



Bankfoot | APAM

86-87a Broad Street

Reading

RG1 2AP

Utilities Connections Report

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1.0 EXECUTIVE SUMMARY

This report outlines utilities strategy proposals for the redevelopment of 86-87a Broad Street. The site consists of the construction of 15 residential units and a retail space at ground floor.

This report identifies that water and electricity services are present adjacent to the site and applications have been made for new connections and in some cases quotations received.

This report will be updated when further information is received.

Development details:

Applicant	Bankfoot APAM
Site Address	86-87a Broad Street Reading RG1 2AP
Local Authority	Reading Borough Council.
Description of Development	Erection of a building of 15 apartments units and a retail space at ground floor.
Number of residential Units	15 homes.
Unit Mix	2 x studio 4 x 1 bed 8 x 2 bed 1 x 3 bed

2.0 INTRODUCTION

The utility connections applications made thus far are based on initial discussions with the client, which in summary utilises air source heat pumps (ASHP) for space and water heating, and electricity for domestic cooking.

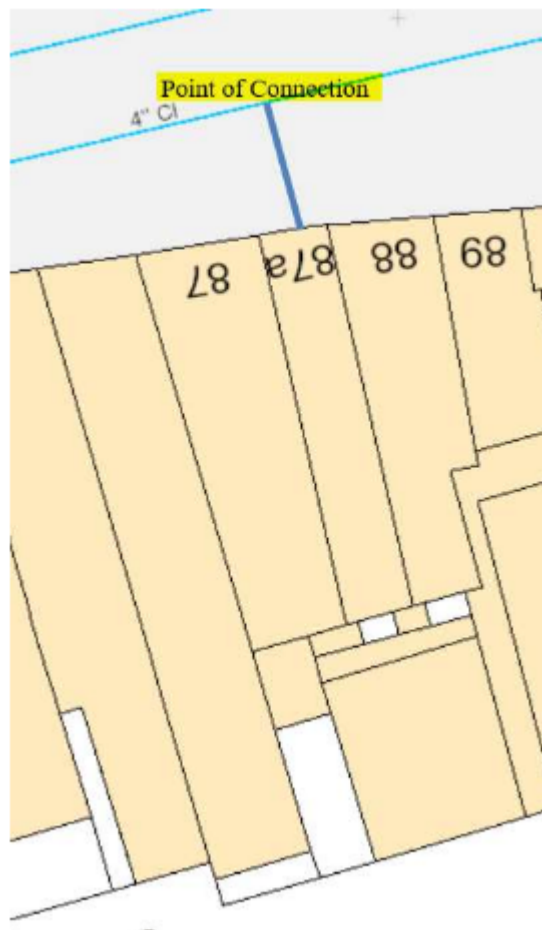
Site address:

86-87a Broad Street
Reading
RG1 2AP

3.0 WATER

3.1 Existing Supplies

Thames Water Utilities Limited have confirmed sufficient capacity within the existing clean water main provided on Broad Street to serve the proposed development.



3.2 Proposed new connections

A pre-development application has been made to Thames Water Utilities Limited for new water supplies to the site based on the current accommodation schedule.

A local mains network on site is proposed, to be derived from the existing 4" main within Broad Street. Diversions are not anticipated.

It is assumed metering of mains cold water across the site will be undertaken for each residential apartment and landlords' supplies in accordance with Thames Water Utilities Limited current metering policy.

End User	Meter Location
Residential apartments	Assumed to be within dedicated landlord's riser cupboard in common area.
Landlord areas	Within landlords cupboard.

The application does not include a request for a fire supply to serve sprinklers within the commercial and/or common areas . Should sprinkler coverage be required outside of dwellings, the extents of coverage as well as hazard class of these spaces will be confirmed by the Fire Strategy for review by the design team. Following this process, the design team shall liaise with the local authority and utilities company to agree and finalise the sprinkler protection.

4.0 DRAINAGE

During the process of obtaining the potable water information a pre-planning drainage application was inadevetly obtained.

This has highlighted a high-risk item for the below ground drainage connections; the requirement by Thames Water Utility's Limited (TWUL) to provide attenuation from any surfaces collecting rainwater prior to entering their network. The peak rainwater outfall from site has been limited to 5l/s.

Alongside the correspondence with TWUL, the following heirachry of provisions have been advised, from most favourable to least.

1. Store rainwater for later use.
2. Use infiltration techniques where possible.
3. Attenuate rainwater in ponds or open water features for gradual release.
4. Attenuate rainwater by storing in tanks or sealed water features for gradual release.
5. Discharge rainwater direct to a watercourse.
6. Discharge rainwater to a surface water sewer/drain.
7. Discharge rainwater to the combined sewer.
8. Discharge rainwater to the foul sewer

Drainage connections form part of the Civil Engineers report and scope, this will be provided as part of a separate document.

5.0 NATURAL GAS

Not Applicable.

6.0 ELECTRICITY

6.1 Existing Low Voltage (LV) Power Supplies

The local DNO SSE has been contacted and local network drawings have been received detailing the HV and LV cabling infrastructure serving the site and local area. The below plan indicates the existing HV and LV infrastructure in the vicinity of the development.

There are 3no existing LV incoming electrical supplies (1no TPN & 2no SPN) feeding the site which will need to be disconnected (see fig 5.1.1)

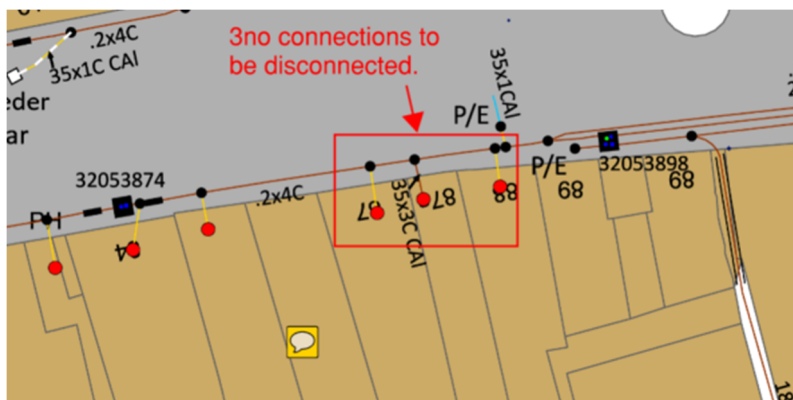


Fig 5.1.1 Existing electrical connections on Broad St to be disconnected.

6.2 Proposed New LV Power Supplies

The estimated maximum demand for the site has been calculated as 178kVA. A budget proposal application for a new electricity connection to meet the calculated site demand has been submitted to the local DNO, SSE. The response has been included within appendix A. A firm quote has also been requested. We have not yet received a response to this request.

Additionally an application has been made to a local IDNO, Power On Connections. Who have also provided a budget price for the works to be carried out. This has been included.

6.3 Secondary LV Power Supplies

If a commercial sprinkler system is required to be installed to the ground floor retail unit there will be a requirement for a life safety secondary power supply. This supply shall be provided by a diesel generator to comply with BS 8519:2020.

7.0 TELECOMS EXISTING SUPPLIES

7.1 Openreach

Contact has been made with Openreach (BT) to establish the extent of the existing supplies to site. As the site is fewer than 20 units it does not qualify for free fibre to the premises.

The online application has been started however we are awaiting Openreach to resolve issues with registering the site.

7.2 Virgin Media

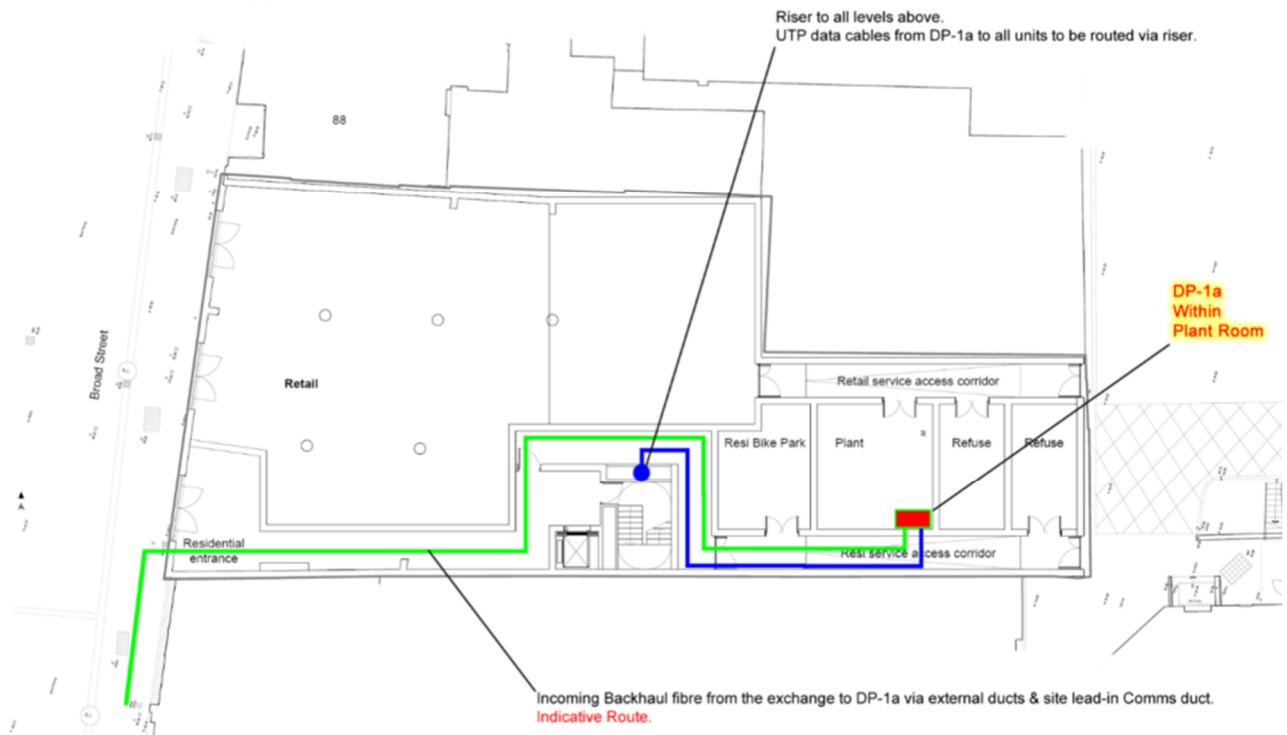
Contact has been made with Virgin Media to establish the extent of existing supplies within the local area. They have confirmed they do not have services within Broad Street.

7.3 Hyperoptic

Contact has been made with Hyperoptic to establish the extent of existing supplies within the local area.

Due to the size of the scheme they can provide a single cabinet installed within the ground floor plant room to serve the development. The incoming fibre would be supplied through the BT Lead in duct as noted below.

DP-1a Cabinet Location & Incoming Backhaul Fibre Route



Additionally Hyperoptic have noted they will "include a 'moving in gift' of 3 months free 1Gig broadband to all homes which the client can use as a marketing tool."

8.0 UNDERGROUND SURVEY

It is recommended that a radar underground survey is undertaken to ascertain non-utility provider services that may exist on the site.

9.0 APPENDIX A – SSE BUDGET QUOTE



**BANKFOOT APAM LTD
MR ALEX TINCOMBE
DESCO 6TH FLOOR, AMP HOUSE
CROYDON
SURREY
CR0 2LX**

**Connections and Engineering
Scottish and Southern Electricity Networks
Walton Park
Walton Road
Cosham
PO6 1UJ**

 01753 695 712

 Ruth.mwadime@sse.com

 www.ssen.co.uk

Our reference: EST579

Your reference:

22nd December 2020

PROPOSED ELECTRICITY CONNECTION TO:

86-88 BROAD STREET, READING, BERKSHIRE.

Dear Alex,

Thank you for your recent enquiry. We have carried out a preliminary assessment of the works required to make connection to the distribution network in the area and we are pleased to provide you with our findings along with an estimate of the costs for the option identified. Please note that we have not carried out any detailed design work or network impact analysis. This budget estimate is provided as a result of a preliminary assessment only and possibly without any site specific considerations being taken into account. A budget estimate is not a formal offer for connection and cannot be accepted by you. The initial proposals will be subject to obtaining all necessary legal consents to carry out the work, including any consent required from third parties.

The estimate we provide at this stage may vary considerably from any further budget estimate or the price in any formal connection offer.

Budget estimate in the region of:

 **50,000 – 55,000**

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

The budget estimate has been calculated based on a high level assessment, the information you have provided and the assumptions listed within this letter. It is my best estimate of the costs you would incur for this proposal and is intended for budgetary purposes only. This estimate cannot be guaranteed. This estimate includes for any reinforcements assumed to be required on the wider network that may be triggered by this connection.



This estimate does not include any assessment for temporary diversion or traffic management requirements. Any necessary reinforcements, temporary diversions or traffic management requirements would be confirmed in a formal connection offer, and part or all of the cost of these reinforcements would be included in the connection charge.

Any documents, drawings or figures provided as part of this budget estimate are indicative only.

There are Independent Connection Providers (ICPs) and Independent Distribution Network Operators (IDNOs) who may be able to provide you with an alternative quotation to carry out some of this work. Please refer to www.lloydsregister.co.uk for further details.

Description of proposed works and assumptions

x16 single phase supplies - flats.

x1 three phase supply - retail unit.

x1 single phase supply - landlords supply.

SSEN to install 300mm LV wavecon cable along public footway into the site which will then terminate into a multiway distribution board. On site excavations and reinstatements by the customer. Off site excavations and reinstatements by SSEN.

x1 LV switch term.

HV shutdown

General excavations (within substation).

This estimate is based on the customer carrying out all on site excavation and reinstatement works and providing all internal containments for cables. I have included in this estimate a cost for the diversion of our existing cables and equipment that may be affected by your proposed development.

The initial proposal includes installing cable on third party land. Should you request a formal offer, consent from third parties may be required prior to commencement of works. This may affect the charge for the proposed connection.

We have not carried out detailed design work or network studies to confirm that the network can accommodate the requested capacity of demand import. There is therefore no guarantee that this level of capacity will be available without completing further studies. As we have only carried out preliminary off-site investigations, physical, technical and wayleave assessments may mean that the proposals are not practical.

Transmission Constraints

Any planned transmission works and dates may be subject to change.



Any network assessment carried out as part of a formal connection offer, will take into account these works and you may be required to pay an apportioned part of network investment. Further information can be found on our Network Capacity maps:

<https://www.ssen.co.uk/ContractedDemand/>

Please also be aware that any formal connection offer will be made under our current Connection Charging Methodology Statement. If you do progress with a connection then there may also be charges applied for the use of the distribution network, as set out in our Use of System Charging Statements. Copies of our charging statements can be found on our website at:

<https://www.ssen.co.uk/Library/ChargingStatements>

If you would like to discuss any aspect of this budget estimate please feel free to contact me at the details provided at the top of this letter. Otherwise if you'd like to progress towards a formal connection offer, please contact connections@sse.com quoting your reference number which can be found at the top of this letter. You can find further information regarding our process for new connections by visiting:

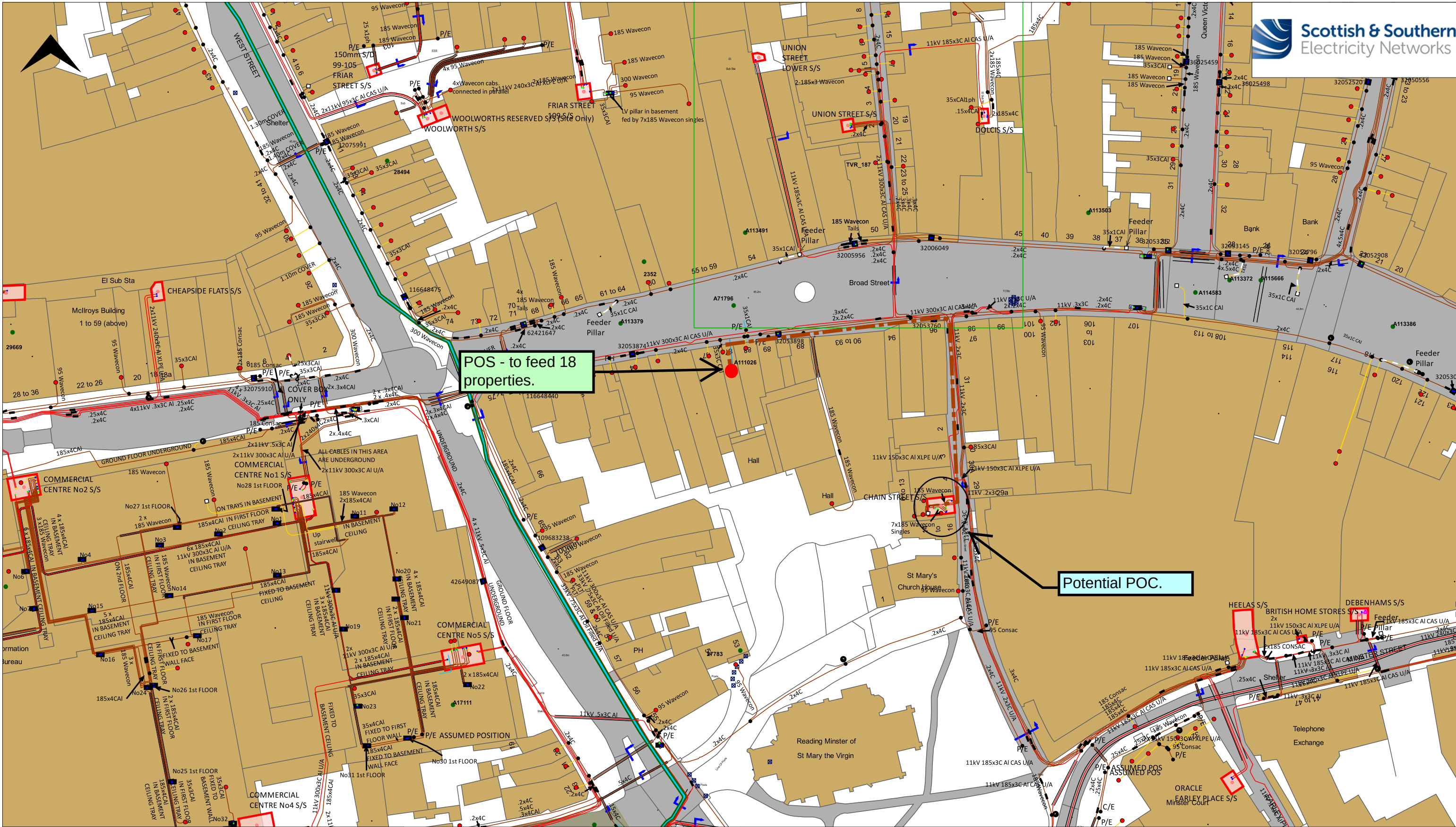
www.ssen.co.uk/Connections/UsefulDocuments.

We look forward to hearing how you wish to progress with your project. Alternatively, you can find answers to any questions you may have on our web site www.ssen.co.uk.

Yours sincerely,

Ruth Mwadime

Connections Designer



There may have been subsequent alterations to the surface levels. Trial holes must be taken to determine positions and depths of cables. HS (G) 47 Booklet from the Health and Safety Executive - Avoiding Danger from Buried Cables - should be consulted before commencing excavation work. WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTE GS6 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

0800 048 3516

0.8m

[illegible]

10.0 APPENDIX B – POWER ON CONNECTIONS BUDGET QUOTE

Desco Uk Ltd
Azure House
2 Azure Court
Doxford International Business Park
Sunderland
SR3 3BE

Power On Connections Ltd
Dovecote Court
Potters Marston Hall
Leicestershire
LE9 3JR

Phone: 0345 322 33 22

Website: www.poweronconnections.co.uk

Registered in England No. 04912774

15th February 2021

Dear Mr Chris Kearsley,

Budget Quotation for New Electricity Connection at – (no address)

Thank you for requesting budget costs associated with the new development at the above mentioned site. Based on the limited information available we estimate the sum for provision of the new electrical supplies to be £ 48,162.04 excluding VAT.

This budget sum is based upon and allows for the following:

- This budget offer is based upon the site load of 224.8kVA to supply New Commercial and Residential Development at 86-88 Broad Street, Reading as advised by you.
- We have assumed that the point of connection can be made from the existing cable located within the footpath of Chain Street.
- Please note that the point of connection may change upon a firm offer being received from the DNO.
- Power On to excavate and reinstate 1No. joint bay on chain Street and provide c141m of offsite excavation from the assumed point of connection to the site boundary.
- Power On to supply and install c141m of LV cable from assumed point of connection to the site boundary.
- Power On to supply and install c22m of LV mains cable from the site boundary to the assumed termination position within the plant room.
- Power On to supply and install 1No. appropriately sized HDCOs for the Retail Unit within the ground floor plant room as the supply exit point.
- Power On to supply and install 1No. appropriately sized HDCOs for the landlords supply and 16No. appropriately sized single phase cut-outs for 16No. flats which will be located within risers. Power On to supply and install c196m of LV rising mains cable of which will terminate into an appropriately sized cut-outs located within the ground floor plant room
- Please note, our electrical plant and switchgear must be suitably segregated from any other utility services.
- All associated tape and duct provided by Power On.
- With regards to earthing all supplies will afford a PME (TNC-S) up to the Multi Service Distribution Board's/Cut Out and SNE (TN-S) system beyond this where an earthing terminal will be provided by us.
- Please note a full offsite survey will be required and any extra costs will be factored into the Proposal.
- It is assumed that the entirety of the cable route falls within either the land owned by the clients or highways, should this not be the case then the customer is responsible for all associated legal agreements and any costs that arise as a result of any third party agreements. All costs associated within any third party agreements including solicitor fees, consideration payments and the like are responsibility of others.
- All associated project management, design, commissioning and jointing by Power On.
- All associated mains cable supplied and installed by Power On.
- All onsite civil works undertaken by others.
- The disconnection of any existing electrical supplies is excluded from this quotation.

This budget figure includes a provisional sum of £ 3,000.00 for the non-contestable charge received by SSE and does not allow for any diversionary works or upstream reinforcement.

Please note that this offer and design are based on the completed network being adopted and maintained within the Power On group of companies as we believe this gives you maximum flexibility.

If third party land consents are required than our responsibility is limited to the coordination of legal discussions and legal fees, purchase, licensed or compensatory payment or the like that may be required are to be borne by you.

COMMERCIAL IN CONFIDENCE

What Happens Next

Should you wish to progress this budget quote into a firm quotation then we will require some additional information, listed below, from yourselves to enable us to provide this. Upon receipt of this information it typically takes 2 weeks to obtain a point of connection from the host network operator, we are then normally able to provide the quote within 2 week of receiving this information.

For all Connections

- Required Electrical Load per unit in kVA or KW
- Site Layout Plan in AutoCAD dwg format
- Preferred substation location
- Planned Site Commencement date
- A direct contact for discussing design and technical details relating to the project
- Details of any embedded generation e.g. PV, CHP

Additional for Residential Supplies

- No. of Residential dwellings
 - Type of space heating e.g. gas or electric
 - Installed electric space heating load per dwelling
 - Details of number of Landlord's supplies and electrical loads required
-
- Substations must be sited as near to the highway as practical and in every case have unrestricted 24hr access for a HIAB HGV type vehicle to facilitate emergency replacement
 - Substations and metering equipment cannot be located in basements or in any location liable to flooding or the collection of heavier than air explosive gases
 - Each substation will require the freehold or long leasehold transfer of a 4m x 4m plot of land and all cable routes on site will require permanent legal easements
 - Please note that supplies cannot be made live until these legal documents have been cleared

If any of the above design requirements pose serious problems, please talk to us at the earliest possible opportunity so that we can explore possible solutions.

Finally, depending on the complexity of the scheme, you should allow between 18 and 20 weeks in total between issuing an order and having live supplies available. This can sometimes be shortened but we strongly recommend that you don't assume shorter lead times at this stage.

Please feel free to contact us at any time if you want to discuss any issues particular to your scheme. Otherwise, we will await your further instructions before taking any further action.

Yours sincerely,



Dawn Boughey
Business Development Manager
Power On Connections

Telephone: 08452 300116
Mobile: 07584632284
E-mail: dawn.boughey@poweronconnections.co.uk

Chris Kearsley

From: dawn.boughey@poweronconnections.co.uk
Sent: 18 February 2021 13:16
To: Chris Kearsley
Cc: Sufian.Osman@poweronconnections.co.uk
Subject: RE: E12408: 86-88 Broad Street in Reading - additional cost for secondary supply

Hi Chris

Further to your earlier email we can confirm that there would be an additional £3,500.00 to provide the secondary supply connection requested.

Please let us know when you'll be in a position to receive a full proposal and we'll arrange for all the details to be picked and the overall offer to be tightened as much as possible.

Many thanks

Dawn Boughey
Business Development Manager
07584 632284

From: Dawn Boughey
Sent: 17 February 2021 11:00
To: 'Chris Kearsley' <Chris.Kearsley@desco.uk.com>
Cc: Sufian Osman <Sufian.Osman@poweronconnections.co.uk>
Subject: RE: E12408: 86-88 Broad Street in Reading

Thanks Chris

We won't need to increase the total load for the secondary supply, as it will switch it from the landlords load when required.

It will just be the cost for the cable and any other equipment that we'll need to add on.

We'll work out a price for you to add on.

Many thanks

Dawn Boughey
Business Development Manager
07584 632284

From: Chris Kearsley <Chris.Kearsley@desco.uk.com>
Sent: 17 February 2021 09:57
To: Dawn Boughey <dawn.boughey@poweronconnections.co.uk>
Cc: Sufian Osman <Sufian.Osman@poweronconnections.co.uk>
Subject: [EXTERNAL] RE: E12408: 86-88 Broad Street in Reading

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.
