

SCIENCE AND TECHNOLOGY PARK (STP)

GODDARDS GREEN

PM1530/19

UTILITIES APPENDIX

Revision: DRAFT

Date: 29th April 2020

Project Name: Science and Technology Park (STP)

Project No: PM1530/19

Appendix

Utilities Investigation - Contacts Record with Utility Companies

1. Introduction

Charles D Smith and Associates Ltd (CSA) are appointed by Glenbeigh Developments Ltd to report on the ability of the utility companies to provide services to the proposed STP within the proposed construction programme period, and on constraints to the development presented by existing services crossing the site. CSA had existing good contacts with the utility companies in this region, having worked with them continuously since 2012 in diverting existing services and applying for new services for The Hub and for Fairbridge Way.

2. Southern Water Services - Foul Drainage

- 2.1 CSA made contact with Joff Edevane on 18th March 2020 with a high level network enquiry.
- 2.2. Enquiry passed to Charlotte Mayall at Southern Water Services (SWS), who requested an indicative daily flow rate (DWF).
- 2.3. CSA calculated the foul flow rate for each phase, converted that to DWF (using standard factors) and sent to Charlotte Mayall on 23rd March 2020.
- 2.4. Charlotte Mayall replied on 24th March 2020 confirming that Goddards Green WTW has capability to accept the predicted flows from Project Newton.

csa

From: csa

Sent: 18 March 2020 11:00

To: Edevane, Joff

Subject: RE: GODDARDS GREEN STW GROWTH

Joff,

Thanks for the swift reply. This project is some way off at the moment, so I was interested to know whether this site is already in SWS' plans (from high level liaison with MSDC), or whether there is presently no provision in the foul network? My client would like an indication on this matter, it is a little early for a pre dev app.

Kind regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street Rochester Kent ME1 1DA

T: 01634 880544 M: 07932 740938

E: csa@csachatham.co.uk

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From: Edevane, Joff <Joff.Edevane@southernwater.co.uk>

Sent: 18 March 2020 08:00 **To:** csa <csa@csachatham.co.uk>

Subject: RE: GODDARDS GREEN STW GROWTH

Hi Colin

I am assuming this is project is a pre development query, as such then you can apply for a pre development enquiry to be requested via our portal:

https://developerservices.southernwater.co.uk/

regards Joff

Joff Edevane Growth Planning Lead

M. 07597 662892 southernwater.co.uk



From: csa [mailto:csa@csachatham.co.uk]

Sent: 17 March 2020 12:46

To: Edevane, Joff < Joff. Edevane@southernwater.co.uk >

Subject: FW: GODDARDS GREEN STW GROWTH

Joff,

Our email below, that forwarded by George Csatlos is for a different site (albeit also in Goddard's Green).

Regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street Rochester Kent ME1 1DA

T: 01634 880544 M: 07932 740938

E: csa@csachatham.co.uk

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From: csa

FIOIII. CSa

Sent: 16 March 2020 16:07

To: joff.everdean@southernwater.co.uk
Subject: GODDARDS GREEN STW GROWTH

Joff,

We made enquiries to Developer Services regarding capability at Goddard's Green to accept foul flows in addition to those for the Northern Arc. George Csatlos suggested that we contact your Growth Planning team.

We are considering a mixed development of 130,000m2, mainly B1 (office) and some B8 (distribution). We have worked on two recent developments (the Hub and Fairbridge Way) which were included in the flow rate for the expansion of Goddards Green STW.

Are you able to advise the flow rate that Goddards Green may be able to accept from this development?

Regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street

csa

From: csa

Sent: 18 March 2020 11:00

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Subject: RE: GODDARDS GREEN STW GROWTH

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M. 07597 662892 southernwater.co.uk



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Regards,

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FIOIII. CSa

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To: joff.everdean@southernwater.co.uk
Subject: GODDARDS GREEN STW GROWTH

Joff,

We made enquiries to Developer Services regarding capability at Goddard's Green to accept foul flows in addition to those for the Northern Arc. George Csatlos suggested that we contact your Growth Planning team.

We are considering a mixed development of 130,000m2, mainly B1 (office) and some B8 (distribution). We have worked on two recent developments (the Hub and Fairbridge Way) which were included in the flow rate for the expansion of Goddards Green STW.

Are you able to advise the flow rate that Goddards Green may be able to accept from this development?

Regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street

From: csa

Sent: 23 March 2020 12:15

To: Mayall, Charlotte; Edevane, Joff; Janes, Tamzyn

Subject: RE: GODDARDS GREEN STW GROWTH

Charlotte,

I have used the following data:

Offices: 45 l/person day @10m2 / person B1b: 45 l/person day @40m2 / person B1c: 45 l/person day @47m2 / person Creche: 50 l/person day @ 15m2 / person

Hotel: 135 l/day bedroom

Mixed Retail: 3.9 l/m2 day

Future Growth Factor 1.1
Infiltration Factor 1.1
DWF 6

The predicted consumption figures for each phase are:

Phase 188200 l/day;7.41 l/sPhase 239735 l/day3.34 l/sPhase 370785 l/day5.95 l/sPhase 434605 l/day2.91 l/sPhase 597965 l/day8.23 l/s

Total 1-5 331290 I/day 27.84 I/s

You can change the factors to suit the characteristics of your network. Let me know if you require any further details.

Kind regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street Rochester Kent ME1 1DA

T: 01634 880544 M: 07932 740938

E: csa@csachatham.co.uk

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From: Mayall, Charlotte < Charlotte. Mayall@southernwater.co.uk>

Sent: 24 March 2020 16:22

To: csa

Subject: RE: GODDARDS GREEN STW GROWTH

Dear Colin,

Using your cumulative figure for all 5 phases of development of 331,290 l/d, this equates to 331.2 m3 daily flow which is well within current permit headroom at Goddards Green WTW. It should be noted however that WTW available headroom cannot be reserved, and Goddard's Green will probably need a new dry weather flow permit in AMP8 (2025-2030) to accommodate existing planned residential growth.

Kind regards,

Charlotte Mayall Regional Planning Lead Hampshire & West Sussex

T. 01273 663742 southernwater.co.uk



From: csa [mailto:csa@csachatham.co.uk]

Sent: 23 March 2020 12:15

To: Mayall, Charlotte < Charlotte. Mayall@southernwater.co.uk >; Edevane, Joff

<Joff.Edevane@southernwater.co.uk>; Janes, Tamzyn <Tamzyn.Janes@southernwater.co.uk>

Subject: RE: GODDARDS GREEN STW GROWTH

Charlotte,

I have used the following data:

Offices: 45 l/person day @10m2 / person B1b: 45 l/person day @40m2 / person B1c: 45 l/person day @47m2 / person Creche: 50 l/person day @ 15m2 / person

Hotel: 135 l/day bedroom

Mixed Retail: 3.9 l/m2 day

Future Growth Factor 1.1
Infiltration Factor 1.1
DWF 6

The predicted consumption figures for each phase are:

Phase 1	88200 l/day;	7.41 l/s
Phase 2	39735 I/day	3.34 l/s
Phase 3	70785 I/day	5.95 l/s
Phase 4	34605 I/day	2.91 l/s

3 Southern Gas Networks - Natural Gas

- 3.1. CSA made an application to Southern Gas Network (SGN) on 7th April, requesting a capacity check and confirmation of the point of connection to the network. The application included the estimate of natural gas flow rates for each phase, which total 2303 kW.
- 3.2. SGN replied on 14th April confirming that "it is likely that no reinforcement is required to support your load". The communication included a copy of their asset records showing a point of connection in Jane Murray Way. This point of connection has been extended for one of our projects, The Hub, by Fulcrum, which brings the likely point of connection closer to the site, in Gatehouse Lane.
- 3.3. CSA requested that SGN confirm that they have included the load for the Hub in their capacity check, on 21st April 2020. SGN provided this confirmation on 28th April.

From: csa

Sent: 07 April 2020 15:19

To: Southern Gas Networks (ndsouth@sgn.co.uk)

Subject: PM1530 CAPACITY CHECK APPLICATION

Attachments: SGN Site Plan.pdf; SGN Site location plan.pdf; SGN-Commercial-Multiple-Capacity-

Increases-Form.pdf

Dear Sir,

Please find attached our request for a capacity check and point of connection.

Regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street Rochester Kent ME1 1DA

T: 01634 880544 M: 07932 740938

E: <u>csa@csachatham.co.uk</u>

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From: Branagh, Matthew < Matthew.Branagh@sgn.co.uk > on behalf of SOE gtuip SGN

<soe_gtuip_sgn@sgn.co.uk>

Sent: 14 April 2020 13:11

To: csa

Subject: RE: PM1530 CAPACITY CHECK APPLICATION

Attachments: Site.pdf

Good morning,

Please find attached plan showing the nearby SGN gas infrastructure.

Your SGN reference is L20149985

It is likely that no reinforcement is required to support your load. This means that there is capacity within the network to supply your proposed load.

As per the NP14 table, 63mm Pipes and smaller should be able to support a load of up to 920kWh before possible reinforcement. 90mm Pipes and larger should be able to support a load of up to 1733kWh before possible reinforcement.

Land enquiries provide a understanding of local distribution networks <7bar, the effect of proposed loads on >7bar networks are not examined during this procedure.

A source pressure of 450mbar would be offered at the connection point of Medium Pressure parent main.

If you require more detailed information you will need to submit an application for a Quotation. My department does not provide quotations or Budget Estimates, for new lay or alterations to gas infrastructure, the use of any GIRS registered company currently operating within Southern Gas Networks foot print can be employed for these works. A list of such companies can be found on Lloyds register web site, http://www.lloydsregister.co.uk/schemes/girs/providers-list.aspx

If you choose to use a third party from the Lloyds register, I would recommend using one accredited for connections, Design and project management.

Many Thanks, Matty Branagh

Third Party Connections

T: 01293 818 252 (Int: 38252) E: Matthew.Branagh@sgn.co.uk

SGN, St Lawrence House, Station Approach, Horley, RH6 9HJ

sgn.co.uk

Find us on Facebook and follow us on Twitter: @SGNgas

Smell gas? Call 0800 111 999



PLEASE NOTE:- SGN have revised their Connections Service Charges with effect from the 18th June 2018. These new rates are available to view at the following location:

https://www.sgn.co.uk/Our-Services/SGN-Connections-Charges/

From: Jones, Nick <nick.jones@sgn.co.uk> On Behalf Of Non Domestic Sales Enquiries-South

Sent: 08 April 2020 10:12

To: SOE gtuip SGN <soe_gtuip_sgn@sgn.co.uk>
Subject: FW: PM1530 CAPACITY CHECK APPLICATION

Morning,

Please assist the customer with their request.

Kindest Regards,

Nick Jones,

Front Desk Process Assistant

E: nick.jones@sgn.co.uk

SGN, St Lawrence House, Station Approach, Horley, Surrey RH6 9HJ

<u>sgn.co.uk</u>

Find us on Facebook and follow us on Twitter: @SGNgas



Smell gas? Call 0800 111 999

Find out how to protect your home from carbon monoxide

From: csa <<u>csa@csachatham.co.uk</u>>

Sent: 07 April 2020 15:19

To: Non Domestic Sales Enquiries-South < ndsouth@sgn.co.uk >

Subject: PM1530 CAPACITY CHECK APPLICATION

WARNING This email is not from the SGN network. Do not open unexpected files or links.

Dear Sir,

Please find attached our request for a capacity check and point of connection.

Regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street Rochester Kent ME1 1DA

T: 01634 880544 M: 07932 740938

E: csa@csachatham.co.uk

From: csa

 Sent:
 21 April 2020 11:50

 To:
 SOE gtuip SGN

Subject: RE: PM1530 CAPACITY CHECK APPLICATION **Attachments:** 5071906 - Draft Gas Design 24 04 2018.pdf

Matthew,

Thanks for the rapid response. The proposed POC at the junction of Jane Murray Way / Gatehouse Lane has already been extended down Gatehouse Lane by Fulcrum for another of our projects, the Hub, as attached.

Does your capacity investigation include the load for the Hub? The actual loads are less than those predicted in 2015, we are presently connected to DPD 250 kW and Roche 200 kW. When the site is fully developed the connected load is not expected to reach the 3642 kW noted on Fulcrum's design, on the two plots developed so far, we are 750 kW lower.

Regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street Rochester Kent ME1 1DA

T: 01634 880544 M: 07932 740938

E: csa@csachatham.co.uk

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From: Branagh, Matthew <Matthew.Branagh@sgn.co.uk> On Behalf Of SOE gtuip SGN

Sent: 14 April 2020 13:11

To: csa <csa@csachatham.co.uk>

Subject: RE: PM1530 CAPACITY CHECK APPLICATION

Good morning,

Please find attached plan showing the nearby SGN gas infrastructure.

Your SGN reference is L20149985

It is likely that no reinforcement is required to support your load. This means that there is capacity within the network to supply your proposed load.

From: csa

Sent: 28 April 2020 15:47 **To:** SOE gtuip SGN

Subject: RE: PM1530 CAPACITY CHECK APPLICATION

Matty,

Swift confirmation much appreciated.

Regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street Rochester Kent ME1 1DA

T: 01634 880544 M: 07932 740938

E: csa@csachatham.co.uk

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From: Branagh, Matthew < Matthew. Branagh@sgn.co.uk > On Behalf Of SOE gtuip SGN

Sent: 28 April 2020 15:23

To: csa <csa@csachatham.co.uk>

Subject: RE: PM1530 CAPACITY CHECK APPLICATION

Hello,

Yes I can confirm it was checked with the full load and can confirm that is no issue the full load can still be supported.

Thank you.

Matty Branagh

Third Party Connections

T: 01293 818 252 (Int: 38252) E: Matthew.Branagh@sgn.co.uk

SGN, St Lawrence House, Station Approach, Horley, RH6 9HJ

sgn.co.uk

Find us on Facebook and follow us on Twitter: @SGNgas

Smell gas? Call 0800 111 999



PLEASE NOTE:- SGN have revised their Connections Service Charges with effect from the 18th June 2018. These new rates are available to view at the following location:

https://www.sgn.co.uk/Our-Services/SGN-Connections-Charges/

Classified as Internal

From: csa <<u>csa@csachatham.co.uk</u>>

Sent: 28 April 2020 11:13

To: SOE gtuip SGN < soe gtuip sgn@sgn.co.uk > Subject: RE: PM1530 CAPACITY CHECK APPLICATION

WARNING This email is not from the SGN network. Do not open unexpected files or links.

Matty,

Matty,

The load of 3645 kW, or at least the part of it that is already connected to your network, via the MP extension down Gatehouse Lane to the Hub, is existing, so I wanted to make sure that it had been included in your calculation, and that the point of connection would be in Gatehouse Lane, rather than where you show it.

I am in the office if you wish to discuss.

Regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street Rochester Kent ME1 1DA

T: 01634 880544 M: 07932 740938

E: csa@csachatham.co.uk

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From: Branagh, Matthew < Matthew.Branagh@sgn.co.uk > On Behalf Of SOE gtuip SGN

Sent: 28 April 2020 09:29

To: csa <csa@csachatham.co.uk>

Subject: RE: PM1530 CAPACITY CHECK APPLICATION

Hello Colin,

I'm hoping you are well giving the current situation, this enquiry was analysed taking into account the proposed load of 2303Kwh not 3645 would you like me to take this into account and provide a updated check.

Thank you for the response.

4 South-East Water - Clean Water

- 4.1. CSA made a capacity enquiry to South-East Water on 27th March 2020. This included a Pre-Development Application form. The predicted daily flow rate is 331m³.
- 4.2. Ray Jordan from South-East Water replied on 22nd April 2020 confirming that their network can provide the predicted flow rate for the site.
- 4.3. Formal confirmation received from South-East Water in the form of a predevelopment quotation on 28th April 2020.

From:

csa

Sent:	27 March 2020 18:03
To:	Developer Services
Subject:	RE: GODDARDS GREEN STW GROWTH
Attachments:	PM1530 SEW Pre Dev App.pdf; Site Location Plan.pdf
Amy,	
Attached. Let me know if	f you require any further information.
Kind regards,	
Colin Smith	
Charles D.Smith & Associ	ates Ltd
333 High Street	
Rochester Kent	
ME1 1DA	
T: 01634 880544	
E: csa@csachatham.co.u	<u>ık</u>
also be privileged. If you	il are confidential to the ordinary user(s) of the email(s) to whom it was addressed and may are not the addressee of this email you may not copy, forward, disclose or otherwise use it, orm whatsoever. If you have received this e-mail in error please e-mail the sender by
	or by telephone on 01634 880544.
From: Developer Service: Sent: 27 March 2020 14:	s <developer.services@southeastwater.co.uk></developer.services@southeastwater.co.uk>
To: csa <csa@csachathar< th=""><td></td></csa@csachathar<>	
Subject: RE: GODDARDS	
Hi Colin,	
We cannot advise to the	below without an application form being submitted unfortunately as this would need to go
through to various depar	,
I have attached a budget	pre development application form, please fill this is to proceed.
Kind regards,	
Amy Martin	
Developer Services Advis Service Management	or
DDI 01634 27 6092	
Amy.Martin@southeastv	water.co.uk / www.southeastwater.co.uk

From: csa [mailto:csa@csachatham.co.uk]

Sent: 27 March 2020 10:45

To: Developer Services < Developer. Services@southeastwater.co.uk >

Subject: FW: GODDARDS GREEN STW GROWTH

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

We wish to understand the potential capability of your network to supply a large commercial development proposed at the junction of Cuckfield Rd and the A2300 in Goddards Green. The site location is included in the email chain below.

Our email to Southern Water below provides the estimated daily potable water consumption for each of the five phases of construction, and the total daily flow rate of 331m3. Our current project is connected to the 4"main in Cuckfield Rd which also serves the sewage treatment works (STW), but which we assume will require reinforcement for the proposed development. On the basis that you will have reinforced the network to accommodate the Northern Arc housing development to the east, we assume that there may be a suitable point of connection not far east of the STW.

We do not intend to make an application yet, but it would be appreciated if SEW would confirm whether the network already has the capability to serve this site.

Your 'phone lines are not available at present, but do give us a call if you require further details in order to reply.

Regards,

Colin Smith

Charles D. Smith & Associates Ltd 333 High Street Rochester Kent ME1 1DA

T: 01634 880544 M: 07932 740938

E: csa@csachatham.co.uk

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From: Mayall, Charlotte < charlotte.Mayall@southernwater.co.uk>

Sent: 24 March 2020 16:22

To: csa <<u>csa@csachatham.co.uk</u>>

Subject: RE: GODDARDS GREEN STW GROWTH

Dear Colin,

Using your cumulative figure for all 5 phases of development of 331,290 l/d, this equates to 331.2 m3 daily flow which is well within current permit headroom at Goddards Green WTW. It should be noted however that WTW



Our Ref: RB/JA/Dev Servs/NARS- 16271

Your Ref:

Direct Line: 03330 000 060

Email: <u>developermains@southeastwater.co.uk</u>

22nd April 2020

Colin Smith 333 High Street Rochester Kent ME1 1DA

Dear Colin,

Proposed Land at Junction of A2300 and Cuckfield Road, Goddards Green, West Sussex, BN6 9.

Thank you for your letter requesting provision of water mains at the above site. I enclose a plan showing details of the Company's mains.

No offsite reinforcement works are required in conjunction with this enquiry but any non-standard flow rate above 0.27 l/sec, is to be flow restricted to the designed flow rate. The flow management is required to provide the customer with their requested flow rate and protect the Company existing customer if in the event the site demand increases. For compliance, SEW are required to record any flow management installed in conjunction with domestic supplies on either GIS / Billing system or both , please ensure that this is adhered to.

Please be aware that under the new pricing structure, all reinforcement works will now be subsidised through infrastructure charges. Offsite reinforcement works are no longer site specific.

SEW does not guarantee pressure to the upper floors of properties & flats.

For budget purposes:

The on-site mains would be expected to cost: £125.00 per metre

Standard connections are £336.57 (A-type) each x 25: £8,414.25 Infrastructure Charge is £536.71 per connection x 25: £13,417.75

The budget figures quoted above have been prepared on the assumptions that there are no Health & Safety hazards arising from either the present site conditions or any which may arise as a result of activities of the developer, his agents or contractors.

South East Water ("SEW") offers two options to developers for the installation of water mains. In brief, the options are as follows:

- I. The company offer based on a discount being applied to the total cost of the scheme. This is derived by comparing the annual revenue from the new service connections and the annual repayment of a notional loan over a 12 year period to calculate the deficit. The corresponding lump sum then has the discount applied in accordance with the methodology issued by Ofwat under charging rules for new connection services (English Undertakers)
- II. The Self Lay Option is divided into two sections: Non-Contestable is what you are required to pay SEW initially. This cost relates to non-contestable activities (i.e. those items of work that for reasons of safeguarding our water quality, only South East Water or their approved contractor may undertake). Details of Self Lay are available at: http://www.ofwat.gov.uk/consumerissues/selflay Income Offset On satisfactory handover of the self-laid mains, an Asset Payment will be paid to you. If you choose to self-lay the mains, this will need to be in accordance with the SEW Self Lay Policy, using an accredited contractor, under South East Water supervision.



We would also be grateful to receive your detailed plans of the proposed development and the relevant reports and information required to enable us to prepare a firm quotation for the above option(s).

For the Company to provide firm figures at the earliest opportunity please supply the items listed in our "Developer Services – Information required for provision of Water Services".

The availability of a soils report to establish the presence or otherwise of contaminated land is most important. The report must be based on a site investigation carried out in accordance with British Standard Institution BS10175:2001 Investigation of Potentially Contaminated Sites - Code of Practice and in particular should include any potential risk of petroleum hydrocarbons.

In addition the specification proposed for the internal plumbing system could have relevance for the pipework design and your early confirmation of this information would be of great assistance.

If you have any questions or require clarification regarding this letter please feel free to call us.

Yours sincerely

Ray Jordan
Developer Services Coordinator
Developer Services Department

A firm site layout: scale 1: 500, which identifies:



- i. the extent of the land in the developer's ownership
- ii. the individual plot numbers + Bin Store / Landlord Supplies
- iii. the service entry positions for each plot + Bin Store / Landlord Supplies
 (Please note: Water for Domestic, Non Domestic (includes Bin Store / Landlord) and
 water for Fire fighting purposes will all be metered separately)
- iv. the extent of the area proposed for adoption by the Highway Authority
- v. any designated service strips

It is preferred that you supply an electronic version of your builder's plan, ideally in dwg format. This can be received via CD or by our email address on the top right hand corner of your letter.

The plan must include the proposed development footprint along with all details as previously stated, as well as a section of Ordnance Survey background for the area upon which it is located. The background must be substantial and varied enough, dependant upon its location being urban or rural, to include either surrounding field, fence and road lines, if possible buildings as well which then may be used as location reference points.

An Ordanence Survey grid reference for the site location would also be of help.

All plans that are submitted must be checked that an XREF documents are either imported into the DWG as independent layers or all XREF drawings or files are also included in the submission for mains to be designed and an estimation produced.

- 3. A Programme of Works and plan identifying any phasing with number of properties associated with any phase of the site and house build rate per year.
- 4. A Soil Investigation in accordance with British Standard Institution BS10175:2001 Investigation of Potentially Contaminated Sites Code of Practice. (In particular the soils investigation should include any potential risk of petroleum hydrocarbons)
- 5. Details of any consultation with all known parties on archaeological and environmental issues
- 6. Type of Hot System installation, i.e. vented or unvented systems
- 7. Details of the Land owners, together with their Solicitors details, applicable for any Company asset to be installed in non-Highway Authority land.
- 8. Confirmation of the required flow rate in litres per second, plus completed fittings list, for any nonstandard connection with a flow rate of more than one cubic meter per hour.
- 9. Should there be any requirement to install sprinkler systems, hose reels or fire-fighting equipment within the new units, please confirm the required flow rate for the firefighting supply so as to enable the effects on design to be assessed and the relevant quotation to be provided. For your information, current Company policy does not permit the cross connection of water for domestic and fire-fighting /non-domestic use therefore should the properties require a supply for firefighting purposes it will be necessary to gain independent metered connections to our main to individually supply the separate elements.

5 UK Power Networks – Power

- 5.1. CSA calculated the estimated demand of the development to be 15MVA.
- 5.2. CSA contacted UK Power Networks (UKPN) on 20th December 2019 regarding the provision of the power from the high voltage network.
- 5.3. A meeting was held with UKPN on 26th February 2020 to discuss the strategy for power provision. The agenda for the meeting included other proposed projects with large electricity demands in the vicinity, the Northern Arc (25 MVA) and The Hub Phase 2 (10 12 MVA).
- 5.4. Following further discussions with UKPN by email on 15th April 2020, an application for a "Budget Estimate" i.e. outline proposal was made on 16th April 2020.
- 5.5. Email received from UKPN on 29th April 2020 confirming capacity to serve the STP from the Goodards Green grid site.

6. Communications

6.1. Virgin Media

- 6.1.1. Contact was made with Virgin Media on 15th April 2020 regarding the presence of existing network infrastructure in the locality that could be extended to serve the site.
- 6.1.2. Virgin Media advised in their email dated 16th April 2020 that their infrastructure runs past the site along the A2300 and can be extended to serve the development. The email also states that Virgin Media has the intention to expand its existing services to serve future developments in the area.

csa

From: Oflaherty, Roddy < Roddy.OFlaherty@virginmedia.co.uk>

Sent: 16 April 2020 15:48

To: csa

Subject: RE: Re Science & Technology Park Goddards Green Sussex

Attachments: Web Form.xlsx; Science & Technology Park Goddards Green Sussex VM Landscape.pdf

Good afternoon Mike,

Many thanks for your time today.

Our Commercial New Build process facilitates the build of infrastructure only that has the capability of serving broadband, ethernet or high capacity services directly from Virgin Media or approved 3rd parties. Exact requirements will be defined with the client during the New Build process.

The attached shows that Virgin Media have our own infrastructure in the immediate vicinity of the STP proposed site but works would be required to bringing our services on net for future tenants. These works would be defined and completed through the Commercial New Build process.

As the UK's second largest ISP we are in a position to offer this site secure true diversity should it be required, acting as a standalone provider or as part of a resilient requirement.

Attached is a high level overview to Virgin Media, our parent organisation, Liberty Global and the purpose and process to commercial new build, with some additional bullet point information below – more than happy to provide further information to any of the attached or below as required.

Burgess Hill is an area currently served by Virgin Media for residential and commercial premises and it will be our intention to support future residential and commercial build in the surrounding area.

Unfortunately our web portal for registration of new sites is currently undergoing essential maintenance, but site registration can be achieved by completing the attached Web Form.

I look forward to any further questions you and the client may have and registration of the site.

Best wishes, Roddy

How we achieve Commercial New Build

- Collaboration is key to everything we do: simple processes, easy delivery
- Dedicated portal: New Build Admin, New Build Officer, Planner, New Build Liaison Officer
- Early knowledge & registration
- Free initial analysis through First Pass & Feasibility with New Build Liaison Officers streamlining operations on the ground. Virgin Media issue materials, site surveys, commercials are kept to cost only
- Future proofing sites, network installed although not live, made live early which promotes our products
- Demand for our services on new build sites is extremely high
- Close collaboration with other VM teams

How can our team help you

- Speed and choice
- Encouraging tenants from a strategic level given a choice of providers, reduced future disruptions
- Government Broadband agenda and digital strategy objectives
- Significant investments within the areas
- Developers also meet their requirements

From: csa [mailto:csa@csachatham.co.uk]

Sent: 15 April 2020 16:46 **To:** Oflaherty, Roddy

Subject: Re Science & Technology Park Goddards Green Sussex

Dear Roddy

We are services consulting engineers and are appointed by our client Glenbeigh Developments Ltd to advise on Utilities matters for the development of a proposed Science and Technology Park (STP) in the Burgess Hill Area.

The preferred site as selected in Mid Sussex District Councils' Site Allocation Development Plan document is located to the North of the A2300, between the junctions with the A23 and Cuckfield Road. Refer to attached plan indicating the location and site plan for this. The postcode for the site area is RH17 5PB.

The outline proposal for the STP is for up to 130,000 square metres of offices, research facilities and high tech light industry and manufacturing.

The inventory is projected to contain

Innovation Centre 2800 m² - flexible units 20 m² – 200 m²

B1a – Offices HQ building 9,000 m² plus 10 No suites 6,000m² – 2,750m²

B1b – High tech laboratories – 3 No units 9,000m² – 2,700m²

B1c – Light industry R&D, high quality factories – HQ Building 12,000m² plus 7 No units 10,000m² – 2,250m²

Ancillary development on the site would include a 150 bed hotel, a shopping pavilion and a Creche. The projected employment on the site is up to 5,000 people

Clearly given the nature and size of the businesses that would occupy this facility it is highly likely that all would require high capacity high quality connectivity.

Based on our team's market experience in the region, it is anticipated that the development would be completed in five phases. Release of land is anticipated within 0-5 years for phase 1, with 2-3 years roll out for each phase aligning with market conditions. The Positioning Document for the STP is due for issue in spring 2020, firm allocation of the site would be towards the end of 2020, and Outline Planning submission would be in mid 2021

We are in the process of preparing a servicing strategy for this site for inclusion in the Positioning Report to be submitted to the local authority. From discussions with you and colleagues in 2019 on the nearby development called The Hub, we believe you would be well placed to build a fibre network to serve the Science and Technology Park from your existing network.

Would you please confirm that you do have network connectivity in this locality and advise how this might be extended/upgraded to serve such a development. At this stage we would ask for a short statement of the strategy for bringing the network onto site and how this would then be distributed around the site to allow connections to be made to individual units. Clearly it will be important to many of the customers to have secure connections, so we do need to show that diversity of routes etc would be provided in the solution.

Please can you confirm that you are interested in this project, and can provide the information requested above.

Kind regards
Mike Gibbins
Charles D.Smith & Associates Ltd.
333 High Street
Rochester
Kent
ME1 1DA

Tel: 01634 880544 Mob: 0774 777 5541

Email: csa@csachatham.co.uk

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6.2 Openreach - Communications

- 6.2.1. Investigations for an adjacent site previously carried out indicate that there is Openreach infrastructure adjacent to the site, along Cuckfield Road across the A2300 roundabout.
- 6.2.2. The Openreach fibre network currently serves the adjacent development site on the other side of the roundabout. It is therefore well placed to serve the new development.
- 6.2.3. An online Newsite registration was lodged on 22nd April 2020.

6.3 Zayo Group UK – Communications

- 6.3.1. Investigations for an adjacent site indicate that the Zayo network infrastructure exits locally, routed along the A2300 on the south side of the carriageway.
- 6.3.2. The network is therefore well situated for extension into the new development site.
- 6.3.3. An enquiry was made on 22nd April 2020.
- 6.3.4. Response received from Zayo Group UK on 23rd April 2020 by email as attached, indicating that local infrastructure could be extended to serve the development.

csa

From: Jonathan Bremner < jonathan.bremner@zayo.com>

Sent: 23 April 2020 13:43

To: csa

Subject: RE: Science & Technology Park Goddards Green Sussex

Thanks Mike, our fibre and duct network does indeed go through this area and could be extended to provide a full suite of services to the new Science Park. Zayo would be happy to extend our existing network with the right commercial model to this area. The duct and high fibre count cable passing site at present would allow those businesses in the new Science Park to benefit from Zayo's national and international network. This would meet the industry demands should this be constructed and as a neutral host this would also allow others to use our duct and fibre network to provide choice and availability to new business taking advantage of using the new Science Park. Let me know If you need any further details?

Many thanks,

Jonathan Bremner

Sales Director, Public Sector, Zayo Group UK Limited

Zayo | Our Fiber Fuels Global Innovation

International House | 1 St Katharine's Way | London | E1W 1UN Direct: +44 (0) 20 3356 8586 | Mobile: +44 (0) 7903 249 603

jonathan.bremner@zayo.com

https://www.zayo.com/solutions/industries/public-sector/

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From: csa <csa@csachatham.co.uk>

Sent: 23 April 2020 12:52

To: Jonathan Bremner < <u>jonathan.bremner@zayo.com</u>>

Subject: RE: Science & Technology Park Goddards Green Sussex

Jonathan

Thanks for your call, glad to talk next week. However our first task is to identify, for the purposes of our site allocation submission to the local authority, is for Zayo to provide a statement that you have fibre infrastructure in the locality – which seems clear from the attached which we obtained in 2017 for another local site - that can be extended/enhanced to provide high quality communications for the kind of businesses who would occupy the Science Park. This would go into an appendix of utility contacts that have been made in support of our application. It would also be helpful if this could mention the ability to provide resilience in the services. We would be looking for this stamen, which can be on an e-mail, by mid next week.

It is only after the site allocation has been confirmed that we can move onto issues of exactly how the site would be provisioned, but this is further down the line.

Kind regards
Mike Gibbins
Charles D.Smith & Associates Ltd.
333 High Street

Rochester Kent ME1 1DA

Tel: 01634 880544 Mob: 0774 777 5541

Email: csa@csachatham.co.uk

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From: Jonathan Bremner < jonathan.bremner@zayo.com >

Sent: 23 April 2020 12:30

To: csa <csa@csachatham.co.uk>

Cc: Andrew Tipping <andrew.tipping@zayo.com>; Paul Brooker <Paul.Brooker@zayo.com>

Subject: RE: Science & Technology Park Goddards Green Sussex

Mike.

Thanks for the enquiry and we would be very interested to see where Zayo could help with this Science and Technology Park. Do you have any availability early next week for a call to discuss where you see where Zayo can help?

Best regards,

Jonathan Bremner

Sales Director, Public Sector, Zayo Group UK Limited

Zayo | Our Fiber Fuels Global Innovation

International House | 1 St Katharine's Way | London | E1W 1UN Direct: +44 (0) 20 3356 8586 | Mobile: +44 (0) 7903 249 603

jonathan.bremner@zayo.com

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From: Paul Brooker <Paul.Brooker@zayo.com>

Sent: 23 April 2020 11:26

To: Jonathan Bremner < <u>Jonathan.bremner@zayo.com</u>>; Andrew Tipping < <u>andrew.tipping@zayo.com</u>>

Cc: Paul Brooker <Paul.Brooker@zayo.com>

Subject: FW: Science & Technology Park Goddards Green Sussex

Jonathan

As you are looking at Sussex can you have a look at this please.

Paul

From: <u>ukenquiries@zayo.com</u> < <u>ukenquiries@zayo.com</u> > On Behalf Of csa

Sent: 23 April 2020 11:02

To: ukenquiries@zayo.com

Subject: FW: Science & Technology Park Goddards Green Sussex

Please see email below re new project in Sussex. Unsure if you would deal with this or JSM Group

Kind regards
Mike Gibbins
Charles D.Smith & Associates Ltd.
333 High Street
Rochester
Kent
ME1 1DA

Tel: 01634 880544 Mob: 0774 777 5541

Email: csa@csachatham.co.uk

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From: csa

Sent: 22 April 2020 09:35 **To:** enquires@jsmgroup.com

Subject: Science & Technology Park Goddards Green Sussex

Dear Sirs

We are services consulting engineers and are appointed by our client Glenbeigh Developments Ltd to advise on Utilities matters for the development of a proposed Science and Technology Park (STP) in the Burgess Hill Area.

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B1c – Light industry R&D, high quality factories – HQ Building 12,000m² plus 7 No units 10,000m² – 2.250m²

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Would you please confirm that Zayo do have network connectivity in this locality and advise how this might be extended/upgraded to serve such a development. At this stage we would ask for a short statement of the strategy for bringing the network onto site and how this would then be distributed around the site to allow connections to be made to individual units. Clearly it will be important to many of the customers to have secure connections, so we do need to show that diversity of routes etc would be provided in the solution.

Please can you confirm that Zayo is interested in this project, and can provide the information requested above and what the timescale would be

Kind regards
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7. Diversions and Constraints

The extent of diversions and constraints is presented pictorially on Drawing No. CSA PM1520/20/02.

- 7.1. 33kV overhead lines on pylons cross the site near the north boundary. The pylon towers are protected by an exclusion zone, typically of 12.5m x 12.5m. Construction of buildings is not permitted within the swing zone of the overhead lines. It is not proposed to divert this asset, but to locate the buildings to accommodate these constraints.
- 7.2. 11kV electricity lines on poles cross the site from near Cuckfield Road to a substation west of the site at Bolney Grange. These will be diverted in an underground route around the perimeter of the site.
 - The 11kV electricity lines on poles that follow Bishopstone Road will be routed below the regraded and new route of Bishopstone Road.
- 7.3. If UKPN wish to serve the development at 33kV a new primary sub-station will be required. A footprint of 20m x 10m will be required, and the site will require a lease agreement.
- 7.4. A 4" water main enters the site at the junction of Bishopstone Road with the A2300. It is likely that the main will be abandoned from the point of connection at the Job's Lane junction.
- 7.5. Southern Water Services have a rising foul main which crosses the site close to the north and east boundaries. This main is protected by an easement 7.5m wide. It is not proposed to divert this asset, but to locate the buildings to accommodate its constraints. The main will cross the new roundabout proposed for the site entrance from Cuckfield Road. A minimum depth of 1200mm from the road surface to the crown of the pipe must be maintained.
- 7.6. It is concluded that the relative levels of the ground floors of the proposed buildings and of the inlet to the sewage treatment works mean that a foul pumping station will be required for the STP. It is the intention that this would be adopted by Southern Water Services, and would comply with the technical details for a Type 3 pumping station, as defined in Sewers for Adoption. The resulting constraints include 10m clearance from habitable buildings, a location above the level of a 1 in 30 year return period flood, a site compound of dimensions 12m x 8m, and access from the road for a tanker.
- 7.7. The changes to the Cuckfield Road / A2300 roundabout associated with turning the highway into a dual carriageway will result in the diversion of existing utility services. Project Newton should try to use the road closures to cross the A2300 with new natural gas and telecoms ducts for the development.

8. Conclusion

- 8.1. All of the utility companies except UKPN have confirmed that, at the present time, their networks can provide the calculated loads for the STP without reinforcement.
- 8.2. UKPN have advised that they would be able to provide the estimated load after an upgrade to their primary sub-station at Goddards Green, which will be required to serve the Burgess Hill Northern Arc development, meaning that the reinforcement would be completed before electricity was required for Phase 1 of the STP.
- 8.3. Diversions of services are not demanding from a technical, programme or cost perspective.
- 8.4. The Services Constraints Plan demonstrates that the existing major utilities crossing the site have been accommodated in the development proposal.

