road
Cosham
PO6 1UJ
connections@sse.com

I/We [*] hereby give notice that I/We [*] cancel my/our [*] contract for the supply of the following service [*],

Offer accepted on [*],

Name of customer(s),

Address of customer(s),

Signature of customer(s) (only if this form is notified on paper),

Date

[*] Delete as appropriate

Detailed Cost Breakdown

Please note that due to rounding within the calculation of the Breakdown of Charges which forms part of this Offer, the total shown below may differ slightly from the "Total charge to applicant" amount in the Offer Letter. For the avoidance of doubt the "Total charge to applicant" figure in the Offer Letter reflects our detailed forecast and calculations and is the accurate figure. It is the amount we need to receive before we can schedule works.

This does not form part of our Offer and is not legally binding.

Job Details

Job Reference EKV757
Version 1

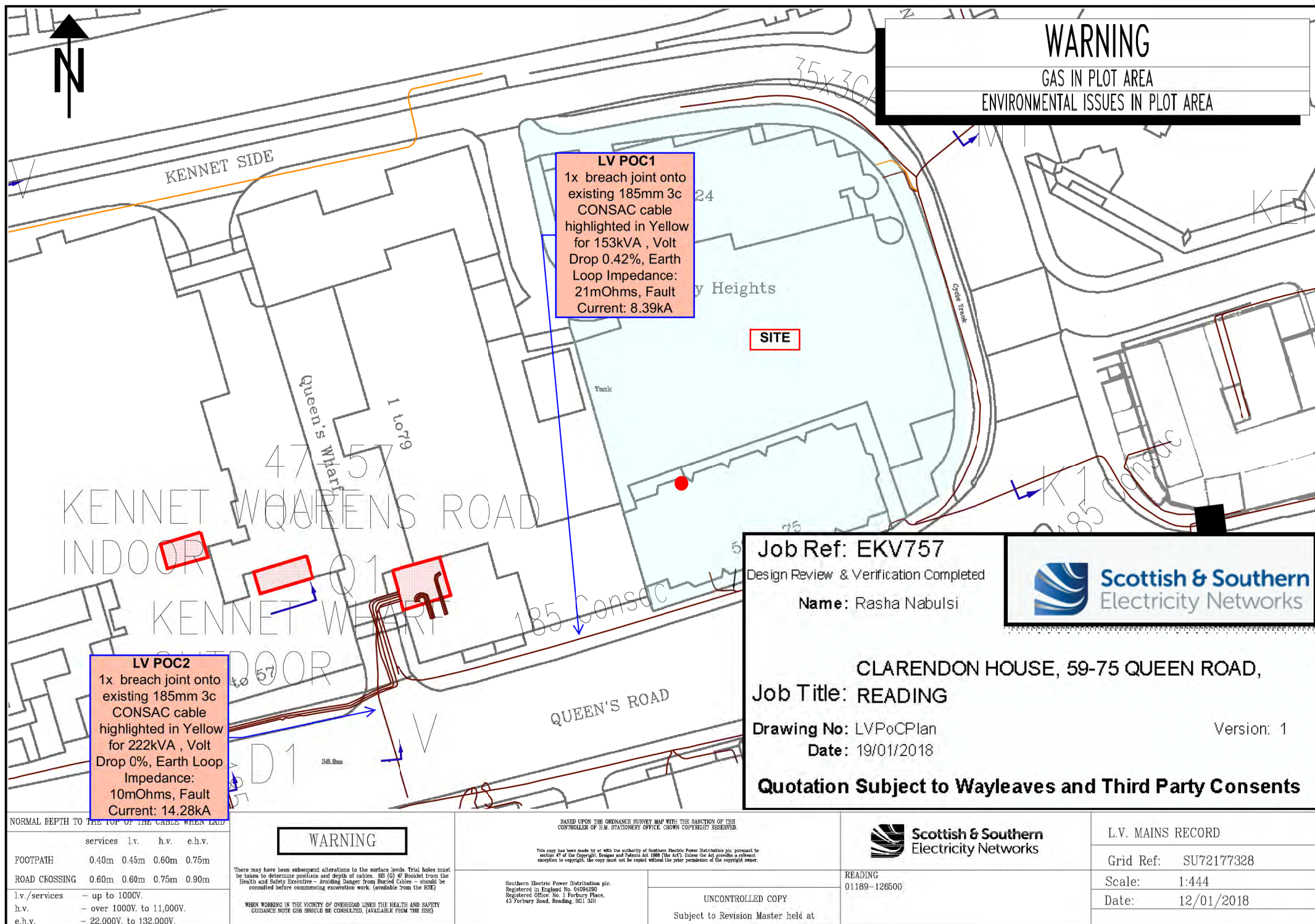
Estimate Summary List

Section Qty.	Non-Contestable Works: Final Connection Description	Voltage	Cost (£)
1	POC information - Generation at LV	LVPOC	£185.00
1	LV network @ level 3	LV	£2.00
2	Breeches Joint	LV	£677.04
		Total (£)	£864.04

Section Description	Non-Contestable Works: Other	Cost (£)
	Other Cost - Rebate	£0.00
	Other Cost - 2nd Comer	£0.00
	Other Cost - O & M	£0.00
	Other Cost - High Cost O & M	£0.00
	Total (£)	£0.00
	DNO Costs (£)	£0.00
	Customer Costs (£)	£864.04

Totals	Cost (£)
Contestable Total	£0.00
Non-Contestable Total	£864.04

For an explanation of the technical terms or abbreviations used in the above cost breakdown please visit our website www.ssen.co.uk/connections/abbreviations



WARNING

GAS IN PLOT AREA

ENVIRONMENTAL ISSUES IN PLOT AREA

LV POC1

1x breach joint onto existing 185mm 3c CONSAC cable highlighted in Yellow for 153kVA , Volt Drop 0.42%, Earth Loop Impedance: 21mOhms, Fault Current: 8.39kA

SITE

LV POC2

1x breach joint onto existing 185mm 3c CONSAC cable highlighted in Yellow for 222kVA , Volt Drop 0%, Earth Loop Impedance: 10mOhms, Fault Current: 14.28kA

Job Ref: EKV757

Design Review & Verification Completed

Name: Rasha Nabulsi



Scottish & Southern
Electricity Networks

CLARENDON HOUSE, 59-75 QUEEN ROAD,

Job Title: READING

Drawing No: LVPoCPlan

Date: 19/01/2018

Version: 1

Quotation Subject to Wayleaves and Third Party Consents

WARNING

There may have been subsequent alterations to the surface levels. Trial holes must be taken to determine positions and depths of cables. HS (G) & Routers from the Health and Safety Executive - Avoiding Danger from Buried Cables - should be consulted before commencing excavation work. (available from the HSE)

WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTE G58 SHOULD BE CONSULTED. (AVAILABLE FROM THE HSE)

BASIS OF THE ORDNANCE SURVEY MAP WITH THE SANCTION OF THE CONTROLLER OF H.M. STATIONERY OFFICE. CROWN COPYRIGHT RESERVED.

This copy has been made by or with the authority of Southern Electric Power Distribution plc pursuant to section 47 of the Copyright, Designs and Patents Act 1988 (the Act). Unless the Act provides a relevant exception to copyright, the copy must not be copied without the prior permission of the copyright owner.

Southern Electric Power Distribution plc
Registered in England No. 04094890
Registered Office: No. 1 Forbury Place,
43 Forbury Road, Reading, RG1 3JH



Scottish & Southern
Electricity Networks

READING
01189-126500

UNCONTROLLED COPY

Subject to Revision Master held at

L.V. MAINS RECORD

Grid Ref: SU72177328

Scale: 1:444

Date: 12/01/2018

Asset location search



Property Searches

Premier Energy Services
Premier House
Daux Road
BILLINGSHURST
RH14 9SJ

Search address supplied Clarendon House
59-75
Queens Road
Reading
RG1 4BN

Your reference 603401 - Royal Heights

Our reference ALS/ALS Standard/2018_3716353

Search date 5 January 2018

Keeping you up-to-date

Knowledge of features below the surface is essential in every development. The benefits of this not only include ensuring due diligence and avoiding risk, but also being able to ascertain the feasibility for any commercial or residential project.

An asset location search provides information on the location of known Thames Water clean and/or wastewater assets, including details of pipe sizes, direction of flow and depth. Please note that information on cover and invert levels will only be provided where the data is available.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0845 070 9148



Search address supplied: Clarendon House, 59-75, Queens Road, Reading, RG1 4BN

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0845 070 9148, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk

Web: www.thameswater-propertysearches.co.uk

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.



For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

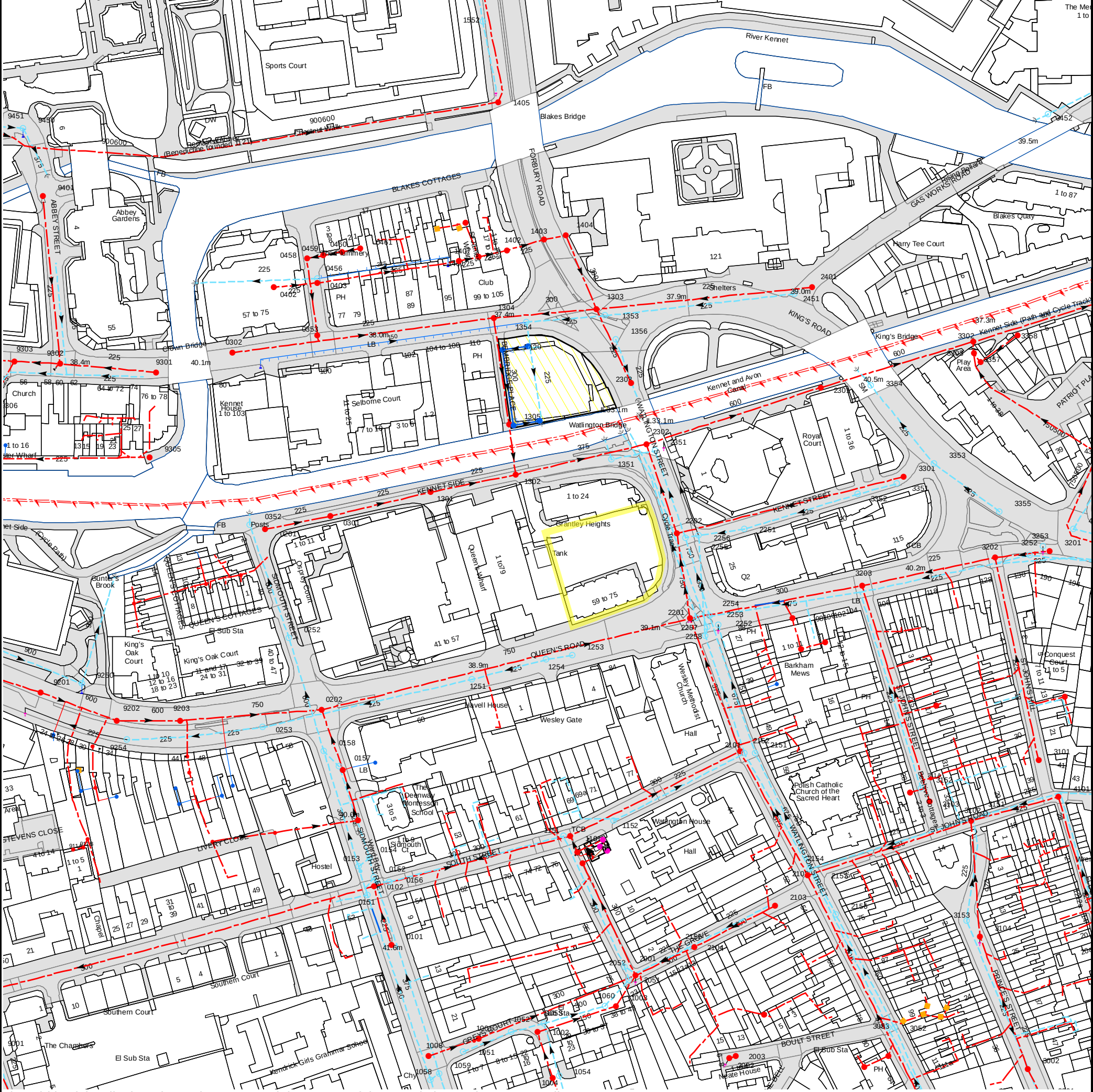
Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Asset Location Search Sewer Map - ALS/ALS Standard/2018 3716353



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 472167,173291

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 that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
221A	n/a	n/a
3357	n/a	n/a
3303	n/a	n/a
3302	37.14	n/a
3358	n/a	n/a
3452	n/a	n/a
1253	38.92	37.63
1303	n/a	n/a
1353	37.79	n/a
1351	39.68	35.94
1356	38.69	36.66
2303	39.8	n/a
2302	40.56	33.76
2351	40.5	n/a
2202	n/a	n/a
2255	n/a	n/a
2201	39.22	n/a
2257	39.11	36.73
2256	n/a	n/a
2258	39.13	37.12
2253	39.28	n/a
2254	39.08	36.55
2252	39.08	n/a
2251	38.31	37.17
22YR	n/a	n/a
2451	39.03	n/a
22YS	n/a	n/a
2401	39.16	35.8
2301	37.15	n/a
22YT	n/a	n/a
3352	39.09	38.02
3203	39.78	36.18
3354	40.27	n/a
3053	41.7	39.76
3351	39.68	38.39
3301	39.78	39.07
31XQ	n/a	n/a
3152	43.31	41.82
3103	43.53	40.71
311A	n/a	n/a
3353	40.66	n/a
32TR	n/a	n/a
3153	43.16	41.3
3102	43.77	39.38
3104	43.26	39.78
3151	43.84	42.61
3202	40.52	37.37
3355	40.86	n/a
3252	40.79	39.52
3101	44.11	n/a
3253	43.64	40.53
3201	40.83	n/a
4101	44.63	41.51
4252	n/a	n/a
4251	41.03	n/a
111A	39.626	36.454
111B	39.516	36.334
111E	39.6	34.05
111C	39.45	36.45
1060	n/a	n/a
111D	39.45	36.45
1152	39.78	38.63
1003	39.04	37.04
2052	38.68	37.85
2051	38.71	37.9
2001	38.78	36.65
2155	38.88	37.98
2104	38.83	36.76
2002	n/a	n/a
2003	n/a	n/a
2101	39.89	35.67
2152	39.96	38
2151	39.98	37.15
20YZ	n/a	n/a
2103	39.91	n/a
2102	40.91	37.15
2154	40.89	38.95
2153	40.97	37.47
2156	41.12	38.12
30WS	n/a	n/a
3002	43.27	40.14
30WR	n/a	n/a
3052	41.63	38.57
1552	n/a	n/a
0154	40.48	37.23
0152	40.75	37.27
0102	40.88	38.01
011I	n/a	n/a
0156	40.72	37.35
0101	41.64	38.82
1008	43.06	41.27

Manhole Reference	Manhole Cover Level	Manhole Invert Level
1058	43.3	40.28
1059	43.29	39.83
1051	42.23	40.58
1001	41.65	38.86
1052	40.62	38.57
1002	39.69	37.54
1053	39.74	38.06
1004	39.61	37.8
1054	39.64	38.16
1151	39.89	37.57
1101	39.91	36.35
9203	38.9	n/a
021B	n/a	n/a
021A	n/a	n/a
0352	37.46	35.76
0253	38.89	37.2
0201	37.72	35.27
0252	38.41	36.35
0202	39.02	34.26
0301	37.61	34.94
1301	37.54	34.43
1251	38.86	37.36
1305	37.38	n/a
n/a	n/a	n/a
1302	37.52	n/a
n/a	n/a	n/a
1254	38.9	37.51
911A	n/a	n/a
911D	39.01	n/a
911E	39.04	n/a
911B	39.73	n/a
911C	39.52	n/a
911G	39.18	n/a
911F	38.97	n/a
911I	39.46	n/a
911J	39.12	n/a
011F	39.058	36.163
011E	37.17	n/a
011A	39.952	37.946
011D	38.99	n/a
011G	39.24	n/a
011B	39.887	37.188
0158	39.02	36.79
0157	39.31	n/a
011H	n/a	n/a
011C	39.901	36.458
0153	40.44	37.18
0151	40.94	38.85
9303	38.13	35.28
9450	40.34	38.47
9401	38.79	36.09
9302	38.49	35.4
9301	39.82	37.11
0302	39.68	n/a
0402	n/a	n/a
0458	n/a	n/a
0456	n/a	n/a
0403	n/a	n/a
0353	n/a	n/a
0459	n/a	n/a
0460	n/a	n/a
0461	n/a	n/a
1401	n/a	n/a
1406	n/a	n/a
1407	n/a	n/a
1304	n/a	n/a
1405	40.28	n/a
n/a	n/a	n/a
1402	n/a	n/a
1354	37.35	36.15
n/a	n/a	n/a
131A	37.25	36.17
1403	38.27	35.68
1404	38.18	35.67
9201	38.41	n/a
921A	39.03	36.184
9250	38.74	36.05
911H	39.033	36.074
9202	38.65	n/a
9254	38.69	n/a
921B	n/a	n/a
9305	37.08	n/a
931A	n/a	n/a
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.		



ALS Sewer Map Key

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

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.

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

