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[REDACTED]  
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28<sup>th</sup> November 2016

Dear [REDACTED]

**Information request**

**Reference number:** FOI2016/01188

Thank you for your request of 31<sup>st</sup> November 2016. You requested the following information:

*"I would like to request Appendix A titled Engineering Deliverables, from document 118049 - GWEP Project Requirement Specification GRIP 4-8"*

I have processed your request under the Environmental Information Regulations 2004 (EIRs) as the information requested is environmental according to the definition in regulation 2 of the EIRs (section 39 of the Freedom of Information Act 2000 (FOIA) exempts environmental information from the FOIA, but requires us to consider it under the EIRs).

I can confirm that we hold the information you requested. Please see the attached document.

If you have any enquiries about this response, please contact me in the first instance at [FOI@networkrail.co.uk](mailto:FOI@networkrail.co.uk) or on 01908 782405. Details of your appeal rights are below.

Please remember to quote the reference number at the top of this letter in all future communications.

Yours sincerely

Robert Malcolm

Information Officer

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### **Appeal Rights**

If you are unhappy with the way your request has been handled and wish to make a complaint or request a review of our decision, please write to the FOI Compliance and Appeals Manager at Network Rail, Freedom of Information, The Quadrant, Elder Gate, Milton Keynes, MK9 1EN, or by email at [foi@networkrail.co.uk](mailto:foi@networkrail.co.uk). Your request must be submitted within 40 working days of receipt of this letter.

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office  
Wycliffe House  
Water Lane  
Wilmslow  
Cheshire SK9 5AF

Deliverables	Definition	Grip 3	Grip 4	Grip 5	Grip 6	Grip 7	Grip 8	Comments
<b>Core Documents</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Contract Requirements Technical (Technical Workscopes) for implementation	This is the scope description that is necessary to support the contracting strategy for detailed design and construction		D					
Detailed Design	This is the design detail necessary for construction to takeplace			D				
As Built Design	This is the design detail that describes the asset that has been installed					D		
<b>Systems Engineering</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Passenger Demand Assessment	required where there are output requirements showing increases in passgers numbers and there is a need to demonstrate the design is satisfactory at stations	D	D					
RAM Plan	only required when project is expected to achieve a reliability output. This is a plan showing how the Reliability, Availability and Maintainability is addressed on this project	D	D	D				
System RAM Assessment	only required when project is expected to achieve a reliability output to support the RAM plan	D	D	D				
System RAM Model	included in System RAM assessment where specified in requirements	D	D	D				
Programme DRACAS	Required where here are new types of assets or where there is a need to monitor reliability at product level		D	D	D	D	D	
<b>Survey &amp; Mapping</b>	<b>General survey requirements that are multi-disciplinary</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Project Survey Strategy	Updated at each GRIP stage this document sets out what survey methods will be used and when. It explains procedures, control methods and data handling to promote integration of survey activity throughout the project lifecycle. It is only likely to be necessary on large schemes	D	D	D				
Survey Report	As described in the company standard including where necessary a survey transverse report, verification report only when required) schedule of Permanent Survey Control Stations (Stations Survey Schedule) Horizontal and Ver ical control network diagrams	D	D	D	D			
Site Survey - Topographical Survey	this is a physical survey on site	D	D					
Survey of Existing Services (inc. buried services)		D	D					
<b>General Design</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Contract Requirements Technical (Technical Workscopes)	This is the document that provides the requirements for inclusion in he ITT and forms the key part of the contract document	D	D	D	D			
Buried Services Record	Details to update the records.			D	D	D	D	
Wiring diagrams	applies to general wiring diagrams across the various applicable disciplines			D	D	D		
Cable Routing Strategy	describes the strategy for managing cabling through the duration of the project	D	D	D				
Cable Routing Drawings	applies to general cable route diagrams across the various applicable disciplines			D	D	D		
Cable Schedule	Schedule showing where cables are across disciplines			D				
Earthing and Bonding Strategy	describes how earthing and bonding is carried out across the disciplines	D	D					
Earthing Diagram	a diagram showing earthing across the disciplines		D	D				
Redundant Asset Register	A register of assets that are due to be made redundant		D	D	D			
Recoveries Programme	A programme describing how redundant assets are recovered. Onlyrequired where the recover involves risks to operational infrastructure		D	D	D			
Equipment Layout Diagrams	applies to general equipment layout diagrams across the various applicable disciplines		D	D	D			
<b>Engineering Assurance</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Design Risk Log	Records of identified risks and assumptions interfaces and interdependencies iden ified during the design process and at design reviews.	D	D	D	D	D		
Designers Risk Assessments (CD&M)	These can be included in other deliverables or as a standalone deliverable.	D	D	D	D	D		
Design Compliance Certificate	Confirmation that the design complies with the requirements and later in the project lifecycle that the installation complies with the design	D	D	D	D	D		
Compliance Matrix	A schedule of requirements only which is used to record the compliance status, or intended compliance status, with linked evidence. Only necessary on complex multidisciplinary projects	D	D	D	D	D		
Product Acceptance Certificates	required where introducing new products hat need product approval		D	D	D	D		
Constructability Assessment	required to determine he constructability of the op ion prior tosingle option selection and can include early contractor involvement	D	D					
Inter Disciplinary Review Records- IDR	Requirement for NR to carry out review of interfaces as per standard can be done jointly with IDC	D	D	D	D			
Inter Disciplinary Check Certificate - IDC	Contractor requirement to demonstrate that interdisciplinary checks are done. Typically a cer ificate with each deliverable	D	D	D	D			
Master Records Register (NRG)	Register of Master Records that are signed copies of the current working infrastructure				D	D		

Deliverables	Definition	Grip 3	Grip 4	Grip 5	Grip 6	Grip 7	Grip 8	Comments
Entry into service strategy	A strategy typically produced for each large project showing how entry into service will be carried out. A checklist of deliverables is normally attached. For programmes and smaller projects this may be included in other deliverables	D	D	D	D			
Test Plans	Identifies the resources necessary to implement the Testing Strategy. Small projects can have combined Plan & Strategy			D				
Testing & Commissioning Strategies	Written statement of the proposed testing methodology. Single commissionings can have combined Strategy and Plan	D	D					
Testing & Commissioning Records	Normally specify by specific asset type i.e. TC1 avoid use of general term				D	D		
QA Certification, including all inspection and test records					D	D		
Test Certificates	Records who was testing to what specification and the results. Should not use general terms				D	D		
Engineering Deliverables Review Plan	only required on a large project where it is necessary to plan design reviews	D	D	D				
Derogation's and TNC's		D	D	D	D	D		
TSI Compliance Matrix		D	D	D	D	D		
Snagging List					D	D		
<b>Operation and Maintenance</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Schedule of new warning signs				D	D	D		
Operational Readiness Report					D	D		
Operations Strategy & Requirements	Report on future Operational requirements (including ECRO) due to proposed solutions	D	D					
Maintenance Strategy & Requirements	Report on future maintenance requirements due to proposed solutions	D	D					
Maintainability Study	The maintainability study shall determine suitable options for access to the track for staff and Road Rail Vehicles during construction activity and shall confirm which access points are retained post construction. Maintainability study to define land requirements, storage, office space, plant etc.. agreed with Maintenance organisation		D	D	D	D	D	
<b>EMC</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
EMC Strategy		D	D	D	D			
EMC Control Plan				D	D			
EMC Test Plan				D	D			
EMC Test Report					D			
EMC Project File						D		
EMC Certificates						D	D	
<b>Electrification &amp; Plant</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Form A - AIP	<p>Form A certificate and supporting documentation to allow Approval in Principle of Single Option Selection. If required Form As can be produced for any subdiscipline of E&amp;P identified within the project.</p> <p>The items required in the supporting documentation for the AIP shall be selected from the appropriate Modules of NR/L3/ELP/27406:  Form A: <b>Contact Systems - OLE</b> (Modules A and B).  Form A: <b>Contact Systems - DC Conductor Rail</b> (Modules A and C).  Form A: <b>SCADA</b> (Modules A and D).  Form A: <b>Signal Power Supplies</b> (Modules A and E).  Form A: <b>Points Heating</b> (Modules A and F).  Form A: <b>Lighting</b> (Modules A and G).  Form A: <b>AC Networks - 25kV AC</b> (Modules A and H).  Form A: <b>Protection - 25kV AC</b> (Modules A and I).  Form A: <b>DC Networks - DC &amp; 3 phase</b> (Modules A and J).  Form A: <b>Protection - DC &amp; 3 phase</b> (Modules A and K).  Form A: <b>AC/DC Interface</b> (Modules A and L).  Form A: <b>E&amp;P multiple sub-disciplines</b> (Appropriate Modules between A and L) - This should be used if more than one subdiscipline is contained within a single Form A.</p>	D						

Deliverables	Definition	Grip 3	Grip 4	Grip 5	Grip 6	Grip 7	Grip 8	Comments
Form B - Detailed Design	<p>Form B certificate and supporting documentation to support acceptance of the Detailed Design. If required Form Bs can be produced for any subdiscipline of E&amp;P identified within the project.</p> <p>The items required in the supporting documentation for the Detailed Design shall be selected from the appropriate Modules of NR/L3/ELP/27406:  Form B: <b>Contact Systems - OLE</b> (Modules A and B).  Form B: <b>Contact Systems - DC Conductor Rail</b> (Modules A and C).  Form B: <b>SCADA</b> (Modules A and D).  Form B: <b>Signal Power Supplies</b> (Modules A and E).  Form B: <b>Points Heating</b> (Modules A and F).  Form B: <b>Lighting</b> (Modules A and G).  Form B: <b>AC Networks - 25kV AC</b> (Modules A and H).  Form B: <b>Protection - 25kV AC</b> (Modules A and I).  Form B: <b>DC Networks - DC &amp; 3 phase</b> (Modules A and J).  Form B: <b>Protection - DC &amp; 3 phase</b> (Modules A and K).  Form B: <b>AC/DC Interface</b> (Modules A and L).  Form B: <b>E&amp;P multiple sub-disciplines</b> (Appropriate Modules between A and L) - This should be used if more than one subdiscipline is contained within a single Form B</p>			D				
Form E - Engineering Completion	<p>Form E certificate and supporting documentation to allow Entry Into Service and Engineering Completion. If required Form Bs can be produced for any subdiscipline of E&amp;P identified within the project.</p> <p>The items required in the supporting documentation for Entry Into Service and Engineering Completion shall be selected from the appropriate Modules of NR/L3/ELP/27406:  <b>Contact Systems - OLE</b> (Modules A and B).  <b>Contact Systems - DC Conductor Rail</b> (Modules A and C).  <b>SCADA</b> (Modules A and D).  <b>Signal Power Supplies</b> (Modules A and E).  <b>Points Heating</b> (Modules A and F).  <b>Lighting</b> (Modules A and G).  <b>AC Networks - 25kV AC</b> (Modules A and H).  <b>Protection - 25kV AC</b> (Modules A and I).  <b>DC Networks - DC &amp; 3 phase</b> (Modules A and J).  <b>Protection - DC &amp; 3 phase</b> (Modules A and K).  <b>AC/DC Interface</b> (Modules A and L).  <b>E&amp;P multiple sub-disciplines</b> (Appropriate Modules between A and L) - This should be used if more than one subdiscipline is contained in a single Form E.</p>				D	D		
Motorised Isolators	A strategy and subsequent design for powering and controlling motorised isolation switches.		D	D				
Major Feeding Diagrams		D	D	D	D			
Emergency feeding diagrams/Limits of safe feeding	These diagrams show the extent of allowable feeding under outage conditions. Emergency feeding diagrams for 25kv AC systems and Limits of safe feeding in 3rd rail areas	D	D	D	D			
Electrical Sectioning Diagram / Isolations Diagram/Instructions	This covers both AC/DC systems and includes diagrams, instructions. Also any local isolation diagrams where necessary at depots	D	D	D	D			
OLE Layout Plan		D	D	D				
OLE Cross Section				D				
OLE Height and Stagger					D	D		
Designated Earthing Points (DEP) Lists				D				

Deliverables	Definition	Grip 3	Grip 4	Grip 5	Grip 6	Grip 7	Grip 8	Comments
GA of Limited Electrical Clearances Structures		D	D	D				
Schedule of Electrical Clearances				D	D	D		
Electric Control Room Instructions				D	D	D		
Protection Scheme details				D				
Protection Settings & Calculations				D				
Cable Tests Certificates - High Voltage					D	D		
Load Schedule - LV Supplies		D	D	D				
Distribution Network Load Assessment	Assessment of existing non traction HV system to determine impact of load changes		D					
DNO Supply Application			D	D				
Test and Commissioning Results and associated certification - Plant					D	D		
BS7671 Certificate of Electrical Testing					D	D		
Statutory tests e.g. electrical tests, lifting reg reqts, pressure vessels					D	D		
<b>Signalling</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Signal sighting forms		D	D					
Bonding Diagrams				D				
<b>Telecoms General</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Cable and Cable Route Condition/Survey Report	Site surveys shall be undertaken against a pre-defined scope, as agreed between the Sponsor and PM. Report to include for copper and fibre cable infrastructure (including position of joints) and all other Telecoms assets likely to be affected by the proposed works.	D						Grip 3. Caveat in AIP deferred to Grip 4
Cable Routing Strategy	Detailing the means of running all cables for the scheme and to demonstrate the methods of achieving full diversity.	D						Grip 3. Caveat in AIP deferred to Grip 4
Single Option Selection Report (SOSR)	Overall document identifying how the Single Option has been selected and what affect this will have on all areas of Telecoms, with production of respective Preliminary Designs for NTA&PM [SW&W] Approval in Principle, to support this approach.	D						for Ops Comms with caveats for deliverables in
Operational Telecoms – Preliminary Design	Operational Telecoms Preliminary Design against which Approval in Principle will be sought from the NTA&PM [South]. To include all aspects of operational Telecoms systems and infrastructure. NR/L1/TEL/30100 – Issue 3, Clause 10.5, NR/L2/TEL/30022 – Issue 7	D						for Ops Comms with caveats for deliverables in
Station Information and Surveillance Systems – Preliminary Design	SISS Preliminary Design against which Approval in Principle will be sought from the NTA&PM [South]. To include all aspects of CIS, CCTV, PA and HP systems and infrastructure. NR/L1/TEL/30100 – Issue 3, Clause 10.5, NR/L2/TEL/30022 – Issue 7	D						Awaiting Station AIPs for approval
Telecoms - Reference System Design	Further development of both Operational Telecoms and SISS Preliminary Design detail to address attention to deficiencies identified upon conclusion of GS3.		D					
Third Party Service Interfaces	To be included as an Appendix to the Telecoms Reference System Design, detailing all Third Party services affected by this scheme, those to be retained and those to be ceased.		D					
Anticipated Redundant Cable Schedule	To be included as an Appendix to the Telecoms Reference System Design, detailing all anticipated redundant cables and a statement describing how each cable is to be addressed, e.g., recovered or left in situ with appropriate earthing, etc..		D					
Risk Assessment for Additional Telephones	Site assessment for provision of additional telephones to be addressed within the Telecoms Reference System Design. NR/SP/TEL/30032 – Issue 3, Section 6 and Appendix 4		D					
Detail Design - Cable Routes	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design.			D				
Detail Design - Cables Copper (M/IDF Layout, Cable Termination Cabinet Layout, Lineside Wiring Diagrams, Jumpering Schedules)	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design.			D				
Detail Design - Screening Cables and Screening Cable Earth Farms	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design.			D				
Detail Design - Fibre Cables	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design.			D				

Deliverables	Definition	Grip 3	Grip 4	Grip 5	Grip 6	Grip 7	Grip 8	Comments
Detail Design - Transmission	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design.			D				
Detail Design - Lineside Telephones	In the event that additional line side telephones are required.			D				
Signal Sighting Form (for GE/RT8048 Site Assessment)	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design.							
Detail Design - DOO CCTV and Mirrors	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design. (GA drawing showing 'before and after' camera/monitor bank/mirror positions, calculations of image and monitor size, camera coverage, lens angle and blind spot calculations, monitor column incl. loading calculations, camera mounting arrangements incl. loading calculations, power distribution drawings in the event that asset relocation is required (to be 2.5m from the traction pick-up arm (pantograph) of a train), plus earthing and bonding arrangements for all affected assets.)			D				
Detail Design - Station CCTV	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design. (GA drawing showing 'before and after' camera positions, floor area, mounting and power arrangements in the event that asset relocation is required (to be 2.5m from the traction pick-up arm (pantograph) of a train), plus earthing and bonding arrangements for all affected assets.)			D				
Detail Design - PA	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design. (GA drawing showing 'before and after' speaker and/or induction loop positions, coverage areas, mounting and power arrangements in the event that asset relocation is required (to be 2.5m from the traction pick-up arm (pantograph) of a train), plus earthing and bonding arrangements for all affected assets.)			D				
Detail Design - CIS	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design. (GA drawing showing 'before and after' CIS display positions, mounting and power arrangements in the event that asset relocation is required (to be 2.5m from the traction pick-up arm (pantograph) of a train), plus earthing and bonding arrangements for all affected assets.)			D				
Detail Design - Help Points	This Telecoms deliverable provides sufficient design detail to enable construction to the requirements of the NTA&PM [SW&W] approved Reference System Design. (GA drawing showing 'before and after' Help Point positions, DDA compliance, mounting and power arrangements in the event that asset relocation is required (to be 2.5m from the traction pick-up arm (pantograph) of a train), plus earthing and bonding arrangements for all affected assets.)			D				
Single Option Selection Report (SOSR) for Tunnel Designs - telecoms assets	Overall document identifying how the Single Option has been selected and what affect this will have on all areas of Telecoms, with production of respective Preliminary Designs for NTA&PM [SW&W] Approval in Principle, to support this approach.	D						Awaiting AIP documents for approval
Single Option Selection Report (SOSR) for Protection & Control (Telecoms Assets)	Overall document identifying how the Single Option has been selected and what affect this will have on all areas of Telecoms, with production of respective Preliminary Designs for NTA&PM [SW&W] Approval in Principle, to support this approach.		D					AIP Approved
<b>Track</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Gauging Assessment Report	Ideally a clear route analysis can be done but a simpler analysis	D	D	D				
Track Bed Investigation and recommendations report/design	Track Bed site investigation, assessment and design recommendations	D	D	D				
Form B - Detailed design - track				D				
Track Geometry Acceptance Certificate					D	D		
As-built Gauging record	including datum plate register and list of reduced clearances				D			
Test and inspection plan	Part of construction assurance and commissioning process			D	D			

Deliverables	Definition	Grip 3	Grip 4	Grip 5	Grip 6	Grip 7	Grip 8	Comments
Track Geometry Records				D	D	D		
<b>Drainage (Track)</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Drainage design			D	D				
Drainage assessment	mainly desk top exercise with simple walk out to establish key issues with drainage	D						
Drainage Survey	site investigations to establish condition and capacity		D					
Drainage - as Built					D	D		
<b>Civils, Buildings and Stations</b>	<b>includes support structures or signalling and OLE</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Mining Report	Obtained from NR Principal Mining Engineer where relevant. Refer to NR/L3/TRK/3122 s5.2	D	D					
Ground and Structures Investigation Proposals	would normally come before the GI	D	D					
Condition Survey Report	Inspection report on Civils, Buildings and Station Assets. Vegetation and other condition related issues are to be addressed.	D	D					
Drainage - initial Survey and condition assessment	drainage that is not included in the track bed design	D						
Structures Gauging Report	Vertical lateral clearances to structures and covers the elements that are not covered by the track deliverables. This doesn't need to be agreed with the gauging engineer	D	D					
Factual Ground and Structures Investigation Report	would normally come before the design report	D	D	D				
Geotechnical Design Report	Where Euro-codes don't apply an interpretive report is to be used	D	D	D				
Form AA Submission - AIP Assessment	Form AA Approval in Principle for Assessment, Inspection for Assessment Report, General Arrangement Drawings and Previous Assessment	D	D					
Form BA Submission - Detailed Assessment	Form BA Certificate of Assessment and Checking, Assessment Report and Assessment Calculations	D	D					
Fire and Emergency Evacuation Report		D	D					
Fire and Emergency Evacuation Strategy (Amended if one already exists)				D	D			
Form 1 Submission - AIP Design	Form A Approval in Principle, General Arrangement Drawings and Supporting Information such as Topographical Surveys, Site Investigation Reports, Additional Drawings, Sketches and Photographs.	D						
Form 2 - Statement of Design Intent								
Form 4 Submission - Aesthetic Acceptance	Form D Aesthetic Acceptance where the Scheme is likely to have an important visual impact on passenger/built/environment or where full planning, listed building or conservation area consents are necessary.		D					
Design Check Statement				D				
Form 3 Submission - Detailed Design	Form B Certificate of Design and Checking, Detailed Design Drawings, Schedules, Performance, Materials and Workmanship Specifications and other Documents.			D				
AFC Drawings and Documents	Approved for Construction Form B deliverables.			D				
Form 5 Submission - Certificate of Fitness to Be Taken into Use					D			
<b>Civils - Earthworks, Foundations &amp; Retaining Walls</b>								
Change of Use Evaluation		D						
Monitoring & Maintenance Regime for Excavations		D	D	D				
<b>Lineside Infrastructure</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Lineside Boundary Assessment	only necessary only large schemes typically with new lines and significant line speed changes	D	D					
Lineside Access Review	only necessary only large schemes typically with new lines and significant line speed changes	D	D					
Lineside Access Layout Design	required where new or significant changes are carried out to access arrangements	D	D					
<b>Stations &amp; Car Parks</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Operational Assessment Report	The document shall cover the impact of the proposed works on the operation of any existing infrastructure affected. This shall normally be produced in conjunction with the infrastructure operator.	D	D					
Staffing and Operational Management Plan	This shall detail the effects on operations (as per the Operations Assessment Report) of the single operation during the project lifecycle and how these will be managed. It should also detail any changes to operation and maintenance of the station following completion. This can be merged with the Maint and Ops strategy but can often be produced separately because it should be produced in consultation with the current infrastructure operator.		D	D	D			



Deliverables	Definition	Grip 3	Grip 4	Grip 5	Grip 6	Grip 7	Grip 8	Comments
Operational Property Asset System (OPAS) Update						D		
<b>Building Services</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Approval In Principle and details of outline design	Clearly identify design proposals. Should list overall existing installation condition and non-compliances (as per Assessment) and proposals to bring them up to the required standards - reference Building Regulations. Basic cable calculation to suit circuit distances / length reference. The Form EA should also outline the proposed earthing strategy where required to comply with BS7671 and Line Specification RT/E/S/21085.	D						
Certificate of Design and Checking and detailed design	This shall normally include drawings, technical specification, calculations, and evidence to show compliance to the relevant Building Regulation.		D		D			
<b>Level Crossings</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Level Crossing Ground Plan Outline	The purpose of the Outline Ground Plan is to show to scale the layout of the proposed level crossing equipment.	D						
Level Crossing Ground Plan Final	The final layout of the proposed level crossing equipment to scale following the public consultation meeting.		D					
Level Crossing Consultation Meeting	The purpose of the Level Crossing Consultation Meeting is to obtain issues and concerns from the local community and other involved stakeholders.	D	D					
Level Crossing Orders	as defined in NR/L2/OPS/100		D		D			
<b>Ergonomics</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Ergonomics Integration Plan		D		D				
Ergonomics Design File		D	D	D	D	D		
Control Centre Baseline Survey		D						
Workload Assessment(s)		D						
Operational Concept(s)		D	D	D				
Control Centre Operations Floor Layout Design		D	D	D				
Control Centre Environmental Specification			D					
Operations Migration Plan			D					
Alarm Strategy			D					
Ergonomics AIP Submission			D					
Control Desk Detailed Design				D				
Equipment room layout design				D				
Station control room design		D	D	D				
Station control system design		D	D	D				
Ticket office design		D	D	D				
Staffed Information Point Design		D	D	D				
System User Requirements Analysis		D	D					
System User Testing Trial Plans				D				
System User testing Trial Report				D				
Ergonomics Operational Readiness Report					D			
In Service Assessment Report						D		
Novel Operations Risk Assessment			D	D				
<b>Sustainability</b>		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Sustainability Design Plan		D	D	D	D			