

THE PROPOSED NETWORK RAIL (CAMBRIDGE SOUTH INFRASTRUCTURE ENHANCEMENT) ORDER

TRANSPORT AND WORKS ACT 1992

AND

THE ACQUISITION OF LAND ACT 1981

STATEMENT OF CASE

of

ASTRAZENECA UK LIMITED AND MEDIMMUNE LIMITED

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BACKGROUND

- 1.1 AstraZeneca is building a global research and development (R&D) centre and corporate headquarters at the Cambridge Biomedical Campus (CBC) in Cambridge. The project is part of the company's strategic effort to establish global R&D centres in the UK, US and Sweden in order to improve its pipeline productivity and biopharmaceutical innovation. The facility is expected to accommodate around 2,000 people.
- 1.2 Construction commenced in 2015, after the project was given planning permission by Cambridge City Council. The facility is spread over two sites which are linked through an underground services tunnel. The plot adjacent to the railway (which is directly impacted by the TWAO submission) already has significant service infrastructure (both above surface and buried) which are business critical for existing and future AstraZeneca buildings.

INTRODUCTION

- 2.1 AstraZeneca UK Limited and Medimmune Limited (together hereinafter 'AZ') holds the long leasehold interest in the Cambridge Biomedical Campus at Francis Crick Avenue, Cambridge CB2 0AA held under LR Title No. CB401311, which includes and or adjoins plot numbers 036, 038, 039, 040, 041, 042, 043, 044, 045, 046, 047, 048 and 049 as shown on the Order Map.
- 2.2 The land that would be affected is one of two parcels being developed by AZ to the south of Cambridge City Centre, the North Plot and the South Plot. The land affected is known as the South Plot. The leasehold extends to an area of approx. 8 acres and has planning permission for a South Office Building of 13,502 sqm; a Hive of 3,593 sqm; associated car, motorbike and cycle parking including a Travel Hub of 2,970 sqm; a temporary Multi Use Games Area; hard and soft landscaping; and internal roads, supporting facilities and ancillary infrastructure, approved under Reserved Matters permissions 14/1633/REM, 19/1070/REM and 20/05027/REM pursuant to outline approval 06/0796/OUT. The site is part developed AZ having already constructed the Energy & Data Centre, a services tunnel linking the site to North Plot (where the AZ R&D facility is located) and other buried infrastructure which is critical to AZ operations.
- AZ is an in-principle supporter and sponsor of the new station infrastructure and is supportive of the Network Rail plans for Cambridge South Station. AZ objected to the issuing of the TWAO in July since despite proactively working with Network Rail on the design and interface of the station with the development of South Plot the detail published in the Draft Order was not consistent with our understanding from pervious discussions with Network Rail leaving potentially unacceptable impacts on:
 - Already installed services and infrastructure within the land identified to be taken; and
 - The ability for AZ to complete the development of South Plot in accordance with the extant planning permissions.



GROUNDS OF OBJECTION

- 3.1 AZ outlined its concerns and grounds of objection to the TWAO in its letter of objection submitted on its behalf by CBRE Limited on 27 July 2021. The grounds are further explained below:
- 3.1.1 The Plans appended to the Draft Order do not align with the area of land AZ was expecting would be acquired or used by Network Rail for the delivery of the Cambridge South Infrastructure Enhancements. On the western boundary the permanent land acquisition shown on the plans extends beyond where it was expected from previous discussions with Network Rail the line would be and the permanent land requirement is therefore larger than expected.

On the northern boundary where it was expected from previous discussions with Network Rail that there would be no permanent acquisition the plans appended to the draft Order show a slither of land being acquired permanently.

There are several consequences of these unexpected land acquisition boundary changes:

- 1. The ability to complete the consented drainage attenuation scheme for the South Plot will be compromised. Drainage of this site is incredibly complex and has been a major issue in the consenting of the site. We understand Network Rail will also require a drainage strategy for its project and AZ is waiting for confirmation that the TWAO works will create no consequent negative impact on the site's consented drainage scheme. Whilst Network Rail has not completed the design of its drainage scheme AZ is seeking a commitment that it will not do anything to compromise the performance of the South Plot drainage scheme so that the South Plot drainage scheme can be completed in its entirety as consented without impactful alteration.
- 2. Significant parts of the already installed ground source heat pump system will be left within the permanent and temporary acquisition boundary. How this would be protected, maintained, repaired and replaced will need to be addressed. AZ does not believe there is a viable solution to relocate this infrastructure. If this can be relocated, where it could be relocated to, with what consequential implications for the consented development and at whose cost will need to be answered.
- 3. The earthing mat for the Energy Centre is installed within the land to be both permanently and temporarily acquired. How this would be protected, maintained, repaired and replaced will need to be addressed. AZ does not believe there is a viable solution to relocate this infrastructure. If this can be relocated, where it could be relocated to, with what consequential implications for the consented development and at whose cost will need to be answered.
- 4. A gas main runs through the land shown to be permanently acquired and this was not unexpected. A diversion solution to bring it back into AZ land has been identified which would only be necessary to facilitate works authorised by the TWAO and the cost of those works will need to be met.



- 5. A communications cable and two control cabinets run through and on the slither of permanent and temporary land taken on the northern boundary. There is also a draw pit on the same cable run which straddles the line of permanent and temporary land acquisition. This infrastructure needs to remain wholly within the AZ land and full access to the draw pit and cabinets maintained during the temporary occupation of land for construction.
- 6. 19 car parking spaces to be provided on South Plot in accordance with the planning consent are within the land shown to be permanently acquired. The loss of parking is a serious concern and it is unclear at this point whether and if so how many parking spaces could be provided elsewhere within the AZ site as that will depend on approval of the local planning authority. In further discussions with Network Rail it has conceded that in fact it does not need the land upon which the parking is currently situated.

With regards to points 1-5 (inclusive above), either the whole of the land or the part of the subsurface of the land where the drainage scheme, ground source heat pumping system, earthing mat, gas main and communications cable are located is not needed to deliver a station and should not therefore be included in the CPO. A station can be delivered on a smaller footprint avoiding the affected land entirely, or by only doing works at surface level with measures in place to protect the infrastructure and systems identified above. The same applies to the loss of parking at point 6 which Network Rail has conceded is not needed to deliver the scheme.

3.1.2 The description for plot 43 includes for its use as a temporary haul road and crane location. This area also includes already installed service infrastructure including attenuation tanks, the ground source heat pump pipework and boreholes and earthing mat. It is not clear how this infrastructure will be protected and if necessary accessed during the temporary works and the need for introduction of foundations to support the crane will create major complications for the retention of the underground apparatus during the temporary works. AZ does not believe there is a viable solution to relocate this infrastructure. If this can be relocated, where it could be relocated to, with what consequential implications for the consented development and at whose cost will need to be answered.

In terms of the crane, the plans appended to the TWAO do not show the oversailing arc and if this is going to extend beyond the land shown for temporary occupation it needs to be identified and then reviewed to ensure it does not compromise proposals for completing the development of South Plot for which consent has already been obtained. AZ is also seeking confirmation that the crane position is not required for the future maintenance and operation of the works to be authorised by the TWAO.

3.1.3 Plot 39 which is shown in the draft TWAO for permanent acquisition includes an underground service tunnel held by AZ under a subterranean lease and a separate foul waste pipe held by AZ under an easement deed of grant. We understand Network Rail can complete the works to be authorised under the TWAO without needing to acquire or relocate the tunnel and waste pipe and AZ wants an assurance that



Network Rail will not acquire the AZ property interests within this plot and will carry out the construction works in this area in a way so as to protect the tunnel and waste pipe keeping them operational throughout, such is their criticality to the operation of the site.

- 3.1.4 Plot 042 is identified in the draft TWAO to provide a means of escape for passengers on foot only from the railway station in case of emergency. An alternative route for the means of escape has been suggested and is currently under review by Network Rail. The complications that would be created by the potential spill of members of the general public into this private commercial R&D facility justify further careful consideration as to the appropriate terms and conditions for this means of access should it be proven to be required on the alignment shown. AZ seeks agreement of these terms and conditions prior to approval of the TWAO. We understand Network Rail propose an easement for these rights and on account of the terms of the existing leasehold interest held by AZ any easement if granted would need to be from the freeholder of the land in consultation with AZ.
- 3.1.5 It is appreciated that both Network Rail and AZ will be in the construction phases of their developments perhaps at different times but on the same general timescale. AZ accepts there is uncertainty across both project programmes and requires a commitment from Network Rail that the parties will continue to engage and liaise collaboratively to enable delivery of the consented development on South Plot. This to include flexibility around occupation of land, timing of highway closures, installation of services and delivery of materials. In return AZ will offer the same commitment to Network Rail for timely delivery of its station.

More specifically in connection with the South Office Building and the Station Forecourt, the two developments when completed need to sit side by side and with level differences across the sites it will be crucial to agree a scheme of hard and soft landscaping which is complimentary to both projects. Such a scheme needs to take into account the need to segregate pedestrian and cycle traffic flows as well as provide an aesthetically pleasing and functionally secure line between the two realms, an issue also applicable to the Western physical boundary. AZ expects to have an instrumental role in the development and agreement of this scheme with Network Rail prior to its submission to Cambridge City Council recognising that this design detail is not currently refined sufficiently at this stage to finalise the levels and layout. The new South Office Building on the frontage of Francis Crick Avenue, adjacent to the proposed new forecourt will have its main entrance facing the forecourt and AZ is concerned that as a consequence of the Order it will lose its ability to influence the design and practicality of the frontage to the office. Another important aspect of this collaboration will involve agreeing mitigation measures to address impact of essential signage, external lighting and the station announcement system, all having the potential to disturb AZ and the use of their buildings. Additionally, the Order land in this area if not available for construction space (as is currently provided for in an agreement with the existing landowner) could increase the difficulty of creating this building as consented. AZ therefore expects this land to be made available if by the time the office development is started the Order land has been taken by Network Rail.



3.1.6 The permanent acquisition as proposed in the draft TWAO impacts on the ability to implement landscaping required by its planning consent, specifically in two areas: The Western Boundary Planting and the Strategic Gaps.

Western Boundary Planting

This is a requirement of the CBC Outline Planning Permission (OPP) (06/0796/OUT), as environmental mitigation to make the CBC development acceptable (referred to as mitigation in the CBC ES; October 2006). It is shown on OPP Parameter Plan 6. OPP Condition 42 required a structural landscaping scheme for the CBC to be approved including 'a) a minimum 12-14m structural woodland landscaping scheme, with additional 3m x 4.8 deep tree blocks positioned at a maximum of 15m centres, in accordance with parameter plan 6 and plan 1700/SK180707.01B, along the western edge of the allocated biotech and biomedical research and development area shown on parameter plan 1, south of the Cambridgeshire Guided Bus embankment'.

The western buffer planting within the site was therefore approved in accordance with the OPP requirements, through discharge of OPP Condition 45 which required submission with the RM application of 'an accompanying landscaping scheme for the associated plot'.

Strategic Gaps

OPP Condition 7 required that 'A minimum of two gaps of at least 25m in width shall be provided within the biomedical and biotech research and development area shown on parameter plan 1 south of the Cambridgeshire Guided Busway route between buildings.' The OPP condition states the gaps 'shall not be occupied by any buildings'.

As required by the condition, the gaps were agreed through the Phase 1 RM permission (14/1633/REM) – a 25m gap to the south of the Energy Centre and 12.5m gap to the south of the land now to occupied by the Travel Hub (with the other 12.5m of the southern gap being provided by the development to the south). The gaps approved through the landscape design for the Phase 1 RM permission (14/1633/REM) have been carried out through into AZ's current RM permission for the South Plot (20/05027/REM).

The Network Rail land take includes land within the provided Strategic Gaps and proposes a 'building' (i.e. the station structure) within the northern gap. As such, AZ will not be able to deliver key landscaping elements of its RM permission and risks being non-compliant with the OPP and required mitigation for the CBC. It is noted that a landscaping condition is proposed in its draft planning conditions contained within its request for deemed planning permission submitted with the TWAO application. It is assumed that this will include the western boundary landscaping area, but it is unclear how AZ is protected from the risk of not being able to deliver its RM permission and the western boundary planting required by the OPP.

It is also noted that landscaping will also be lost along the northern boundary of the AZ site, but that this area of landscaping is not included on parameter plan 6, nor specifically referred to in OPP Condition



42. The principle of risk to AZ of not being able to implement its approved landscaping scheme remains with a lower planning risk given it does not form part of the mitigation required by the OPP/ES.

Assurance is therefore required from Network Rail that the planning risks associated with the permanent land take, and therefore AZ's ability to deliver its approved landscaping design (specifically required by the OPP/ES), is borne by Network Rail and does not jeopardise AZ's ability to deliver the rest of its scheme in accordance with its planning consents. AZ cannot be in a situation where its site must be altered or reconfigured at a later date in order to satisfy planning conditions that became impossible to deliver because of the works authorised by the TWAO.

- 3.1.7 In respect of the land to be taken under powers of temporary possession and because of the emerging programme development constraints the process of handover and hand-back needs to be documented.
 AZ has a need for the following to be agreed ahead of confirmation of the TWAO:
 - a. A minimum notice period to take possession of 3 months
 - b. A pre-possession meeting to record and approve a Schedule of Condition
 - c. A security handover plan
 - d. An agreed boundary treatment specification
 - e. An agreed hand-back of the land in the same state of condition as found when the land was taken This is not currently provided for adequately in the draft TWAO and is particularly important at this emerging commercial R&D facility.

CONCLUSION

- 4.1 The proposals as currently presented by Network Rail threaten to compromise the investment already made and continuing to be made in the site by AZ, the commercial implications for which are potentially very significant. These are not matters that Network Rail can leave to be addressed in a compensation claim for that cost alone would seriously prejudice the ability for the project to be funded and delivered. Specifically, either the whole of the land or the part of the subsurface of the land where the drainage scheme, ground source heat pumping system, earthing mat, gas main and communications cable are located (and which have been referred to above) is not needed to deliver a station and should not therefore be included in the CPO. A station can be delivered on a smaller footprint avoiding the affected land entirely, or by only doing works at surface level with measures in place to protect the infrastructure and systems identified above. The same applies to the loss of parking which Network Rail has conceded is not needed to deliver the scheme.
- 4.2 AZ will continue to work proactively with Network Rail to resolve these physical constraints and other matters of concern which have emerged from the draft Order documentation.



- 4.3 Owing to the technical nature of the issues being discussed with Network Rail we cannot rule out the potential for further matters needing to be raised that do not currently appear in this Statement and whilst we will do what we can to narrow the issues and will provide copies of the documents on which we plan to rely, neither the Statement nor the List of Documents submitted is likely to be exhaustive or complete at this stage.
- 4.4 In the absence of a written agreement with Network Rail which addresses fully these concerns, AZ reserves its position to submit evidence in confirmation of this Statement and appear at the Public Inquiry.



LIST OF DOCUMENTS	
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Purpose of issue: AZ Statement of Case Document Register

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Document Reference	Document Title	Doc Type	Author	Date	Electronic Directory Location
BDP Phase 1A Drawings					
CB000-BDP-XX-XXX-DR-D-520201	Drainage Layout Sheet 1	Drawing	BDP	21/08/18	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520202	Drainage Layout Sheet 2	Drawing	BDP	12/04/18	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520203	Drainage Layout Sheet 3	Drawing	BDP	25/05/18	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520210	Below Ground Drainage Typical Details Sheet 1	Drawing	BDP	31/03/16	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520211	Below Ground Drainage Typical Details Sheet 2	Drawing	BDP	13/10/15	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520212	Below Ground Drainage Typical Details Sheet 3	Drawing	BDP	27/08/15	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520213	Below Ground Drainage Typical Details Sheet 4	Drawing	BDP	27/08/15	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520214	Below Ground Drainage Typical Details Sheet 5	Drawing	BDP	04/09/18	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520215	Below Ground Drainage Typical Details Sheet 6	Drawing	BDP	10/08/15	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520216	Below Ground Drainage Typical Details Sheet 7	Drawing	BDP	10/08/15	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520220	Below Ground Drainage Petrol Treatment Detail	Drawing	BDP	10/08/15	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520222	Below Ground Drainage Car Park Cross Sections	Drawing	BDP	10/08/15	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-D-520223	Gabion Wall Typical Sections	Drawing	BDP	22/08/17	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-L-941251	Hard Landscape General Arrangement Plan Sheet 1	Drawing	BDP	01/10/18	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-L-941252	Hard Landscape General Arrangement Plan Sheet 2	Drawing	BDP	01/10/18	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-L-946736	South Plot Permeable Block Paver	Drawing	BDP	31/03/16	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-L-946766	South Plot Typical Details Hard Landscape	Drawing	BDP	05/03/19	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-P-900350	Electrical Services Arrangement Plan Sheet 1	Drawing	BDP	10/04/19	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-DR-P-900351	Electrical Services Arrangement Plan Sheet 2	Drawing	BDP	30/07/16	BDP Phase 1A Drawings
CB000-BDP-XX-XXX-RP-L-949101	LANDSCAPE REPORT	Report	BDP	10/10/14	BDP Phase 1A Drawings
Reserved Matters Phase 1B Planning Application					
					Reserved Matters Phase 1B Planning
CB000-ARP-EX-XXX-RP-C-009002	Drainage Strategy Report	Report	Arup	31/03/21	Application
General					
06/0796/OUT 06_0796_OUT-	CBC Outline Planning Permission Decision Notice (06/0796/OUT) (15/10/2009)	Letter	ccc	15/10/2009	Reserved Matters Phase 1B Planning Application
	Cambridge Biomedical Campus Expansion Environmental Statement Volume 1A	Report	Environ	Oct 2006	Reserved Matters Phase 1B Planning Application
4626M/PL/80002 Rev H	PP1 Location of Land Uses	Drawing	AFR	16/05/2006	Reserved Matters Phase 1B Planning Application Reserved Matters Phase 1B Planning
4626M/PL/80011 Rev S	PP6 Landscape Provisions	Drawing	AFR	16/05/2006	Application
1777/C42/001C	Landscape Proposals Western Boundary Condition 42AWestern Boundary Landscape Specification (Revision	Drawing	DJA	Feb 2008	Reserved Matters Phase 1B Planning Application Reserved Matters Phase 1B Planning
N/A	A)	Specification	DJA	04/11/2011	Application

20/05027/REM	AstraZeneca Replacement Phase 1B Reserved Matters Permission Decision Notice	Letter	ccc	30/06/21	Reserved Matters Phase 1B Planning Application
CB000-BDP-XX-XXX-RP-M-509102	AstraZeneca New Cambridge Site Renewable Energy Strategy **NOTE: This document relates to an earlier RMA but is carried forward**	Report	AZ	10/10/2014	Reserved Matters Phase 1B Planning Application
AstraZeneca Replacement Phase 1B Reserved Ma	atters Permission (20/05027/REM)				
New Cambridge Site Replacement Phase 1B	Design & Access Statement (including Sustainability Statement) (November 2020)	Report	AZ	Nov 2020	Reserved Matters Phase 1B Planning Application
New Cambridge Site Replacement Phase 1B	CFD Study of Pollutant Dispersion from Energy Centre Issue 2	Report	Arup	09/12/2020	Reserved Matters Phase 1B Planning Application
New Cambridge Site Replacement Phase 1B	Landscape Report	Report	AZ	March 2021	Reserved Matters Phase 1B Planning Application
New Cambridge Site Replacement Phase 1B	Landscape Report - Headwall Proposals	Report	AZ	Feb 2021	Reserved Matters Phase 1B Planning Application
New Cambridge Site Replacement Phase 1B		·			Reserved Matters Phase 1B Planning
New Cambridge Site Replacement Phase 1B	Drainage Strategy Report	Report	AZ	March 2021	Application Reserved Matters Phase 1B Planning
New Cambridge Site Replacement Phase 1B	Transport Report (including Travel Plan)	Report	AZ	Nov 2020	Application Reserved Matters Phase 1B Planning
New Cambridge Site Replacement Phase 1B	Nature Conservation Management Plan	Report	AZ	Nov 2020	Application Reserved Matters Phase 1B Planning
New Cambridge Site Replacement Phase 1B	Wildlife Hazard Management Plan	Report	AZ	Nov 2021	Application Reserved Matters Phase 1B Planning
New Cambridge Site Replacement Phase 1B	Construction Management Plan	Report	AZ	Nov 2020	Application Reserved Matters Phase 1B Planning
	Planning Statement	Report	AZ	Nov 2020	Application Reserved Matters Phase 1B Planning
CB002-ARUP-XX-XXX-DR-A-000001 Rev P1	Location PlanPhase 1B	Drawing	Arup	27/11/2020	Application Reserved Matters Phase 1B Planning
CB002-ARUP-XX-XXX-DR-A-000002 Rev P0	Location Plan Final Masterplan (For Information)	Drawing	Arup	27/11/2020	Application Reserved Matters Phase 1B Planning
CB002-ARUP-XX-LZZ-DR-A-000005 Rev P1	Site PlanPhase 1B	Drawing	Arup	27/11/2020	Application
CB002-ARUP-XX-LZZ-DR-A-000006 Rev P1	Site Plan Final Masterplan (For Information)	Drawing	Arup	27/11/2020	Reserved Matters Phase 1B Planning Application
CB012-HDM-XX-XXX-DR-A-000002 Rev P0	Masterplan	Drawing	Arup	27/11/2020	Reserved Matters Phase 1B Planning Application
CB000-ARP-EX-L00-DR-L-001001 Rev P0	General Arrangement Key Plan	Drawing	Arup	27/11/2020	Reserved Matters Phase 1B Planning Application
CB000-ARP-EX-L00-DR-L-001002 Rev P0	General Arrangement Plan Sheet 1 of 3	Drawing	Arup	27/11/2020	Reserved Matters Phase 1B Planning Application
CB000-ARP-EX-L00-DR-L-001003 Rev P1	General Arrangement Plan Sheet 2 of 3	Drawing	Arup	27/11/2020	Reserved Matters Phase 1B Planning Application
CB000-ARP-EX-L00-DR-L-001004 Rev P1	General Arrangement Plan Sheet 3 of 3	Drawing	Arup	27/11/2020	Reserved Matters Phase 1B Planning Application
CB000-ARP-EX-L00-DR-L-001005 Rev P0	Temporary Landscape in the Event the Temporary MUGA Permission Expires	Drawing	Arup	27/11/2020	Reserved Matters Phase 1B Planning Application

CB000-ARP-EX-L00-DR-L-001006 Rev P0
CB000-ARP-EX-L00-DR-L-001101 Rev P0
CB000-ARP-EX-L00-DR-L-001102 Rev P0
CB000-ARP-EX-L00-DR-L-001103 Rev P0
CB000-ARP-EX-L00-DR-L-001201 Rev P0
CB000-ARP-EX-L00-DR-L-001202 Rev P0
CB000-ARP-EX-L00-DR-L-001203 Rev P0
CB000-ARP-EX-L00-DR-L-001204 Rev P0
CB000-ARP-EX-L00-DR-L-001205 Rev P0
CB000-ARP-EX-L00-DR-L-003001 Rev P0
CB000-ARP-EX-L00-DR-L-006001 Rev P0
CB000-ARP-EX-L00-DR-L-006002 Rev P0
CB053-ARUP-XX-XXX-DR-A-005001 Rev P3
CB002-HDM-XX-L00-DR-A-201200 Rev P0
CB002-HDM-XX-L10-DR-A-201210 Rev P0
CB002-HDM-XX-L20-DR-A-201220 Rev P0
CB002-HDM-XX-L30-DR-A-201230 Rev P0
CB002-HDM-XX-L40-DR-A-201240 Rev P0
CB002-HDM-XX-L50-DR-A-201250 Rev P0
CB002-HDM-R00-L00-DR-A-201260 Rev P0
CB002-HDM-R01-L00-DR-A-201270 Rev P0
CB002-HDM-XX-XXX-DR-A-203201 Rev P0
CB002-HDM-XX-XXX-DR-A-203202 Rev P0
CB002-HDM-XX-XXX-DR-A-203203 Rev P0
CB002-HDM-XX-XXX-DR-A-204201 Rev P0

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General Arrangement Masterplan (Illustrative only)	Drawing	Arup	27/11/2020
Hard Landscape Plan Sheet 1 of 3	Drawing	Arup	27/11/2020
Hard Landscape Plan Sheet 2 of 3	Drawing	Arup	27/11/2020
Hard Landscape Plan Sheet 3 of 3	Drawing	Arup	27/11/2020
Soft Landscape Plan Sheet 1 of 3	Drawing	Arup	27/11/2020
Soft Landscape Plan Sheet 2 of 3	Drawing	Arup	27/11/2020
Soft Landscape Plan Sheet 3 of 3	Drawing	Arup	27/11/2020
Soft Landscape Schedule 1 of 2	Drawing	Arup	27/11/2020
Soft Landscape Schedule 2 of 2	Drawing	Arup	27/11/2020
Landscape General Sections	Drawing	Arup	27/11/2020
Soft Landscape Details Sheet 1 of 2	Drawing	Arup	27/11/2020
Soft Landscape Details Sheet 2 of 2	Drawing	Arup	27/11/2020
Bicycle Parking GA Drawings	Drawing	Arup	27/11/2020
South Office Building GA Plan Ground Floor	Drawing	Arup	27/11/2020
South Office Building GA Plan First Floor	Drawing	Arup	27/11/2020
South Office Building GA Plan Second Floor	Drawing	Arup	27/11/2020
South Office Building GA Plan Third Floor	Drawing	Arup	27/11/2020
South Office Building GA Plan Fourth Floor	Drawing	Arup	27/11/2020
South Office Building GA Plan Fifth Floor	Drawing	Arup	27/11/2020
South Office Building GA Plan Plant Floor	Drawing	Arup	27/11/2020
South Office Building GA PlanRoof	Drawing	Arup	27/11/2020
South Office Building Section Section A-A	Drawing	Arup	27/11/2020
South Office Building Section Section B-B	Drawing	Arup	27/11/2020
South Office Building SectionSection C-C	Drawing	Arup	27/11/2020
South Office BuildingNorth-East & East Elevations	Drawing	Arup	27/11/2020

Reserved Matters Phase 1B Planning Application Reserved Matters Phase 1B Planning Application

CB002-HDM-XX-XXX-DR-A-204202 Rev P0	South Office BuildingSouth & North West Elevations	Drawing	Arup	27/11/2020
CB002-HDM-XX-XXX-DR-A-204203 Rev P0	South Office BuildingWest & South West Elevations	Drawing	Arup	27/11/2020
CB007-HBA-ZZ-L00-DR-A-PL_201001 Rev P1	The Hive General Arrangement Ground Floor Plan	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-L10-DR-A-PL_201002 Rev P1	The Hive General Arrangement First Floor Plan	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-L15-DR-A-PL_201003 Rev P1	The Hive General Arrangement First Floor Mezzanine Plan	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-L20-DR-A-PL_201004 Rev P1	The Hive General Arrangement Second Floor Plan	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-MLL-DR-A-PL_203001 Rev P2	The Hive General Arrangement Section AA	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-MLL-DR-A-PL_203002 Rev P2	The Hive General Arrangement Section BB	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-MLL-DR-A-PL_203003 Rev P2	The Hive General Arrangement Section CC	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-MLL-DR-A-PL_204001 Rev P2	The Hive General Arrangement North Elevation	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-MLL-DR-A-PL_204002 Rev P2	The Hive General Arrangement East Elevation	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-MLL-DR-A-PL_204003 Rev P2	The Hive General Arrangement South Elevation	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-MLL-DR-A-PL_204004 Rev P2	The Hive General Arrangement West Elevation	Drawing	НВА	30/11/2020
CB007-HBA-ZZ-R00-DR-A-PL_201005 Rev P1	The Hive General Arrangement Roof Plan	Drawing	НВА	30/11/2020
CB006-ARP-ZZ-L00-DR-A-201100 Rev P1	Travel Hub General ArrangementGround Floor Plan	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-L10-DR-A-201101 Rev P1	Travel Hub General ArrangementFirst Floor Plan	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-L20-DR-A-201102 Rev P1	Travel Hub General ArrangementSecond Floor Plan	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-L30-DR-A-201103 Rev P1	Travel Hub General ArrangementThird Floor Plan	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-L40-DR-A-201104 Rev P1	Travel Hub General ArrangementFourth Floor Plan	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-L50-DR-A-201105 Rev P1	Travel Hub General ArrangementFifth Floor Plan	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-L50-DR-A-201105 Rev P1	Travel Hub General ArrangementFifth Floor Plan (duplicate)	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-L60-DR-A-201106 Rev P1	Travel Hub General ArrangementSixth Floor Plan	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-R00-DR-A-201107 Rev P1	Travel Hub General ArrangementRoof Plan	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-MLL-DR-A-203101 Rev P1	Travel Hub General ArrangementSections	Drawing	Arup	01/06/2021
CB006-ARP-ZZ-MLL-DR-A-204101 Rev P1	Travel Hub General ArrangementSouth & West Elevations	Drawing	Arup	01/06/2021

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CB006-ARP-ZZ-MLL-DR-A-204102 Rev P1	Travel Hub General ArrangementNorth & East Elevations	Drawing	Arup	01/06/2021	Application
CD000 ADUD EV VVV DD C 004040 D D0	Eviating Hailiting and Dunings Layout Chapt 1 of 2 /For Information)	Danish a	A	40/44/0000	Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001010 Rev P0	Existing Utilities and Drainage Layout Sheet 1 of 3 (For Information)	Drawing	Arup	13/11/2020	Application
CD000 ADUD EV VVV DD C 004044 D. D0	Eviation Haliking and Duringer Lawrent Chart 2 of 2 / Early forwarding)	Donator	A	40/44/0000	Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001011 Rev P0	Existing Utilities and Drainage Layout Sheet 2 of 3 (For Information)	Drawing	Arup	13/11/2020	Application
CD000 ADUD EV VVV DD C 004043 D. D0	Fuinting Hailiting and During and Chart 2 of 2 /Four Information)	Donator	A	40/44/0000	Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001012 Rev P0	Existing Utilities and Drainage Layout Sheet 3 of 3 (For Information)	Drawing	Arup	13/11/2020	Application
CDOOD ARLID EV YVV DR C 004030 R. DO	Decree ANGS Phase 4D Decree And Angle Angl	Donator	A	40/44/0000	Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001020 Rev P0	Proposed NCS Phase 1B Drainage Layout Sheet 1 of 3	Drawing	Arup	13/11/2020	Application
CD000 ABUD 5V WW DD C 004004 D		ъ .		40/44/0000	Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001021 Rev P0	Proposed NCS Phase 1B Drainage Layout Sheet 2 of 3	Drawing	Arup	13/11/2020	Application
CD000 ADUD 5V VVV DD C 004000 D		ъ .		40/44/0000	Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001022 Rev P0	Proposed NCS Phase 1B Drainage Layout Sheet 3 of 3	Drawing	Arup	13/11/2020	Application
			l .		Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001024 Rev P0	Proposed NCS Phase 1B Surface Water Catchment Plan	Drawing	Arup	13/11/2020	Application
	Proposed NCS Phase 2 Drainage Layout Sheet 1 of 3 (For		l .		Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001030 Rev P0	Information)	Drawing	Arup	13/11/2020	Application
	Proposed NCS Phase 2 Drainage Layout Sheet 2 of 3 (For				Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001031 Rev P0	Information)	Drawing	Arup	13/11/2020	Application
	Proposed NCS Phase 2 Drainage Layout Sheet 3 of 3 (For				Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-001032 Rev P0	Information)	Drawing	Arup	13/11/2020	Application
					Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-006040 Rev P1	Proposed Cellular Storage Details and Sections (For Information)	Drawing	Arup	13/11/2020	Application
	Proposed Detention Basins and Flow Control Typical Details (for				Reserved Matters Phase 1B Planning
CB000-ARUP-EX-XXX-DR-C-006041 Rev P1	information)	Drawing	Arup	13/11/2020	Application
					Reserved Matters Phase 1B Planning
CB000-ARP-EX-XXX-DR-C-006040 Rev P1	Proposed Cellular Storage Details and Sections	Drawing	Arup	13/11/2020	Application
					Reserved Matters Phase 1B Planning
CB000-ARP-EX-XXX-DR-C-006041 Rev P1	Proposed Detention Basins and Flow Controls Typical Details	Drawing	Arup	13/11/2020	Application
					Reserved Matters Phase 1B Planning
CB000-ARP-EX-XXX-DR-C-001020 Rev P0	NCS Phase 1B Combined Drainage Sheet 1 of 3	Drawing	Arup	13/11/2020	Application
					Reserved Matters Phase 1B Planning
CB000-ARP-EX-XXX-DR-C-001021 Rev P0	NCS Phase 1B Combined Drainage Sheet 2 of 3	Drawing	Arup	13/11/2020	Application
					Reserved Matters Phase 1B Planning
CB000-ARP-EX-XXX-DR-C-001022 Rev P0	NCS Phase 1B Combined Drainage Sheet 3 of 3	Drawing	Arup	13/11/2020	Application
					Reserved Matters Phase 1B Planning
CB000-ARP-EX-XXX-DR-C-001024 Rev P0	Drainage Surface Water Catchment Areas Proposed	Drawing	Arup	13/11/2020	Application
Arup Civils					
CB000-ARP-EX-XXX-DR-C-001000	General Notes Sheet 1	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001010	Existing Utilities Overview	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001011	Existing Utilities Sheet 1	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001012	Existing Utilities Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001013	Existing Utilities Sheet 3	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001020	Proposed Utilities Overview	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001021	Proposed Utilities Sheet 1	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001022	Proposed Utilities Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001023	Proposed Utilities Sheet 3	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001030	Potable Water Network Overview	Drawing	Arup	26/02/21	Arup Civils

AZPM-002-22072021	NR South Cambridge Station TWAO Land Parcels: Impact Study	Table	AZ PM	22/07/2021	AstraZeneca Project Management
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AZPM-001-22072021	NR South Cambridge Station TWAO Land Parcels: Impact Study	Presentation	AZ PM	22/07/2021	AstraZeneca Project Management
AstraZeneca Project Management					
ARP-SK-001 Rev P04	AstraZeneca - New Cambridge Site National Rail TWAO Overlay	Overlay drawing	Arup	13/09/21	Arup Civils
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CB000-ARP-EX-XXX-SP-C-009000	Civil Engineering and Infrastructure Phase 1B Specification	Report	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-RP-C-009000	Civil Engineering and Infrastructure Phase 1B Report	Report	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006023	Landscape Support Typical Details Sheet 4	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006022	Landscape Support Typical Details Sheet 3	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006021	Landscape Support Typical Details Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006020	Landscape Support Typical Details Sheet 1	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006014	<u> </u>	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006013	Combined Drainage Typical Details Sheet 5	Drawing	Arup	26/02/21	Arup Civils
	Combined Drainage Typical Details Sheet 4	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006011	Combined Drainage Typical Details Sheet 2 Combined Drainage Typical Details Sheet 3	Drawing Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006010 CB000-ARP-EX-XXX-DR-C-006011	Combined Drainage Typical Details Sheet 1 Combined Drainage Typical Details Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006005	Combined Orlines Typical Trench Sheet 4 Combined Drainage Typical Details Sheet 1	Drawing Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006004	Combined Utilities Typical Trench Sheet 4	Drawing Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006003	Combined Utilities Typical Trench Sheet 3	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006002	Combined Utilities Typical Trench Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006001	Combined Utilities Typical Details Sheet 2 Combined Utilities Typical Trench Sheet 1	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-006000	Combined Utilities Typical Details Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001092	Combined Utilities Typical Details Sheet 1	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001091	Landscape Support Jointing Plans Sheet 2 Landscape Support Jointing Plans Sheet 3	Drawing Drawing	Arup	26/02/21	Arup Civils
	Landscape Support Jointing Plans Sheet 2	<u> </u>	· · · ·		1 · ·
CB000-ARP-EX-XXX-DR-C-001076 CB000-ARP-EX-XXX-DR-C-001090	Landscape Support Jointing Plans Sheet 1	Drawing	Arup	26/02/21	Arup Civils Arup Civils
CB000-ARP-EX-XXX-DR-C-001075	Combined Drainage Schedules Sheet 2 Combined Drainage Schedules Sheet 3	Drawing	Arup	26/02/21	Arup Civils Arup Civils
CB000-ARP-EX-XXX-DR-C-001074 CB000-ARP-EX-XXX-DR-C-001075	Combined Drainage Schedules Sheet 2	Drawing	Arup	26/02/21	Arup Civils Arup Civils
CB000-ARP-EX-XXX-DR-C-001073	Combined Drainage Schedules Sheet 1	Drawing	Arup	26/02/21	Arup Civils Arup Civils
CB000-ARP-EX-XXX-DR-C-001073	Combined Drainage Sheet 3	Drawing	Arup	26/02/21	Arup Civils Arup Civils
CB000-ARP-EX-XXX-DR-C-001071	Combined Drainage Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001071	Combined Drainage Sheet 1	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001070	Combined Drainage Overview	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001063	Telecommunications Network Sheet 3	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001062	Telecommunications Network Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001061	Telecommunications Network Sheet 1	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001060	Telecommunications Network Overview	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001053	Electricity Network Sheet 3	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001052	Electricity Network Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001051	Electricity Network Sheet 1	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001050	Electricity Network Overview	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001043	Gas Network Sheet 3	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001041	Gas Network Sheet 2	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001041	Gas Network Sheet 1	Drawing	Arup	26/02/21	Arup Civils Arup Civils
CB000-ARP-EX-XXX-DR-C-001040	Gas Network Overview	Drawing	Arup	26/02/21	Arup Civils
CB000-ARP-EX-XXX-DR-C-001032	Potable Water Network Sheet 3	Drawing	Arup	26/02/21	Arup Civils Arup Civils
CB000-ARP-EX-XXX-DR-C-001031 CB000-ARP-EX-XXX-DR-C-001032	Potable Water Network Sheet 1	Drawing Drawing	Arup Arup	26/02/21 26/02/21	Arup Civils Arup Civils
2000 ADD EV VVV DD C 004024	Potable Water Network Sheet 1	Drawina	Λ	20/02/24	I A muse Civille

AZPM-003-24082021 AZPM-004-07092021 AZPM-005-24082021	NE CORNER DRAINAGEMANHOLE AND CONNECTION TO BE RELOCATED BY NR Overlay and Clashes Presentation 7th September 2021 Overlay and Clashes Presentation 24th August 2021	Marked up drawing Presentation Presentation	AZ PM AZ PM AZ PM	N/A 07/09/2021 24/08/2021	AstraZeneca Project Management AstraZeneca Project Management AstraZeneca Project Management
Network Rail					
158454-ARC-00-ZZ-DRG-EMF-200002 P02.1 Sheet 2 of 10 158454-ARC-ZZ-ZZZ-DRG-EMF-000001 P01.1	The Network Rail (Cambridge South Infrastructure Enhancements) Order	Drawing	NR	N/A	Design documents received from NR
(Standard Landscape) 158454-ARC-ZZ-ZZZ-DRG-EMF-000001 P01.1	AstraZenica And Cambridge South Station Overlay	Drawing	NR	06/08/2021	Design documents received from NR
(services) 158454-ARC-ZZ-ZZZ-DRG-EMF-000001 P01.1	AstraZenica And Cambridge South Station Overlay	Drawing	NR	06/08/2021	Design documents received from NR
(updated) 158454-ARC-02-ZZZ-DRG-EAR-000051 OS - 158454-ARC-ZZ-ZZ-MOD-LEP-000010	AstraZenica And Cambridge South Station Overlay Secondary Escape N/A	Drawing Drawing Drawing	NR NR NR	06/08/2021 N/A 31/08/2021	Design documents received from NR Design documents received from NR Design documents received from NR
Herzog and de Meuron					
CB012-HDM-XX-XXX-DR-A-000003 P01	MASTERPLAN SITE PLAN NEIGHBOUR PROPERTY BOUNDARIES	Drawing	HdM	09/09/2021	HdM Design Documents
Arup Landscape					
CB000-ARP-XX-L00-RP-L-009001	New Cambridge SitePhase 1BLandscape Stage 3 Report	Report	Arup	Feb-21	Arup Landscape
AstraZeneca CBC South Plot	BUILDINGS MATERIAL PALETTE and SOFT SCAPE Work in Progress	Presentation	Arup	12/11/2020	Arup Landscape
Mace (Construction Manager)					
20-CAR-2745 Astra Zeneca 3D Model AstraZenecaCam210705Mace	Utility Survey/3D Model South Plot Infrastructure	Drawing Drawing	Select Surveys Mace	N/A 21/07/2021	Mace (Construction Manager) Mace (Construction Manager)
AZ Land Parcel co-ordinates CB000-MPH-XX-XXX-SR-D-900301 Z02 CB051-JGL-XX-XXX-M3-C-200021_Ver3 CB051-JGL-XX-XXX-M3-C-200021	email confirming AZ land plot co-ordinates dated 5th August 2021 South Plot External Below Ground Services Layout Sheet 1 of 8 EC1180 Service Corridor Model R03 EC1180 Service Corridor Model R02	email Drawing Revit Model Revit Model	Mace MPH JGL JGL	05/08/2021 N/A N/A N/A	Mace (Construction Manager) Mace (Construction Manager) Mace (Construction Manager) Mace (Construction Manager)
Joseph Gallagher Ltd (Tunnel Contractor's as-bui	ilt information)				
CB051-JGL-XX-XXX-DR-C-200000 Z01 CB051-JGL-XX-XXX-DR-C-200018 Z01 CB051-JGL-XX-XXX-DR-C-200019 Z01 CB051-JGL-XX-XXX-DR-C-200020 Z01 CB051-JGL-XX-XXX-DR-C-200021 Z01	EC1180 General Notes EC1180 R & D Shaft. Piling Layout EC1180 R & D Shaft. Plans & Section EC1180 R & D Shaft. Construction Sequence EC1180 Service corridor, site layout EC1180 Service Corridor, Longitudinal Section and Geological Long	Drawing Drawing Drawing Drawing Drawing	JGL JGL JGL JGL JGL	10/01/2017 10/01/2017 10/01/2017 10/01/2017 10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200022 Z01 CB051-JGL-XX-XXX-DR-C-200023 Z01	Section EC1180 Open Cut Works, General Arrangement	Drawing Drawing	JGL JGL	10/01/2017 10/01/2017	Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor)

CB051-JGL-XX-XXX-DR-C-200025 Z01	EC1180 Open Cut Works, Construction Sequence	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200026 Z01	EC1180 Shaft general arrangement, temporary works	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200027 Z01	EC1180 SCL Tunnel and Shaft Eye Details	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
	EC1180 Predicted Settlement Contour Plan for Services Damage			1 1	
CB051-JGL-XX-XXX-DR-C-200028 Z01	Assessment	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200030 Z01	EC1180 R&D Shaft, Road & ceiling slabs, general arrangement	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200031 Z01	EC1180 R & D Shaft. Road and Ceiling Slabs, Cross Sections	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200032 Z01	EC1180 R & D Shaft. Ceiling Slab, R.C. Details, Sheet 1 of 3	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200033 Z01	EC1180 R & D Shaft. Ceiling Slab, R.C. Details, Sheet 2 of 3	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200034 Z01	EC1180R & D Shaft. Ceiling Slab, R.C. Details, Sheet 3 of 3	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
	EC1180 R & D Shaft, Road Slab and Capping Beam R.C. Details,			1 1	
CB051-JGL-XX-XXX-DR-C-200035 Z01	Sheet 1 of 6	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
	EC1180 R & D Shaft, Road Slab and Capping Beam R.C. Details,			1 1	
CB051-JGL-XX-XXX-DR-C-200036 Z01	Sheet 2 of 6	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
	EC1180 R & D Shaft, Road Slab and Capping Beam R.C. Details,			1 1	
CB051-JGL-XX-XXX-DR-C-200037 Z01	Sheet 3 of 6	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
	EC1180 R & D Shaft, Road Slab and Capping Beam R.C. Details,			1 1	
CB051-JGL-XX-XXX-DR-C-200038 Z01	Sheet 4 of 6	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
	EC1180 R & D Shaft, Road Slab and Capping Beam R.C. Details,			1 1	
CB051-JGL-XX-XXX-DR-C-200039 Z01	Sheet 5 of 6	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
	EC1180 R & D Shaft, Road Slab and Capping Beam R.C. Details,	· ·		1 ' ' 1	
CB051-JGL-XX-XXX-DR-C-200040 Z01	Sheet 6 of 6	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200041 Z01	EC1180 R & D Shaft, Level B1, General Arrangement	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200042 Z01	EC1180 R & D Shaft, Level B1, Slab, RC Details	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
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CB051-JGL-XX-XXX-DR-C-200043 Z01	EC1180 R & D Shaft, Level B1, Waling Beam, RC Details, Sheet 1 of 2	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200044 Z01	EC1180 R & D Shaft, Level B1, Waling Beam, RC Details, Sheet 2 of 2	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200045 Z01	EC1180 R & D Shaft, Level B1, Liner Walls, RC Details	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200046 Z01	EC1180 R & D Shaft, Level B1 RC Details, Capping Beam And Piers	Drawing	JGL		Joseph Gallagher Ltd (tunnel contractor)
	EC1180 R & D Shaft Lower Level Base Slab, Dowel And Shear	2.48	''-		toospir canaginer are (cannot contracter,
CB051-JGL-XX-XXX-DR-C-200047 Z01	Reinforcement, General Arrangement And Details	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
05051 301 300 7000 510 0 2000 17 201	EC1180 R & D Shaft, Lower Level Base Slab Reinforcement, General	51444116	""	1 20, 0 2, 2 0 2 7	sesepti danagner zea (tarmer contractor)
CB051-JGL-XX-XXX-DR-C-200048 Z01	Arrangement And Details	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200049 Z01	EC1180 R & D Shaft, Level B2, Upper Base Slab, RC Layout And Detail	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200060 Z01	EC1180 R & D Shaft, Level B2, General Arrangement	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200061 Z01	EC1180 R & D Shaft, Level B2, Liner Walls, R.C. Details, Sheet 1 of 4	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200062 Z01	EC1180 R & D Shaft, Level B2, Liner Walls, R.C. Details, Sheet 2 of 4	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200063 Z01	EC1180 R & D Shaft, Level B2, Liner Walls, R.C. Details, Sheet 3 of 4	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XX-DR-C-200003 201	EC1180 R & D Shaft, Level B2, Liner Walls, R.C. Details, Sheet 4 of 4	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XX-DR-C-200064 201	EC1180 SCL Tunnel Sections	_	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
		Drawing	1		
CB051-JGL-XX-XXX-DR-C-200066 Z01	EC1180 Tunnel Connection to Energy Centre, R.C. Details, Sheet 1 of	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200067 Z01	EC1180 Tunnel Connection to Energy Centre, R.C. Details, Sheet 2 of	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200070 Z01	EC1180 Temporary Shaft, Shaft Eye And Base, General Arrangement	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200071 Z01	EC1180 Temporary Shaft, Southern Shaft Eye And Base, RC Details	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200072 Z01	EC1180 Temporary Shaft, Northern Shaft Eye, RC Details	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XXX-DR-C-200080 Z01	EC1180 Open Cut Temporary Works, General Arrangement	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
CB051-JGL-XX-XX-DR-C-200080 201	EC1180 Open Cut Temporary Works, R.C. Details	Drawing	JGL	10/01/2017	Joseph Gallagher Ltd (tunnel contractor)
100001 101 W WW PW C 500001 501	202200 Open out remporary works, rice betails	Diawing	1 ,00	1 10,01,201,	poseph dunugher Eta (talifier contractor)

td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls B1 Capping Beam Piers ower Base Slab ower Base Slab pper Base Slab s s saft Eye and Base	EC1180 R &
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam Road Slab Road Road Road Slab Road Road Slab Road Slab Road Road Slab Road Slab Road Road Slab Road Road Slab Road Road Road Road Slab Road Road Road Road Road Road Road Road	EC1180 R & EC180 R & EC1180 R & E
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam Road Slab Road Road Road Slab Road Road Slab Road Slab Road Road Slab Road Slab Road Road Slab Road Road Slab Road Road Road Road Slab Road Road Road Road Road Road Road Road	EC1180 R & EC180 R & EC1180 R & E
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls B1 Capping Beam Piers ower Base Slab ower Base Slab oper Base Slab s s saft Eye and Base	EC1180 R & EC180 R & EC
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls B1 Capping Beam Piers ower Base Slab ower Base Slab pper Base Slab s aft Eye and Base	EC1180 R & EC180 R & EC
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls B1 Capping Beam Piers ower Base Slab ower Base Slab pper Base Slab	EC1180 R & EC180 R & EC
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls B1 Capping Beam Piers ower Base Slab ower Base Slab pper Base Slab	EC1180 R & EC180 R & EC1180 R & EC180 R & E
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls B1 Capping Beam Piers ower Base Slab ower Base Slab	EC1180 R & EC180 R & EC1180 R & E
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls B1 Capping Beam Piers ower Base Slab	EC1180 R & EC180 R & EC1180 R & EC180
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls B1 Capping Beam Piers Ower Base Slab	EC1180 R & EC180 R & EC1180 R & E
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls B1 Capping Beam Piers	EC1180 R & EC1180, We EC1180, EC1180, EC1180, EC1180, EC1180, EC1180 R & EC180 R & EC1180 R & EC180
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls	EC1180 R & EC1180, E & EC1180, E & EC1180, E & EC1180, E & EC1180 R & EC180 R & EC1180 R & EC180 R
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab evel B1, Waling Beam 1 Liner Walls	EC1180 R & EC1180, E & EC1180, E & EC1180, E & EC1180, E & EC1180 R & EC180 R & EC1180 R & EC180 R
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing rawing rawing rawing rawing rawing rawing rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill evel B1, Slab	EC1180 R & EC1180, We EC1180, East EC1180, East EC1180 R & EC180 R & EC1180 R & EC180 R & E
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing rawing rawing rawing rawing rawing rawing rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill	EC1180 R & EC1180, East
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing rawing rawing rawing rawing rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill Beam Infill	EC1180 R & EC1180, East
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing rawing rawing rawing rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam g Beam Infill	051-JGL-XX-XXX-SH-C-200033 Z01 EC1180 R & EC1180, We
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor)	rawing rawing rawing rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam	EC1180 R & EC1180, R & EC1180
td (tunnel contractor) td (tunnel contractor) td (tunnel contractor) td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor)	rawing rawing rawing rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam Road Slab & Capping Beam	051-JGL-XX-XXX-SH-C-200033 Z01 EC1180 R & EC1180, R & EC180, R &
td (tunnel contractor) td (tunnel contractor) td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor)	rawing rawing	Ceiling Slab Ceiling Slab Pier Connection Road Slab & Capping Beam	051-JGL-XX-XXX-SH-C-200033 Z01 EC1180 R & EC180 R & EC1180 R & EC180 R & EC1180 R & EC18
td (tunnel contractor) td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor) Joseph Gallagher Ltd (tunnel contractor)	rawing rawing	Ceiling Slab Ceiling Slab Pier Connection	051-JGL-XX-XXX-SH-C-200033 Z01 EC1180 R & EC1180 R &
td (tunnel contractor)	Joseph Gallagher Ltd (tunnel contractor)	rawing	Ceiling Slab	051-JGL-XX-XXX-SH-C-200033 Z01 EC1180 R &
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	Joseph Gallagher Ltd (tunnel contractor)	rawing	pstands - First Pour As Built	
	Joseph Gallagher Ltd (tunnel contractor)	rawing	pstands - First Pour As Built	
	Joseph Gallagher Ltd (tunnel contractor)	rawing	or, Existing Services	
	Joseph Gallagher Ltd (tunnel contractor)	rawing	Waterproofing Details, B1 Openings	
·	Joseph Gallagher Ltd (tunnel contractor)	rawing	e, Waterproofing Connection Details	
•	Joseph Gallagher Ltd (tunnel contractor)	rawing	Vaterproofing Connection Details, Sheet 2 of 2	
	Joseph Gallagher Ltd (tunnel contractor)	rawing		
	Joseph Gallagher Ltd (tunnel contractor)		-	
•	Joseph Gallagher Ltd (tunnel contractor)	-		
L L	Joseph Gallagher I Joseph Gallagher I		onitoring regime, Surface Monitoring Scheme al Monitoring rench and Protection Barrier Vaterproofing Connection Details, Sheet 1 of 2	EC1180 Tuni 2051-JGL-XX-XXX-DR-C-200091 Z01 EC1180 Tem 2051-JGL-XX-XXX-DR-C-200093 Z01 EC1180 R &

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CB401311 (14.09.21)	South)	Plan	LR	14/09/2021	Land Registry
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