



Civil Engineers & Transport Planners

Reading Metropolitan

Superfast Broadband Strategy

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181017/SB/MK/KL/01



Civil Engineers & Transport Planners

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Drawing A11113-C-2-100 – Proposed Development Layout

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Openreach Infrastructure Record Drawing

1 INTRODUCTION

1.1 General

1.1.1 Lanmor Consulting has been appointed to prepare a Superfast Broadband Strategy (SBS) to support the development known as Reading Metropolitan.

1.1.2 Purpose of the Strategy

1.1.3 This report has been prepared for the proposed mixed-use development, to meet the requirements of item 19 of Reading Borough Council's (RBC) planning application validation checklist. Reading Borough Council requires a Superfast Broadband Strategy to be submitted for all proposals of housing development with over 50 units.

1.1.4 The council's guidance in their validation checklist for item 19 states;

"Superfast Broadband Strategies documents should outline how the developer has considered facilitating the proposed development with Superfast Broadband (24Mbps+) and what discussions they may have had with the Operators in advance of submitting a formal planning application".

1.1.5 This SBS considers the provision of superfast broadband to both the residential and non-residential uses proposed in the development.

1.2 Site Description and Existing Conditions

1.2.1 The application site is located in the Reading Town Centre Area, it was previously used by the Royal Mail as a sorting Office. Consented was granted in March 2012 for the site to be redevelopment as a mixed-use scheme of employment, residential, hotel and retail uses.

1.2.2 The former Royal Mail sorting office site at Reading, is located approximately 230m to the south of the River Thames, directly north and adjacent to Reading Station. The site covers an area of approximately 1.96 ha and is bounded to the west by Caversham Road, to the north by Station Shopping Park and Vastern Road (A329), to the east by a multi-storey car park, and to the south by the mainline railway tracks.

1.3 Development Proposals

- 1.3.1 The proposed development will be formed of a number of residential blocks some of which are linked at lower levels. At ground floor level there will be a mix of office, retail, residential and community uses, to the eastern end of the development there will be a basement car park below the main retail unit for residents and in the south east corner there will be an office block.
- 1.3.2 A new avenue will be formed to the north of the site between Caversham Road and the entrance to Reading Train Station, a new access road is also provided to the south off the Avenue through the development to provide access to the basement car park. The proposed layout for the development is shown on drawing A11113-C-2-100 included in Appendix A.

2 SUPERFAST BROADBAND

2.1 Introduction

- 2.1.1 Superfast broadband provides much faster upload data speeds. Superfast broadband connections enable users to surf the internet, download files and stream data at speeds far higher than regular internet users
- 2.1.2 The UK Government's Broadband Delivery Guidance defines superfast broadband as providing data download speeds to premises in excess of 24 Mbps (Megabites per second). This can be achieved over fibre or copper infrastructure.
- 2.1.3 Superfast broadband infrastructure can deliver download speeds of up to 1 Gbps (Gigabites per second) and in some cases symmetrical data speeds, where the download and upload speeds are identical.
- 2.1.4 Usually superfast broadband is provided by a fibreoptic infrastructure. The fibreoptic allows rapid pulses of light to be transmitted through glass or plastic filaments. The receiver converts these pulses into binary code that can be read by computers etc.

2.2 Types of Superfast Broadband Connections

- 2.2.1 There are two main types of fibre broadband connections, fibre to cabinet and fibre to premises:

Fibre-to-Cabinet

- 2.2.2 Fibre to Cabinet involves laying fibre optic cables from the telephone exchange or distribution points in cabinets on streets or joint boxes, converters contained within them switch the signal for transmission through copper cabling to the premise.
- 2.2.3 When the premise is located over 100m from the distribution point reductions in download and upload speed can be experienced using this method.

Fibre-to-Premises

- 2.2.4 Fibre to Premises provides direct fibre optic connection from the exchange to the premises. Faster uploads. Faster upload and download speeds can be achieved using this method provides especially when the last cabinet/joint box is located over 100m from the premise.

Superfast Broadband Benefits

- 2.2.5 Homeowners and commercial tenants are attracted by the increased download speed that they will receive as the end user. Developers see the benefits of installing superfast broadband for marketing the property to potential homeowners and commercial tenants with no or very little capital outlay compared to traditional services.
- 2.2.6 Fibre optic infrastructure is also less susceptible data loss due to noise and interference than the more common copper networks.
- 2.2.7 A drawback of fibre cables compared to traditional telecommunications cables is that they considered to be more fragile and susceptible to damage.

3 BROADBAND INFRASTRUCTURE

3.1 Existing Broadband Infrastructure

- 3.1.1 Within the vicinity of the site there are a number of providers of telecommunications services that have apparatus located in Caversham Road adjacent to the site or in the wider area, they include Openreach, Centrica, Verizon, Vodafone, SSE and Virgin Media.
- 3.1.2 Openreach duct routes are located in the footway on both sides of Caversham Road, the main duct run is on the western side of Caversham Road. There are also duct runs in the eastern footway that serve a cabinet directly outside the development, there is also an existing duct into the site that serves the existing buildings on site. A copy of the Openreach infrastructure in the area of the site is included in Appendix B.

3.2 Proposed Broadband Delivery Options

- 3.2.1 The Reading Metropolitan development can be supplied with broadband infrastructure by a number of providers. These suppliers own the infrastructure and can provide the service to the premise rather than end billing companies that use others infrastructure.
- 3.2.2 The provision of broadband services to the development which has multiple premises can be supplied by one provider or one provider can supply to the building and another provides the infrastructure within the building.
- 3.2.3 OFCOM require the licenced open network operator "Openreach" to provide a connection to a property should the developer/ tenant request it, this is to ensure it is always possible to achieve a connection.
- 3.2.4 Openreach states that:- *"it is their plan is to expand the FTTP footprint for the UK to 3m homes passed by 2020 and 10m homes passed by mid-twenties. To support this Openreach will build a full fibre network to each property (FTTP) to all new residential or mixed residential/commercial sites with 30 premises or more with no charge to developers."*

3.2.5 The proposed fibre connection will be provided from the supplier's infrastructure to an internal fibre joint cabinet located on the ground floor of the development in the plant/communications room. Secondary internal fibre joint boxes will be provided in high rise buildings as necessary to maintain quality of service.

3.2.6 From this point a fibre connection will be made to a customer splice point and an optical network termination within each of the apartments.

3.3 Preferred Delivery of Broadband

3.3.1 Discussions are on going with broadband providers, but as the development is only at outline stage, it difficult to give any commitments to providers and for them to agree proposals until the form of development is firmed up and the date when installation is required is known.

3.3.2 It is envisaged that discussions will continue with the various providers through to the detail design stage before a final discussion is made. However, at this stage the preferred option is to have Openreach supply the premises and separate internal fit out arranged by the developer.

3.3.3 The initial reasoning behind the current strategy is Openreach are obliged to allow line rentals, thus ensuring end users have flexibility of supplier and no other providers are and there is currently Openreach infrastructure in Caversham Road that could supply the development. Reinforcement of existing infrastructure still be required but the extent of civil works required to supply the site will be minimal.

3.3.4 The project is at outline stage and the above presents only a preliminary approach for the provision of broadband to the development and the final installation strategy will be confirmed at the detailed design stage.

4 SUMMARY & CONCLUSION

- 4.1.1 There are a number of ways to provide Superfast Broadband access to the proposed development and there several providers that are able to supply the development. the preferred option at this outline stage is the provided fibre to premises.
- 4.1.2 At this stage it is considered that Openreach is likely to provide the optimum service to the development and give tenants the flexibility of supplier, with the internal infrastructure with the development being commissioned by the developers.
- 4.1.3 Openreach also have infrastructure in proximity to the development and would be able to supply the required services.
- 4.1.4 This report presents an outline strategy to ensure the provision of the optimum superfast broadband service is available for the site. The preferred superfast broadband installer and installation strategy will be confirmed as the detailed design progresses.

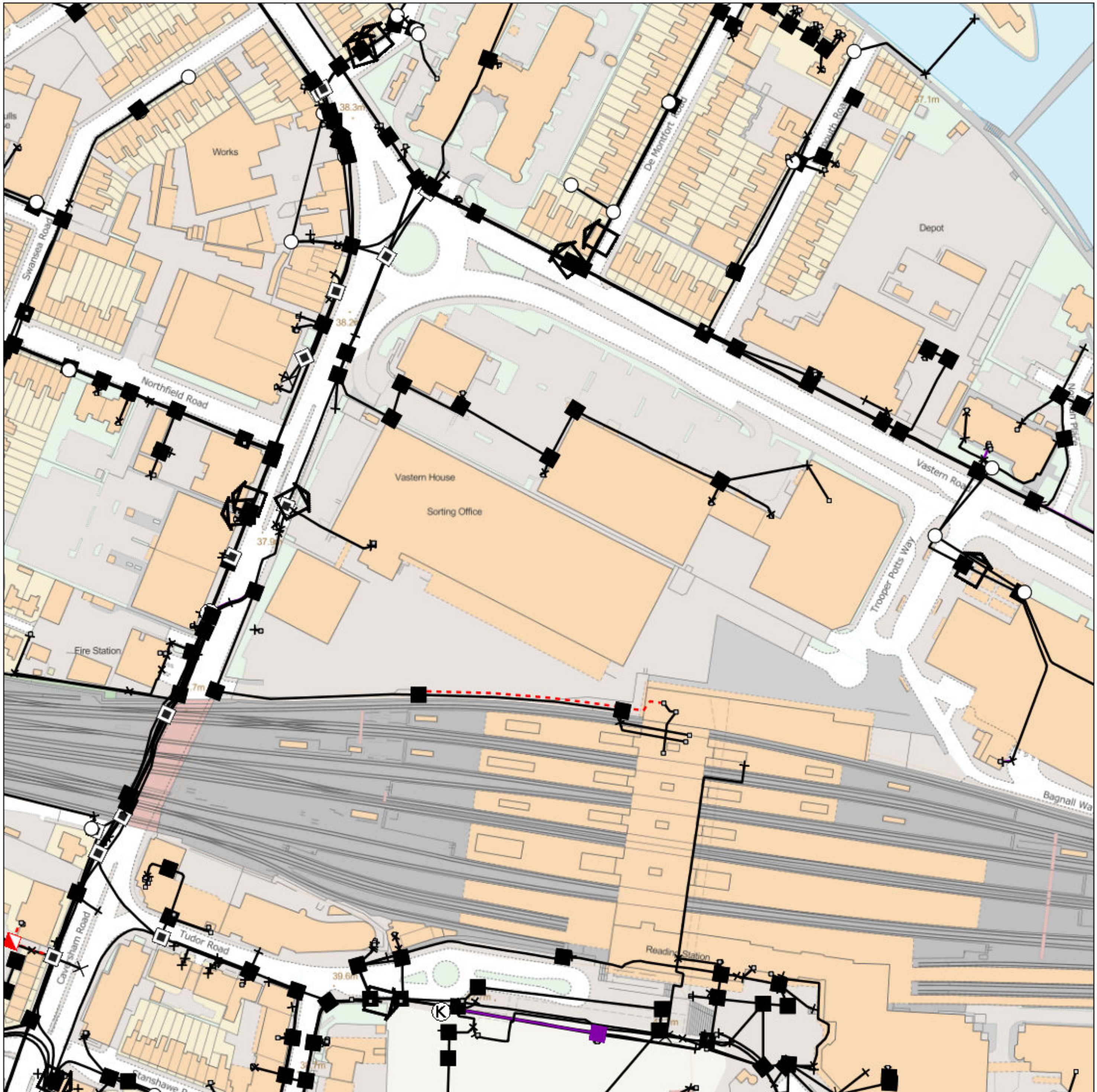
APPENDIX A

Drawing A11113-C-2-100 – Proposed Development Layout

APPENDIX B

Openreach Infrastructure Record Drawing

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

	Planned	Live	Change Of State	+	Hatchings	
PCP			Split Coupling	×	Built	
Pole			Duct Tee	▲	Planned	
Box			Building		Inferred	
Manhole			Kiosk	K	Duct	
Cabinet			Other proposed plant is shown using dashed lines. BT Symbols not listed above may be disregarded. Existing BT Plant may not be recorded. Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.			
	Pending Add	In Place	Pending Remove	Not In Use		
Power Cable						
Power Duct				N/A		

BT Ref : LAM03359K

Map Reference : (centre) SU7138974004

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