WI500 Appendix 05 - Programme Narrative UIP8798.9 - Bank Station Upgrade for LU Power

WI 500 - Appendix 05

Programme Narrative

1. General

1.1. Data Date

What is the data date applied to the programme

1.2. Last accepted programme

What is the last accepted programme?

1.3. Calendars

What calendars have been used within the programme?

What calendars have been changed?

What changes have been made to assignments of calendars to activities?

1.4. Float and Time Risk Allowances

What is the general approach on how Time Risk Allowance is calculated and assigned?

Has any Time Risk Allowance been used in order to complete the Works so far?

What float is contained within your programme?

Is any negative float shown within your programme?

2. Programme Summary

	Current Period	Previous Period
Planned Date for Completion		
Terminal Float		
Contract Completion Date		

Has the Planned Date for Completion and terminal float changed from last period? Please provide reasons if changed.

Has the Contract Completion Date changed? Please provide reasons if changed.

3. Sequence of Works

What is the sequence of works shown within the programme? What is run in parallel? What is run sequential? What are the current programme assumptions, if any?

4. Critical Path

4.1. Description of the Critical Path

A critical path programme is to be attached.

A detailed description of the critical path shown within your programme is to be provided (not just the reference to the attachment)

4.2. Changes to the Critical Path within the Period

What changes have been made to the programme which impacted the critical path?

What logic changes were made in order to maintain the project's completion date?

What were the reasons for the changes applied?

5. Progress

5.1. Progress in the period and any slippages

5.1.1. Design

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.2. Manufacturing / Procurement

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.3. Civil Works 1

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.4. Civil Works 2

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.5. Electrical Works 1

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.6. Electrical Works 2

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.7. Electrical Works 3

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.8. Commissioning / Outage Works

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.9. External Works (if required)

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.10. Site Handover Documentation (O&M manuals, Red Lines, As-Builts etc)

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.2. Activities planned but not achieved

Please note down the activities from the previous period's 4 week look ahead which were not achieved and provide reasons why they were not achieved

5.3. Planned activities for the next period

Please note down the activities forecasted to be progressed / completed in the next period

6. Logic changes applied this period (incl amended leads and lags)

What changes were applied to the programme, what activities in particular were affected and what were the reasons for the changes? Please also list any changes to lags and leads.

7. Duration changes applied this period

What changes to activity durations were undertaken and why (this includes original and At Completion duration changes)?

8. New activities added

Please list the new activities included within the programme and the reasons why they were added.

9. Existing activities deleted / retired

Please list the existing activities within the programme which were deleted / moved to the retired section and the reasons why this was done.

10. Activity Name changes

Please note down any activity name changes undertaken and why?

Generally, no activity name or activity ID changes are to be amended without prior approval of the LU Project Manager.

11. Upcoming Third Party LU dependencies & critical resource requirements

Please describe any upcoming Third Party dependencies and critical resource requirements which are essential to progress the upcoming works.

12. Constraints applied to the programme

What constraints have been assigned to the programme and what are the reasons?

13. Cost & Commercial

13.1. Compensation Events included within the current programme

CE No / QUO No	Description	Value
		£

	¥*
	~

13.2. PMIs included within the current programme

PMI No / QUO No	Description	Value

13.3. NCEs and EWN included within the current programme

NCE No / EWN No	Description	Current Programme Impact

13.4. Total Cost

Total Project Cost previous period	£
CEs / PMIs added	£
Total Project Cost current period	£

13.5. Earned Value Management

13.5.1. Overview of Earned Value figures in comparison to last period

	Current Period	Previous Period
Earned Value		
Actual Cost		
Planned Value		

13.5.2. SPI

Please provide SPI figure based on baseline applied to the programme as indicated under section 1.2

Please provide explanation of reason for the SPI less than 0.95

13.5.3. CPI

Please provide CPI figure based on baseline applied to the programme as indicated under section 1.2

Please provide explanation of reason for the CPI less than 0.95

13.6. Cost mapping overview

A mapping sheet needs to be created for costs which have been re-allocated from retired activities in order to maintain a history of cost allocations. This can be undertaken in an Excel Spreadsheet to be attached to this document. However, please provide as a minimum the information as shown in the table below.

Retired /	Activity Sec	tion	Main Programme Section								
Act ID	Act Name	Original Cost	Act ID	Act Name	Total Cost	Reasons for re- allocation of cost					
		£			£						
		£			£						
		£			£						

14. AOB

Please add any additional information with regards to the programme which was not covered under the previous sections but which requires attention.

		Code		Code		Code		Code		Code		Code		Code		Code		Code		Code		Code
Parent Code	Responsibility	Resp	Milestones	Mst	Procurement	Comm	Consents	Consnt	Engineering	Eng	Delivery	Del	Others	Oth	Handover & Commissioning	H&C	Access		Delay Event	Dlelay	Suppllier	Dlelay
	Transport for London	TfL	Contract	Con	Sub-Contractor	Sub Con	Highway Closure	Hgwy	Civils	Civils	Civils	Civils	TfL Track Power	TPwr	NOWRI (Notification of works required for inspection)	NOWRI	Building	Bldng	Delay Event 1	DE1	Kone	Kone
			Key Milestones	KM	Materials	Mat	Transport and Works Act Orde	er TWAO	Premises	Prem	Premises	Prem	TfL Telecoms	Telec	QICC (Quality Inspection Completion Certificate)	QICC	Highway	Hwy	Delay Event 2	DE2	Otis	Otis
			Interface	ITF			Planning Permision	PP	Electrical	Elec	Electrical	Elec	TfL Signalling	Sign	Contractor Assurance Activity	CAA	Station (Open Hours)	Stn EH	Delay Event 3	DE3	Balfour Beatty	ВВ
							Building Control	BCG	HV Power	HV	HV Power	HV	Docklands Light Railway	DLR	TfL Assurance Review Activity	TFLAA	Station (Closed Hours)	Stn TH			Schindler	Sch
									Mechanical	Mech	Mechanical	Mech	TfL Information Manageme	nt IM	Other	Other	Track (Engineering Hours)	Tr EH			NG Bailey	NGB
									Lifts	Lifts	Lifts	Lifts	TfL Connect	Cnct			Track (Traffic Hours)	Tr TH			T.Clarke	TCL
									Escalators	Esc	Escalators	Esc	TfL Prestige	Pres							Joseph Galagher	JGL
									Moving Waks	MWIk	Moving Walks	MWIk	TfL 3rd Party Cables	3PCab							Livis	Liv
									Pumps & Drainage	P&D	Pumps & Drainage	P&D	TfL HV Power	LU Pwr							Thales	ThIs
									Comms	Comms	Comms	Comms	TfL Advertising	Advt							etc.	
									Data Systems	Dsys	Data Systems	Dsys	Thames Water Sewers	TWU Swr	r							
Sub-Code	•								Rolling Stock	RStck	Rolling Stock	RStck	Thames Water Potable	TWU Pot								
									Systems Engineering	Sys	Fire	Fire	UK Power Networks	UKPN								
									Fire	Fire	Track	Trck	National Grid Gas	NGG								
									Track	Trck	Signals (rail)	Sig Rail	British Telecom	ВТ								
									Signals (rail)	Sig Rail	Signals (road)	Sig Road	Other Utilities	Other Ut								
									Signals (road)	Sig Road	Highway	Hghwy										
									Highway	Hghwy												
									Operations	Ops												
									Maintenance	Maint												
									Quality Review	Qual												
									Health & Safety	H&S												
									Environmental	Env												
	Contractor to code any activity that falls under the responsibility of the Employer or Project Manager.		Contractor shall code milestones as directed by the Project Manager these will likely be develop through the project lifecycle.		Contractor to code any procurement activity; to include long lead materials and equipment; and subcontractors		Contractor to code any third party conse activity irrespective of whether responsibility of the Project Mananger, Employer or Contractor.	ent	Contractor to code all Engineering and Design activities.		Contractor to code all Delivery disciplines.	1	Contractor to code any activity that falls under 'Others' as defined in the contract.		Contractor to code any testing, commissioning and handover activities which requires witness by TfL.		Contractor to code any activity requirin access to Employer's property or the property of Others.	g	Contractor to code all activites relating to Employer attributed of events.	delay	Contractor to code Tier 1 Supply Chain; coding to be agreed with Planning Manager to provide consistency across the organsia	h

Any addition or amendment to this code list can be made by agreement with the Project's Senior Planning Manager; the code list shall be generic, and not specific to individual projects. The coding structure is relevant to both Contractor and Client schedules.



	Lev	el 1		Pathway (Standard Work Breakdow Cycle is not be part of the WBS Standard, it v Level 3	will be mad	e available thr	ough codir	ng. Level 5		
Sum of No.	Asset /	Asset /				Asset	Asset Repeatable	Asset Repeatable			
Order Pivot Table	Deliverables Group ID	Deliverables Group	Asset ID	Asset Name	Discipline	Repeatable Work Item ID	Asset Repeatable Work Item	Repeatable Work Item Element ID	Asset Repeatable Work Item Element/Component	Total	
1	GEN	General	GEN_100	Programme/Project Management	GEN_100_P&GM Project & Governance Management GEN_100_CP&EM Cost Planning & Estimating Management GEN_100_Pcon Project Controls GEN_100_SI System Integration GEN_100_SI System Integration GEN_100_HSQE Health, Safety, Quality and Environment (HSQE) GEN_100_R&D Research and Development GEN_100_R&WM Risk & Value Management GEN_100_CONM Construction Management GEN_100_CONM Construction Management GEN_100_MIS Miscellaneous	N/A	N/A	N/A	N/A	1	
				Programme/Project	Management Total			INF 101 01 INF_101 02	Rails Sleeners	1 1	
						INF_101	Ballasted Track	INF_101 03 INF 101 04 INF_101 05 INF_101 06 INF 101 07 INF_101 08	Sleepers Tampers Switches & Crossings Rail Fishplate Ballast Fasteners Cabling	1 1 1 1 1 1 1	
		INF_102.05 Rail Fishplate	Sleepers Tampers Switches & Crossings Rail Fishplate Fasteners	1 1 1 1 1							
					INF_100_CA Consents and Authorisation INF_100_AD Asset Disruption	INF_103	Longitudinal Bearer Track	INF_103 01 INF_103 02 INF 103 03	Longituainai bearer Sleepers Running Rails	1 1 1	
			INF_100	Track (Permanent Way)	INF_100_FES Feasibility Design & Early Studies INF_100_CD Concept Design INF_100_DD Detailed Design INF_100_CM Commercial Management (incl. Procurement) INF_100_MAN Manufacturing/Fabrication/Delivery on Site INF_100_PLW Preliminary Works INF_100_EW Enabling Works	INF_104	Deep Tube Track	INF_104 01 INF_104 02 INF 104 03 INF_104 04 INF_104 05 INF_104 06 INF 104 07	Rails Sleepers Tampers Switches & Crossings Rail Fishplate Ballast Fasteners	1 1 1 1 1 1	
					INF_100_CW Construction/Installation Works INF_100_COM Testing & Commissioning INF_100_HCO Handover & Close-out	INF_105	Embedded Rail	INF 104 08 INF 105 01 INF 105 02 INF 105 03 INF 105 04 INF 105 05 INF 105 06	Cabling Rails Sleepers Tampers Switches & Crossings Rail Fishplate Ballast	1 1 1 1 1 1	
						INF_106	Points & Crossings (P&C)	INF_105 07 INF_105 08 INF 106 01 INF_106 02 INF_106 03 INF_106 04 INF_106 05	Fasteners Cabling Rails Stretcher bar Heel Blocks Switch tie plates Slide Chairs	1 1 1 1 1 1	
						INF_107	Ancilaries	INF 106 06 INF_107 01 INF_107 02 INF 107 03 INF_107 04	Fasteners Buffer Stops Retarders Sundries Other Ancilaries	1 1 1 1	
				Track (Permanent W	ay) Total	INF_201	Cuttings & Embankments	INF 201 01 INF_201 02 INF_201 03 INF_201 04 INF_201 05 INF 201 06 INF_201 07 INF_201 09 INF_201 09 INF_201.10	Concrete Piles Beams Netting Grounds anchors Barriers Fence Ram Wall Crest Walkway French Drain	1 1 1 1 1 1 1 1 1 1 1 1 1	
							INF_202	Coastal & Estuarial Defences	INF_201.11 INF_201.12 INF_201.13 INF_202_01 INF_202_02	Embankments Landscape Ecological items Diaphrag Walls & Anchors Groynes	1 1 1 1
						INF_203	Tunnels & Shafts	INF_202 03 INF_203 01 INF_203 02 INF_203 03 INF_203 04 INF_203 05 INF_203 06	Walls & Revetments Tunnels (Segments & Lining) Adits Supports Portals Shaft Furniture	1 1 1 1 1 1	
						INF_204	Ramps, Staircases and Landings	INF 203 07 INF_204 01 INF_204 02 INF 204 03 INF_204 04	Walways Staircases Landings & Half Landings Ramps Balustrades & Handrail	1 1 1 1	
						INF_205	Bridges & Viaducts	INF_204 05 INF_205 01 INF_205 02 INF_205 03 INF_205 04 INF_205 05 INF_205 06 INF_205 07 INF_205 08	Access Ladders Foundations Abutments & Piers Deck Walkways & Landings Pavement Parapets Furniture Drainage (to structures)	1 1 1 1 1 1 1 1 1	
						INF_206	Footbridge & Cycle Bridge	INF 205 09 INF_206 01 INF_206 02 INF 206 03 INF_206 04 INF_206 05 INF_206 06 INF_206 07 INF_206 07	Approaches Foundations Abutments & Piers Deck Walkways & Landings Pavement Parapets Furniture Drainage	1 1 1 1 1 1 1 1 1	
					INF_200_CA Consents and Authorisation INF_200_AD Asset Disruption INF_200_FES Feasibility Design & Early Studies INF_200_CD Concept Design	INF_207	Platforms	INF_206 09 INF_207 01 INF_207 02 INF_207 03 INF_207 04 INF_207 05 INF_207 06 INF_207 07	Approaches Foundations Deck & Supporting Structure Access Structures Pavement Roof & Canopy Structure Platform Fittings & Furniture Drainage & Ducts	1 1 1 1 1 1 1	
			INF_200	Civil & Structures	INF_200_DD Detailed Design INF_200_CM Commercial Management (incl. Procurement) INF_200_MAN Manufacturing/Fabrication/Delivery on Site INF_200_PLW Preliminary Works INF_200_EW Enabling Works INF_200_CW Construction/Installation Works INF_200_COM Testing & Commissioning INF_200_HCO Handover & Close-out	INF_208	Retaining Walls	INF_208 01 INF_208 02 INF 208 03 INF_208 04 INF_208 05 INF_208 06 INF_208 07 INF_208 08	Foundation Posts Walls Crib Walling Gabions Anchors Sleepers/Beams Barriers	1 1 1 1 1 1 1	
						INF_209	Fencing & Enclosures	INF 208 09 INF_209 01 INF_209 02 INF 210 01 INF_210 02	Drain Fencing & Railings Barriers & Guard Rails Drain Pipe	1 1 1 1	
						INF_210	General Drainage System	INF_210 03 INF_210 04 INF_210 05 INF_210 06 INF_210 07 INF_210 08 INF_210 09 INF_210.10	Valves Chambers Separator Channels Catchpit Siphon Water Retention Tank Pumps	1 1 1 1 1 1 1 1	
						INF_211	Roads	INF_210.11 INF 211 01 INF_211 02 INF_211 03 INF_211 04	Treatment Plant Vehicular Access Way Pedestrian Access Way Ducts, Through, and Drainage Kerbs, Channels, and Edging	1 1 1 1	
2	INF	Infrastructure				INF_212	Hardstandings & Carparks	INF_212 01 INF 212 02 INF_212 03 INF_212 04 INF 213 01	Vehicular Access Way Pedestrian Access Way Ducts, Through, and Drainage Kerbs, Channels, and Edging Vehicular Access Way	1 1 1 1	
						INF_213	Pavements and Walkways Track Asset	INF_213 02 INF_213 03 INF 213 04 INF_214 01 INF_214 02	Pedestrian Access Way Ducts, Through, and Drainage Kerbs Channels and Edging Vehicular Access Way Pedestrian Access Way	1 1 1 1	
					_	INF_214 INF_215	Track Asset Walkways Cycle Lane	INF 214 03 INF_214 04 INF_215 01 INF_215 02	Ducts Through and Drainage Kerbs, Channels, and Edging Cycle Access Way Pedestrian Access Way	1 1 1	
						INF_216	Street Furniture	INF_215 03 INF_216 01 INF_216 02	Kerbs, Channels, and Edging Street Furniture Ornamental Furniture	1 1	
							Landscaping and	INF_216 03 INF 217 01	Other Furniture External Plants	1 1 1	
						INF_217	Irrigation Systems	INF_217 02 INF_217 03 INF_218 01	Irrigation Systems Ecological items Concrete Trough	1 1 1	



							INF_218	Troughts	INF_218 02 INF_218 03	Non-Cementitious Trough Transition Unit	1 1
								Crossings &	INF 218 04 INF_219 01 INF 219 02	"T" Trough Ducts Drawpits	1 1 1
							INF_219	Ductways	INF_219 02 INF_219 03 INF_219 04	Chambers Cable Bridge	1 1
					Civil & Structures Tota	al	INF_220	Miscellaneous Structures	INF_220.01	Miscellaneous Civil/Structures	1 109
									INF 301 01 INF_301 02	Base Enclosure	1
									INF_301 03 INF 301 04 INF 301 05	Compound Electric Switchboard Distribution Board	1 1 1
									INF_301 06 INF_301 07	Circuit Breaker Power Transformers	1 1
							INF_301	Main Grid Substation	INF_301 08 INF 301 09	Transformer Rectifier Electricity meters	1
									INF_301.10 INF_301.11 INF_301.12	Electrical relays Electrical switches Batteries Chargers and Auxiliary supplies	1 1 1
									INF_301.13 INF_301.14	Cabling and Containment within Substation Power Inverters	1 1
									INF 301.15 INF_301.16	Protection & Control Equipment Network connection Base	1 1 1
									INF_302 01 INF_302 02 INF 302 03	base Enclosure Compound	1 1
									INF 302 04 INF_302 05	Electric Switchboard Distribution Board	1
								Distribution	INF_302 06 INF 302 07 INF 302 08	Circuit Breaker Power Transformers Transformer Rectifier	1 1 1
							INF_302	Network Operator (DNO) Substation	INF_302 09 INF 302.10	Electricity meters Electrical relays	1
									INF_302.11 INF_302.12 INF_302.13	Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation	1 1 1
									INF_302.14 INF_302.15	Power Inverters Protection & Control Equipment	1
									INF_302.16 INF_303 01 INF_303 02	Network connection Base Enclosure	1 1 1
									INF_303 02 INF_303 03 INF_303 04	Compound Electric Switchboard	1 1
									INF 303 05 INF_303 06	Distribution Board Circuit Breaker	1
							INF_303	Private Electricity Generation	INF_303 07 INF 303 08 INF 303 09	Power Transformers Transformer Rectifier Electricity meters	1 1 1
						INF_300_CA Consents and Authorisation		deneration	INF_303.10 INF_303.11	Electrical relays Electrical switches	1 1
						INF_300_AD Asset Disruption INF_300_FES Feasibility Design & Early Studies			INF_303.12 INF_303.13	Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation	1 1
					Electrical Power and	INF_300_CD Concept Design INF_300_DD Detailed Design INF_300_CM Commercial Management (incl. Procurement)			INF_303.14 INF_303.15 INF_303.16	Power Inverters Protection & Control Equipment Network connection	1 1 1
				INF_300	Plant	INF_300_MAN Manufacturing/Fabrication/Delivery on Site INF_300_PLW Preliminary Works			INF_304 01 INF_304 02	Base Enclosure	1
						INF_300_EW Enabling Works INF_300_CW Construction/Installation Works INF_300_COM Testing & Commissioning			INF 304 03 INF_304 04 INF 304 05	Compound Electric Switchboard Distribution Board	1 1 1
						INF_300_HCO Handover & Close-out		_	INF_304 05 INF_304 06 INF_304 07	Oistribution Board Circuit Breaker Power Transformers	1 1
							INF_304	Power Transformation Device	INF_304 08 INF_304 09	Transformer Rectifier Electricity meters	1
									INF_304.10 INF_304.11 INF_304.12	Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies	1 1 1
									INF_304.13 INF_304.14	Cabling and Containment within Substation Power Inverters	1
									INF_304.15 INF_304.16 INF_305.01	Protection & Control Equipment Network connection Isolation Devices	1 1 1
							INF_305	Earthing & Bonding Devices	INF_305 02 INF_305 03	Insulators Earthing Devices	1 1
								Capies and	INF_305 04 INF_305 05	Lightning Protection Bonding Conductors	1 1
							INF_306	Containment	INF 306 01 INF_306 02 INF_307 01	Cable Containments (Trays) Cables Rail Heaters	1 1 1
							INF_307	Lineside Equipment	INF 307 02 INF_307 03	Points Heater Junction Lighting	1
									INF_308 01 INF_308 02 INF_308 03	General Equipment Workshop Equipment Cleaning Equipment	1 1 1
								INF_308 03 INF_308 04 INF_308 05	Cleaning Equipment Lifting Equipment De-icing Equipment	1 1	
							INF_308	Maintenance Equipment	INF_308 06 INF_308 07	Overhead Trolley Access Equipment	1 1
									INF_308 08 INF_308 09 INF_308.10	Battery Equipment Compressed Air Equipment Calibrated Equipment	1 1 1
									INF_308.11 INF_308.12	Calibration Gauge Equipment Train Test Equipment	1 1
									INF 308.13 INF_308.14	Train Monitoring Equipment Welding Equipment	1
									INF_308.15 INF_308.16 INF_308.17	Safety Equipment Wheel Lathe Electrical Portable Appliances	1 1 1
								Operational	INF_309 01 INF_309 02	Controlled Emission toilet (CET) Point Carriage Washing Plant	1
							INF_309	Equipment	INF_309 03 INF_309 04 INF_309 05	Carriage Watering System Point Sanding System Point Diesel Fueling Point	1 1 1
					Electrical Power and I	Plant Total			BP 101 01	Foundations	96
							BP_101	Substructure	BP_101 02 BP_101 03 BP 101 04	Retaining Walls External Structure (D-Walls)	1 1 1
									BP_101 04 BP_102 01 BP_102 02	Internal Structure Columns Slabs	1 1
							DR 45-	6:-	BP 102 03 BP_102 04	Frame Roof	1
							BP_102	Superstructure	BP_102 05 BP_102 06 BP_102 07	Stairs & Ramp External Walls Internal Walls & Partitions	1 1 1
									BP 102 08 BP_102 09	Windows & Partitions Internal Doors	1
							BP_103	Internal Finishing Equipment	BP_103 01 BP 103 02 BP_103 03	Wall Finishes Elements Floor Finishes Elements Ceiling Finishes Elements	1 1 1
									BP_104 01 BP 104 02	General Fittings, furnishings, And Equipment Domestic Kicthen Fittings and Equipment	1
							BP_104	Fittings, Furnishing Equipment	BP_104 03 BP_104 04	Special Purpose Fittings, Furnishings, and Equipment Works of Art	1
							DR 457		BP_104 05 BP_104 06 BP 105 01	Non-Mechanical and Non-Electrical Equipment Internal Plants Sanitary Appliances	1 1 1
							BP_105 BP_106	Sanitary Facilities Services	BP_105 02 BP_106 01	Sanitary Ancillaries Catering Equipment	1
							BP_100	Equipment Disposal	BP 106 02 BP_107 01 BP_107 02	Miscellaneous Equipment Surface Foul Drainage Special Liquid Waste Drainage	1 1 1
							DI _10/	Equipment	BP 107 03 BP_108 01	Special Liquid Waste Drainage Refuse Disposal Mains Water Supply	1 1 1
							BP_108	Water Facility	BP_108 02 BP 108 03	Cold Water Distribution Hot Water Distribution	1
							BP_109	Heat Facility	BP_108 04 BP_109 01 BP_109 02	Steam & Condensate Dictribution Radiators Heating Floor	1 1 1
								Source	BP_109 03 BP 110 01	Infra-Red Heaters Central Heating Unit	1
						PD 100 CA COUNTY	BP_110	Space Heating & Air Conditioning	BP_110 02 BP_110 03 BP 110 04	Local Heating Unit Central Cooling Unit Local Cooling Unit	1 1
						BP_100_CA Consents and Authorisation BP_100_AD Asset Disruption BP_100_FES Feasibility Design & Early Studies BP_100_CD Concept Design BP_100_DD Detailed Design BP_100_DD Detailed Pesign BP_100_DD Detailed Pesign		All colluitioning	BP_110 05 BP_110 06	Local Cooling Unit Central Air Conditioning Unit Local Air Conditioning Unit	1 1 1
					Puildines (BP_111	Ventilation System	BP 111 01 BP_111 02	Central Ventilation System Local & Special Ventilation	1
				BP_100	Buildings (incl. Stations)	BP_100_CM Commercial Management (incl. Procurement) BP_100_MAN Manufacturing/Fabrication/Delivery on Site BP_100_PLW Preliminary Works			BP_111 03 BP_112 01 BP_112 02	Smoke Extraction and Control System Electrical Mains & Sub-mains Distribution Power Installations	1 1 1
						BP_100_PLW Preliminary Works BP_100_EW Enabling Works	BP_112	Electrical System	BP 112 03 BP_112 04	Lighting Installations Specialist Lighting Installations	1 1 1
									BP_112 05 BP 112 06	Local Electricity Generation Systems Earthing & Bonding Systems	1 1
		P.D.	Buildings &				BP_113	Fuel Services	BP_112 07 BP_113 01 BP_113 02	Station Signange Illumination Fuel Storage Fuel Distribution System	1 1 1
3	E	ВР	Buildings & Property				BP_113	Fuel Services	BP_112 07 BP_113 01 BP 113 02 BP_114 01 BP_114 02	Station Signange Illumination Fuel Storage Fuel Distribution System Lifts & Enclosed Hoists Escalators	1 1 1 1
3	E	ВР							BP_112 07 BP_113 01 BP 113 02 BP_114 01 BP_114 02 BP_114 03 BP_114 04	Station Signange Illumination Fuel Storage Fuel Distribution System Lifts & Enclosed Hoists Escalators Moving Pavements Powered Stairlifts	1 1 1 1 1 1
3		ВР					BP_113	Fuel Services Lift and Conveyor	BP_112 07 BP_113 01 BP_113 02 BP_114 01 BP_114 02 BP_114 03	Station Signange Illumination Fuel Storage Fuel Distribution System Lifts & Enclosed Hoists Escalators Moving Pavements	1 1 1 1 1



								BP_114.10	Other Lift & Conveyor Systems	1
						BP_115	Fire and Lightning Protection	BP_115 01 BP 115 02 BP 115 03	Fire Fighting Systems Fire Suppression Systems Lightning Protection	1 1 1
						BP_116	Control and Communication	BP_116.01	Central Control & Building Management Systems	1
						Systems	BP_117 01	Specialist Piped Supply Installations	1	
						BP_117	Specialist Equipment	BP 117 02 BP_117 03	Specialist Refrigeration Systems Specialist Mechanical Installations	1
							Equipment	BP_117 04 BP 117 05 BP 117 06	Specialist Electrical / Electronic Installations Water Features Specialist Station Equipment	1 1
								BP_118 01 BP 118 02	Water Mains Supply Electrical Mains Supply	1 1
								BP_118 03 BP_118 04	External Transformation Devices Electricity Distribution to External Plant & Equipment	1
						BP_118	External Services	BP_118 05 BP_118 06	Gas Mains Supply Telecommunications & Other Communication System Connections	1
								BP 118 07 BP_118 08 BP 118 09	External Fuel Storage and Piped Distribution Systems External Security Systems External / Street Lighting Systems	1 1 1
								BP 118.10 BP 119 01	Local / District Heating Installations Complete Buildings	1 1
						BP_119	Pre-Fabricated Buildings	BP_119 02 BP 119 03	Building Units Pods	1
				Buildings (incl. Statio	ns) Total			BP_119 04	Bike Stores	1 88
						BP_201	Bus Garage	BP_201 01 BP_201 02	Foundations Parking Surface Warehouse / Buildings Structure	1
					BP_200_CA Consents and Authorisation BP_200_AD Asset Disruption			BP 201 03 BP_201 04 BP 202 01	warenouse / Buildings Structure Floor Marking / Signalling Foundations	1 1 1
					BP_200_FES Feasibility Design & Early Studies BP_200_CD Concept Design BP_200_DD Detailed Design	BP_202	Bus Station and	BP 202 02 BP_202 03	Bus Shelter Furniture	1 1
			BP_200	Operation and Other Properties	BP_200_CM Commercial Management (incl. Procurement) BP_200_MAN Manufacturing/Fabrication/Delivery on Site		Stands	BP_202 04 BP_202 05	Bus Stop Posts Floor Marking / Signalling	1 1
					BP_200_PLW Preliminary Works BP_200_EW Enabling Works		Bus Stops and	BP_203 01 BP_203 02	Foundations Bus Shelter	1
					BP_200_CW Construction/Installation Works BP_200_COM Testing & Commissioning BP_200_HCO Handover & Close-out	BP_203	Shelters	BP 203 03 BP_203 04	Furniture Bus Stop Posts	1
						BP_204	Pumping Stations	BP_203 05 BP_204 01 BP_204 02	Floor Marking / Signalling Fuel Pumping Stations Vehicle Cleaning Water Pumping Stations	1 1 1
				Operation and Other	r Properties Total			VS 101.01	Car Body (Shell)	16 1
								VS_101.02 VS 101.03	Interior Fit Out Elements Windows	1
								VS_101.04 VS_101.05	Bogies Braking System	1
						VS_101	Passenger Rolling Stock	VS 101.06 VS_101.07	Articulation & Suspension System Traction System	1 1
								VS_101.08 VS_101.09 VS_101.10	Coupling system Control and Communication System Auxiliary Equipment and Batteries	1 1 1
								VS_101.10 VS_101.11	Auxiliary Equipment and Batteries Heating, Ventilation and Air Conditioning	1
								VS 101.12 VS_102.01	Driver's Console and Cab Equipment Car Body (Shell)	1 1
								VS_102.02 VS_102.03	Interior Fit Out Elements Windows	1
								VS_102.04 VS_102.05 VS_102.06	Bogies Braking System Articulation & Suspension System	1 1 1
						VS_102	Freight Rolling Stock	VS_102.06 VS_102.07 VS_102.08	Aractuation & Suspension System Traction System Coupling system	1 1
								VS 102.09 VS_102.10	Control and Communication System Auxiliary Equipment and Batteries	1 1
								VS_102.11	Heating, Ventilation and Air Conditioning	1
								VS_102.12 VS_103.01	Driver's Console and Cab Equipment Car Body (Shell)	1
								VS_103.02 VS 103.03 VS 103.04	Interior Fit Out Elements Windows Bogies	1 1 1
							Engineering Rolling Stock	VS_103.05 VS_103.06	Braking System Articulation & Suspension System	1 1
						VS_103		VS_103.07 VS_103.08	Traction System Coupling system	1 1
								VS 103.09 VS_103.10	Control and Communication System Auxiliary Equipment and Batteries	1
								VS_103.11 VS_103.12	Heating, Ventilation and Air Conditioning Driver's Console and Cab Equipment	1
						VS_104	Signalling Interface Systems	VS_104 01	Train Borne Signalling Equipment	1
						VS_105	Cab Simulators	VS_105.01 VS_105.02	Driver Display Units Audio System	1
						V5_105	Cab Simulators	VS 105.03 VS_105.04	Video System Ventilation System	1
					VS_100_CA Consents and Authorisation VS_100_AD Asset Disruption		Buses	VS_106.01 VS_106.02	Bus Body (Shell) Interior Fit Out Elements	1
					VS_100_FES Feasibility Design & Early Studies VS_100_CD Concept Design	VS_106		VS_106.03 VS_106.04 VS_106.05	Windows Bogies Braking System	1 1 1
			VS_100	Rolling Stock & Vehicles	VS_100_DD Detailed Design VS_100_CM Commercial Management (incl. Procurement) VS_100_MAN Manufacturing/Fabrication/Delivery on Site			VS_106.06 VS_106.07	Articulation & Suspension System Traction System	1 1
			10_100		VS_100_PLW Preliminary Works VS_100_EW Enabling Works			VS 106.08 VS_106.09	Coupling system Control and Communication System	1 1
					VS_100_CW Construction/Installation Works VS_100_COM Testing & Commissioning VS_100_HCO Handover & Close-out			VS_106.10 VS_106.11	Auxiliary Equipment and Batteries Heating, Ventilation and Air	1
					vs_1vv_nco nandover & close-out			VS_106.12 VS_107.01	Conditioning Driver's Console and Cab Equipment Coach Body (Shell)	1 1
								VS 107.02 VS 107.03	Coach Body (Shell) Interior Fit Out Elements Windows	1 1
		Vehicle						VS_107.04 VS_107.05	Bogies Braking System	1 1
4	vs	Systems				VS_107	Coaches	VS_107.06 VS_107.07	Articulation & Suspension System Traction System	1
								VS 107.08 VS_107.09	Coupling system Control and Communication System	1
								VS_107.10 VS_107.11	Auxiliary Equipment and Batteries Heating, Ventilation and Air Conditioning	1
								VS_107.12 VS_108.01	Driver's Console and Cab Equipment Gears and drivetrain	1 1
						VS_108	Cycles	VS 108.02 VS_108.03	Frames and Forks Wheels & Tyres	1
								VS_108.04 VS_108.05	Brakes & Pads Power Meters	1
								VS_109.01 VS_109.02 VS_109.03	Car Body (Shell) Interior Fit Out Elements Windows	1 1 1
								VS 109.03 VS_109.04 VS_109.05	Windows Bogies Braking System	1 1 1
						VS_109	Ferries	VS 109.06 VS_109.07	Articulation & Suspension System Traction System	1
								VS_109.08 VS_109.09	Coupling system Control and Communication System	1
								VS_109.10 VS_109.11	Auxiliary Equipment and Batteries Heating, Ventilation and Air	1
								VS 109.12 VS 110.01	Conditioning Driver's Console and Cab Equipment Car Body (Shell)	1 1
								VS_110.01 VS_110.02 VS_110.03	Car Body (Snell) Interior Fit Out Elements Windows	1 1
								VS_110.04 VS_110.05	Bogies Braking System	1
						VS_110	Other vehicles	VS 110.06 VS_110.07	Articulation & Suspension System Traction System	1
								VS_110.08 VS_110.09	Coupling system Control and Communication System	1 1
								VS_110.10 VS_110.11	Auxiliary Equipment and Batteries Heating, Ventilation and Air Conditioning	1
				Rolling Stock & Vehic	les Total			VS 110.12	Driver's Console and Cab Equipment	1 94
								VS_201.01 VS_201.02	Auto Transformer Site (ATS) Auto Transformer Feeder Site (ATFS)	1
								VS_201.03 VS_201.04	Mid Point Auto Transformer Site (MPATS) Sectioning Auto Transformer Site (SATS) Maio Grid Traction Supply Substition (Spender Station)	1 1
					VS_200_CA Consents and Authorisation	VS 201	Dower District	VS 201.05 VS_201.06	Main Grid Traction Supply Substation (Feeder Station) Track Sectioning Switch (TSS) Disect Curport (IC) Substation	1 1
					VS_200_AD Asset Disruption VS_200_FES Feasibility Design & Early Studies VS_200_CD Concept Design	VS_201	Power Distribution	VS_201.07 VS_201.08 VS_201.09	Direct Current (DC) Substation Track Paralleling Hut Structure Mounted Outdoor Switchgear (SMOS)	1 1 1
				Power Cost	VS_200_DD Detailed Design VS_200_CM Commercial Management (incl. Procurement)			VS_201.09 VS_201.10 VS_201.11	Structure Mounted Outdoor Switchgear (SMOS) Containerised Switchgear Booster Transformer	1 1
			VS_200	Power Systems	VS_200_MAN Manufacturing/Fabrication/Delivery on Site VS_200_PLW Preliminary Works			VS_201.12 VS_201.13	Auxiliary Equipment Enclosure Cables and Containment	1
				vs_200	VS_200_PLW Preliminary Works VS_200_EW Enabling Works VS_200_EW Construction/Installation Works			VS_202.01	OLE Support Structures	1
							Overhead Line	VS_202.02	Small Part Steelwork (SPS)	1
					VS_200_COM Testing & Commissioning	VS_202	Overhead Line Equipment	VS 202.03 VS_202.04	Wiring Depot Traction	1
					VS_200_COM Testing & Commissioning	VS_202 VS_203		VS 202.03 VS_202.04 VS_202.05 VS 203.01	Wiring Depot Traction Earthing & Bonding Conductor Rail Contact system	1 1 1
					VS_200_COM Testing & Commissioning		Equipment	VS 202.03 VS_202.04 VS_202.05	Wiring Depot Traction Earthing & Bonding	1 1 1



							RCS_101.01		
							RCS_101.02	Consoles & Panels Lever Frames	
					RCS_101	Controls and Monitoring	RCS 101.03	Ground Frames	
						Systems	RCS_101.04 RCS_101.05	Train Describers Supervisory Items	
							RCS 101.06 RCS 102.01	Signalling Simulator Mirco-Processor Based System	_
						Interlocking	RCS_102.02	Electro-Mechanical Interlocking	
					RCS_102	Interlocking System	RCS 102.03 RCS_102.04	Mechanical System Trackside Interlocking Interface Unit	_
							RCS_102.05	Tokenless Block	
							RCS 103.01 RCS_103.02	Electrical Point Mechanisms Hydraulic Points Mechanisms	
					RCS_103	Point Mechanisms	RCS_103.03	Electro-Pneumatic Point Mechanisms	
							RCS_103.04 RCS_103.05	Air Point Mechanisms Mechanical Point Mechanisms	_
							RCS 104.01	Colour Light Signal	
							RCS_104.02 RCS_104.03	Banner Repeaters Position Light Signal	_
					RCS_104	Signals and Indicators	RCS 104.04	Route Indicators	
							RCS_104.05 RCS_104.06	Mechanical Signal Operational Signs and Noticeboards	
				RCS_100_CA Consents and Authorisation			RCS 104.07	Other Signals & Indicators	
				RCS_100_AD Asset Disruption			RCS_105.01 RCS_105.02	Track Circuits Axle Counters	
				RCS_100_FES Feasibility Design & Early Studies RCS_100_CD Concept Design	DCC 105	Train Detection	RCS_105.03	Treadle	
				RCS_100_DD Detailed Design	RCS_105	Systems	RCS_105.04 RCS 105.05	Balise Insulated Block Joints	-
		RCS_100	Signalling Systems	RCS_100_CM Commercial Management (incl. Procurement) RCS_100_MAN Manufacturing/Fabrication/Delivery on Site			RCS_105.06	Impedance Bonds	
				RCS_100_PLW Preliminary Works RCS_100_EW Enabling Works			RCS_105.07 RCS 106.01	Hot Axle Box Detectors Automatic Warning System (AWS)	
				RCS_100_CW Construction/Installation Works	RCS_106	Train Protection	RCS_106.02	Train Protection Warning System (TPWS)	7
				RCS_100_COM Testing & Commissioning RCS_100_HCO Handover & Close-out		Systems	RCS_106.03 RCS 106.04	Automatic Train Control (ATC) Automatic Train Protection (ATP)	
							RCS_107.01	Time Division Data Transmission Systems (TDM)	
					RCS_107	Remote Control	RCS_107.02 RCS 107.03	Frequency Division Data Transmission Systems (FDM) Radio Electronic Tokenless Block (RETB)	
					107	Systems	RCS_107.04 RCS_107.05	Lockout Device (LOD) Alarms, Warnings, and Controls	
							RCS_107.06	Other Remote Control Systems	
					RCS_108	Signal Support	RCS_108.01 RCS 108.02	Cables Containment devices	$-\mathbb{I}$
						Structures	RCS_108.03	Theft Protection devices	
						Cables and	RCS_109.01 RCS 109.02	Freestanding Single Post Structural Ancillaries	
					RCS_109	Containment Structures	RCS_109.03	Cantilevers	
						Signaming	RCS_109.04 RCS 110.01	Gantry / Portal Location Case - Racking and Equipment	-
					RCS_110	Equipment Housing,	RCS_110.02	Portable Building - REB Container	
						Diatforms	RCS_110.03 RCS_111.01	Trackside Equipment Highway	
					RCS_111	Level Crossings	RCS_111.02	Barriers	
							RCS 111.03 RCS_111.04	Signalling & Traffic Protection Control and Operating Systems	-
					RCS_112	Other Signalling Systems (digital or non-digital)	RCS_112.01	Other Signalling Systems Components (digital or non-digital)	
	Rail & Road		Signalling Systems To	RCS_200_CA Consents and Authorisation		Supervisory	RCS 201.01	Hardware Components	
RCS	Control Systems			RCS_200_AD Asset Disruption RCS_200_FES Feasibility Design & Early Studies	RCS_201	Control	RCS_201.02	Software Components	
									_
			Traffic Management	RCS_200_CD Concept Design	RCS_202	Management	RCS_202.01 RCS_202.02	Hardware Components Software Components	
		RCS_200	Traffic Management Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement)	RCS_202 RCS_203	Stock and Crew	RCS 202.02 RCS_203.01	Software Components Hardware Components	
		RCS_200		RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site	RCS_203	Customa	RCS 202.02 RCS_203.01 RCS_203.02 RCS 204.01	Software Components Hardware Components Software Components Hardware Components	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works		Stock and Crew Systems	RCS 202.02 RCS_203.01 RCS_203.02	Software Components Hardware Components Software Components	
		RCS_200		RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204	Stock and Crew Systems Safe Track Worker Access Operational	RCS 202.02 RCS_203.01 RCS_203.02 RCS 204.01 RCS_204.02 RCS_301.01	Software Components Hardware Components Software Components Hardware Components Software Components Visual Display Units	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203	Stock and Crew Systems Safe Track Worker Access	RCS 202.02 RCS_203.01 RCS_203.02 RCS 204.01 RCS_204.02 RCS_301.01 RCS_301.02	Software Components Hardware Components Software Components Hardware Components Software Components Visual Display Units Signal Box Control Panel	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204	Stock and Crew Systems Safe Track Worker Access Operational	RCS 202.02 RCS 203.01 RCS 203.02 RCS 204.01 RCS 204.02 RCS 301.01 RCS 301.02 RCS 302.01 RCS 302.02	Software Components Hardware Components Software Components Hardware Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204 RCS_301 RCS_302	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio	RCS 202.02 RCS_203.01 RCS_203.02 RCS 204.01 RCS_204.02 RCS_301.01 RCS_301.02 RCS 302.01	Software Components Hardware Components Software Components Hardware Components Software Components Visual Display Units Signal Box Control Panel Masts	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission	RCS 202.02 RCS_203.01 RCS_203.02 RCS 204.01 RCS_204.02 RCS_301.01 RCS_301.02 RCS_302.01 RCS_302.02 RCS_302.03	Software Components Hardware Components Software Components Hardware Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204 RCS_301 RCS_302	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio	RCS 202.02 RCS 203.01 RCS 203.02 RCS 204.01 RCS 204.02 RCS 301.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.03 RCS 303.01	Software Components Hardware Components Software Components Hardware Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 301.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.01	Software Components Hardware Components Software Components Hardware Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.02 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 303.01 RCS 303.01 RCS 303.01 RCS 305.01 RCS 305.05 RCS 305.05	Software Components Hardware Components Software Components Hardware Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.03 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 303.02 RCS 303.01 RCS 303.02 RCS 303.01	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 301.02 RCS 301.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 305.03 RCS 305.04 RCS 305.04 RCS 305.04 RCS 306.01	Software Components Hardware Components Software Components Hardware Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator	RCS 202.02 RCS 203.01 RCS 203.02 RCS 204.01 RCS 204.01 RCS 204.02 RCS 301.01 RCS 301.02 RCS 302.03 RCS 302.03 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 305.03 RCS 305.03 RCS 305.03 RCS 305.04 RCS 305.04 RCS 306.01 RCS 306.01	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.01 RCS 301.01 RCS 302.01 RCS 302.01 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 305.02 RCS 305.03 RCS 305.04 RCS 305.02 RCS 305.03 RCS 305.04 RCS 305.03 RCS 305.03 RCS 305.04 RCS 305.03 RCS 305.03 RCS 305.03	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD)	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 301.01 RCS 301.01 RCS 302.02 RCS 302.03 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 303.02 RCS 303.01 RCS 303.02 RCS 303.03 RCS 303.03	Software Components Hardware Components Software Components Hardware Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT)	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.01 RCS 301.01 RCS 301.02 RCS 302.01 RCS 302.03 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 305.02 RCS 305.03 RCS 305.03 RCS 305.03 RCS 305.04 RCS 305.04 RCS 305.05 RCS 305.06 RCS 306.07 RCS 306.06 RCS 306.06	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit	
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_CA Consents and Authorisation RCS_300_DA Asset Disruption RCS_300_DFES Feasibility Design & Early Studies	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.02 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 303.01 RCS 303.01 RCS 305.01 RCS 305.01 RCS 305.02 RCS 305.04 RCS 305.04 RCS 305.06 RCS 306.01 RCS 306.01 RCS 306.02 RCS 306.04 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.06.09	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit	
		RCS_200	Systems Traffic Management s	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Fnabling Works Systems Total RCS_300_CA Consents and Authorisation RCS_300_AD Asset Disruption RCS_300_FES Feasibility Design & Early Studies RCS_300_CD Concept Design RCS_300_DD Detailed Design	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 204.02 RCS 301.01 RCS 301.02 RCS 302.03 RCS 302.03 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 303.02 RCS 303.01 RCS 305.03 RCS 305.03 RCS 305.04 RCS 305.05 RCS 305.06 RCS 306.05 RCS 306.06 RCS 306.07 RCS 306.09	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_CA Consents and Authorisation RCS_300_AD Asset Disruption RCS_300_FES Feasibility Design & Early Studies RCS_300_CD Concept Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement)	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 204.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 302.02 RCS 302.03 RCS 303.01 RCS 303.01 RCS 305.04 RCS 305.04 RCS 305.04 RCS 305.04 RCS 305.05 RCS 305.06 RCS 306.06 RCS 306.07 RCS 306.07 RCS 306.09 RCS 306.01 RCS 306.09 RCS 306.09 RCS 306.09 RCS 306.09	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras	
		RCS_200	Systems Traffic Management s	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DEW Enabling Works Enabling Works Systems Total RCS_300_DES Feasibility Design & Early Studies RCS_300_DES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_NLW Preliminary Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.02 RCS 204.01 RCS 204.02 RCS 301.01 RCS 301.02 RCS 302.03 RCS 302.03 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 303.02 RCS 303.01 RCS 303.02 RCS 303.03 RCS 305.03 RCS 305.03 RCS 305.03 RCS 305.03 RCS 305.04 RCS 306.05 RCS 306.05 RCS 306.06 RCS 306.07 RCS 306.08 RCS 306.09 RCS 306.09 RCS 306.09 RCS 307.01 RCS 307.01 RCS 307.02 RCS 307.02 RCS 307.04	Software Components Hardware Components Software Components Hardware Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Requipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_CA Consents and Authorisation RCS_300_DA Desset Disruption RCS_300_FES Feasibility Design & Early Studies RCS_300_CD Concept Design RCS_300_CD Concept Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_303 RCS_304	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.02 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 305.02 RCS 305.03 RCS 305.02 RCS 305.03 RCS 305.04 RCS 305.02 RCS 305.03 RCS 305.04 RCS 305.04 RCS 305.05 RCS 305.06 RCS 306.06 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.08 RCS 306.09	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone (PST) Signal Post Telephone (PST) Point Zone Telephone (PST) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 204.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 302.03 RCS 303.01 RCS 303.01 RCS 305.01 RCS 305.01 RCS 305.01 RCS 305.02 RCS 305.04 RCS 305.05 RCS 305.06 RCS 305.06 RCS 305.07 RCS 306.01 RCS 306.01 RCS 306.02 RCS 306.01 RCS 306.02 RCS 306.02 RCS 306.03 RCS 306.04 RCS 306.05 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.09 RCS 306.09 RCS 307.00 RCS 307.01 RCS 307.01 RCS 307.01 RCS 307.05 RCS 307.05 RCS 307.05 RCS 307.05	Software Components Hardware Components Software Components Hardware Components Software Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_CA Consents and Authorisation RCS_300_DA Desset Disruption RCS_300_FES Feasibility Design & Early Studies RCS_300_CD Concept Design RCS_300_CD Concept Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.02 RCS 301.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 305.03 RCS 305.04 RCS 305.02 RCS 305.03 RCS 305.04 RCS 305.02 RCS 306.01 RCS 306.01 RCS 306.02 RCS 306.01 RCS 306.02 RCS 306.03 RCS 306.01 RCS 306.02 RCS 306.03 RCS 307.03 RCS 307.03 RCS 307.04 RCS 307.04	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone (SPT) Signal Post Telephone (SPT) Point Zone Telephone (SPT) Point Zone Telephone (SPT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_306 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 204.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 302.02 RCS 303.01 RCS 303.01 RCS 305.02 RCS 305.04 RCS 305.04 RCS 305.04 RCS 305.05 RCS 305.06 RCS 306.06 RCS 306.07 RCS 306.07 RCS 306.09 RCS 306.09 RCS 306.09 RCS 306.09 RCS 306.09 RCS 307.00 RCS 307.02 RCS 307.02 RCS 307.03 RCS 307.05 RCS 307.07 RCS 307.07 RCS 307.07 RCS 307.08 RCS 307.07 RCS 307.07 RCS 307.08 RCS 307.07 RCS 307.07 RCS 307.08 RCS 307.09	Software Components Hardware Components Software Components Hardware Components Software Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone (PET) Signal Post Telephone (PET) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR)	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 204.02 RCS 301.01 RCS 301.02 RCS 302.03 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 305.03 RCS 305.04 RCS 305.05 RCS 305.05 RCS 305.06 RCS 307.01 RCS 307.03 RCS 307.03 RCS 307.04 RCS 307.06 RCS 307.06 RCS 307.06 RCS 307.06 RCS 307.06 RCS 307.07 RCS 307.06 RCS 307.07	Software Components Hardware Components Software Components Software Components Hardware Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Requipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD)	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_306 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.02 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 305.04 RCS 305.04 RCS 305.04 RCS 306.04 RCS 306.05 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.08 RCS 306.09 RCS 306.09 RCS 306.00 RCS 307.00 RCS 308.01 RCS 308.01 RCS 308.01	Software Components Hardware Components Software Components Software Components Hardware Components Software Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_306 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems Positioning Equipment Remote Asset Monitoring	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 204.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 302.03 RCS 303.01 RCS 305.01 RCS 305.01 RCS 305.01 RCS 305.01 RCS 305.01 RCS 305.02 RCS 305.01 RCS 305.01 RCS 305.02 RCS 305.01 RCS 305.02 RCS 305.03 RCS 305.04 RCS 305.04 RCS 305.05 RCS 305.07 RCS 306.07 RCS 306.06 RCS 306.07 RCS 306.07 RCS 306.09 RCS 307.01 RCS 307.01 RCS 307.01 RCS 307.02 RCS 307.04 RCS 307.05 RCS 307.05 RCS 307.06 RCS 307.07 RCS 307.09 RCS 308.01	Software Components Hardware Components Software Components Software Components Hardware Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (SPT) Point Zone Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU Stepping (SIVS) Train Running Under System TOPS (TRUST)	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_305 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems Positioning Equipment Remote Asset	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.02 RCS 302.02 RCS 303.01 RCS 303.01 RCS 303.02 RCS 303.01 RCS 305.02 RCS 305.02 RCS 306.04 RCS 305.02 RCS 306.04 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.08 RCS 306.09 RCS 307.00 RCS 309.00 RCS 309.00	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Signal Post Telephone (SPT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_305 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems Positioning Equipment Remote Asset Monitoring	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 204.01 RCS 301.02 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 302.01 RCS 303.01 RCS 303.01 RCS 305.02 RCS 305.04 RCS 305.04 RCS 305.04 RCS 305.05 RCS 305.06 RCS 305.06 RCS 305.06 RCS 305.07 RCS 306.01 RCS 306.01 RCS 306.02 RCS 306.03 RCS 306.04 RCS 306.05 RCS 306.06 RCS 306.07 RCS 306.09 RCS 306.09 RCS 306.09 RCS 307.00 RCS 307.02 RCS 307.02 RCS 307.02 RCS 307.03 RCS 307.04 RCS 307.05 RCS 307.06 RCS 307.07 RCS 307.08 RCS 307.09 RCS 308.01 RCS 309.01 RCS 309.01	Software Components Hardware Components Software Components Software Components Hardware Components Software Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_305 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems Positioning Equipment Remote Asset Monitoring Systems (SCADA)	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.01 RCS 301.02 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.01 RCS 303.01 RCS 303.01 RCS 303.01 RCS 305.02 RCS 305.02 RCS 305.02 RCS 305.02 RCS 305.02 RCS 305.02 RCS 305.03 RCS 305.02 RCS 305.03 RCS 305.02 RCS 305.03 RCS 305.02 RCS 305.03 RCS 305.03 RCS 305.04 RCS 305.03 RCS 305.04 RCS 305.05 RCS 305.06 RCS 306.06 RCS 306.07 RCS 306.07 RCS 306.08 RCS 306.09 RCS 306.09 RCS 306.09 RCS 307.01 RCS 307.01 RCS 307.01 RCS 307.02 RCS 307.03 RCS 307.04 RCS 307.05 RCS 307.06 RCS 307.06 RCS 307.07 RCS 307.09 RCS 307.08 RCS 307.09 RCS 309.09 RCS 309.01 RCS 309.02 RCS 309.01 RCS 309.01 RCS 309.04 RCS 309.05 RCS 309.05 RCS 309.05 RCS 309.04	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (SPT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Mirrors Mirror Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_305 RCS_306 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems Positioning Equipment Remote Asset Monitoring Systems (SCADA)	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 204.01 RCS 301.02 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 302.01 RCS 303.01 RCS 303.01 RCS 305.01 RCS 305.01 RCS 305.01 RCS 305.02 RCS 305.04 RCS 305.01 RCS 305.02 RCS 305.04 RCS 305.01 RCS 305.02 RCS 305.04 RCS 305.02 RCS 305.03 RCS 305.04 RCS 306.01 RCS 306.02 RCS 306.04 RCS 306.05 RCS 306.06 RCS 306.06 RCS 306.07 RCS 306.09 RCS 307.00 RCS 307.01 RCS 307.02 RCS 307.02 RCS 307.04 RCS 307.05 RCS 307.06 RCS 307.06 RCS 307.07 RCS 307.08 RCS 307.09 RCS 309.09 RCS 309.01 RCS 309.01 RCS 309.01 RCS 309.01 RCS 309.01 RCS 309.01 RCS 309.05 RCS 310.01 RCS 310.01 RCS 310.01	Software Components Hardware Components Software Components Software Components Hardware Components Software Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_305 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems Positioning Equipment Remote Asset Monitoring Systems (SCADA)	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 204.02 RCS 204.02 RCS 301.02 RCS 302.01 RCS 302.02 RCS 302.03 RCS 302.03 RCS 302.03 RCS 303.01 RCS 305.01 RCS 305.02 RCS 305.04 RCS 305.01 RCS 305.01 RCS 305.02 RCS 305.02 RCS 305.03 RCS 305.04 RCS 306.05 RCS 306.06 RCS 306.07 RCS 306.06 RCS 306.07 RCS 306.06 RCS 306.07 RCS 307.01 RCS 307.02 RCS 307.03 RCS 307.04 RCS 307.05 RCS 307.06 RCS 307.06 RCS 307.07 RCS 307.08 RCS 307.09 RCS 309.01 RCS 309.02 RCS 309.03 RCS 309.03 RCS 309.03 RCS 309.01 RCS 310.01 RCS 310.03	Software Components Hardware Components Software Components Software Components Hardware Components Software Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_305 RCS_306 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems Positioning Equipment Remote Asset Monitoring Systems (SCADA) Customer Information System	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 204.01 RCS 301.02 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.03 RCS 302.03 RCS 303.01 RCS 303.01 RCS 303.02 RCS 305.04 RCS 305.04 RCS 305.04 RCS 306.04 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.07 RCS 306.08 RCS 306.09 RCS 307.00 RCS 309.00 RCS 309.01 RCS 309.01 RCS 309.01 RCS 309.01 RCS 309.01 RCS 309.03 RCS 309.01 RCS 309.03 RCS 309.04 RCS 309.03 RCS 310.01 RCS 310.01	Software Components Hardware Components Software Components Hardware Components Hardware Components Software Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers Primary Object Detectors Microphones and Speaking Points Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers Amplifiers Amplifiers Microphones and Speaking Points Amplifiers	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_305 RCS_306 RCS_306 RCS_307	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems Positioning Equipment Remote Asset Monitoring Systems (SCADA) Customer Information	RCS 202.02 RCS 203.01 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.02 RCS 204.01 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.03 RCS 302.03 RCS 303.01 RCS 303.01 RCS 305.01 RCS 305.01 RCS 305.01 RCS 305.01 RCS 305.02 RCS 305.01 RCS 305.02 RCS 305.04 RCS 305.01 RCS 305.02 RCS 305.04 RCS 305.02 RCS 305.04 RCS 305.02 RCS 305.03 RCS 305.04 RCS 306.05 RCS 306.05 RCS 306.06 RCS 306.07 RCS 306.06 RCS 306.07 RCS 306.09 RCS 307.00 RCS 307.00 RCS 307.00 RCS 307.01 RCS 307.02 RCS 307.03 RCS 307.04 RCS 307.05 RCS 307.05 RCS 307.06 RCS 307.06 RCS 307.07 RCS 307.08 RCS 307.09 RCS 309.01 RCS 310.01 RCS 310.01 RCS 310.01 RCS 310.05 RCS 310.06 RCS 310.06 RCS 310.06 RCS 310.06 RCS 310.06	Software Components Hardware Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Point Zone Telephone (PZT) Ground Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Control Panels Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Armplifiers Amplifiers	
			Traffic Management :	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works Systems Total RCS_300_EW Enabling Works Systems Total RCS_300_DD Execution RCS_300_FES Feasibility Design & Early Studies RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_CM Commercial Management (incl. Procurement) RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_DD Detailed Design RCS_300_EM Commercial Management (incl. Procurement) RCS_300_DD DETAILED RESULT OF THE PROCURE OF THE PROCUMENT OF THE PROCURE OF THE PROCUR	RCS_203 RCS_204 RCS_301 RCS_302 RCS_303 RCS_304 RCS_305 RCS_306 RCS_306	Stock and Crew Systems Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission Communication Cabling Concentrator Equipment Operational Telephone Audio-Visual Management Systems Positioning Equipment Remote Asset Monitoring Systems (SCADA) Customer Information System	RCS 202.02 RCS 203.01 RCS 203.01 RCS 204.01 RCS 204.01 RCS 301.02 RCS 301.02 RCS 301.02 RCS 302.01 RCS 302.01 RCS 302.01 RCS 302.02 RCS 302.02 RCS 302.02 RCS 302.03 RCS 303.01 RCS 303.01 RCS 305.02 RCS 305.02 RCS 306.04 RCS 305.02 RCS 306.04 RCS 306.04 RCS 306.07 RCS 306.07 RCS 306.08 RCS 306.07 RCS 306.08 RCS 307.05 RCS 307.05 RCS 307.02 RCS 307.02 RCS 307.02 RCS 307.02 RCS 307.03 RCS 307.04 RCS 307.05 RCS 307.05 RCS 307.05 RCS 307.06 RCS 307.05 RCS 307.06 RCS 307.06 RCS 307.07 RCS 307.08 RCS 307.09 RCS 309.01 RCS 309.01 RCS 309.01 RCS 310.01 RCS 310.01 RCS 310.04 RCS 310.05 RCS 310.05 RCS 310.05	Software Components Hardware Components Software Components Hardware Components Software Components Software Components Visual Display Units Signal Box Control Panel Masts Aerials Base Stations Transmission Network Transmission Equipment Communication Cables and Containment Telephone Concentrators Operational Radio Zone Control Communication Systems Other Stated Concentrators Access Point Direct Line Emergency Lineside Plug Emergency Telephone Devices (ETD) Signal Post Telephone (SPT) Sorind Frame Circuit Tunnel Emergency Circuit Level Crossing Public Emergency Telephone System (PETS) CCTV Cameras Monitors Mirrors Ampilifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Ampilefiers Ampilefiers Ampilefiers Ampilefiers Ambient Noise Sensor Audio & Video Control Panels Video Display Units Recorders	



	Level 0		_evel 1		Level 2		Level 3		Level 4		Level 5	Level 6	
Duninger	Lever 0		Level 1		Level 2	A D	Level 5		Level 4		Level 3	Asset Repeatable	
Business Areas ID	Business Area	Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Discipline I	D Discipline	Sub-Discipline ID	Sub-Discipline	Work Item Element Asset Repeatable Work Item Element	No.
UT	Underground Transport		Infrastructure	INF UT100	Track	INF UT101	Ballasted Track	1. PM	Project Management	1.1 PM	Project Management and Controls	ID INF_UT101.01 Rails	1
	Surface Transport	ВР	Buildings & Property	BP_UT200		INF_UT102	Track Drainage	2. ENG	Engineering		Consents and Authorisations	INF_UT101.02 Sleepers	1
		TS	Train Systems	BP_UT300		INF_UT103	Points & Crossings (P&C)	3. PRO	Procurement	1.3 PM	HSSE	INF_UT101.03 Tampers	1
		RCS GEN	Railway Control Systems General Deliverables	INF UT500	Depots & Stabling Power	INF_UT104 INF_UT105	Conductor Rail Deep Tube	4. CON 5. CMT	Construction Commissioning & Testing	1.4 PM 1.5 PM	Quality Assurance & Control Governance	INF_UT101.04 Switches & Crossings INF_UT101.05 Rail Fishplate	1
			ochera, benverables	INF_UT600		INF_UT106	Embedded Rail	6. OM	Operations & Maintenance	1.6 PM	Surveys	INF_UT101.06 Ballast	1
					Civil & Structures	INF_UT107	Slab Track			1.7 PM	Miscellaneous	INF_UT101.07 Fasteners	1
				RCS_UT800	Signalling Communications	INF_UT108 BP_UT201	Ancilaries Tunnels & Shafts	-		2.1 ENG 2.2 ENG	General Engineering & Management	INF_UT101.08 Cabling INF_UT102.01 Drain	1
					Rolling Stock	BP_UT202	Station Box/Station Structure	-		2.3 ENG	Civil & Structural Engineering Mechanical Engineering	INF_UT102.02 Pipe	1
					Civil & Structures	BP_UT203	Ticket Hall			2.4 ENG	Electrical Engineering	INF_UT102.03 Valves	1
				INF_ST200		BP_UT204	Concourse			2.5 ENG	Signalling & Controls	INF_UT102.04 Chambers	1
				INF_ST300 BP_ST400		BP_UT205 BP_UT206	Circulation Areas / Passages Operations Rooms	-		2.6 ENG 3.1 PRO	Technical Compliance & Safety Contracted Packages - Equipment/Plant/Bulk Materials & Procurement Stage	INF_UT102.05 Separator INF_UT102.06 Channels	1
				BP_ST500		BP_UT207	Staff Facilities/Rooms	1		4.1 CON	General Construction & Management	INF_UT102.07 Catchpit	1
					Programme Management	BP_UT208	Other Rooms/Areas			4.2 CON	Civil & Structural Construction	INF_UT102.08 Siphon	1
				GEN_200	Governance & Assurance	BP_UT209 BP_UT210	Platforms Station Signage	-		4.3 CON 4.4 CON	Mechanical Installation Electrical Installation	INF_UT102.09 Water Retention Tank INF_UT102.10 Pumps	1
						BP_UT211	Lifts & Escalators	1			Signalling & Controls Installation	INF_UT102.11 Treatment Plant	1
						BP_UT212	Fare Collection/Ticketing			4.6 CON	Pre-Commissioning Pre-Commissioning	INF_UT103.01 Rails	1
						BP_UT213	Utility Facilities	_		5.1 CMT	Testing & Start-up	INF_UT103.02 Stretcher bar	1
						BP_UT214 BP_UT215	Fire (Safety) Systems Cooling			5.2 CMT 6.1 OM	Handover Operations & Maintenance	INF_UT103.03 Heel Blocks INF_UT103.04 Switch tie plates	1
						BP_UT216	Electrical System					INF_UT103.05 Slide Chairs	1
						BP_UT217	Communications & Other Systems					INF_UT103.06 Fasteners	1
						BP_UT218 BP_UT219	Pumps & Drainage External Works & Facilities	-				INF_UT104.01 Rails INF_UT104.02 Sleepers	1
						BP_UT301	Signalling Equipment Room					INF_UT104.03 Tampers	1
						BP_UT302	Platform Edge Doors Controller Room					INF_UT104.04 Switches & Crossings	1
						TS_UT401	Buildings & Ancilary Property Access Platforms	_				INF_UT104.05 Rail Fishplate INF_UT104.06 Ballast	1
						TS_UT402 TS_UT403	Drainage Facility/System	-				INF_UT104.00 Ballast INF_UT104.07 Fasteners	1
						TS_UT404	Accommodation & Storage Facilities					INF_UT104.08 Cabling	1
						TS_UT405	Security Facilities/Systems					INF_UT105.01 Rails	1
						TS_UT406 TS_UT407	Mechanical Facilities/Systems Power and Lighting Facilities/Systems	-				INF_UT105.02 Sleepers INF_UT105.03 Tampers	1
						TS_UT408	Signalling Facilities/System	1				INF_UT105.04 Switches & Crossings	1
						TS_UT409	Cleaning Facilities					INF_UT105.05 Rail Fishplate	1
						TS_UT410	Maintenance Facilities	_				INF_UT105.06 Ballast	1
						TS_UT411 TS_UT412	Track Facilities Other Systems/Facilities	-				INF_UT105.07 Fasteners INF_UT105.08 Cabling	1
						INF_UT501	Electrical Substation					INF_UT106.01 Rails	1
						INF_UT502	Electrical Cables & Accessories					INF_UT106.02 Sleepers	1
						INF_UT503 INF_UT601	Overhead Line Equipment Cooling System	-				INF_UT106.03 Tampers INF_UT106.04 Switches & Crossings	1
						INF_UT602	Platform Air Handling Unit (PAHU)					INF_UT106.05 Rail Fishplate	1
						INF_UT701	Bridges & Viaducts					INF_UT106.06 Ballast	1
						INF_UT702	Cutting & Embankment	-				INF_UT106.07 Fasteners	1
						INF_UT703 INF_UT704	Footbridge Overbridge	-				INF_UT106.08 Cabling INF_UT107.01 Rails	1
						INF_UT705	Retaining Walls					INF_UT107.02 Sleepers	1
						INF_UT706	Miscellaneous Structures	_				INF_UT107.03 Tampers	1
						INF_UT707 INF_UT708	Fencing & Barriers Staircases	-				INF_UT107.04 Switches & Crossings INF_UT107.05 Rail Fishplate	1
						INF_UT709	Tunnels & Shafts	1				INF_UT107.06 Fasteners	1
						INF_UT710	Canopy					INF_UT107.07 Cabling	1
						RCS_UT801 RCS_UT802	Digital Signalling Legacy Signalling					INF_UT108.01 Buffer Stops INF_UT108.02 Retarders	1
						RCS_UT803	Cable Route Management System	-				INF_UT108.03 Sundries	1
						RCS_UT804	Signalling Immunisation					BP_UT201.01 Escalator Shaft	1
						RCS_UT805	LVAC ATC Signalling Power					BP_UT201.02 Platform Tunnel	1
						RCS_UT806 RCS_UT807	Signage Interlocking System					BP_UT201.03 Subways and Underpasses BP_UT201.04 Tunnel Crossover	1
						RCS_UT901	One Person Operation Cameras					BP_UT201.05 Lift Shaft	1
						RCS_UT902	One Person Operation Monitors					BP_UT202.01 Substructures	1
						RCS_UT903 RCS_UT904	Corrective Side Door Enabling System Selective Door Opening System	-				BP_UT202.02 Frame BP_UT202.03 Upper Floors	1
						RCS_UT905	Operational Control Centre					BP_UT202.04 Roof	1
						RCS_UT906	Operational Control Systems					BP_UT202.05 Stairs	1
						RCS_UT907 RCS_UT908	Station Management System (CER)	-				BP_UT202.06 External Walls BP_UT203.01 Windows & External Doors	1
						RCS_UT908	Remote Monitoring / SCADA Information Transmission Systems	-				BP_UT203.02 Internal Walls and Partitions	1
						RCS_UT910	Telephone System					BP_UT203.03 Internal Doors	1
						RCS_UT911	Security Systems					BP_UT203.04 Wall Finishes	1
						RCS_UT912 RCS_UT913	Operational Management Systems Other Systems	-				BP_UT203.05 Floor Finishes BP_UT203.06 Ceiling Finishes	1
						TS_UT1001	Passenger Rolling Stock					BP_UT203.07 Fittings and Furnishings	1
						TS_UT1002	Wagons					BP_UT204.01 Windows & External Doors	1
						TS_UT1003 TS_UT1004	On track machines Cab Simulators	-				BP_UT204.02 Internal Walls and Partitions BP_UT204.03 Internal Doors	1
						TS_UT1004 TS_UT1005	Other vehicles	-				BP_UT204.04 Wall Finishes	1
						INF_ST101	Bridge					BP_UT204.05 Floor Finishes	1
						INF_ST102	Retaining Walls					BP_UT204.06 Ceiling Finishes	1
		İ				INF_ST103	Other Structures					BP_UT204.07 Fittings and Furnishings	1
						INF ST104	FOOTDLIGGE X: I ACIE KLIGGE	II .				RP [][/[]5 []] Windows & External Doors	
						INF_ST104 INF_ST105	Footbridge & Cycle Bridge Gantries					BP_UT205.01 Windows & External Doors BP_UT205.02 Internal Walls and Partitions	1
						INF_ST105 INF_ST106							1 1



March Marc	Level 0		Level 1		Level 2	Level 3	Level 4		Level 5 Level 6
Color	Business Pusiness Area	Asset/Deliverables		Asset ID	Asset Name Asset Repeatable			Sub-Discipline ID	Asset Repeatable
## 100 - March	Areas ID Business Area	Group ID	Assety Deliverables Group	Asset ID	Work Item ID		Discipline ib Discipline	Sub-Discipline ib	ID ID
Company Comp									
						CCTV System			BP_UT205.07 Fittings and Furnishings 1
B N									
1						Footway			BP_UT206.04 Wall Finishes 1
O C C C C C C C C C									
### Company of the co									
### Comment of the Co					_	-			
## 100 100									
Control Cont									
1,000 20									
F. J. St. Gods									
## 1. CE 1.					_				
1									
1.5 1.6 1.5									
March Marc									
Company Comp					BP_ST501	Bus Station and Stands			BP_UT208.07 Fittings and Furnishings 1
### Company of the co									BP_UT209.01 Platform End Barriers (PEB) 1
Description									
Section Sect					Br_31304	. amping stations			
### 1970 of Providing State Amends ### 1970 of Providing State ##									BP_UT209.05 Platform Edge Doors 1
B. (1972) Subsequent									
### Description of the control of th									
B. 10 10 10 10 10 10 10 1									_
F. 17.10 Security Control									
\$\frac{1}{2} \frac{1}{1} \frac{1} \frac{1}{1} \frac{1} \frac{1}{1} \frac{1} \frac{1}{1} \frac{1}{1} \frac{1}{1} \frac{1} \frac{1}{1} \frac{1} \frac{1}{1} \frac{1}{1} \frac{1} \frac{1}{1} \frac{1}									
### DEFAULT Class Experience 1 #### DEFAULT CLASS Experience 1									BP_UT211.04 Hydraulic Lift 1
B F Each									
B. B. B. B. B. B. B									
### COLOR IN COLOR									
10 10 10 10 10 10 10 10									
Description									
### ### #### #########################									
PUTLAD Glasses									BP_UT212.07 Other Equipment 1
P. U12232 State Accesses 1									
### UT3235 String Agilities ### UT3355 String Agilities #### UT3355 String Agilities #### UT3355 String Agilities #### UT3355 String Agilities #### UT3355 String Agilities ##### UT3355 String Agilities ####################################									
### OTALION INTERPRETATION #### ### OTALION INTERPRETATION ####################################									
### U172-00 (3-person Per Sporter ### U172-00 (3-person Person Person ### U172-00 (3-person Person #### U172-00 (3-person Person #### U172-00 (3-person Person #### U172-00 (3-person Person ####################################									
### (P									
### (177150 Venderion Vent ### (177150 Venterion Vent ### (177150 Venterion V									
### DUTATION Description for Search ### DUTATION DESCRIPTION DESCR									BP_UT215.01 Air Conditioning Unit 1
B_PUTALON Certain Frenders 1 B_PUTALON Ce									
B B B B B B B B B B						+			
BU1716.05 Sectoral relays 1									BP_UT216.03 Power Transformers 1
B.P.U716.06 Electrical relays 1									_
BP U171607 Electrical sylichies 1									
BUT716.06 Batteries, Chargers and Acadellary supplies 1									
B.									BP_UT216.08 Batteries, Chargers and Auxiliary supplies 1
BP_UT2[61] Control & Protection Panel 1 1 1 1 1 1 1 1 1									
BP_UT25.22_Fire alarm panel 1									_
B_UT216.13 SCAOA system 1									BP_UT216.12 Fire alarm panel 1
BP_UT216.15 Platforms & Bases 1									BP_UT216.13 SCADA system 1
BP_UT216.16 Fiber Optic Cable 1									
BP_UT216.17 CContinuity Cable 1									
BP_UT216.19 Station Signange Illumination 1									BP_UT216.17 DC Continuity Cable 1
					_	_			
BP_UT217.01 CCTV Systems 1									
BP_UT217.02 PA Systems 1 BP_UT217.03 Security Systems 1 BP_UT217.03 Security Systems 1 BP_UT217.03 Security Systems 1 BP_UT217.05 S									BP_UT217.01 CCTV Systems 1
BP_UT217.04 Operator Information Systems 1									BP_UT217.02 PA Systems 1
BP_UT217.05 Telecommunications 1 BP_UT217.05 Telecommunications 1 BP_UT217.05 Station Management System 1 BP_UT217.07 Service Control System 1 BP_UT217.07 Service Control System 1 BP_UT217.07 Service Control System 1 BP_UT217.08 Platform Telephones/Help Points 1 BP_UT217.09 Other Systems 1 BP_UT218.01 Drain 1									
Service Control System 1 1 1 1 1 1 1 1 1						+			
BP_UT217.07 Service Control System 1 BP_UT217.07 Service Control System 1 BP_UT217.08 Platform Telephones/Help Points 1 BP_UT217.09 Other Systems 1 BP_UT217.09 Other Systems 1 BP_UT218.01 Drain 1									BP_UT217.06 Station Management System 1
BP_UT217.09 Other Systems 1 BP_UT218.01 Drain 1									BP_UT217.07 Service Control System 1
BP_UT218.01 Drain 1						+			
BP_UT218.02 Pipe									BP_UT218.02 Pipe 1



	Level 0	1	evel 1		Level 2	Level 3	Level 4		Level 5	Level 6	
Business		Asset/Deliverables			Asset Reneatable				Asset Repeatable		
Areas ID		Group ID	Asset/Deliverables Group	Asset ID	Asset Name Work Item ID	Asset Repeatable Work Item	Discipline ID Discipline	Sub-Discipline ID	Sub-Discipline Work Item Element	Asset Repeatable Work Item Element	No.
									BP_UT218.03	Valves	1
									BP_UT218.04	Chambers	1
									BP_UT218.05 BP_UT218.06	Separator	1
									BP_UT218.07		1
									BP_UT218.08	Siphon	1
										Water Retention Tank	1
									BP_UT218.10 BP UT218.11	Treatment Plant	1
									BP_UT219.01	Access Road	1
									BP_UT219.02		1
									BP_UT219.03 BP_UT219.04	Covered Walkway	1
									BP_UT219.05		1
									BP_UT219.06		1
									BP_UT219.07 BP_UT219.08	Steps / Ramps	1
										Road Markings	1
									BP_UT219.10	Gate	1
										Lineside buildings	1
									BP_UT301.01	Proundation Drainage System	1
										Electrical System	1
									BP_UT301.04	Mechanical System	1
										Fire Protection System	1
									BP_UT301.06 BP_UT301.07		1
									BP_UT302.01		1
									BP_UT302.02	Drainage System	1
										Electrical System Mechanical System	1
									BP_UT302.05	Fire Protection System	1
									BP_UT302.06	Walkway	1
									BP_UT302.07	Pathway	1
										Windows & External Doors	1
									TS_UT401.02	Internal Walls and Partitions Internal Doors	1
									TS_UT401.04	Wall Finishes	1
									TS_UT401.05	Floor Finishes	1
									TS_UT401.06	Ceiling Finishes	1
									TS_UT402.01	Fittings and Furnishings Walkway	1
									TS_UT402.02	Signage	1
									TS_UT403.01	Chambers	1
									TS_UT403.02 TS_UT403.03	Pipe	1
									TS_UT403.04	Channels	1
									TS_UT403.05	Ditch	1
									TS_UT403.06	Siphon	1
									TS_UT403.07 TS_UT403.08		1
									TS_UT403.09	Water Retention Tank	1
										Treatment Plant	1
									TS_UT403.11	Pumps Staff Accommondation Office Block	1
									TS_UT404.02	Lockers	1
									TS_UT404.03	Toilets	1
										Shower Rooms	1
									TS_UT404.05 TS_UT404.06	Drying Rooms Shed	1
									TS_UT405.01	Depot Public Address	1
									TS_UT405.02	Depot Ground Public Address	1
									TS_UT405.03	Depot Alarm Systems Building Access System	1
										Security CCTV	1
									TS_UT406.01	Workshop Equipment	1
										De-Icing Equipment	1
<u> </u>										Lifting Equipment Overhead Trolley	1
										Wheel Lathe	1
									TS_UT406.06	Welding Equipment	1
										Compressed Air Equipment	1
										Noise & Vibration Circuit Breaker	1
									TS_UT407.02	Traction Switches	1
									TS_UT407.03	Lighting Equipment	1
<u> </u>										Shore Supplies	1
									TS_UT407.05 TS_UT407.06	Electric Switchboard	1
									TS_UT408.01	Cable Route Management System	1
									TS_UT409.01	Cleaning Equipment	1
									TS_UT410.01	Battery Maintenance Unit	1
									TS_UT411.01 TS_UT411.02	Switches & Crossings	1
									TS_UT411.03	Conductor Rail	1
									TS_UT412.01	Other Systems/Facilities	1
									INF_UT501.01	Electric Switchboard	1
L						I	l l		INF_UI501.02	Distribution Board	



March Marc		Level 0		evel 1 Lev	evel 2	Level 3	Level 4		Level 5	Level 6	
West	Dunimana			level 1	evel 2		Level 4				
10 10 10 10 10 10 10 10	Areas ID			Asset/Deliverables Group Asset ID Asset	et Name	Accet Panastable Work Item	Discipline ID Discipline	Sub-Discipline ID Sub-Discipline	Work Item Elemen	t Asset Repeatable Work Item Element	No.
Company Comp			'						INE LITSO1 O	Circuit Breaker	1
											1
											1
Second Perfects Second Per											1
Barrier and quick and proposed sequences Barrier and quick											1
											1
Company Comp											1
Description											1
											1
											1
Production Pro											1
											1
December										1	
Company Comp											1
											1
B. P. A. M. M. A. M. M											1
											1
											1
March Marc											1
									INF_UT502.1	1 Underroad crossing	1
BUJUST SALOMS BUJUST SALOM											1
19 10 10 10 10 10 10 10											1
W. ARREST March 1 1 1 1 1 1 1 1 1		+									1
H. SECOLOMO T. SECOLOMO											1
P. Control Person 1 1 1 1 1 1 1 1 1									INF_UT503.03	3 Booms	1
Discontinued Disc											1
									INF_U1503.0:	6 Switches	1
March Marc											1
M. J. S. S. District Conference of Confere									INF_UT601.0	1 Fans	1
											1
March Marc											1
1											1
March Marc											1
A ATRIA 20 Agred A ATRIA 20											1
											1
Marging Specifies 1 1 1 1 1 1 1 1 1											1
B.											1
Big 100.20 correct Ples 3 100.20 correct Ples									INF_UT701.00	6 Structural Deck	1
No. No. No.											1
Maj 1780 Colored Served Force 1 1 1 1 1 1 1 1 1											1
No.											1
##											1
Bit											1
December										1	
											1 1
MF_CFFE_01_Contents to the contents to the c											1
Bit									INF_UT702.10	O Drainage Blanket	1
N. N. 1970-305 Perspect 1											1
NF_UTPSASS Property 1											1
											1
NF_UTRNS.07 Starts 1									INF_UT703.0	5 Drain	1
N. UT703.08 (if Staff 1 N. UT703.08 (if											1
											1
NF UTPOS D Bearings											1
NF_UT/20,20 Numer 1									INF_UT703.10	0 Bearings	1
NF_UT704_03 Ming Wall 1 NF_UT704_05 ming Wall 1 NF_UT704_07 ming Wall 1 NF_UT704_07 ming Wall 1 NF_UT704_07 ming Wall 1 NF_UT705_07 ming Wall 1									INF_UT704.0	1 Foundation	1
NF_UTQA_06 Pier 1 NF_UTQA_06 Drain 1 NF_UTQA_06 Drain 1 NF_UTQA_07 NF_UTQA									INF_UT704.0	2 Abutment	1
NF_UT704.05 Drain 1 NF_UT704.05 Drain 1 NF_UT704.05 Drain 1 NF_UT704.07 Bearings 1 NF_UT704.07 Bearings 1 NF_UT705.07 NF_UT705.0											1
NF UT70.05 Structural Deck 1 NF UT70.07 Structural Deck 1 NF UT70.08 Structural Deck 1 NF UT70.09 Structural Deck 1											1
NF_UT705.01 Foundation 1 NF_UT705.02 Foundation 1 NF_UT705.02 Foundation 1 NF_UT705.02 Foundation 1 NF_UT705.02 Foundation 1 NF_UT705.03 Mulls 1 NF_UT705.04 Crib Walling 1 NF_UT705.04 Crib Walling 1 NF_UT705.05 Galoncore 1 NF_UT705.05 Galoncore 1 NF_UT705.07 Siepers/Beams 1 NF_UT705.07 Siepers/Beams 1 NF_UT705.07 Siepers/Beams 1 NF_UT705.06 NF_UT705.07 NF_UT705.07									INF_UT704.00	6 Structural Deck	1
											1
Second S											1
INF_UT705.04 Crib Walling 1											1
Separate								INF_UT705.04	4 Crib Walling	1	
Separa S											1
Second S											1
Second S											1
INF_UT705.10 Drainage Blanket 1 1 1 1 1 1 1 1 1		+									1
INF_UT706.02 Access lader 1 INF_UT706.03 Gantry 1									INF_UT705.10	O Drainage Blanket	1
INF_UT706.03 Gantry 1											1
											1
IIII OTTOGOTTALION WIII											1



March Marc	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5		Level 6	
	Rusiness	Asset/Deliverables		Asset Penestable				e	
Building	Areas ID Business Area		rables Group Asset ID Asset Name	Accet Venestable Work Item	Discipline ID Discipline	Sub-Discipline ID Sub-Discipline	Work Item Elemen	it Asset Repeatable Work Item Element	No.
Company Comp									1
									1
Company Comp									1
									1
March Marc									1
Reserved Articles Rese									1
Section Sect									1
1							INF_UT709.04	4 Tunnel Crossover	1
10 10 10 10 10 10 10 10									1
B									1
									1
Company Comp							INF_UT710.03	3 Brackets	1
Section of the control of the contro									1
Section of the control of the contro									1
Company Comp									1
1, 10, 10, 10, 10, 10, 10, 10, 10, 10,							RCS_UT803.0	1 Concrete Footings	1
									1
No. 1982 1									1
15,000,100,100,100,100,100,100,100,100,1									1
Capital Balances 1							RCS_UT803.0	6 Hangers	1
100, 100, 100, 100, 100, 100, 100, 100									1
MA, Man, MB									1
15, 1962 196 1									1
							RCS_UT806.03	1 TBA	1
March Marc									1
March Marc									1
1									1
Company Comp									1
Mail Profit Act Code 1									1
MCL 1996 Debrit 1									1
15.7.PKS 2000 Conference 15.7.PKS 2000 Confe									1
1. 1. 1. 1. 1. 1. 1. 1.									1
Mile									1
No. (1982.) The Alpha Let or Patha Let or Number									1
Section Sect									1
Sc. UPRISC Placeage of Foundation Calls Droug & Commission Sc. UPRISC Security Placeage of Commission Sc. UPRISC Security Placeage of Commission Sc. UPRISC Placeage Sc. UPRISC									1
BOUNDAME Part of P									
									<u>1</u>
Sci UPSGO Conserve remented system 1									1
Microsoft profession system 1									1
RESURDED Coveral Sour Telecourse 1 RESURDED Coveral Source 1 RESURDED Coveral Source Telecourse 1 RESUrded Coveral Source Telecou									1
Discussion Dis									1
BCL_PROSE_Transformation_relations_relation_color_co									1
R.S. USPOZIA Send Spector interface system 2							RCS_UT906.0	7 Train Surveillance Network	1
## SC UTRIBECT Controlled Filter: ## SC UTRIBECT Controlled Filter: ## SC UTRIBECT Services ontrolled Filter ## SC UTRIBECT Services ## SC UTRIBECT								·	1
KS_JURSON Transducer 1 1 1 1 1 1 1 1 1									1
Begin Begi									1
RS_UTURES OF Sentents 1 RS_UTURES OF Sentents 1 RS_UTURES OF Moderns 1 RS_UTURES OF Moderns 1 RS_UTURES OF Moderns 1 RS_UTURES OF Moderns 1 RS_UTURES OF MODERNS							RCS_UT908.03	3 Sensors	1
RC_UPRODED Remote 1									1
NEX_JURBSOT Remote Terminal Unit 1									1
SC_UTSO.05 Supervisor Computer 1 1 1 1 1 1 1 1 1									1
RCS_UP908_10 Amm Systems							RCS_UT908.0	8 Supervisory Computer	1
RS_UT088.11 Humaniston interface 1									1
RS_UT900002 Data Frankasion 1								·	1
SC SUP90.02 Det Franchisch SC SUP90.02 Det Franchisch SC SUP90.03 Det Franchisch SC SUP90.07 Det Franchisch							RCS_UT909.03	1 Operational Radio	1
RCS_UTB10.02 public Emergeny Telephone 1							RCS_UT909.02	2 Data Transmission	1
RCS_UT910.03 Tunnel Telephone 1									1
Company Comp							RCS_UT910.0.	3 Tunnel Telephone	1
Security Alarms 1							RCS_UT911.0	1 Surveillance System	1
RCS_UT912.01 Oriver-Only Operation 1							RCS_UT911.03	2 Security Alarms	1
RCS_UT912.02 Train Monitoring System 1									1
RCS_UT913.01 Cher Systems 1									1
TS_UT1001.02 Traction & Propulsion 1							RCS_UT913.0	1 Other Systems	1
Some									1
Second Care Body System 1 1 1 1 1 1 1 1 1									1
TS_UT1001.05 Bogie & Suspension System 1									1
TS_UT1001.06 Coupling System 1 TS_UT1001.07 Underframe System 1 TS_UT1001.07 Underframe System 1 TS_UT1001.08 Auxillary System 1							TS_UT1001.09	5 Bogie & Suspension System	1
TS_UT1001.08 Auxillary System 1							TS_UT1001.0	6 Coupling System	1
									1
· · · · · · · · · · · · · · · · · · ·									1



March Marc	Level 0	Lovo	J 1	Level 2	Level 3	Level 4	Level 5		Level 6	
Company Comp	usiness Pusiness Area	Asset/Deliverables			Asset Repeatable				e	No
Company Comp	reas ID	Group ID	sacty beliverables droup	ASSECTED ASSECTABLE	Work Item ID	Discipline 10 Discipline	Sub discipline ib Sub discipline	IC CONTRACTOR OF THE CONTRACTO		
1										1
Company Comp								TS_UT1001.12	2 Emergency Equipment System	1
Company Comp										1
Company Comp										1
										1
										1
1								TS_UT1001.19	9 ATMS	1
Section Sect										1
Section Sect										1
Note the form of the control of th								TS_UT1002.03	Wagon mounted equipment	1
Product Contents Product Con										1
Description								TS_UT1003.01	1 Body Structure	1
						_				1
Company Comp										1
State Stat								TS_UT1003.05	Bogies & running gear	1
Company Comp										1
Sp. 2006 Institutions 1 1 1 1 1 1 1 1 1						-				1
### ### ### ### ### ### ### ### ### ##								TS_UT1003.09	9 Train Control System	1
B. CHAN J. San Spring 1 1 1 1 1 1 1 1 1										1
1, 2000 10 10 10 10 10 10 10										1
1 100								TS_UT1004.03	3 Video System	1
						_				1
1.100.00 1.100.00										1
1								TS_UT1005.03	Traction Equipment	1
Company Comp						<u> </u>				1
### 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										1
										1
1										1
STATES Section STATES St								TS_UT1005.10	Exterior	1
10,175.0.9 reg odd 1 10,175.0.9 reg odd						_				1
December					-				1	
March Marc								INF_ST101.04	4 Pier	1
						<u> </u>				1
But Carrier									1	
No. 513000 No. 5130000 No. 513000 No. 5130000 No. 51300000 No. 51300000 No. 51300000 No. 513000000 No. 5130000000 No. 5130000000 No. 5130000000 No. 5130000000 No. 5130000000 No. 5130000000 No. 51300000000 No. 51300000000 No. 5130000000 No. 5130000000 No. 51300000000 No. 513000000000 No. 513000000000 No. 513000000000000000000000000000000000000										1
MI STACK Swing 1										1
Mar STROCK StrOck 1 1 1 1 1 1 1 1 1								INF_ST102.04	4 Crib Walling	1
10 11 11 12 12 13 13 13 13										1
May 1700.00 Service 1										1
MF 5700.00 (De Stoutes 1 MF 5700.00 (De								INF_ST102.08	8 Barriers	1
Big 5104.5] Check Managed 1										1
NF STACK Albertant 1										1
NF, \$710-0.00 Preprint 1										1
No. \$7104.08 Porque 1										1
N. F. 57104.08 Ramp								INF_ST104.04	4 Parapet	1
N. 5TIGA 7 State 1										1
N. 5.510.0.0 Ut Shaft										1
NF STI04.08 BATES 1								INF_ST104.08	B Lift Shaft	1
NF_5T050 TRA										1
NF_5TIGGG Escalator Shaft 1 1 1 1 1 1 1 1 1								INF_ST105.01	1 TBA	1
NF ST106 03 jubway 1								INF_ST106.01	1 Escalator Shaft	1
NF_STIGO.04 Tunnel Crossover 1 NF_STIGO.05 Tunnel Crossover 1 NF_STIGO.05 Tunnel Crossover 1 NF_STIGO.07 Tu						+				1
								INF_ST106.04	Tunnel Crossover	1
										1
										1
TBA								INF_ST201.01	1 TBA	1
Second Control of the Control of t										1
INF_ST205.01 TBA								INF_ST204.01	1 TBA	1
Second Control of the control of t								INF_ST205.01	1 TBA	1
Second Control Contr										1
INF_ST209.01 TBA 1 INF_ST210.01 TBA 1 INF_ST210.01 TBA 1 INF_ST210.01 TBA 1 INF_ST211.01 TBA 1								INF_ST208.01	1 TBA	1
INF_ST211.01 TBA 1										1
										1
										1



	Level 0		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
Business Areas ID	Business Area	Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Discipline ID	Discipline	Sub-Discipline ID	Sub-Discipline	Asset Repeatable Work Item Elemen	Asset Repeatable Work Item Element	No.
												INF_ST213.01		1
												INF_ST214.01	TBA	1
												INF_ST215.01	TBA	1
												INF_ST216.01		1
												INF_ST301.01	TBA	1
												INF_ST302.01	TBA	1
												INF_ST303.01	TBA	1
												INF_ST304.01	TBA	1
												INF_ST305.01	TBA	1
												BP_ST401.01	TBA	1
												BP_ST501.01	TBA	1
												BP_ST502.01	TBA	1
												BP_ST503.01	TBA	1
												BP_ST504.01	TBA	1



	Lev	el 1	Le	Pathway (Standard Work Breakdown Cycle is not be part of the WBS Standard, it was been seen as the seen seen seen seen seen seen seen se	will be mad		rough codii	1g. Level 5	
Sum of No. Order Pivot Table	Asset / Deliverables	Asset / Deliverables	Asset ID	Asset Name	Discipline	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Asset Repeatable Work Item	Asset Repeatable Work Item Element/Component	
1	Group ID	Group General	GEN_100	Programme/Project Management	GEN_100_P&GM Project & Governance Management GEN_100_CP&EM Cost Planning & Estimating Management GEN_100_Pcon Project Controls GEN_100_CA General Consents & Authorisation GEN_100_SI System Integration GEN_100_HSQE Health, Safety, Quality and Environment (HSQE) GEN_100_R&D Research and Development GEN_100_R&VM Risk & Value Management GEN_100_ENGM Engineering Management GEN_100_CONM Construction Management GEN_100_MIS Miscellaneous	N/A	N/A	Element ID	N/A	Total
				Programme/Project I	Management Total	INF_101	Ballasted Track	INF_101.02 INF_101.03 INF 101.04 INF 101.05 INF_101.06 INF_101.07	Rails Sleepers Tampers Switches & Crossings Rail Fishplate Ballast Fasteners Cabling	1 1 1 1 1 1 1 1
						INF_102	Slab Track	INF 102.01 INF_102.02 INF_102.03 INF_102.04 INF 102.05 INF_102.06 INF_102.07	Rails Sleepers Tampers Switches & Crossings Rail Fishplate Fasteners Cabling Longitudinal Bearer	1 1 1 1 1 1 1 1
			INF_100	Track (Permanent Way)	INF_100_CA Consents and Authorisation INF_100_AD Asset Disruption INF_100_FES Feasibility Design & Early Studies INF_100_CD Concept Design INF_100_DD Detailed Design INF_100_CM Commercial Management (incl. Procurement) INF_100_MAN Manufacturing/Fabrication/Delivery on Site	INF_103 INF_104	Longitudinal Bearer Track Deep Tube Track	INF 103.02 INF 103.03 INF_104.01 INF_104.02 INF 104.03 INF 104.04	Sleepers Running Rails Rails Sleepers Tampers Switches & Crossings Rail Fishplate	1 1 1 1 1 1
			1111 _100	wayy	INF_100_PLW Preliminary Works INF_100_EW Enabling Works INF_100_CW Construction/Installation Works INF_100_COM Testing & Commissioning INF_100_HCO Handover & Close-out	INE 10E	Emboddod Dail	INF_104.06 INF 104.07 INF 104.08 INF_105.01 INF_105.02 INF_105.03	Ballast Fasteners Cabling Rails Sleepers Tampers Switches & Crossings	1 1 1 1 1 1 1
						INF_105	Points & Crossings	INF_105.05 INF_105.06 INF_105.07 INF 105.08 INF 106.01 INF_106.02 INF_106.03	Rail Fishplate Ballast Fasteners Cabling Rails Stretcher bar Heel Blocks	1 1 1 1 1 1 1
				Track (Permanent Wa	av) Total	INF_107	(P&C) Ancilaries	INF 106.05 INF_106.06 INF_107.01 INF 107.02 INF 107.03	Switch tie plates Slide Chairs Fasteners Buffer Stops Retarders Sundries Other Ancilaries	1 1 1 1 1 1 1 1 44
						INF_201	Cuttings & Embankments	INF_201.03 INF_201.04 INF_201.05 INF_201.06 INF_201.07 INF_201.08	Concrete Piles Beams Netting Grounds anchors Barriers Fence Ram Wall Crest Walkway French Drain	1 1 1 1 1 1 1 1 1 1
						INF_202	Coastal & Estuarial Defences	INF 201.11 INF_201.12 INF_201.13 INF 202.01 INF 202.02 INF_202.03 INF_203.01	Drainage Blanket Embankments Landscape Ecological items Diaphrag Walls & Anchors Groynes Walls & Revetments Tunnels (Segments & Lining)	1 1 1 1 1 1 1 1
						INF_203	Tunnels & Shafts	INF 203.03 INF_203.04 INF_203.05 INF_203.06 INF 203.07 INF 204.01	Adits Supports Portals Shaft Furniture Walways Staircases Landings & Half Landings	1 1 1 1 1 1 1 1
						INF_204 INF_205	Ramps, Staircases and Landings	INF_204.03 INF_204.04 INF_204.05 INF_205.01 INF_205.02 INF_205.03 INF_205.04	Ramps Balustrades & Handrail Access Ladders Foundations Abutments & Piers Deck Walkways & Landings	1 1 1 1 1 1 1
						INF_203	Bridges & Viaducts	INF_205.06 INF_205.07 INF_205.08 INF_205.09 INF_206.01 INF_206.02 INF_206.03	Pavement Parapets Furniture Drainage (to structures) Approaches Foundations Abutments & Piers Deck	1 1 1 1 1 1 1
						INF_206	Footbridge & Cycle Bridge	INF_206.05 INF_206.06 INF_206.07 INF_206.08 INF_206.09 INF_207.01	Walkways & Landings Pavement Parapets Furniture Drainage Approaches Foundations Deck & Supporting Structure	1 1 1 1 1 1 1 1
			INF_200	Civil & Structures	INF_200_CA Consents and Authorisation INF_200_AD Asset Disruption INF_200_FES Feasibility Design & Early Studies INF_200_CD Concept Design INF_200_DD Detailed Design INF_200_CM Commercial Management (incl. Procurement) INF_200_MAN Manufacturing/Fabrication/Delivery on Site	INF_207	Platforms	INF 207.03 INF_207.04 INF_207.05 INF_207.06 INF 207.07 INF_208.01 INF_208.02	Access Structures Pavement Roof & Canopy Structure Platform Fittings & Furniture Drainage & Ducts Foundation Posts Walls	1 1 1 1 1 1 1
			1411 _200		INF_200_PLW Preliminary Works INF_200_EW Enabling Works INF_200_CW Construction/Installation Works INF_200_COM Testing & Commissioning INF_200_HCO Handover & Close-out	INF_208 INF_209	Retaining Walls Fencing &	INF 208.04 INF 208.05 INF_208.06 INF_208.07 INF 208.08 INF 208.09 INF_209.01	Crib Walling Gabions Anchors Sleepers/Beams Barriers Drain Fencing & Railings	1 1 1 1 1 1 1 1
						INF_209	General Drainage System	INF 210.01 INF 210.02 INF_210.03 INF_210.04 INF_210.05 INF 210.06 INF_210.07	Barriers & Guard Rails Drain Pipe Valves Chambers Separator Channels Catchpit Siphon	1 1 1 1 1 1 1 1
								INF_210.09 INF_210.10 INF_210.11	Water Retention Tank Pumps Treatment Plant Vehicular Access Way	1 1 1
						INF_211	Roads	INF_211.02 INF_211.03 INF_211.04	Pedestrian Access Way Ducts, Through, and Drainage Kerbs, Channels, and Edging Vehicular Access Way	1 1 1 1 1
2	INF	Infrastructure				INF_212	Hardstandings & Carparks	INF_212.02 INF_212.03 INF_212.04 INF_213.01	Pedestrian Access Way Ducts, Through, and Drainage Kerbs, Channels, and Edging Vehicular Access Way	1 1 1 1
						INF_213	Pavements and Walkways	INF_213.03 INF_213.04 INF_214.01	Pedestrian Access Way Ducts, Through, and Drainage Kerbs, Channels, and Edging Vehicular Access Way Pedestrian Access Way	1 1 1 1 1
						INF_214	Track Asset Walkways	INF_214.03 INF_214.04 INF_215.01	Pedestrian Access Way Ducts, Through, and Drainage Kerbs, Channels, and Edging Cycle Access Way	1 1 1 1
						INF_215 INF_216	Cycle Lane Street Furniture	INF_215.02 INF_215.03 INF_216.01 INF_216.02	Pedestrian Access Way Kerbs, Channels, and Edging Street Furniture Ornamental Furniture	1 1 1 1
						INF_217	Landscaping and Irrigation Systems	INF_217.01 INF_217.02	Other Furniture External Plants Irrigation Systems Ecological items	1 1 1 1
						INF_218	Troughts	INF_218.01 INF_218.02 INF_218.03	Concrete Trough Non-Cementitious Trough Transition Unit "T" Trough	1 1 1 1



						INF_219	Crossings & Ductways	INF_219.01 INF_219.02 INF_219.03	Ducts Drawpits Chambers	1 1
						INF_220	Miscellaneous Structures	INF_219.03 INF_219.04 INF_220.01	Cable Bridge Miscellaneous Civil/Structures	1
				Civil & Structures Tot	tal		Structures	INF_301.01	Base	109
								INF_301.02 INF_301.03	Enclosure Compound	1 1
								INF 301.04 INF_301.05 INF_301.06	Electric Switchboard Distribution Board Circuit Breaker	1 1
						INF_301	Main Grid	INF_301.07 INF 301.08	Power Transformers Transformer Rectifier	1 1
						IW _501	Substation	INF 301.09 INF_301.10	Electricity meters Electrical relays	1 1
								INF_301.11 INF 301.12 INF 301.13	Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation	1 1
								INF_301.14 INF_301.15	Power Inverters Protection & Control Equipment	1 1
								INF 301.16 INF 302.01 INF_302.02	Network connection Base Enclosure	1 1
								INF_302.03 INF_302.04	Compound Electric Switchboard	1 1
								INF 302.05 INF_302.06	Distribution Board Circuit Breaker	1 1
						INF_302	Distribution Network Operator	INF_302.07 INF_302.08 INF_302.09	Power Transformers Transformer Rectifier Electricity meters	1 1
							(DNO) Substation	INF 302.10 INF_302.11	Electrical relays Electrical switches	1
								INF_302.12 INF 302.13 INF 302.14	Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters	1 1
								INF_302.15 INF_302.16	Protection & Control Equipment Network connection	1 1
								INF 303.01 INF 303.02	Base Enclosure	1 1
								INF_303.03 INF_303.04 INF_303.05	Compound Electric Switchboard Distribution Board	1 1 1
								INF 303.06 INF_303.07	Circuit Breaker Power Transformers	1 1
						INF_303	Private Electricity Generation	INF_303.08 INF_303.09 INF_303.10	Transformer Rectifier Electricity meters Electrical relays	1 1
					INF_300_CA Consents and Authorisation INF_300_AD Asset Disruption			INF 303.10 INF 303.11 INF_303.12	Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies	1 1
					INF_300_FES Feasibility Design & Early Studies INF_300_CD Concept Design			INF_303.13 INF_303.14	Cabling and Containment within Substation Power Inverters	1 1
			INF_300	Electrical Power and Plant	INF_300_DD Detailed Design INF_300_CM Commercial Management (incl. Procurement) INF_300_MAN Manufacturing/Fabrication/Delivery on Site			INF 303.15 INF_303.16 INF_304.01	Protection & Control Equipment Network connection Base	1 1
					INF_300_PLW Preliminary Works INF_300_EW Enabling Works			INF 304.02 INF 304.03	Enclosure Compound	1 1
					INF_300_CW Construction/Installation Works INF_300_COM Testing & Commissioning INF_300_HCO Handover & Close-out			INF_304.04 INF_304.05 INF_304.06	Electric Switchboard Distribution Board Circuit Breaker	1 1
						TNIC 204	Power Transformation	INF_304.06 INF_304.07 INF_304.08	Power Transformers Transformer Rectifier	1 1
						INF_304	Device	INF_304.09 INF_304.10	Electricity meters Electrical relays	1 1
								INF 304.11 INF 304.12 INF_304.13	Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation	1 1
								INF_304.14 INF 304.15	Power Inverters Protection & Control Equipment	1 1
								INF 304.16 INF_305.01 INF_305.02	Network connection Isolation Devices Insulators	1 1
						INF_305	Earthing & Bonding Devices	INF 305.03 INF 305.04	Earthing Devices Lightning Protection	1 1
						INF_306	Cables and	INF_305.05 INF_306.01	Bonding Conductors Cable Containments (Trays)	1 1
						INF_307	Containment Lineside	INF_306.02 INF_307.01 INF_307.02	Cables Rail Heaters Points Heater	1 1 1
							Equipment	INF_307.03 INF_308.01	Junction Lighting General Equipment	1
								INF 308.02 INF 308.03 INF_308.04	Workshop Equipment Cleaning Equipment Lifting Equipment	1 1
								INF_308.05 INF_308.06	De-icing Equipment Overhead Trolley	1 1
						TAUE 200	Maintenance	INF 308.07 INF_308.08	Access Equipment Battery Equipment	1 1
						INF_308	Equipment	INF_308.09 INF 308.10 INF 308.11	Compressed Air Equipment Calibrated Equipment Calibration Gauge Equipment	1 1
								INF_308.12 INF_308.13	Train Test Equipment Train Monitoring Equipment	1
								INF_308.14 INF_308.15 INF_308.16	Welding Equipment Safety Equipment Wheel Lathe	1 1
								INF_308.17 INF_309.01	Electrical Portable Appliances Controlled Emission toilet (CET) Point	1 1
						INF_309	Operational Equipment	INF 309.02 INF 309.03	Carriage Washing Plant Carriage Watering System Point	1 1
				Electrical Power and	Plant Total			INF_309.04 INF_309.05	Sanding System Point Diesel Fueling Point	1 96
						BP_101	Substructure	BP 101.01 BP_101.02	Foundations Retaining Walls	1
								BP_101.03 BP 101.04 BP 102.01	External Structure (D-Walls) Internal Structure Columns	1 1
								BP_102.02 BP_102.03	Slabs Frame	1 1
						BP_102	Superstructure	BP_102.04 BP 102.05 BP_102.06	Roof Stairs & Ramp External Walls	1 1
								BP_102.06 BP_102.07 BP_102.08	Internal Walls & Partitions Windows & Partitions	1 1
							Internal Finishing	BP 102.09 BP 103.01	Internal Doors Wall Finishes Elements	1 1
						BP_103	Equipment	BP_103.02 BP_103.03 BP 104.01	Floor Finishes Elements Ceiling Finishes Elements General Fittings, furnishings, And Equipment	1 1
						BP_104	Fittings, Furnishing	BP 104.02 BP_104.03	Domestic Kicthen Fittings, and Equipment Special Purpose Fittings, Furnishings, and Equipment	1 1
							Equipment	BP_104.04 BP 104.05 BP 104.06	Works of Art Non-Mechanical and Non-Electrical Equipment Internal Plants	1 1
						BP_105	Sanitary Facilities	BP_105.01 BP_105.02	Sanitary Appliances Sanitary Ancillaries	1 1
						BP_106	Services Equipment	BP_106.01 BP 106.02 BP_107.01	Catering Equipment Miscellaneous Equipment Surface Foul Drainage	1 1
						BP_107	Disposal Equipment	BP_107.02 BP_107.03	Special Liquid Waste Drainage Refuse Disposal	1 1
						BP_108	Water Facility	BP 108.01 BP 108.02	Mains Water Supply Cold Water Distribution Hot Water Distribution	1 1
								BP_108.03 BP_108.04 BP 109.01	Steam & Condensate Dictribution Radiators	1 1
						BP_109	Heat Facility Source	BP 109.02 BP_109.03	Heating Floor Infra-Red Heaters	1 1
							Space Heating &	BP_110.01 BP 110.02 BP 110.03	Central Heating Unit Local Heating Unit Central Cooling Unit	1 1
					BP_100_CA Consents and Authorisation BP_100_AD Asset Disruption	BP_110	Air Conditioning	BP_110.04 BP_110.05	Local Cooling Unit Central Air Conditioning Unit	1 1
					BP_100_FES Feasibility Design & Early Studies BP_100_CD Concept Design	DD 111	Vantileti	BP_110.06 BP 111.01	Local Air Conditioning Unit Central Ventilation System	1
			BP_100	Buildings (incl. Stations)	BP_100_DD Detailed Design BP_100_CM Commercial Management (incl. Procurement) BP_100_MAN Manufacturing/Fabrication/Delivery on Site	BP_111	Ventilation System	BP_111.02 BP_111.03 BP_112.01	Local & Special Ventilation Smoke Extraction and Control System Electrical Mains & Sub-mains Distribution	1 1
					BP_100_PLW Preliminary Works BP_100_EW Enabling Works			BP 112.02 BP 112.03	Power Installations Lighting Installations	1 1
					BP_100_CW Construction/Installation Works BP_100_COM Testing & Commissioning BP_100_HCO Handover & Close-out	BP_112	Electrical System	BP_112.04 BP_112.05 BP_112.06	Specialist Lighting Installations Local Electricity Generation Systems Earthing & Bonding Systems	1 1
								BP 112.06 BP 112.07	Earthing & Bonding Systems Station Signange Illumination	1
						DD 113	Fuel Com !	BP_113.01	Fuel Storage	
3	ВР	Buildings & Property				BP_113	Fuel Services	BP_113.02 BP 114.01	Fuel Distribution System Lifts & Enclosed Hoists	1 1 1
3	ВР	_				BP_113	Fuel Services	BP_113.02 BP 114.01 BP 114.02 BP_114.03	Fuel Distribution System Lifts & Enclosed Hoists Escalators Moving Pavements	1 1 1 1 1
3	ВР	_				BP_113	Fuel Services Lift and Conveyor	BP_113.02 BP 114.01 BP 114.02 BP_114.03 BP_114.04 BP_114.05 BP 114.06	Fuel Distribution System Lifts & Enclosed Hoists Escalators Moving Pavements Powered Stairlifts Conveyors Dorck Levellers & Scissor Lifts	1 1 1 1 1 1 1 1
3	ВР	_						BP_113.02 BP 114.01 BP 114.02 BP_114.03 BP_114.04 BP_114.05 BP 114.06 BP_114.07 BP_114.08	Fuel Distribution System Lifts & Enclosed Hoists Escalators Moving Pavements Powered Stairlifts Conveyors Dorck Levellers & Scissor Lifts Cranes & Unenclosed Hoists Car Lifts & Stacking Systems	1 1 1 1 1 1 1 1 1 1
3	ВР	_						BP_113.02 BP 114.01 BP 114.02 BP_114.03 BP_114.04 BP_114.05 BP 114.06 BP_114.07	Fuel Distribution System Lifts & Enclosed Hoists Escalators Moving Pavements Powered Stairlifts Conveyors Dorck Levellers & Scissor Lifts Cranes & Unenclosed Hoists	1 1 1 1 1 1 1 1 1 1 1 1 1



						BP_116	Control and Communication	BP_116.01	Central Control & Building Management Systems	1
						DI _110	Systems	BP_116.01 BP_117.01 BP_117.02	Specialist Piped Supply Installations Specialist Refrigeration Systems	1
						BP_117	Specialist Equipment	BP_117.03 BP_117.04	Specialist Mechanical Installations Specialist Electrical / Electronic Installations	1 1
								BP 117.05 BP 117.06 BP_118.01	Water Features Specialist Station Equipment Water Mains Supply	1 1
								BP_118.02 BP_118.03	Electrical Mains Supply External Transformation Devices	1 1
						BP_118	External Services	BP 118.04 BP_118.05 BP_118.06	Electricity Distribution to External Plant & Equipment Gas Mains Supply Telecommunications & Other Communication System Connections	1 1 1
								BP_118.07 BP 118.08	External Fuel Storage and Piped Distribution Systems External Security Systems	1 1
								BP 118.09 BP_118.10 BP_119.01	External / Street Lighting Systems Local / District Heating Installations Complete Buildings	1 1
						BP_119	Pre-Fabricated Buildings	BP 119.02 BP 119.03 BP_119.04	Building Units Pods Bike Stores	1 1
				Buildings (incl. Statio	ns) Total			BP 201.01	Foundations	88
					BP_200_CA Consents and Authorisation BP_200_AD Asset Disruption	BP_201	Bus Garage	BP 201.02 BP_201.03 BP 201.04	Parking Surface Warehouse / Buildings Structure Floor Marking / Signalling	1 1
					BP_200_FES Feasibility Design & Early Studies BP_200_CD Concept Design	BD 202	Bus Station and	BP_202.01 BP_202.02	Foundations Bus Shelter	1 1
			BP_200	Operation and Other Properties	BP_200_DD Detailed Design BP_200_CM Commercial Management (incl. Procurement) BP_200_MAN Manufacturing/Fabrication/Delivery on Site	BP_202	Stands	BP_202.03 BP_202.04 BP_202.05	Furniture Bus Stop Posts Floor Marking / Signalling	1 1
					BP_200_PLW Preliminary Works BP_200_EW Enabling Works BP_200_CW Construction/Installation Works	BP_203	Bus Stops and	BP 203.01 BP 203.02	Foundations Bus Shelter Furniture	1 1
					BP_200_COM Testing & Commissioning BP_200_HCO Handover & Close-out	br_203	Shelters	BP_203.03 BP_203.04 BP_203.05	Bus Stop Posts Floor Marking / Signalling	1 1
				Operation and Other	Properties Total	BP_204	Pumping Stations	BP 204.01 BP_204.02	Fuel Pumping Stations Vehicle Cleaning Water Pumping Stations	1 1 16
								VS 101.01 VS 101.02	Car Body (Shell) Interior Fit Out Elements	1 1
								VS_101.03 VS_101.04 VS_101.05	Windows Bogies Braking System	1 1
						VS_101	Passenger Rolling Stock	VS 101.06 VS_101.07	Articulation & Suspension System Traction System	1 1
								VS_101.08 VS_101.09 VS_101.10	Coupling system Control and Communication System Auxiliary Equipment and Batteries	1 1
								VS_101.11 VS_101.12	Heating, Ventilation and Air Conditioning Driver's Console and Cab Equipment	1
								VS 102.01 VS 102.02	Car Body (Shell) Interior Fit Out Elements	1 1
								VS_102.03 VS_102.04 VS_102.05	Windows Bogies Braking System	1 1
						VS_102	Freight Rolling Stock	VS 102.06 VS_102.07 VS_102.08	Articulation & Suspension System Traction System Coupling system	1
								VS 102.09 VS 102.10	Control and Communication System Auxiliary Equipment and Batteries	1 1
								VS_102.11 VS_102.12	Heating, Ventilation and Air Conditioning Driver's Console and Cab Equipment	1
								VS 103.01 VS_103.02	Car Body (Shell) Interior Fit Out Elements	1 1
								VS_103.03 VS_103.04 VS_103.05	Windows Bogies Braking System	1 1
						VS_103	Engineering Rolling Stock	VS_103.06 VS_103.07 VS_103.08	Articulation & Suspension System Traction System Coupling system	1 1
								VS 103.09 VS 103.10	Control and Communication System Auxiliary Equipment and Batteries	1 1
								VS_103.11 VS_103.12	Heating, Ventilation and Air Conditioning Driver's Console and Cab Equipment	1
						VS_104	Signalling Interface Systems	VS 104 01	Train Borne Signalling Equipment Driver Display Units	1
						VS_105	Cab Simulators	VS 105.02 VS 105.03	Audio System Video System	1 1
					VS_100_CA Consents and Authorisation VS_100_AD Asset Disruption			VS_105.04 VS_106.01 VS_106.02	Ventilation System Bus Body (Shell) Interior Fit Out Elements	1 1
					VS_100_FES Feasibility Design & Early Studies VS_100_CD Concept Design			VS 106.03 VS_106.04	Windows Bogies	1 1
			VS_100	Rolling Stock & Vehicles	VS_100_DD Detailed Design VS_100_CM Commercial Management (incl. Procurement) VS_100_MAN Manufacturing/Fabrication/Delivery on Site	VS_106	Buses	VS_106.05 VS_106.06 VS_106.07	Braking System Articulation & Suspension System Traction System	1 1 1
					VS_100_PLW Preliminary Works VS_100_EW Enabling Works VS_100_CW Construction/Installation Works			VS_106.08 VS_106.09 VS_106.10	Coupling system Control and Communication System Auxiliary Equipment and Batteries	1 1
					VS_100_COM Testing & Commissioning VS_100_HCO Handover & Close-out			VS_106.11	Heating, Ventilation and Air Conditioning	1
								VS_106.12 VS_107.01 VS_107.02	Driver's Console and Cab Equipment Coach Body (Shell) Interior Fit Out Elements	1 1
		Vehicle						VS_107.03 VS_107.04 VS_107.05	Windows Bogies Braking System	1 1
4	VS	Systems				VS_107	Coaches	VS 107.06 VS 107.07	Articulation & Suspension System Traction System	1 1
								VS_107.08 VS_107.09 VS_107.10	Coupling system Control and Communication System Auxiliary Equipment and Batteries	1 1
								VS_107.11	Heating, Ventilation and Air Conditioning	1
								VS_107.12 VS_108.01 VS_108.02	Driver's Console and Cab Equipment Gears and drivetrain Frames and Forks	1 1
						VS_108	Cycles	VS_108.03 VS_108.04 VS_108.05	Wheels & Tyres Brakes & Pads Power Meters	1 1
								VS 109.01 VS_109.02	Car Body (Shell) Interior Fit Out Elements	1 1
								VS_109.03 VS_109.04 VS_109.05	Windows Bogies Braking System	1 1
						VS_109	Ferries	VS_109.06 VS_109.07 VS_109.08	Articulation & Suspension System Traction System Coupling system	1 1
								VS_109.08 VS_109.09 VS_109.10	Control and Communication System Auxiliary Equipment and Batteries	1 1
								VS_109.11 VS_109.12	Heating, Ventilation and Air Conditioning Driver's Console and Cab Equipment	1
								VS 110.01 VS_110.02 VS_110.03	Car Body (Shell) Interior Fit Out Elements Windows	1 1
								VS 110.04 VS 110.05	Bogies Braking System	1 1
						VS_110	Other vehicles	VS_110.06 VS_110.07 VS_110.08	Articulation & Suspension System Traction System Coupling system	1 1
								VS 110.09 VS_110.10	Control and Communication System Auxiliary Equipment and Batteries Heating, Ventilation and Air	1
				Dell's and				VS_110.11 VS_110.12	Conditioning Driver's Console and Cab Equipment	1
				Rolling Stock & Vehic	ies Total			VS_201.01 VS_201.02	Auto Transformer Site (ATS) Auto Transformer Feeder Site (ATFS)	94 1 1
								VS 201.03 VS_201.04 VS_201.05	Mid Point Auto Transformer Site (MPATS) Sectioning Auto Transformer Site (SATS) Main Grid Traction Supply Substation (Feeder Station)	1
					VS_200_CA Consents and Authorisation VS_200_AD Asset Disruption	VS_201	Power Distribution	VS_201.06 VS_201.07	Track Sectioning Switch (TSS) Direct Current (DC) Substation	1 1
					VS_200_FES Feasibility Design & Early Studies VS_200_CD Concept Design VS_200_DD Detailed Design			VS 201.08 VS_201.09 VS_201.10	Track Paralleling Hut Structure Mounted Outdoor Switchgear (SMOS) Containerised Switchgear	1 1
			VS_200	Power Systems	VS_200_CM Commercial Management (incl. Procurement) VS_200_MAN Manufacturing/Fabrication/Delivery on Site			VS 201.11 VS 201.12	Booster Transformer Auxiliary Equipment Enclosure	1 1
					VS_200_PLW Preliminary Works VS_200_EW Enabling Works VS_200_CW Construction/Installation Works		Overhead Live	VS_201.13 VS_202.01 VS_202.02	Cables and Containment OLE Support Structures Small Part Steelwork (SPS)	1 1
					VS_200_COM Testing & Commissioning VS_200_HCO Handover & Close-out	VS_202	Overhead Line Equipment	VS 202.03 VS_202.04 VS_202.05	Wiring Depot Traction Earthing & Bonding	1
									Conductor Rail Contact system	1
						VS_203	Conductor Rail	VS_203.01 VS_203.02	Earthing & Bonding	1
				Power Systems Total		VS_203 VS_204	Conductor Rail Road Charging Stations	VS 203.02 VS_204.01		1 1 21
				Power Systems Total		VS_204	Road Charging Stations Controls and	VS 203.02 VS_204.01 RCS 101.01 RCS_101.02	Earthing & Bonding Road Charging Stations Consoles & Panels Lever Frames	1 1 21 1 1
				Power Systems Total			Road Charging Stations	VS 203.02 VS_204.01 RCS 101.01	Earthing & Bonding Road Charging Stations Consoles & Panels	1 1 21 1 1 1 1 1



					DCC 103	Interlocking	RCS_102.02	Electro-Mechanical Interlocking	1
					RCS_102	System	RCS 102.03 RCS 102.04	Mechanical System Trackside Interlocking Interface Unit	1
							RCS_102.05	Tokenless Block	1
							RCS_103.01	Electrical Point Mechanisms	1
					RCS_103	Point Mechanisms	RCS_103.02 RCS_103.03	Hydraulic Points Mechanisms Electro-Pneumatic Point Mechanisms	1
							RCS_103.04	Air Point Mechanisms	1
							RCS_103.05 RCS_104.01	Mechanical Point Mechanisms Colour Light Signal	1
							RCS_104.01	Banner Repeaters	1
						Signals and	RCS 104.03	Position Light Signal	1
					RCS_104	Indicators	RCS_104.04 RCS_104.05	Route Indicators Mechanical Signal	1
							RCS 104.06	Operational Signs and Noticeboards	1
				RCS_100_CA Consents and Authorisation			RCS 104.07	Other Signals & Indicators	1
				RCS_100_AD Asset Disruption			RCS_105.01 RCS_105.02	Track Circuits Axle Counters	1
				RCS_100_FES Feasibility Design & Early Studies RCS_100_CD Concept Design		Train Detection	RCS 105.03	Treadle	1
				RCS_100_CD Concept Design	RCS_105	Systems	RCS 105.04	Balise	1
			Signalling Systems	RCS_100_CM Commercial Management (incl. Procurement)			RCS_105.05 RCS_105.06	Insulated Block Joints Impedance Bonds	1
		RCS_100		RCS_100_MAN Manufacturing/Fabrication/Delivery on Site RCS_100_PLW Preliminary Works			RCS_105.07	Hot Axle Box Detectors	1
				RCS_100_EW Enabling Works		Turin Burkerkien	RCS 106.01	Automatic Warning System (AWS)	1
				RCS_100_CW Construction/Installation Works		RCS_106.02 RCS_106.03	Train Protection Warning System (TPWS) Automatic Train Control (ATC)	1	
				RCS_100_COM Testing & Commissioning RCS_100_HCO Handover & Close-out		· ·	RCS_106.04	Automatic Train Protection (ATP)	1
							RCS 107.01 RCS 107.02	Time Division Data Transmission Systems (TDM)	1
					DOG 407	Remote Control Systems	RCS_107.02	Frequency Division Data Transmission Systems (FDM) Radio Electronic Tokenless Block (RETB)	1
					RCS_107		RCS_107.04	Lockout Device (LOD)	1
							RCS 107.05	Alarms, Warnings, and Controls	1
						C' 15	RCS 107.06 RCS_108.01	Other Remote Control Systems Cables	1
				RCS_108	Signal Support Structures	RCS_108.02	Containment devices	1	
						RCS 108.03	Theft Protection devices	1	
				DOC 100	Cables and	RCS 109.01 RCS_109.02	Freestanding Single Post Structural Ancillaries	1	
				RCS_109	Containment Structures	RCS_109.03	Cantilevers	1	
						Signannig	RCS_109.04 RCS_110.01	Gantry / Portal Location Case - Racking and Equipment	1
					RCS_110	Equipment	RCS_110.01 RCS_110.02	Portable Building - REB Container	1
						Housing,	RCS_110.03	Trackside Equipment	1
							RCS_111.01 RCS 111.02	Highway Barriers	1
					RCS_111	Level Crossings	RCS 111.03	Signalling & Traffic Protection	1
						Other Circus III's a	RCS_111.04	Control and Operating Systems	1
					RCS_112	Other Signalling Systems (digital	RCS_112.01	Other Signalling Systems Components (digital or non-digital)	1
			Signalling Systems To	*		or non-digital)			55
5 RCS	Rail & Road Control		Signaming Systems 1	KCS_2UU_CA Consents and Authorisation	RCS_201	Supervisory	RCS 201.01	Hardware Components	1
5 RCS	Systems			RCS_200_AD Asset Disruption RCS_200_FES Feasibility Design & Early Studies	RC3_201	Control	RCS_201.02	Software Components	1
			Traffic Management	RCS_200_CD Concept Design	RCS_202	Incident Management	RCS_202.01 RCS_202.02	Hardware Components Software Components	1
		RCS_200	Systems	RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement)	RCS_203	Stock and Crew	RCS 203.01	Hardware Components	1
				RCS_200_MAN Manufacturing/Fabrication/Delivery on Site	RC3_203	Systems Safe Track Worker	RCS_203.02 RCS_204.01	Software Components	1
				RCS_200_PLW Preliminary Works RCS_200_FW Enabling Works	RCS_204	Access	RCS_204.01	Hardware Components Software Components	1
			Traffic Management S						8
					RCS_301	Operational Control Centre	RCS_301.01 RCS_301.02	Visual Display Units Signal Box Control Panel	1
						Control Centre	RCS_301.02	Masts	1
					RCS_302	Operational Radio	RCS 302.02	Aerials	1
							RCS_302.03 RCS_303.01	Base Stations Transmission Network	1
					RCS_303	Data Transmission	RCS_303.02	Transmission Equipment	1
					RCS_304	Communication Cabling	RCS_304.01	Communication Cables and Containment	1
						Cabling	RCS_305.01	Telephone Concentrators	1
					RCS_305	Concentrator	RCS_305.02	Operational Radio	1
					1.65_505	Equipment	RCS 305.03 RCS 305.04	Zone Control Communication Systems Other Stated Concentrators	1
							RCS_305.04 RCS_306.01	Access Point	1
							RCS_306.02	Direct Line	1
							RCS 306.03 RCS 306.04	Emergency Lineside Plug	1
					RCS_306	Operational	RCS_306.05	Emergency Telephone Devices (ETD)	1
					1.C3_300	Telephone	RCS_306.06	Signal Post Telephone (SPT)	1
				RCS_300_CA Consents and Authorisation RCS_300_AD Asset Disruption			RCS 306.07 RCS 306.08	Point Zone Telephone (PZT) Ground Frame Circuit	1
				RCS_300_FES Feasibility Design & Early Studies			RCS_306.09	Tunnel Emergency Circuit	1
				RCS_300_CD Concept Design			RCS_306.10	Level Crossing Public Emergency Telephone System (PETS)	1
							RCS_307.01 RCS_307.02	CCTV Cameras Monitors	1
			Telecommunications	RCS_300_DD Detailed Design			RCS_307.03	Mirrors	1
		RCS_300	Telecommunications Systems	RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site				I Cambrid Daniela	
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works	DCC 207	Audio-Visual	RCS_307.04	Control Panels Microphones and Speaking Points	1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works	RCS_307	Audio-Visual Management Systems	RCS_307.04 RCS_307.05 RCS_307.06	Microphones and Speaking Points Recorders	1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_307	Management	RCS_307.05 RCS_307.06 RCS_307.07	Microphones and Speaking Points Recorders Amplifiers	1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works	RCS_307	Management	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD)	1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_307	Management Systems	RCS_307.05 RCS_307.06 RCS_307.07	Microphones and Speaking Points Recorders Amplifiers	1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_307	Management	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS)	1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning		Management Systems Positioning	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST)	1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_308	Management Systems Positioning Equipment Remote Asset	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators	1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning		Management Systems Positioning Equipment Remote Asset Monitoring	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02 RCS 309.03	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps	1 1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_308	Management Systems Positioning Equipment Remote Asset	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02 RCS 309.03 RCS_309.04	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment	1 1 1 1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_308	Management Systems Positioning Equipment Remote Asset Monitoring	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.01 RCS 309.02 RCS 309.05 RCS_309.04 RCS_309.05 RCS_310.01	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_308	Positioning Equipment Remote Asset Monitoring Systems (SCADA)	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02 RCS 309.02 RCS_309.05 RCS_309.05 RCS_310.01 RCS 310.02	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_308 RCS_309	Positioning Equipment Remote Asset Monitoring Systems (SCADA) Customer	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02 RCS 309.02 RCS 309.03 RCS_309.04 RCS_309.05 RCS_310.01 RCS 310.02 RCS_310.03	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_308	Positioning Equipment Remote Asset Monitoring Systems (SCADA)	RCS_307.05 RCS 307.06 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02 RCS 309.03 RCS_309.04 RCS_309.05 RCS_310.01 RCS 310.02 RCS_310.03 RCS_310.04 RCS_310.05	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers Ambient Noise Sensor Audio & Video Control Panels	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_308 RCS_309	Positioning Equipment Remote Asset Monitoring Systems (SCADA) Customer Information	RCS_307.05 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02 RCS 309.02 RCS 309.03 RCS_309.04 RCS_309.05 RCS_310.01 RCS 310.02 RCS_310.03 RCS_310.04 RCS_310.05 RCS_310.06	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers Ambient Noise Sensor Audio & Video Control Panels Video Display Units	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_308 RCS_309	Positioning Equipment Remote Asset Monitoring Systems (SCADA) Customer Information System	RCS_307.05 RCS 307.06 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02 RCS 309.02 RCS 309.03 RCS_309.04 RCS_309.05 RCS_310.01 RCS 310.02 RCS_310.05 RCS_310.05 RCS_310.06 RCS 310.07 RCS_311.01	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers Ambient Noise Sensor Audio & Video Control Panels Video Display Units Recorders Racking Equipment Location Case	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning	RCS_308 RCS_309	Positioning Equipment Remote Asset Monitoring Systems (SCADA) Customer Information System Communication Equipment	RCS_307.05 RCS 307.06 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02 RCS 309.02 RCS 309.03 RCS_309.04 RCS_309.05 RCS_310.01 RCS 310.02 RCS_310.01 RCS 310.02 RCS_310.03 RCS_310.04 RCS_310.05 RCS_310.05 RCS_310.06 RCS 310.07 RCS_311.01 RCS_311.01	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers Ambient Noise Sensor Audio & Video Control Panels Video Display Units Recorders Racking Equipment Buildings (REB)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		RCS_300		RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning RCS_300_HCO Handover & Close-out	RCS_308 RCS_309 RCS_310	Positioning Equipment Remote Asset Monitoring Systems (SCADA) Customer Information System	RCS_307.05 RCS 307.06 RCS 307.06 RCS 307.07 RCS_307.08 RCS_307.09 RCS 308.01 RCS 308.02 RCS_308.03 RCS_309.01 RCS 309.02 RCS 309.02 RCS 309.03 RCS_309.04 RCS_309.05 RCS_310.01 RCS 310.02 RCS_310.05 RCS_310.05 RCS_310.06 RCS 310.07 RCS_311.01	Microphones and Speaking Points Recorders Amplifiers Primary Object Detectors (POD) Complementary Object Detectors (COD) Automatic Train Reporting (ATR) Station Information VDU stepping (SIVS) Train Running Under System TOPS (TRUST) Point Heaters Standby Generators Pumps SCADA Equipment Relocatable Equipment Buildings (REB) Speakers Microphones and Speaking Points Amplifiers Ambient Noise Sensor Audio & Video Control Panels Video Display Units Recorders Racking Equipment Location Case	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

N/A		Level 1		Level 2	Level 3		Level 4		Level 5	
	Asset /							Asset Repeatable		
Order Pivot Table	Deliverables Group	Asset / Deliverables Group	Asset ID	Asset Name	Discipline	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Work Item Element	Asset Repeatable Work Item Element/Component	No.
	ID .							ID		
1			GEN_100		GEN_100_P&GM Project & Governance Management			-	N/A	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD			_	Rails	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_		INF_101.02	Sleepers	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD			INF_101.03	Tampers	1
2	INF INF		INF_100 INF_100		INF_100_CA Consents and AuthorisationINF_100_AD INF_100_CA Consents and AuthorisationINF_100_AD	_			Switches & Crossings	1
2	INF		INF_100 INF_100		INF_100_CA Consents and AuthorisationINF_100_AD			_	Rail Fishplate	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD				Ballast	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_		_	Fasteners Cabling	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD			_	Rails	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_			Sleepers	1
2	INF		- INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_		INF_102.03	Tampers	1
2	INF	Infrastructure	INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_			Switches & Crossings	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102			Rail Fishplate	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102	Slab Track	INF_102.06	Fasteners	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102	Slab Track	INF_102.07	Cabling	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_103	Longitudinal Bearer Track	INF_103.01	Longitudinal Bearer	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_103	Longitudinal Bearer Track	INF_103.02	Sleepers	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_103	Longitudinal Bearer Track	INF_103.03	Running Rails	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_104	Deep Tube Track	INF_104.01	Rails	1
2	INF	Infrastructure	INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_	Deep Tube Track	INF_104.02	Sleepers	1
2	INF	Infrastructure	INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_	Deep Tube Track	INF_104.03	Tampers	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_	Deep Tube Track	INF_104.04	Switches & Crossings	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_	Deep Tube Track	INF_104.05	Rail Fishplate	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_		_	Ballast	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_		_	Fasteners	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_	•		Cabling	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD INF_100_CA Consents and AuthorisationINF_100_AD	_		_	Rails	1
2	INF		INF_100 INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_		INF_105.02	Sleepers	1
2	INF INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_		INF_105.03	Tampers Switches & Crossings	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_			Switches & Crossings Rail Fishplate	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_			Ballast	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD			INF_105.07	Fasteners	1
2	INF		_ INF_100		INF_100_CA Consents and AuthorisationINF_100_AD				Cabling	1
2	INF		- INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_			Rails	1
2	INF		_ INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_			Stretcher bar	1
2	INF		INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_			Heel Blocks	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD				Switch tie plates	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD			INF_106.05	Slide Chairs	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_106	Points & Crossings (P&C)	INF_106.06	Fasteners	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	${\sf INF_100_CA}$ Consents and Authorisation ${\sf INF_100_AD}$	INF_107	Ancilaries	INF_107.01	Buffer Stops	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_107	Ancilaries	INF_107.02	Retarders	1
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_107	Ancilaries	INF_107.03	Sundries	1
2	INF	Infrastructure	INF_100		INF_100_CA Consents and AuthorisationINF_100_AD	_	Ancilaries	INF_107.04	Other Ancilaries	1
2	INF	Infrastructure	INF_200		INF_200_CA Consents and AuthorisationINF_200_AD	_	Cuttings & Embankments	INF_201.01	Concrete Piles	1
2	INF	_	INF_200		INF_200_CA Consents and AuthorisationINF_200_AD	_		_	Beams	1
2	INF		INF_200		INF_200_CA Consents and AuthorisationINF_200_AD	_		INF_201.03	Netting	1
2	INF	_	INF_200		INF_200_CA Consents and AuthorisationINF_200_AD			_	Grounds anchors	1
2	INF	_	INF_200		INF_200_CA Consents and AuthorisationINF_200_AD			_	Barriers	1
2	INF	_	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_		_	Fence	1
2	INF		INF_200		INF_200_CA Consents and AuthorisationINF_200_AD	_		_	Ram Wall	1
2	INF		INF_200		INF_200_CA Consents and AuthorisationINF_200_AD INF_200_CA Consents and AuthorisationINF_200_AD				Crest Walkway	1
I 2	INF	mmasu acture	INF_200	Civil & Structures	111 _200_CA CONSCINS AND AUDIONS AND AUDION SAND	INF_201	Cuttings & Embankments	INF_201.09	French Drain	1

March	2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INE 201	Cuttings & Embankments	INF 201.10	Drainage Blanket	1
Part	2					-				1
March Marc						_				1
March Marc	_		_	_		_	- C		·	1
	_			_		_				1
1	_					_		-	1 0	1
	2			_		_			,	1
	2		_	_		_		-		1
	2	INF		_		_		-	Tunnels (Segments & Lining)	1
Part	2	INF		INF_200 Civil & Structures		_	Tunnels & Shafts	INF_203.02	Adits	1
1	2	INF		INF_200 Civil & Structures		_	Tunnels & Shafts	INF_203.03	Supports	1
1	2	INF	Infrastructure	INF_200 Civil & Structures		_	Tunnels & Shafts	_		1
Part	2			INF_200 Civil & Structures		_	Tunnels & Shafts	INF_203.05	Shaft	1
Part	2			INF_200 Civil & Structures		_	Tunnels & Shafts	INF_203.06	Furniture	1
Fig.	2	INF	Infrastructure	INF_200 Civil & Structures		_	Tunnels & Shafts	INF_203.07	Walways	1
1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_204	Ramps, Staircases and Landings	INF_204.01	Staircases	1
Second Content	2	INF	Infrastructure	INF_200 Civil & Structures			Ramps, Staircases and Landings	INF_204.02	Landings & Half Landings	1
Part Particular Partic	2	INF	Infrastructure	INF_200 Civil & Structures		_	Ramps, Staircases and Landings	INF_204.03	Ramps	1
Value Valu	2	INF	Infrastructure	INF_200 Civil & Structures		_	Ramps, Staircases and Landings	INF_204.04	Balustrades & Handrail	1
1	2	INF	Infrastructure	INF_200 Civil & Structures		_	Ramps, Staircases and Landings	INF_204.05	Access Ladders	1
1	2			INF_200 Civil & Structures		_	Bridges & Viaducts	INF_205.01	Foundations	1
A	2	INF	Infrastructure	INF_200 Civil & Structures		_	Bridges & Viaducts	INF_205.02	Abutments & Piers	1
Part	2	INF	Infrastructure	INF_200 Civil & Structures		_	Bridges & Viaducts	INF_205.03	Deck	1
Very Windows	2	INF	Infrastructure	INF_200 Civil & Structures			Bridges & Viaducts	INF_205.04	Walkways & Landings	1
A	2	INF	Infrastructure	INF_200 Civil & Structures			Bridges & Viaducts	INF_205.05	Pavement	1
Part	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.06	Parapets	1
1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.07	Furniture	1
1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.08	Drainage (to structures)	1
Part	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.09	Approaches	1
Part	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.01	Foundations	1
Infrastructure	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.02	Abutments & Piers	1
NF	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.03	Deck	1
Part	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.04	Walkways & Landings	1
Part	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.05	Pavement	1
No. Infrastructure NF_200 Cold & Structures NF_200 CA Convents and Authorisation NF_200 A Display NF_206 N	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.06	Parapets	1
NF Infrastructure NF 200 Civil & Structures NF 200 Civil & Structures NF 200 Consents and AuthorisationNF 200 All P 207 Piul forms NF 207 Structures NF 200 Civil & Structures NF	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.07	Furniture	1
NF Infrastructure NF_200 Civil & Structures NF_200 CA Consents and AuthorisationNFL_700_AD NF_207 Platforms NF_20701 Foundations 1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.08	Drainage	1
No. Infrastructure Nr. 200 Covil & Structures Nr. 200 C Consents and AuthorisationINF_200_AD Nr. 207 Platforms Nr. 207 C Deck & Supporting Structures 1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.09	Approaches	1
NF	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.01	Foundations	1
Infrastructure	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.02	Deck & Supporting Structure	1
Infrastructure NiF_200 Civil & Structures NiF_200 CA consents and Authorisation NiF_200 AD NiF_207 Platforms NiF_207.06 Platform NiF_207.06 Platform NiF_207.06 NiF_208.06 NiF_208.02 NiF_208.02 NiF_208.02 NiF_208.02 NiF_208.03	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.03	Access Structures	1
NF Infrastructure NF 200 Civil & Structures NF 200 CA Consents and AuthorisationINF 200 AD NF 207 Platforms NF 207 Oralinage & Ducts 1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.04	Pavement	1
NF Infrastructure NF 200 Civil & Structures NF 200 CA Consents and Authorisation NF 200 AD NF 207 Platforms NF 207.07 Drainage & Ducts 1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.05	Roof & Canopy Structure	1
INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.02 Posts 1 INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.02 Posts 1 INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.03 Walls 1 INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.04 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.04 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.04 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.06 Anchors 1 INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.07 Sleepers/Beams 1 INF_208 Retaining Walls INF_208.06 Anchors 1 INF_208 Retaining Walls INF_208.07 Sleepers/Beams 1 INF_208 Retaining Walls INF_208.09 Drain 1 INF_208 Retaining Walls INF_208.0	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.06	Platform Fittings & Furniture	1
Infrastructure Infr	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.07	Drainage & Ducts	1
Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.03 Walls INF_208.04 Crib Walling 1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.01	Foundation	1
Infrastructure Infr	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.02	Posts	1
INF_200	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.03	Walls	1
INF_200 Civil & Structures INF_200 CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.06 Anchors 1 INF_200 Civil & Structures INF_200 CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.07 Sleepers/Beams 1 INF_200 Civil & Structures INF_200 CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.08 Barriers 1 INF_200 CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.08 Barriers 1 INF_208 Retaining Walls INF_208.09 Barriers 1 INF_208 Retaining Walls INF_2	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.04	Crib Walling	1
INF 200 Civil & Structures INF 200 C Civil & Structures INF 200 CA Consents and AuthorisationINF 200 AD INF 208 Retaining Walls INF 208.07 Sleepers/Beams 1 INF 200 Civil & Structures INF 200 CA Consents and AuthorisationINF 200 AD INF 208 Retaining Walls INF 208.08 Barriers 1 INF 200 Civil & Structures INF 200 CA Consents and AuthorisationINF 200 AD INF 208 Retaining Walls INF 208.09 Drain IN	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.05	Gabions	1
INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_208 Retaining Walls INF_208.08 Barriers 1 INF_208 Retaining Walls INF_208.09 Drain 1 INF_209 Fencing & Enclosures INF_209.01 Fencing & Retaining Walls INF_209.01 Fencing & Retaining Walls INF_209.01 Fencing & Retaining Walls INF_208.09 Drain 1 INF_208 Retaining Walls INF_208.09 Drain 1 INF_209 Fencing & Enclosures INF_209.01 Fencing & Enclosures INF_209.01 Fencing & Enclosures INF_209.01 Fencing & Enclosures INF_209.02 Barriers & Guard Rails 1 INF_208 Retaining Walls INF_208.09 Drain 1 INF_208 Retaining Walls INF_208.09 Drain 1 INF_208 Fencing & Enclosures INF_208.09 Drain 1 INF_209.01 Fencing & Enclosures IN	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.06	Anchors	1
INF 200 Civil & Structures INF 200 Cox Consents and Authorisation INF 200 Authorisation	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.07	Sleepers/Beams	1
INF 200 Civil & Structures INF 200 Consents and AuthorisationINF 200 AD INF 209 Fencing & Enclosures INF 209.01 Fencing & Railings 1 INF 200 Civil & Structures INF 200 Consents and AuthorisationINF 200 AD INF 209 Fencing & Enclosures INF 209.02 Barriers & Guard Rails 1 INF 200 Civil & Structures INF 200 Consents and AuthorisationINF 200 AD INF 200 General Drainage System INF 210.01 Drain 1 INF 200 Civil & Structures INF 200 Consents and AuthorisationINF 200 AD INF 210 General Drainage System INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 Consents and AuthorisationINF 200 AD INF 210 General Drainage System INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 Consents and AuthorisationINF 200 AD INF 210 General Drainage System INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 Consents and AuthorisationINF 200 AD INF 210 General Drainage System INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210 General Drainage System INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 210.02 Pipe 1 INF 200 Civil & Structures INF 200 AD INF 2	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.08	Barriers	1
INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_209 Fencing & Enclosures INF_209.02 Barriers & Guard Rails 1 INF_200 Civil & Structures INF_200 CA Consents and AuthorisationINF_200_AD INF_210 General Drainage System INF_210.01 Drain 1 INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_210 General Drainage System INF_210.02 Pipe 1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.09	Drain	1
2 INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_210 General Drainage System INF_210.01 Drain 1 2 INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_210 General Drainage System INF_210.02 Pipe 1	2	INF	Infrastructure	INF_200 Civil & Structures		_	Fencing & Enclosures	INF_209.01	Fencing & Railings	1
2 INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_210 General Drainage System INF_210.02 Pipe 1	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_209	Fencing & Enclosures	INF_209.02	Barriers & Guard Rails	1
	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_210	General Drainage System	INF_210.01	Drain	1
2 INF Infrastructure INF_200 Civil & Structures INF_200_CA Consents and AuthorisationINF_200_AD INF_210 General Drainage System INF_210.03 Valves	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_210	General Drainage System	INF_210.02	Pipe	1
	2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_210	General Drainage System	INF_210.03	Valves	1

2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INE 210	General Drainage System	INF 210.04	Chambers	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	General Drainage System	INF 210.05	Separator	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	General Drainage System	INF 210.06	Channels	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_		INF_210.06	Catchpit	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	General Drainage System General Drainage System	INF_210.07	Siphon	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD		g ,	INF_210.08	Water Retention Tank	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	General Drainage System General Drainage System	INF_210.09	Pumps	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	General Drainage System		Treatment Plant	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD		Roads	INF_210.11 INF_211.01	Vehicular Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Roads	INF 211.02	Pedestrian Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Roads	INF_211.02	Ducts, Through, and Drainage	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Roads	INF_211.03	Kerbs, Channels, and Edging	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Hardstandings & Carparks	INF_211.04	Vehicular Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Hardstandings & Carparks	INF 212.02	Pedestrian Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Hardstandings & Carparks	INF 212.03	Ducts, Through, and Drainage	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Hardstandings & Carparks	INF 212.04	Kerbs, Channels, and Edging	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Pavements and Walkways	INF 213.01	Vehicular Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Pavements and Walkways	INF 213.02	Pedestrian Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD		Pavements and Walkways	INF 213.03	Ducts, Through, and Drainage	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Pavements and Walkways	INF 213.04	Kerbs, Channels, and Edging	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Track Asset Walkways	INF 214.01	Vehicular Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Track Asset Walkways	INF 214.02	Pedestrian Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Track Asset Walkways	INF 214.03	Ducts, Through, and Drainage	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Track Asset Walkways	INF 214.04	Kerbs, Channels, and Edging	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Cycle Lane	INF 215.01	Cycle Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Cycle Lane	INF 215.02	Pedestrian Access Way	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD		Cycle Lane	INF 215.03	Kerbs, Channels, and Edging	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Street Furniture	INF 216.01	Street Furniture	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD		Street Furniture	INF 216.02	Ornamental Furniture	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Street Furniture	INF 216.03	Other Furniture	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD		Landscaping and Irrigation Systems	INF 217.01	External Plants	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Landscaping and Irrigation Systems	INF 217.02	Irrigation Systems	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Landscaping and Irrigation Systems	INF 217.03	Ecological Items	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	_	Troughts	INF 218.01	Concrete Trough	1
2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF 218	Troughts	INF 218.02	Non-Cementitious Trough	1
2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD		Troughts	INF_218.03	Transition Unit	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF 218	Troughts	INF 218.04	"T" Trough	1
2	INF	Infrastructure	INF 200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF 219	Crossings & Ductways	INF_219.01	Ducts	1
2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_219	Crossings & Ductways	INF_219.02	Drawpits	1
2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_219	Crossings & Ductways	INF_219.03	Chambers	1
2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_219	Crossings & Ductways	INF_219.04	Cable Bridge	1
2	INF	Infrastructure	INF_200 Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_220	Miscellaneous Structures	INF_220.01	Miscellaneous Civil/Structures	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.01	Base	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.02	Enclosure	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.03	Compound	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.04	Electric Switchboard	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.05	Distribution Board	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.06	Circuit Breaker	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.07	Power Transformers	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.08	Transformer Rectifier	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.09	Electricity meters	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.10	Electrical relays	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.11	Electrical switches	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.12	Batteries, Chargers and Auxiliary supplies	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.13	Cabling and Containment within Substation	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.14	Power Inverters	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_301	Main Grid Substation	INF_301.15	Protection & Control Equipment	1
	INIE	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF 301	Main Grid Substation	INF_301.16	Network connection	1
2	INF								<u> </u>

2	INF	Infrastructure	INF 300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INE 202	Distribution Natwork Operator (DNO) Suk	INIC 202 01	Paca	1
2	INF	Infrastructure		INF_300_CA Consents and AuthorisationINF_300_AD		Distribution Network Operator (DNO) Sub		Base	1
2		Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD		Distribution Network Operator (DNO) Sul		Enclosure	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF 300 CA Consents and AuthorisationINF 300 AD		Distribution Network Operator (DNO) Sul		Compound	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Distribution Network Operator (DNO) Sul		Electric Switchboard	1
2	INF		INF_300 Electrical Power and Plant		_	Distribution Network Operator (DNO) Sul		Distribution Board	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD		Distribution Network Operator (DNO) Sul		Circuit Breaker	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Distribution Network Operator (DNO) Sul		Power Transformers	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Distribution Network Operator (DNO) Sul		Transformer Rectifier	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Distribution Network Operator (DNO) Sul		Electricity meters	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD		Distribution Network Operator (DNO) Sul		Electrical relays	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Distribution Network Operator (DNO) Sul		Electrical switches	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Distribution Network Operator (DNO) Sul		Batteries, Chargers and Auxiliary supplies	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD		Distribution Network Operator (DNO) Sub		Cabling and Containment within Substation	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Distribution Network Operator (DNO) Sub	INF_302.14	Power Inverters	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Distribution Network Operator (DNO) Sub		Protection & Control Equipment	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Distribution Network Operator (DNO) Sub	INF_302.16	Network connection	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Private Electricity Generation	INF_303.01	Base	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Private Electricity Generation	INF_303.02	Enclosure	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.03	Compound	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Private Electricity Generation	INF_303.04	Electric Switchboard	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.05	Distribution Board	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.06	Circuit Breaker	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.07	Power Transformers	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.08	Transformer Rectifier	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.09	Electricity meters	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.10	Electrical relays	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.11	Electrical switches	1
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.12	Batteries, Chargers and Auxiliary supplies	1
2									
2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.13	Cabling and Containment within Substation	1
2	INF INF	Infrastructure Infrastructure	INF_300 Electrical Power and Plant INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD INF_300_CA Consents and AuthorisationINF_300_AD	_	Private Electricity Generation Private Electricity Generation	INF_303.13 INF_303.14	Cabling and Containment within Substation Power Inverters	1
2 2	INF INF INF				INF_303				1 1 1
2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303	Private Electricity Generation	INF_303.14	Power Inverters	1 1 1 1
2 2 2 2 2	INF INF	Infrastructure Infrastructure	INF_300 Electrical Power and Plant INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303	Private Electricity Generation Private Electricity Generation	INF_303.14 INF_303.15	Power Inverters Protection & Control Equipment	1 1 1 1 1
2 2 2 2 2 2	INF INF INF	Infrastructure Infrastructure Infrastructure	INF_300 Electrical Power and Plant INF_300 Electrical Power and Plant INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD INF_300_CA Consents and AuthorisationINF_300_AD INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation	INF_303.14 INF_303.15 INF_303.16	Power Inverters Protection & Control Equipment Network connection	1 1 1 1 1 1
2 2 2 2 2 2 2	INF INF INF	Infrastructure Infrastructure Infrastructure Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD INF_300_CA Consents and AuthorisationINF_300_AD INF_300_CA Consents and AuthorisationINF_300_AD INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01	Power Inverters Protection & Control Equipment Network connection Base	1 1 1 1 1 1
2 2 2 2 2 2 2 2 2	INF INF INF INF	Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_304 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02	Power Inverters Protection & Control Equipment Network connection Base Enclosure	1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2	INF INF INF INF	Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_304 INF_304 INF_304 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Power Transformation Device Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound	1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2	INF INF INF INF INF	Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_304 INF_304 INF_304 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Power Transformation Device Power Transformation Device Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard	1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2	INF INF INF INF INF INF	Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_304 INF_304 INF_304 INF_304 INF_304 INF_304 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board	1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2	INF INF INF INF INF INF	Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_304 INF_304 INF_304 INF_304 INF_304 INF_304 INF_304 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF INF INF INF INF INF INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF INF INF INF INF INF INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.08	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF INF INF INF INF INF INF INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.08 INF_304.09	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF INF INF INF INF INF INF INF INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.08 INF_304.09 INF_304.10	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.08 INF_304.09 INF_304.10 INF_304.10	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.08 INF_304.09 INF_304.10 INF_304.11 INF_304.12	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.08 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.13	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.08 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.13 INF_304.13	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.12 INF_304.13 INF_304.14 INF_304.15	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_305	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.05 INF_304.06 INF_304.07 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.12 INF_304.13 INF_304.14 INF_304.15 INF_304.16 INF_305.01	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment Network connection	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_305 INF_305 INF_305	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Earthing & Bonding Devices Earthing & Bonding Devices	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.05 INF_304.06 INF_304.07 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.12 INF_304.15 INF_304.15 INF_304.16 INF_305.01 INF_305.02	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment Network connection Isolation Devices Insulators	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_305 INF_305 INF_305 INF_305	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Earthing & Bonding Devices Earthing & Bonding Devices Earthing & Bonding Devices	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.05 INF_304.06 INF_304.07 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.12 INF_304.13 INF_304.14 INF_304.15 INF_304.16 INF_305.01 INF_305.02 INF_305.03	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment Network connection Isolation Devices Insulators Earthing Devices	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_305 INF_305 INF_305 INF_305 INF_305	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Earthing & Bonding Devices Earthing & Bonding Devices	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.05 INF_304.06 INF_304.07 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.13 INF_304.14 INF_304.15 INF_304.16 INF_305.01 INF_305.02 INF_305.03 INF_305.04	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment Network connection Isolation Devices Insulators Earthing Devices Lightning Protection	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_305 INF_305 INF_305 INF_305 INF_305	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Earthing & Bonding Devices	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.05 INF_304.06 INF_304.06 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.13 INF_304.15 INF_304.16 INF_304.16 INF_305.01 INF_305.03 INF_305.04 INF_305.05	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment Network connection Isolation Devices Insulators Earthing Devices Lightning Protection Bonding Conductors	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_305 INF_305 INF_305 INF_305 INF_305 INF_305 INF_306	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Earthing & Bonding Devices	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.12 INF_304.13 INF_304.16 INF_304.16 INF_305.01 INF_305.01 INF_305.02 INF_305.03 INF_305.05 INF_306.01	Power Inverters Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment Network connection Isolation Devices Insulators Earthing Devices Lightning Protection Bonding Conductors Cable Containments (Trays)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_305 INF_305 INF_305 INF_305 INF_305 INF_305 INF_306 INF_306	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Earthing & Bonding Devices	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.05 INF_304.06 INF_304.06 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.13 INF_304.15 INF_304.16 INF_305.01 INF_305.01 INF_305.03 INF_305.05 INF_306.01 INF_306.01	Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment Network connection Isolation Devices Insulators Earthing Devices Lightning Protection Bonding Conductors Cable Containments (Trays) Cables	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_305 INF_305 INF_305 INF_305 INF_305 INF_306 INF_306 INF_306 INF_306 INF_307	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Earthing & Bonding Devices Cables and Containment Structures Lineside Equipment	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.04 INF_304.05 INF_304.06 INF_304.07 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.12 INF_304.15 INF_304.16 INF_304.16 INF_305.01 INF_305.01 INF_305.02 INF_305.03 INF_305.05 INF_306.01 INF_306.02 INF_307.01	Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment Network connection Isolation Devices Insulators Earthing Devices Lightning Protection Bonding Conductors Cable Containments (Trays) Cables Rail Heaters	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	INF	Infrastructure	INF_300 Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_303 INF_303 INF_303 INF_304 INF_305 INF_305 INF_305 INF_305 INF_305 INF_306 INF_306 INF_306 INF_307 INF_307	Private Electricity Generation Private Electricity Generation Private Electricity Generation Power Transformation Device Earthing & Bonding Devices	INF_303.14 INF_303.15 INF_303.16 INF_304.01 INF_304.02 INF_304.03 INF_304.05 INF_304.06 INF_304.06 INF_304.09 INF_304.10 INF_304.11 INF_304.12 INF_304.13 INF_304.15 INF_304.16 INF_305.01 INF_305.01 INF_305.03 INF_305.05 INF_306.01 INF_306.01	Protection & Control Equipment Network connection Base Enclosure Compound Electric Switchboard Distribution Board Circuit Breaker Power Transformers Transformer Rectifier Electricity meters Electrical relays Electrical switches Batteries, Chargers and Auxiliary supplies Cabling and Containment within Substation Power Inverters Protection & Control Equipment Network connection Isolation Devices Insulators Earthing Devices Lightning Protection Bonding Conductors Cable Containments (Trays) Cables	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

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2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.01	General Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.02	Workshop Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.03	Cleaning Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.04	Lifting Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.05	De-icing Equipment	1
2	INF	Infrastructure	INF 300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF 308.06	Overhead Trolley	1
2	INF	Infrastructure	 INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF 308	Maintenance Equipment	INF 308.07	Access Equipment	1
2	INF	Infrastructure	 INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	 INF 308	Maintenance Equipment	INF_308.08	Battery Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Maintenance Equipment	INF_308.09	Compressed Air Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Maintenance Equipment	INF_308.10	Calibrated Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Maintenance Equipment	INF_308.11	Calibration Gauge Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Maintenance Equipment	INF_308.12	Train Test Equipment	1
2	INE	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Maintenance Equipment	INF 308.13	Train Monitoring Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Maintenance Equipment	INF 308.14	Welding Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Maintenance Equipment	INF_308.15		1
2	INF	Infrastructure		Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Maintenance Equipment		Safety Equipment Wheel Lathe	1
2	INF	Infrastructure	INF_300		INF_300_CA Consents and AuthorisationINF_300_AD	_	<u> </u>	INF_308.16		1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Maintenance Equipment	INF_308.17	Electrical Portable Appliances	1
2	INF		INF_300	Electrical Power and Plant	1	_	Operational Equipment	INF_309.01	Controlled Emission toilet (CET) Point	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Operational Equipment	INF_309.02	Carriage Washing Plant	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Operational Equipment	INF_309.03	Carriage Watering System Point	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD		Operational Equipment	INF_309.04	Sanding System Point	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	_	Operational Equipment	INF_309.05	Diesel Fueling Point	1
3	BP	Buildings & Property	BP_100	,	BP_100_CA Consents and AuthorisationBP_100_AD A		Substructure	BP_101.01	Foundations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Substructure	BP_101.02	Retaining Walls	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Substructure	BP_101.03	External Structure (D-Walls)	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Substructure	BP_101.04	Internal Structure	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Superstructure	BP_102.01	Columns	1
3	BP	Buildings & Property	BP_100	0 (BP_100_CA Consents and AuthorisationBP_100_AD A		Superstructure	BP_102.02	Slabs	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.03	Frame	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.04	Roof	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.05	Stairs & Ramp	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.06	External Walls	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.07	Internal Walls & Partitions	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.08	Windows & Partitions	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.09	Internal Doors	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_103	Internal Finishing Equipment	BP_103.01	Wall Finishes Elements	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_103	Internal Finishing Equipment	BP_103.02	Floor Finishes Elements	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_103	Internal Finishing Equipment	BP_103.03	Ceiling Finishes Elements	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.01	General Fittings, furnishings, And Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.02	Domestic Kicthen Fittings, and Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.03	Special Purpose Fittings, Furnishings, and Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.04	Works of Art	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.05	Non-Mechanical and Non-Electrical Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.06	Internal Plants	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_105	Sanitary Facilities	BP_105.01	Sanitary Appliances	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_105	Sanitary Facilities	BP_105.02	Sanitary Ancillaries	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_106	Services Equipment	BP_106.01	Catering Equipment	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_106	Services Equipment	BP_106.02	Miscellaneous Equipment	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_107	Disposal Equipment	BP_107.01	Surface Foul Drainage	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_107	Disposal Equipment	BP_107.02	Special Liquid Waste Drainage	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_107	Disposal Equipment	BP_107.03	Refuse Disposal	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_108	Water Facility	BP_108.01	Mains Water Supply	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_108	Water Facility	BP_108.02	Cold Water Distribution	1
3	ВР	Buildings & Property	BP_100		BP_100_CA Consents and AuthorisationBP_100_AD A	BP_108	Water Facility	BP_108.03	Hot Water Distribution	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Water Facility	BP_108.04	Steam & Condensate Dictribution	1
3	ВР	Buildings & Property	BP_100		BP_100_CA Consents and AuthorisationBP_100_AD A	_	Heat Facility Source	BP_109.01	Radiators	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_109	Heat Facility Source	BP_109.02	Heating Floor	1
3	ВР		BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_109	Heat Facility Source	BP_109.03	Infra-Red Heaters	1
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3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Space Heating & Air Conditioning	BP_110.01	Central Heating Unit	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.02	Local Heating Unit	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.03	Central Cooling Unit	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.04	Local Cooling Unit	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.05	Central Air Conditioning Unit	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.06	Local Air Conditioning Unit	1
3	ВР	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_111	Ventilation System	BP_111.01	Central Ventilation System	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_111	Ventilation System	BP_111.02	Local & Special Ventilation	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP 111	Ventilation System	BP_111.03	Smoke Extraction and Control System	1
3	BP	Buildings & Property	BP 100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP 112	Electrical System	BP 112.01	Electrical Mains & Sub-mains Distribution	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP 112	Electrical System	BP_112.02	Power Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Electrical System	BP_112.03	Lighting Installations	1
3	BP	Buildings & Property	BP 100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A		Electrical System	BP 112.04	Specialist Lighting Installations	1
3	BP	Buildings & Property	BP 100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Electrical System	BP 112.05	Local Electricity Generation Systems	1
3	RP	Buildings & Property	BP 100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A		Electrical System	BP 112.06	Earthing & Bonding Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Electrical System	BP 112.07	Station Signange Illumination	1
3	RP.	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Fuel Services	BP_113.01	Fuel Storage	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Fuel Services	BP_113.02	Fuel Distribution System	1
3	RP	Buildings & Property Buildings & Property	BP_100	Buildings (Incl. Stations) Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Lift and Conveyor	BP_113.02 BP_114.01	Lifts & Enclosed Hoists	1
3	RP	Buildings & Property Buildings & Property	BP_100	Buildings (Incl. Stations) Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Lift and Conveyor	BP_114.01 BP_114.02	Escalators	1
3	DD	9 . ,			BP_100_CA Consents and AuthorisationBP_100_AD A	_	•			1
2	RP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Lift and Conveyor	BP_114.03	Moving Pavements	1
2	<i>D</i> 1	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Lift and Conveyor	BP_114.04	Powered Stairlifts	1
3	BP BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Lift and Conveyor	BP_114.05	Conveyors Developer 9 Seigner Lifts	1
3	BP BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Lift and Conveyor	BP_114.06	Dorck Levellers & Scissor Lifts	1
2	D1	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Lift and Conveyor	BP_114.07	Cranes & Unenclosed Hoists	1
ა ე	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	1	_	Lift and Conveyor	BP_114.08	Car Lifts & Stacking Systems	1
2	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Lift and Conveyor	BP_114.09	Document Handling Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Lift and Conveyor	BP_114.10	Other Lift & Conveyor Systems	1
3	BP 	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Fire and Lightning Protection	BP_115.01	Fire Fighting Systems	1
	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Fire and Lightning Protection	BP_115.02	Fire Suppression Systems	1
	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Fire and Lightning Protection	BP_115.03	Lightning Protection	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Control and Communication Systems	BP_116.01	Central Control & Building Management Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A		Specialist Equipment	BP_117.01	Specialist Piped Supply Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Specialist Equipment	BP_117.02	Specialist Refrigeration Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Specialist Equipment	BP_117.03	Specialist Mechanical Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Specialist Equipment	BP_117.04	Specialist Electrical / Electronic Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Specialist Equipment	BP_117.05	Water Features	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Specialist Equipment	BP_117.06	Specialist Station Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.01	Water Mains Supply	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.02	Electrical Mains Supply	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.03	External Transformation Devices	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.04	Electricity Distribution to External Plant & Equipment	$\frac{1}{1}$
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.05	Gas Mains Supply	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.06	Telecommunications & Other Communication System Connections	1 .
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.07	External Fuel Storage and Piped Distribution Systems	1
	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.08	External Security Systems	1
_	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.09	External / Street Lighting Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	External Services	BP_118.10	Local / District Heating Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Pre-Fabricated Buildings	BP_119.01	Complete Buildings	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Pre-Fabricated Buildings	BP_119.02	Building Units	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A		Pre-Fabricated Buildings	BP_119.03	Pods	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	_	Pre-Fabricated Buildings	BP_119.04	Bike Stores	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	_	Bus Garage	BP_201.01	Foundations	1
	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	_	Bus Garage	BP_201.02	Parking Surface	1
	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	_	Bus Garage	BP_201.03	Warehouse / Buildings Structure	1
	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	_	Bus Garage	BP_201.04	Floor Marking / Signalling	1 .
	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	_	Bus Station and Stands	BP_202.01	Foundations	 1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_202	Bus Station and Stands	BP_202.02	Bus Shelter	1

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3	ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_202	Bus Station and Stands	BP_202.03	Furniture	1
3 [ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	_	Bus Station and Stands	BP_202.04	Bus Stop Posts	1
3	ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	_	Bus Station and Stands	BP_202.05	Floor Marking / Signalling	1
3	ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	_	Bus Stops and Shelters	BP_203.01	Foundations	1
3	ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	_	Bus Stops and Shelters	BP_203.02	Bus Shelter	1
3	ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_203	Bus Stops and Shelters	BP_203.03	Furniture	1
3	ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_203	Bus Stops and Shelters	BP_203.04	Bus Stop Posts	1
3	ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_203	Bus Stops and Shelters	BP_203.05	Floor Marking / Signalling	1
3	ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_204	Pumping Stations	BP_204.01	Fuel Pumping Stations	1
3	ВР	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_204	Pumping Stations	BP_204.02	Vehicle Cleaning Water Pumping Stations	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.01	Car Body (Shell)	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.02	Interior Fit Out Elements	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.03	Windows	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.04	Bogies	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.05	Braking System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.06	Articulation & Suspension System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.07	Traction System	1
4	VS '	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.08	Coupling system	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.09	Control and Communication System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.10	Auxiliary Equipment and Batteries	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.12	Driver's Console and Cab Equipment	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.01	Car Body (Shell)	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.02	Interior Fit Out Elements	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.03	Windows	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.04	Bogies	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.05	Braking System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.06	Articulation & Suspension System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.07	Traction System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.08	Coupling system	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.09	Control and Communication System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	SVS_102	Freight Rolling Stock	VS_102.10	Auxiliary Equipment and Batteries	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.11	Heating, Ventilation and AirConditioning	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.12	Driver's Console and Cab Equipment	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.01	Car Body (Shell)	1
4	VS '	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.02	Interior Fit Out Elements	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.03	Windows	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.04	Bogies	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.05	Braking System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.06	Articulation & Suspension System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.07	Traction System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.08	Coupling system	1
4	VS	Vehicle Systems	VS 100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS 103.09	Control and Communication System	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A:	VS_103	Engineering Rolling Stock	VS_103.10	Auxiliary Equipment and Batteries	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A:	VS 103	Engineering Rolling Stock	VS_103.11	Heating, Ventilation and AirConditioning	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A:	VS 103	Engineering Rolling Stock	VS_103.12	Driver's Console and Cab Equipment	1
4		Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A:	_	Signalling Interface Systems	 VS_104.01	Train Borne Signalling Equipment	1
4	VS ,	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A:	 VS 105	Cab Simulators	VS_105.01	Driver Display Units	1
_		Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	_	Cab Simulators	VS_105.02	Audio System	1
_		Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A		Cab Simulators	VS 105.03	Video System	1
4	VS				VS_100_CA Consents and AuthorisationVS_100_AD A:		Cab Simulators	VS 105.04	Ventilation System	1
. +		Vehicle Systems	VS 100	Rolling Stock & Vehicles	10_100_0; 100:100:100 0:1		<u> </u>	_		1
4	VS ,	Vehicle Systems Vehicle Systems	VS_100 VS_100	Rolling Stock & Vehicles Rolling Stock & Vehicles	1	VS 106	Buses	VS 106.01	Bus Body (Shell)	1
4	VS YS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A:	_	Buses Buses	VS_106.01 VS_106.02	Bus Body (Shell) Interior Fit Out Elements	1
4 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	VS VS VS	Vehicle Systems Vehicle Systems	VS_100 VS_100	Rolling Stock & Vehicles Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A: VS_100_CA Consents and AuthorisationVS_100_AD A:	VS_106	Buses	VS_106.02	Interior Fit Out Elements	1 1
4 4 4	VS VS VS VS	Vehicle Systems Vehicle Systems Vehicle Systems	VS_100 VS_100 VS_100	Rolling Stock & Vehicles Rolling Stock & Vehicles Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A: VS_100_CA Consents and AuthorisationVS_100_AD A: VS_100_CA Consents and AuthorisationVS_100_AD A:	VS_106 VS_106	Buses Buses	VS_106.02 VS_106.03	Interior Fit Out Elements Windows	1 1 1
4 4 4 4 4	VS V	Vehicle Systems Vehicle Systems Vehicle Systems Vehicle Systems	VS_100 VS_100 VS_100 VS_100	Rolling Stock & Vehicles Rolling Stock & Vehicles Rolling Stock & Vehicles Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A:	VS_106 VS_106 VS_106	Buses Buses Buses	VS_106.02 VS_106.03 VS_106.04	Interior Fit Out Elements Windows Bogies	1 1 1 1
4 4 4 4 4 4	VS V	Vehicle Systems Vehicle Systems Vehicle Systems	VS_100 VS_100 VS_100	Rolling Stock & Vehicles Rolling Stock & Vehicles Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A: VS_100_CA Consents and AuthorisationVS_100_AD A: VS_100_CA Consents and AuthorisationVS_100_AD A:	VS_106 VS_106 VS_106 VS_106	Buses Buses	VS_106.02 VS_106.03	Interior Fit Out Elements Windows	1 1 1 1 1

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4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Buses	VS_106.08	Coupling system	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Buses	VS_106.09	Control and Communication System	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_106	Buses	VS_106.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_106	Buses	VS_106.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_106	Buses	VS_106.12	Driver's Console and Cab Equipment	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.01	Coach Body (Shell)	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.03	Windows	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.04	Bogies	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.05	Braking System	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS 107	Coaches	VS 107.07	Traction System	1
4	VS	Vehicle Systems		ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS 107	Coaches	VS 107.08	Coupling system	1
4	VS	Vehicle Systems			VS_100_CA Consents and AuthorisationVS_100_AD As	_	Coaches	VS 107.09	Control and Communication System	1
	VS	Vehicle Systems			VS_100_CA Consents and AuthorisationVS_100_AD As	_	Coaches	_	Auxiliary Equipment and Batteries	1
	VS	Vehicle Systems	_		– – – – – – – – – – – – – – – – – – –	_	Coaches	VS_107.11	Heating, Ventilation and AirConditioning	1
	VS	Vehicle Systems	VS 100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As	_			Driver's Console and Cab Equipment	1
, F	VS VS	Vehicle Systems	_		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Cycles		Gears and drivetrain	1
. •		<u>'</u>			VS_100_CA Consents and Authorisation VS_100_AD As	_				1
	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As	_	-	VS_108.02	Frames and Forks	1
_	VS	Vehicle Systems	_			_	Cycles	VS_108.03	Wheels & Tyres	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and Authorisation VS_100_AD As		·		Brakes & Pads	1
4	VS	Vehicle Systems			VS_100_CA Consents and AuthorisationVS_100_AD As		Cycles	VS_108.05	Power Meters	1
, F	VS	Vehicle Systems			VS_100_CA Consents and AuthorisationVS_100_AD As				Car Body (Shell)	1
4	VS	Vehicle Systems	_		VS_100_CA Consents and AuthorisationVS_100_AD As			VS_109.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems			VS_100_CA Consents and AuthorisationVS_100_AD As	_	Ferries		Windows	1
4	VS	Vehicle Systems	= -		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Ferries		Bogies	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Ferries	VS_109.05	Braking System	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As		Ferries	VS_109.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Ferries	VS_109.07	Traction System	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Ferries	VS_109.08	Coupling system	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.09	Control and Communication System	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Ferries	VS_109.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.12	Driver's Console and Cab Equipment	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.01	Car Body (Shell)	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.03	Windows	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.04	Bogies	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.05	Braking System	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.07	Traction System	1
4	VS	Vehicle Systems	VS 100 Rolling Stoc	ck & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS 110.08	Coupling system	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Other vehicles	 VS_110.09	Control and Communication System	1
, 1	VS	Vehicle Systems	_		VS_100_CA Consents and AuthorisationVS_100_AD As	_	Other vehicles	 VS_110.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100 Rolling Stoc		VS_100_CA Consents and AuthorisationVS_100_AD As		Other vehicles	 VS 110.11	Heating, Ventilation and AirConditioning	1
	VS	Vehicle Systems			VS_100_CA Consents and AuthorisationVS_100_AD As	_	Other vehicles	VS_110.12	Driver's Console and Cab Equipment	1
	VS	Vehicle Systems	VS_200 Power Syste		– – – – – – – – – – – – – – – – – – –	_	Power Distribution		Auto Transformer Site (ATS)	1
,	VS	Vehicle Systems	VS_200 Power Syste		– –VS_200_CA Consents and AuthorisationVS_200_AD As	_	Power Distribution	VS_201.02	Auto Transformer Feeder Site (ATFS)	1
	VS	Vehicle Systems	VS_200 Power Syste		 – – – – – – – – – – – – – – – – – – –	_	Power Distribution	VS_201.03	Mid Point Auto Transformer Site (MPATS)	1
	VS	Vehicle Systems	VS_200 Power Syste		vS_200_CA Consents and AuthorisationvS_200_AD As	_	Power Distribution	VS 201.04	Sectioning Auto Transformer Site (SATS)	1
	VS VS	Vehicle Systems	VS_200 Power Syste		vS_200_CA Consents and AuthorisationvS_200_AD As	_	Power Distribution	VS 201.05	Main Grid Traction Supply Substation (Feeder Station)	1
, 1	VS VS	Vehicle Systems			VS_200_CA Consents and AuthorisationVS_200_AD As	_	Power Distribution	VS 201.06		1
			VS_200 Power Syste		VS_200_CA Consents and AuthorisationVS_200_AD As	_			Track Sectioning Switch (TSS)	1
	VS	Vehicle Systems	VS_200 Power Syste		vs_zoo_cA Consents and AuthorisationVs_zoo_AD As	_	Power Distribution	VS_201.07	Direct Current (DC) Substation	1
	VS	Vehicle Systems	VS_200 Power Syste		vs_zoo_cA Consents and AuthorisationVs_zoo_AD As vS_200_CA Consents and AuthorisationVS_200_AD As	_	Power Distribution	VS_201.08	Track Paralleling Hut	1
, 1	VS	Vehicle Systems	VS_200 Power Syste			_	Power Distribution	VS_201.09	Structure Mounted Outdoor Switchgear (SMOS)	1
,	VS	Vehicle Systems	VS_200 Power Syste		VS_200_CA Consents and Authorisation VS_200_AD As	_	Power Distribution	VS_201.10	Containerised Switchgear	1
4	VS	Vehicle Systems	VS_200 Power Syste		VS_200_CA Consents and AuthorisationVS_200_AD As	_	Power Distribution	VS_201.11	Booster Transformer	1
4	VS	Vehicle Systems	VS_200 Power Syste	ems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.12	Auxiliary Equipment Enclosure	1

VS	Vehicle Systems	VS 200 Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As VS 201	Power Distribution	VS 201.13	Cables and Containment	
VS VS	Vehicle Systems	VS_200 Power Systems VS_200 Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As VS_201 VS_200_CA Consents and AuthorisationVS_200_AD As VS_202	Overhead Line Equipment	VS_201.13 VS_202.01	OLE Support Structures	
	·		VS_200_CA Consents and AuthorisationVS_200_AD As VS_202 VS_200_CA Consents and AuthorisationVS_200_AD As VS_202		_		
VS	Vehicle Systems	VS_200 Power Systems		Overhead Line Equipment	VS_202.02	Small Part Steelwork (SPS)	
VS	Vehicle Systems	VS_200 Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As VS_202	Overhead Line Equipment	VS_202.03	Wiring	
VS	Vehicle Systems	VS_200 Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As VS_202	Overhead Line Equipment	VS_202.04	Depot Traction	
VS	Vehicle Systems	VS_200 Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As VS_202	Overhead Line Equipment	VS_202.05	Earthing & Bonding	
VS	Vehicle Systems	VS_200 Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As VS_203	Conductor Rail	VS_203.01	Conductor Rail Contact system	
VS	Vehicle Systems	VS_200 Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As VS_203	Conductor Rail	VS_203.02	Earthing & Bonding	
VS	Vehicle Systems	VS_200 Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As VS_204	Road Charging Stations	VS_204.01	Road Charging Stations	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_101	Controls and Monitoring Systems	RCS_101.01	Consoles & Panels	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_101	Controls and Monitoring Systems	RCS_101.02	Lever Frames	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_101	Controls and Monitoring Systems	RCS_101.03	Ground Frames	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_101	Controls and Monitoring Systems	RCS_101.04	Train Describers	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_101	Controls and Monitoring Systems	RCS_101.05	Supervisory Items	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_101	Controls and Monitoring Systems	RCS 101.06	Signalling Simulator	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_102	Interlocking System	RCS 102.01	Mirco-Processor Based System	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_102	Interlocking System	RCS 102.02	Electro-Mechanical Interlocking	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_102	Interlocking System	RCS 102.03	Mechanical System	
RCS		RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_102	Interlocking System	RCS_102.04	Trackside Interlocking Interface Unit	
	Systems		RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_102 RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_102			Tokenless Block	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_103	Interlocking System	RCS_102.05		
RCS	Systems	RCS_100 Signalling Systems		Point Mechanisms	RCS_103.01	Electrical Point Mechanisms	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_103	Point Mechanisms	RCS_103.02	Hydraulic Points Mechanisms	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_103	Point Mechanisms	RCS_103.03	Electro-Pneumatic Point Mechanisms	-
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_103	Point Mechanisms	RCS_103.04	Air Point Mechanisms	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_103	Point Mechanisms	RCS_103.05	Mechanical Point Mechanisms	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_104	Signals and Indicators	RCS_104.01	Colour Light Signal	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_104	Signals and Indicators	RCS_104.02	Banner Repeaters	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_104	Signals and Indicators	RCS_104.03	Position Light Signal	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_104	Signals and Indicators	RCS_104.04	Route Indicators	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_104	Signals and Indicators	RCS_104.05	Mechanical Signal	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_104	Signals and Indicators	RCS_104.06	Operational Signs and Noticeboards	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_104	Signals and Indicators	RCS_104.07	Other Signals & Indicators	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_105	Train Detection Systems	RCS_105.01	Track Circuits	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_105	Train Detection Systems	RCS 105.02	Axle Counters	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_105	Train Detection Systems	RCS 105.03	Treadle	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_105	Train Detection Systems	RCS 105.04	Balise	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD_RCS_105	Train Detection Systems	RCS 105.05	Insulated Block Joints	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_105	Train Detection Systems	RCS 105.06	Impedance Bonds	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_105	Train Detection Systems	RCS_105.07	Hot Axle Box Detectors	
RCS			RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_106		RCS_106.01		
	Systems		RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_106	Train Protection Systems	_	Automatic Warning System (AWS)	
RCS	Systems	RCS_100 Signalling Systems		Train Protection Systems	RCS_106.02	Train Protection Warning System (TPWS)	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and Authorisation RCS_100_AD_RCS_106	Train Protection Systems	RCS_106.03	Automatic Train Control (ATC)	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD_RCS_106	Train Protection Systems	RCS_106.04	Automatic Train Protection (ATP)	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_107	Remote Control Systems	RCS_107.01	Time Division Data Transmission Systems (TDM)	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_107	Remote Control Systems	RCS_107.02	Frequency Division Data Transmission Systems (FDM)	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_107	Remote Control Systems	RCS_107.03	Radio Electronic Tokenless Block (RETB)	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_107	Remote Control Systems	RCS_107.04	Lockout Device (LOD)	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_107	Remote Control Systems	RCS_107.05	Alarms, Warnings, and Controls	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_107	Remote Control Systems	RCS_107.06	Other Remote Control Systems	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_108	Signal Support Structures	RCS_108.01	Cables	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_108	Signal Support Structures	RCS_108.02	Containment devices	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_108	Signal Support Structures	RCS_108.03	Theft Protection devices	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_109	Cables and Containment Structures	RCS_109.01	Freestanding Single Post	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_109	Cables and Containment Structures	RCS_109.02	Structural Ancillaries	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_109	Cables and Containment Structures	RCS_109.03	Cantilevers	
RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_109	Cables and Containment Structures	RCS_109.04	Gantry / Portal	
RCS		RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD RCS_110	Signalling Equipment Housing, Platforn		Location Case - Racking and Equipment	
	Systems	TOO TOO SIRTIGITIES SASTELLIS		Signaming Equipment Housing, Fidtion	113 110.01	Location case Macking and Equipment	

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5	RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_A	_	Signalling Equipment Housing, Platforms	RCS_110.03	Trackside Equipment	1
5	RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_A	_	Level Crossings	RCS_111.01	Highway	1
5	RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_A	_	Level Crossings	RCS_111.02	Barriers	1
5	RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_A	_	Level Crossings	RCS_111.03	Signalling & Traffic Protection	1
5	RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_A	D RCS_111	Level Crossings	RCS_111.04	Control and Operating Systems	1
5	RCS	Systems	RCS_100 Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_A	D RCS_112	Other Signalling Systems (digital or non-d	RCS_112.01	Other Signalling Systems Components (digital or non-digital)	1
5	RCS	Systems	RCS_200 Traffic Management Syste	RCS_200_CA Consents and AuthorisationRCS_200_A	D RCS_201	Supervisory Control	RCS_201.01	Hardware Components	1
5	RCS	Systems	RCS_200 Traffic Management Syste	RCS_200_CA Consents and AuthorisationRCS_200_A	D RCS_201	Supervisory Control	RCS_201.02	Software Components	1
5	RCS	Systems	RCS_200 Traffic Management Syste	RCS_200_CA Consents and AuthorisationRCS_200_A	D RCS_202	Incident Management Systems	RCS_202.01	Hardware Components	1
5	RCS	Systems	RCS_200 Traffic Management Syste	RCS_200_CA Consents and AuthorisationRCS_200_A	D RCS_202	Incident Management Systems	RCS_202.02	Software Components	1
5	RCS	Systems	RCS_200 Traffic Management Syste	ms RCS_200_CA Consents and AuthorisationRCS_200_A	D RCS_203	Stock and Crew Systems	RCS_203.01	Hardware Components	1
5	RCS	Systems	RCS_200 Traffic Management Syste	ms RCS_200_CA Consents and AuthorisationRCS_200_A	D RCS_203	Stock and Crew Systems	RCS_203.02	Software Components	1
5	RCS	Systems	RCS_200 Traffic Management Syste	ms RCS_200_CA Consents and AuthorisationRCS_200_A	D RCS_204	Safe Track Worker Access	RCS_204.01	Hardware Components	1
5	RCS	Systems	RCS_200 Traffic Management Syste	RCS_200_CA Consents and AuthorisationRCS_200_A	D RCS_204	Safe Track Worker Access	RCS_204.02	Software Components	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_301	Operational Control Centre	RCS_301.01	Visual Display Units	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_301	Operational Control Centre	RCS_301.02	Signal Box Control Panel	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_302	Operational Radio	RCS_302.01	Masts	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_302	Operational Radio	RCS_302.02	Aerials	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_302	Operational Radio	RCS_302.03	Base Stations	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_303	Data Transmission	RCS_303.01	Transmission Network	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_303	Data Transmission	RCS_303.02	Transmission Equipment	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 304	Communication Cabling	RCS 304.01	Communication Cables and Containment	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 305	Concentrator Equipment	RCS_305.01	Telephone Concentrators	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 305		RCS_305.02	Operational Radio	1
5	RCS	Systems	RCS 300 Telecommunications Syste		_		RCS_305.03	Zone Control Communication Systems	1
5	RCS	Systems	RCS 300 Telecommunications Syste		D RCS 305		RCS 305.04	Other Stated Concentrators	1
5	RCS	Systems	RCS 300 Telecommunications Syste		D RCS 306		RCS 306.01	Access Point	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 306	Operational Telephone	RCS 306.02	Direct Line	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 306		RCS 306.03	Emergency	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 306	Operational Telephone	RCS 306.04	Lineside Plug	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 306	Operational Telephone	RCS 306.05	Emergency Telephone Devices (ETD)	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 306		RCS 306.06	Signal Post Telephone (SPT)	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 306		RCS 306.07	Point Zone Telephone (PZT)	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 306		RCS 306.08	Ground Frame Circuit	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 306	Operational Telephone	RCS 306.09	Tunnel Emergency Circuit	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 306	•	RCS 306.10	Level Crossing Public Emergency Telephone System (PETS)	1
5	RCS	Systems	RCS 300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 307	Audio-Visual Management Systems	RCS 307.01	CCTV Cameras	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS 307	Audio-Visual Management Systems	RCS 307.02	Monitors	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_307	Audio-Visual Management Systems	RCS_307.03	Mirrors	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_307		RCS_307.04	Control Panels	1
5	RCS	Systems	RCS_300 Telecommunications Syste	DCC 200 C4 C	_		RCS_307.05	Microphones and Speaking Points	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_307		RCS_307.06	Recorders	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_307	Audio-Visual Management Systems	RCS_307.07	Amplifiers	1
5	RCS	Systems	RCS_300 Telecommunications Syste	DCC 200 C4 C	D RCS_307	<u> </u>	RCS_307.08	Primary Object Detectors (POD)	1
_	RCS	Systems	RCS_300 Telecommunications Syste		_		 RCS_307.09	Complementary Object Detectors (COD)	1
_	RCS	Systems	RCS_300 Telecommunications Syste	DCC 200 C4 C	_		RCS_308.01	Automatic Train Reporting (ATR)	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_308	Positioning Equipment	RCS_308.02	Station Information VDU stepping (SIVS)	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_308		RCS_308.03	Train Running Under System TOPS (TRUST)	1
_	RCS	Systems	RCS_300 Telecommunications Syste		_	Remote Asset Monitoring Systems (SCAD		Point Heaters	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_309	Remote Asset Monitoring Systems (SCAD		Standby Generators	1
5	RCS	Systems	RCS_300 Telecommunications Syste		D RCS_309	Remote Asset Monitoring Systems (SCAD		Pumps	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_309	Remote Asset Monitoring Systems (SCAD		SCADA Equipment	1
_	RCS	Systems	RCS_300 Telecommunications Syste		_	Remote Asset Monitoring Systems (SCAD		Relocatable Equipment Buildings (REB)	1
_	RCS	Systems	RCS_300 Telecommunications Syste		—		RCS_310.01	Speakers	1
_	RCS	Systems	RCS_300 Telecommunications Syste		—	•	RCS_310.02	Microphones and Speaking Points	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_310	•	RCS_310.03	Amplifiers	1
5	RCS	Systems	RCS_300 Telecommunications Syste	ems RCS_300_CA Consents and AuthorisationRCS_300_A	D RCS_310	•	RCS_310.04	Ambient Noise Sensor	1
_	RCS	Systems	RCS_300 Telecommunications Syste		_	•	RCS_310.05	Audio & Video Control Panels	1
					_ =			1	

5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_310	Customer Information System	RCS_310.06	Video Display Units	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_310	Customer Information System	RCS_310.07	Recorders	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_311	Communication Equipment Housing, Plat	RCS_311.01	Racking Equipment Location Case	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_311	Communication Equipment Housing, Plat	RCS_311.02	Relocatable Equipment Buildings (REB)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_311	Communication Equipment Housing, Plat	RCS_311.03	Trackside Equipment	1

	Level 1	Level 2		Level 3	Asset	Level 4	Level 5 Asset Repeatable
Asset/Deliverable s Group ID GEN	General GEN	Asset Name N_100 Programme/Project Management	Discipline ID GEN_100_P&GM	Discipline/Phase Project & Governance Management	Repeatable Work Item ID INF_101	Ballast Track	Work Item Element Element/Component - this level will not be standardised for client-side schedules INF_101.01 Rails 1
INF BP VS RCS	Buildings & Property INF Vehicles Systems INF		GEN_100_CP&EM GEN_100_PCON GEN_100_CA GEN_100_SI	Cost Planning & Estimating Management Project Controls General Consents & Authorisation System Integration	INF_102 INF_103 INF_104 INF_105	Slab Track Longitudinal Bearer Track Deep Tube Track Embedded Rail	INF_101.02 Sleepers 1 INF_101.03 Tampers 1 INF_101.04 Switches & Crossings 1 INF_101.05 Rail Fishplate 1
nes	BP_ VS_	200 Operation and Other Properties 100 Rolling Stock & Vehicles 200 Power Systems	GEN_100_HSQE GEN_100_R&D GEN_100_R&VM	Health, Safety, Quality and Environment (HSQE) Research and Development Risk & Value Management	INF_106 INF_107 INF_201	Points & Crossings (P&C) Ancilaries Cuttings & Embankments	INF_101.06 Ballast 1 INF_101.07 Fasteners 1 INF_101.08 Cabling 1
	RCS	5_100 Signalling Systems 5_200 Traffic Management Systems 5_300 Telecommunications Systems	GEN_100_ENGM GEN_100_CONM GEN_100_MIS	Engineering Management Construction Management Miscellaneous	INF_202 INF_203 INF_204	Coastal & Estuarial Defences Tunnels & Shafts Ramps, Staircases and Landings	INF_102.01 Rails 1 INF_102.02 Sleepers 1 INF_102.03 Tampers 1
			INF_100_CA INF_100_AD INF_100_FES	Consents and Authorisation Asset Disruption Feasibility Design & Early Studies	INF_205 INF_206 INF_207	Bridges & Viaducts Footbridge & Cycle Bridge Platforms Retaining Walls	INF_102.04 Switches & Crossings 1 INF_102.05 Rail Fishplate 1 INF_102.06 Fasteners 1
			INF_100_CD INF_100_DD INF_100_CM INF_100_MAN	Concept Design Detailed Design Commercial Management (incl. Procurement) Manufacturing/Fabrication/Delivery on Site	INF_208 INF_209 INF_210 INF_211	Fencing & Enclosures General Drainage System Roads	INF_102.07 Cabling 1 INF_103.01 Longitudinal Bearer 1 INF_103.02 Sleepers 1 INF_103.03 Running Rails 1
			INF_100_PLW INF_100_EW INF_100_CW	Preliminary Works Enabling Works Construction/Installation Works	INF_212 INF_213 INF_214	Hardstandings & Carparks Pavements and Walkways Track Asset Walkways	INF_104.01 Rails 1 INF_104.02 Sleepers 1 INF_104.03 Tampers 1
			INF_100_COM INF_100_HCO INF_200_CA INF_200_AD	Testing & Commissioning Handover & Close-out Consents and Authorisation Asset Disruption	INF_215 INF_216 INF_217 INF_218	Cycle Lane Street Furniture Landscaping and Irrigation Systems Troughs	INF_104.04 Switches & Crossings 1 INF_104.05 Rail Fishplate 1 INF_104.06 Ballast 1 INF_104.07 Fasteners 1
			INF_200_FES INF_200_CD INF_200_DD	Feasibility Design & Early Studies Concept Design Detailed Design	INF_219 INF_220 INF_301	Crossings & Ductways Miscellaneous Structures Main Grid Substation	INF_104.08 Cabling 1 INF_105.01 Rails 1 INF_105.02 Sleepers 1
			INF_200_CM INF_200_MAN INF_200_PLW	Commercial Management (incl. Procurement) Manufacturing/Fabrication/Delivery on Site Preliminary Works	INF_302 INF_303 INF_304	Distribution Network Operator (DNO) Substation Private Electricity Generation Power Transformation Device	INF_105.03 Tampers 1 INF_105.04 Switches & Crossings 1 INF_105.05 Rail Fishplate 1
			INF_200_EW INF_200_CW INF_200_COM INF_200_HCO	Enabling Works Construction/Installation Works Testing & Commissioning Handover & Close-out	INF_305 INF_306 INF_307 INF_308	Earthing & Bonding Devices Cables and Containment Structures Lineside Equipment Maintenance Equipment	INF_105.06 Ballast 1 INF_105.07 Fasteners 1 INF_105.08 Cabling 1 INF_106.01 Rails 1
			INF_300_CA INF_300_AD INF_300_FES	Consents and Authorisation Asset Disruption Feasibility Design & Early Studies	INF_309 BP_101 BP_102	Operational Equipment Substructure Superstructure	INF_106.02 Stretcher bar 1
			INF_300_CD INF_300_DD INF_300_CM	Concept Design Detailed Design Commercial Management (incl. Procurement)	BP_103 BP_104 BP_105	Internal Finishing Equipment Fittings, Furnishing Equipment Sanitary Facilities	INF_106.05 Slide Chairs 1 INF_106.06 Fasteners 1 INF_107.01 Buffer Stops 1
			INF_300_MAN INF_300_PLW INF_300_EW INF_300_CW	Manufacturing/Fabrication/Delivery on Site Preliminary Works Enabling Works Construction/Installation Works	BP_106 BP_107 BP_108 BP_109	Services Equipment Disposal Equipment Water Facility Heat Facility Source	INF_107.02 Retarders 1 INF_107.03 Sundries 1 INF_107.04 Other Ancilaries 1 INF_201.01 Concrete Piles 1
			INF_300_COM INF_300_HCO BP_100_CA	Testing & Commissioning Handover & Close-out Consents and Authorisation	BP_110 BP_111 BP_112	Space Heating & Air Conditioning Ventilation System Electrical System	INF_201.02 Beams 1 INF_201.03 Netting 1 INF_201.04 Grounds anchors 1
			BP_100_AD BP_100_FES BP_100_CD	Asset Disruption Feasibility Design & Early Studies Concept Design	BP_113 BP_114 BP_115	Fuel Services Lift and Conveyor Fire and Lightning Protection Control and Communication Systems	INF_201.05 Barriers 1 INF_201.06 Fence 1 INF_201.07 Ram Wall 1
			BP_100_DD BP_100_CM BP_100_MAN BP_100_PLW	Detailed Design Commercial Management (incl. Procurement) Manufacturing/Fabrication/Delivery on Site Preliminary Works	BP_116 BP_117 BP_118 BP_119	Control and Communication Systems Specialist Equipment External Services Pre-Fabricated Buildings	INF_201.08 Crest Walkway 1 INF_201.09 French Drain 1 INF_201.10 Drainage Blanket 1 INF_201.11 Embankments 1
			BP_100_EW BP_100_CW BP_100_COM	Enabling Works Construction/Installation Works Testing & Commissioning	BP_201 BP_202 BP_203	Bus Garage Bus Station and Stands Bus Stops and Shelters	INF_201.12 Landscape 1 INF_201.13 Ecological items 1 INF_202.01 Diaphrag Walls & Anchors 1
			BP_100_HCO BP_200_CA BP_200_AD	Handover & Close-out Consents and Authorisation Asset Disruption	BP_204 VS_101 VS_102	Pumping Stations Passenger Rolling Stock Freight Rolling Stock	INF_202.02 Groynes 1 INF_202.03 Walls & Revetments 1 INF_203.01 Tunnels (Segments & Lining) 1
			BP_200_FES BP_200_CD BP_200_DD BP_200_CM	Feasibility Design & Early Studies Concept Design Detailed Design Commercial Management (incl. Procurement)	VS_103 VS_104 VS_105 VS_106	Engineering Rolling Stock Signalling Interface Systems Cab Simulators Buses	INF_203.02 Adits 1 INF_203.03 Supports 1 INF_203.04 Portals 1 INF_203.05 Shaft 1
			BP_200_MAN BP_200_PLW BP_200_EW	Manufacturing/Fabrication/Delivery on Site Preliminary Works Enabling Works	VS_107 VS_108 VS_109	Coaches Cycles Ferries	INF_203.06 Furniture
			BP_200_CW BP_200_COM BP_200_HCO	Construction/Installation Works Testing & Commissioning Handover & Close-out	VS_110 VS_201 VS_202	Other vehicles Power Distribution Overhead Line Equipment	INF_204.02 Landings & Half Landings 1 INF_204.03 Ramps 1 INF_204.04 Balustrades & Handrail 1
			VS_100_CA	Consents and Authorisation Asset Disruption Feasibility Design & Early Studies Concept Design	VS_203 VS_204 RCS_101 RCS_102	Conductor Rail Road Charging Stations Controls and Monitoring Systems Interlocking System	INF_204.05 Access Ladders 1 INF_205.01 Foundations 1 INF_205.02 Abutments & Piers 1 INF_205.03 Deck 1
			VS_100_DD VS_100_CM VS_100_MAN	Detailed Design Commercial Management (incl. Procurement) Manufacturing/Fabrication/Delivery on Site	RCS_103 RCS_104 RCS_105	Point Mechanisms Signals and Indicators Train Detection Systems	INF_205.04 Walkways & Landings 1 INF_205.05 Pavement 1 INF_205.06 Parapets 1
			VS_100_PLW VS_100_EW VS_100_CW VS_100_COM	Preliminary Works Enabling Works Construction/Installation Works Testing & Commissioning	RCS_106 RCS_107 RCS_108 RCS_109	Train Protection Systems Remote Control Systems Signal Support Structures Cables and Containment Structures	INF_205.07 Furniture 1 INF_205.08 Drainage (to structures) 1 INF_205.09 Approaches 1 INF_206.01 Foundations 1
			VS_100_COM VS_100_HCO VS_200_CA VS_200_AD	Handover & Close-out Consents and Authorisation Asset Disruption	RCS_110 RCS_111 RCS_111	Signalling Equipment Housing, Platforms Level Crossings Other Signalling Systems (digital or non-digital)	INF_206.02 Abutments & Piers 1 INF_206.03 Deck 1 INF_206.04 Walkways & Landings 1
			VS_200_FES VS_200_CD VS_200_DD	Feasibility Design & Early Studies Concept Design Detailed Design	RCS_201 RCS_202 RCS_203	Supervisory Control Incident Management Systems Stock and Crew Systems	INF_206.05 Pavement 1 INF_206.06 Parapets 1 INF_206.07 Furniture 1
			VS_200_CM	Commercial Management (incl. Procurement) Manufacturing/Fabrication/Delivery on Site Preliminary Works Enabling Works	RCS_204 RCS_301 RCS_302 RCS_303	Safe Track Worker Access Operational Control Centre Operational Radio Data Transmission	INF_206.08 Drainage 1
			VS_200_CW VS_200_COM VS_200_HCO	Construction/Installation Works Testing & Commissioning Handover & Close-out	RCS_304 RCS_305 RCS_306	Communication Cabling Concentrator Equipment Operational Telephone	INF_207.03 Access Structures 1
			RCS_100_CA RCS_100_AD RCS_100_FES RCS_100_CD	Consents and Authorisation Asset Disruption Feasibility Design & Early Studies Concept Design	RCS_307 RCS_308 RCS_309 RCS_310	Audio-Visual Management Systems Positioning Equipment Remote Asset Monitoring Systems (SCADA) Customer Information System	INF_207.06 Platform Fittings & Furniture 1 INF_207.07 Drainage & Ducts 1 INF_208.01 Foundation 1 INF_208.02 Posts 1
			RCS_100_CD RCS_100_CM RCS_100_MAN	Detailed Design Commercial Management (incl. Procurement) Manufacturing/Fabrication/Delivery on Site	RCS_311	Communication Equipment Housing, Platforms	INF_208.02 Fosts 1 INF_208.03 Walls 1 INF_208.04 Crib Walling 1 INF_208.05 Gabions 1
			RCS_100_PLW RCS_100_EW RCS_100_CW	Preliminary Works Enabling Works Construction/Installation Works			INF_208.06 Anchors 1 INF_208.07 Sleepers/Beams 1 INF_208.08 Barriers 1
			RCS_100_COM RCS_100_HCO RCS_200_CA RCS_200_AD	Testing & Commissioning Handover & Close-out Consents and Authorisation Asset Disruption			INF_208.09 Drain 1 INF_209.01 Fencing & Railings 1 INF_209.02 Barriers & Guard Rails 1 INF 210.01 Drain 1
			RCS_200_FES RCS_200_CD RCS_200_DD	Feasibility Design & Early Studies Concept Design Detailed Design			INF_210.02 Pipe 1 INF_210.03 Valves 1 INF_210.04 Chambers 1
			RCS_200_CM RCS_200_MAN RCS_200_PLW	Commercial Management (incl. Procurement) Manufacturing/Fabrication/Delivery on Site Preliminary Works			INF_210.05 Separator 1 INF_210.06 Channels 1 INF_210.07 Catchpit 1
			RCS_200_EW RCS_200_CW RCS_200_COM RCS_200_HCO	Enabling Works Construction/Installation Works Testing & Commissioning Handover & Close-out			INF_210.08 Siphon 1 INF_210.09 Water Retention Tank 1 INF_210.10 Pumps 1 INF_210.11 Treatment Plant 1
			RCS_300_CA RCS_300_AD RCS_300_FES	Consents and Authorisation Asset Disruption Feasibility Design & Early Studies			INF_211.01 Vehicular Access Way 1 INF_211.02 Pedestrian Access Way 1 INF_211.03 Ducts, Through, and Drainage 1
			RCS_300_CD RCS_300_DD RCS_300_CM	Concept Design Detailed Design Commercial Management (incl. Procurement) Manufacturing/Fabrication/Delivery on Site			INF_211.04 Kerbs, Channels, and Edging 1 INF_212.01 Vehicular Access Way 1 INF_212.02 Pedestrian Access Way 1 INF_212.03 Ducts Through and Drainage 1
			RCS_300_MAN RCS_300_PLW RCS_300_EW RCS_300_CW	Preliminary Works Enabling Works Construction/Installation Works			INF_212.03 Ducts, Through, and Drainage 1 INF_212.04 Kerbs, Channels, and Edging 1 INF_213.01 Vehicular Access Way 1 INF_213.02 Pedestrian Access Way 1
			RCS_300_COM RCS_300_HCO	Testing & Commissioning Handover & Close-out			INF_213.03 Ducts, Through, and Drainage 1 INF_213.04 Kerbs, Channels, and Edging 1 INF_214.01 Vehicular Access Way 1
							INF_214.02 Pedestrian Access Way 1 INF_214.03 Ducts, Through, and Drainage 1 INF_214.04 Kerbs, Channels, and Edging 1 INF_215.01 Cycle Access Way 1
							INF_215.02 Pedestrian Access Way 1 INF_215.03 Kerbs, Channels, and Edging 1 INF_216.01 Street Furniture 1
							INF_216.02 Ornamental Furniture 1 INF_216.03 Other Furniture 1 INF_217.01 External Plants 1 INF_217.02 Irrigation Systems 1
							INF_217.02 Irrigation Systems 1 INF_217.03 Ecological Items 1 INF_218.01 Concrete Trough 1 INF_218.02 Non-Cementitious Trough 1
							INF_218.03 Transition Unit 1 INF_218.04 "T" Trough 1 INF_219.01 Ducts 1
							INF_219.02 Drawpits 1 INF_219.03 Chambers 1 INF_219.04 Cable Bridge 1 INF_220.01 Miscellaneous Civil/Structures 1
							INF_301.01 Base 1 INF_301.02 Enclosure 1 INF_301.03 Compound 1
							INF_301.04 Electric Switchboard 1 INF_301.05 Distribution Board 1 INF_301.06 Circuit Breaker 1
							INF_301.07 Power Transformers 1 INF_301.08 Transformer Rectifier 1 INF_301.09 Electricity meters 1 INF_301.10 Electrical relays 1
							INF_301.11 Electrical switches 1 INF_301.12 Batteries, Chargers and Auxiliary supplies 1 INF_301.13 Cabling and Containment within Substation 1
							INF_301.14 Power Inverters 1 INF_301.15 Protection & Control Equipment 1 INF_301.16 Network connection 1 INF_302.01 Race 1
							INF_302.01 Base 1 INF_302.02 Enclosure 1 INF_302.03 Compound 1 INF_302.04 Electric Switchboard 1
							INF_302.05 Distribution Board 1 INF_302.06 Circuit Breaker 1 INF_302.07 Power Transformers 1
							INF_302.08 Transformer Rectifier 1 INF_302.09 Electricity meters 1

	Level 1	Level 2	Le	evel 3		Level 4	Level 5
Asset/Deliverable s Group ID	Asset/Deliverables Group Asset ID	Asset Name	Discipline ID	Discipline/Phase	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Asset Repeatable
							INF_302.10 Electrical relays 1 INF_302.11 Electrical switches 1 INF_302.12 Batteries, Chargers and Auxiliary supplies 1
							INF_302.13 Cabling and Containment within Substation 1 INF_302.14 Power Inverters 1
							INF_302.15 Protection & Control Equipment 1 INF_302.16 Network connection 1 INF_303.01 Base 1
							INF_303.02 Enclosure 1 INF_303.03 Compound 1 INF_303.04 Electric Switchboard 1
							INF_303.05 Distribution Board 1 INF_303.06 Circuit Breaker 1 INF_303.07 Power Transformers 1
							INF_303.08 Transformer Rectifier 1 INF_303.09 Electricity meters 1
							INF_303.10 Electrical relays 1 INF_303.11 Electrical switches 1 INF_303.12 Batteries, Chargers and Auxiliary supplies 1
							INF_303.13 Cabling and Containment within Substation 1 INF_303.14 Power Inverters 1 INF_303.15 Protection & Control Equipment 1
							INF_303.16 Network connection 1 INF_304.01 Base 1 INF_304.02 Enclosure 1
							INF_304.03 Compound 1 INF_304.04 Electric Switchboard 1
							INF_304.05 Distribution Board 1 INF_304.06 Circuit Breaker 1 INF_304.07 Power Transformers 1
							INF_304.08 Transformer Rectifier 1 INF_304.09 Electricity meters 1 INF_304.10 Electrical relays 1
							INF_304.11 Electrical switches 1 INF_304.12 Batteries, Chargers and Auxiliary supplies 1
							INF_304.13 Cabling and Containment within Substation 1 INF_304.14 Power Inverters 1 INF_304.15 Protection & Control Equipment 1
							INF_304.16 Network connection 1 INF_305.01 Isolation Devices 1 INF_305.02 Insulators 1
							INF_305.03 Earthing Devices 1 INF_305.04 Lightning Protection 1
							INF_305.05 Bonding Conductors 1 INF_306.01 Cable Containments (Trays) 1 INF_306.02 Cables 1
							INF_307.01 Rail Heaters 1 INF_307.02 Points Heater 1 INF_307.03 Junction Lighting 1
							INF_308.01 General Equipment 1 INF_308.02 Workshop Equipment 1
							INF_308.03 Cleaning Equipment 1 INF_308.04 Lifting Equipment 1 INF_308.05 De-icing Equipment 1
							INF_308.06 Overhead Trolley 1 INF_308.07 Access Equipment 1 INF_308.08 Battery Equipment 1
							INF_308.09 Compressed Air Equipment 1 INF_308.10 Calibrated Equipment 1
							INF_308.11 Calibration Gauge Equipment 1 INF_308.12 Train Test Equipment 1 INF_308.13 Train Monitoring Equipment 1
							INF_308.14 Welding Equipment 1 INF_308.15 Safety Equipment 1 INF_308.16 Wheel Lathe 1
							INF_308.17 Electrical Portable Appliances 1 INF_309.01 Controlled Emission toilet (CET) Point 1 INF_309.02 Carriage Washing Plant 1
							INF_309.03 Carriage Watering System Point 1 INF_309.04 Sanding System Point 1
							INF_309.05 Diesel Fueling Point 1 BP_101.01 Foundations 1 BP_101.02 Retaining Walls 1
							BP_101.03 External Structure (D-Walls) 1 BP_101.04 Internal Structure 1 BP_102.01 Columns 1
							BP_102.02 Slabs 1 BP_102.03 Frame 1
							BP_102.04 Roof 1 BP_102.05 Stairs & Ramp 1 BP_102.06 External Walls 1
							BP_102.07 Internal Walls & Partitions 1 BP_102.08 Windows & Partitions 1 BP_102.09 Internal Doors 1
							BP_103.01 Wall Finishes Elements 1 BP_103.02 Floor Finishes Elements 1
							BP_103.03 Ceiling Finishes Elements 1 BP_104.01 General Fittings, furnishings, And Equipment 1 BP_104.02 Domestic Kicthen Fittings, and Equipment 1
							BP_104.03 Special Purpose Fittings, Furnishings, and Equipr 1 BP_104.04 Works of Art 1 BP_104.05 Non-Mechanical and Non-Electrical Equipment 1
							BP_104.06 Internal Plants 1 BP_105.01 Sanitary Appliances 1
							BP_105.02Sanitary Ancillaries1BP_106.01Catering Equipment1BP_106.02Miscellaneous Equipment1
							BP_107.01 Surface Foul Drainage 1 BP_107.02 Special Liquid Waste Drainage 1 BP_107.03 Refuse Disposal 1
							BP_108.01 Mains Water Supply 1 BP_108.02 Cold Water Distribution 1
							BP_108.03Hot Water Distribution1BP_108.04Steam & Condensate Dictribution1BP_109.01Radiators1
							BP_109.02 Heating Floor 1 BP_109.03 Infra-Red Heaters 1 BP_110.01 Central Heating Unit 1
							BP_110.02 Local Heating Unit 1 BP_110.03 Central Cooling Unit 1
							BP_110.04 Local Cooling Unit 1 BP_110.05 Central Air Conditioning Unit 1 BP_110.06 Local Air Conditioning Unit 1
							BP_111.01 Central Ventilation System 1 BP_111.02 Local & Special Ventilation 1 BP_111.03 Smoke Extraction and Control System 1
							BP_112.01 Electrical Mains & Sub-mains Distribution 1 BP_112.02 Power Installations 1
							BP_112.03 Lighting Installations 1 BP_112.04 Specialist Lighting Installations 1 BP_112.05 Local Electricity Generation Systems 1
							BP_112.06Earthing & Bonding Systems1BP_112.07Station Signange Illumination1BP_113.01Fuel Storage1
							BP_113.02 Fuel Distribution System 1 BP_114.01 Lifts & Enclosed Hoists 1 BP_114.02 Escalators 1
							BP_114.03 Moving Pavements 1 BP_114.04 Powered Stairlifts 1
							BP_114.05 Conveyors 1 BP_114.06 Dorck Levellers & Scissor Lifts 1 BP_114.07 Cranes & Unenclosed Hoists 1
							BP_114.08 Car Lifts & Stacking Systems1BP_114.09 Document Handling Systems1BP_114.10 Other Lift & Conveyor Systems1
							BP_115.01 Fire Fighting Systems 1 BP_115.02 Fire Suppression Systems 1 BP_115.03 Lightning Protection 1
							BP_116.01 Central Control & Building Management System 1 BP_117.01 Specialist Piped Supply Installations 1
							BP_117.02 Specialist Refrigeration Systems 1 BP_117.03 Specialist Mechanical Installations 1 BP_117.04 Specialist Electrical / Electronic Installations 1
							BP_117.05 Water Features 1 BP_117.06 Specialist Station Equipment 1 BP_118.01 Water Mains Supply 1
							BP_118.02 Electrical Mains Supply 1 BP_118.03 External Transformation Devices 1 BP_118.04 Electricity Distribution to External Plant & Equip 1
							BP_118.05 Gas Mains Supply 1 BP_118.06 Telecommunications & Other Communication S 1
							BP_118.07 External Fuel Storage and Piped Distribution Sys BP_118.08 External Security Systems 1 BP_118.09 External / Street Lighting Systems 1
							BP_118.10 Local / District Heating Installations 1 BP_119.01 Complete Buildings 1 BP_119.02 Building Units 1
							BP_119.03 Pods 1 BP_119.04 Bike Stores 1
							BP_201.01 Foundations 1 BP_201.02 Parking Surface 1 BP_201.03 Warehouse / Buildings Structure 1
							BP_201.04 Floor Marking / Signalling 1 BP_202.01 Foundations 1 BP_202.02 Bus Shelter 1
							BP_202.03 Furniture 1 BP_202.04 Bus Stop Posts 1
							BP_202.05 Floor Marking / Signalling 1 BP_203.01 Foundations 1 BP_203.02 Bus Shelter 1
							BP_203.03 Furniture 1 BP_203.04 Bus Stop Posts 1 BP_203.05 Floor Marking / Signalling 1
							BP_204.01 Fuel Pumping Stations 1 BP_204.02 Vehicle Cleaning Water Pumping Stations 1 VS_101.01 Car Body (Shell) 1
							VS_101.01 Car Body (Shell) 1 VS_101.02 Interior Fit Out Elements 1 VS_101.03 Windows 1

	Level 1		Level 2		Level 3		Level 4	Level 5
Asset/Deliverable s Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Discipline ID	Discipline/Phase	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Asset Repeatable Asset Repeatable Work Item Work Item Element Element/Component - this level will not be standardised for client-side schedules
								VS_101.04 Bogies 1 VS_101.05 Braking System 1 VS_101.06 Articulation & Suspension System 1
								VS_101.07 Traction System 1 VS_101.08 Coupling system 1 VS_101.09 Control and Communication System 1
								VS_101.10 Auxiliary Equipment and Batteries 1 VS_101.11 Heating, Ventilation and AirConditioning 1 VS_101.12 Driver's Console and Cab Equipment 1
								VS_102.01 Car Body (Shell) 1 VS_102.02 Interior Fit Out Elements 1 VS_102.03 Windows 1
								VS_102.04 Bogies 1 VS_102.05 Braking System 1
								VS_102.06 Articulation & Suspension System 1 VS_102.07 Traction System 1 VS_102.08 Coupling system 1
								VS_102.09 Control and Communication System 1 VS_102.10 Auxiliary Equipment and Batteries 1 VS_102.11 Heating, Ventilation and AirConditioning 1
								VS_102.12 Driver's Console and Cab Equipment 1 VS_103.01 Car Body (Shell) 1 VS_103.02 Interior Fit Out Elements 1
								VS_103.03 Windows 1 VS_103.04 Bogies 1 VS_103.05 Braking System 1
								VS_103.06 Articulation & Suspension System 1 VS_103.07 Traction System 1 VS_103.08 Coupling system 1
								VS_103.09 Control and Communication System 1 VS_103.10 Auxiliary Equipment and Batteries 1 VS_103.11 Heating, Ventilation and AirConditioning 1
								VS_103.12 Driver's Console and Cab Equipment 1 VS_104.01 Train Borne Signalling Equipment 1 VS_105.01 Driver Display Units 1
								VS_105.02 Audio System 1 VS_105.03 Video System 1 VS_105.04 Ventilation System 1
								VS_106.01 Bus Body (Shell) 1 VS_106.02 Interior Fit Out Elements 1 VS_106.03 Windows 1
								VS_106.04 Bogies 1 VS_106.05 Braking System 1
								VS_106.06 Articulation & Suspension System 1 VS_106.07 Traction System 1 VS_106.08 Coupling system 1
								VS_106.09 Control and Communication System 1 VS_106.10 Auxiliary Equipment and Batteries 1 VS_106.11 Heating, Ventilation and AirConditioning 1
								VS_106.12 Driver's Console and Cab Equipment 1 VS_107.01 Coach Body (Shell) 1 VS_107.02 Interior Fit Out Elements 1
								VS_107.03 Windows 1 VS_107.04 Bogies 1 VS_107.05 Braking System 1
								VS_107.06 Articulation & Suspension System 1 VS_107.07 Traction System 1 VS_107.08 Coupling system 1
								VS_107.09 Control and Communication System 1 VS_107.10 Auxiliary Equipment and Batteries 1 VS_107.11 Heating, Ventilation and AirConditioning 1
								VS_107.12 Driver's Console and Cab Equipment 1 VS_108.01 Gears and drivetrain 1 VS_108.02 Frames and Forks 1
								VS_108.03 Wheels & Tyres 1 VS_108.04 Brakes & Pads 1 VS_108.05 Power Meters 1
								VS_109.01 Car Body (Shell) 1
								VS_109.04 Bogies 1 VS_109.05 Braking System 1 VS_109.06 Articulation & Suspension System 1
								VS_109.07 Traction System 1 VS_109.08 Coupling system 1
								VS_109.09 Control and Communication System 1 VS_109.10 Auxiliary Equipment and Batteries 1 VS_109.11 Heating, Ventilation and AirConditioning 1
								VS_109.12 Driver's Console and Cab Equipment 1 VS_110.01 Car Body (Shell) 1 VS_110.02 Interior Fit Out Elements 1
								VS_110.03 Windows 1 VS_110.04 Bogies 1 VS_110.05 Braking System 1
								VS_110.06Articulation & Suspension System1VS_110.07Traction System1VS_110.08Coupling system1
								VS_110.09 Control and Communication System 1 VS_110.10 Auxiliary Equipment and Batteries 1 VS_110.11 Heating, Ventilation and AirConditioning 1
								VS_110.12 Driver's Console and Cab Equipment 1 VS_201.01 Auto Transformer Site (Ats) 1 VS_201.02 Auto Transformer Feeder Site (ATFS) 1
								VS_201.03 Mid Point Auto Transformer Site (MPAts) 1 VS_201.04 Sectioning Auto Transformer Site (SAts) 1 VS_201.05 Main Grid Traction Supply Substation (Feeder St 1
								VS_201.06 Track Sectioning Switch (tsS) 1 VS_201.07 Direct Current (DC) Substation 1 VS_201.08 Track Paralleling Hut 1
								VS_201.09 Structure Mounted Outdoor Switchgear (SMOS) 1 VS_201.10 Containerised Switchgear 1 VS_201.11 Booster Transformer 1
								VS_201.12Auxiliary Equipment Enclosure1VS_201.13Cables and Containment1VS_202.01OLE Support Structures1
								VS_202.02 Small Part Steelwork (SPS) 1 VS_202.03 Wiring 1 VS_202.04 Depot Traction 1
								VS_202.05 Earthing & Bonding 1 VS_203.01 Conductor Rail Contact system 1 VS_203.02 Earthing & Bonding 1
								VS_204.01 Road Charging Stations 1 RCS_101.01 Consoles & Panels 1 RCS_101.02 Lever Frames 1
								RCS_101.03 Ground Frames 1 RCS_101.04 Train Describers 1 RCS_101.05 Supervisory Items 1
								RCS_101.05 Super visory items 1 RCS_101.06 Signalling Simulator 1 RCS_102.01 Mirco-Processor Based System 1 RCS_102.02 Electro-Mechanical Interlocking 1
								RCS_102.02 Electro-Mechanical Interlocking 1 RCS_102.03 Mechanical System 1 RCS_102.04 Trackside Interlocking Interface Unit 1 RCS_102.05 Tokenless Block 1
								RCS_102.05 Tokenless Block 1 RCS_103.01 Electrical Point Mechanisms 1 RCS_103.02 Hydraulic Points Mechanisms 1 RCS_103.03 Electro-Pneumatic Point Mechanisms 1
								RCS_103.04 Air Point Mechanisms 1 RCS_103.05 Mechanical Point Mechanisms 1 RCS_104.01 Colour Light Signal 1
								RCS_104.01 Colour Light Signal 1 RCS_104.02 Banner Repeaters 1 RCS_104.03 Position Light Signal 1 RCS_104.04 Route Indicators 1
								RCS_104.05 Mechanical Signal 1 RCS_104.06 Operational Signs and Noticeboards 1
								RCS_104.07 Other Signals & Indicators 1 RCS_105.01 Track Circuits 1 RCS_105.02 Axle Counters 1 RCS_105.03 Treadle 1
								RCS_105.03 Treadle 1 RCS_105.04 Balise 1 RCS_105.05 Insulated Block Joints 1
								RCS_105.06 Impedance Bonds 1 RCS_105.07 Hot Axle Box Detectors 1 RCS_106.01 Automatic Warning System (AWS) 1
								RCS_106.02 Train Protection Warning System (TPWS) 1 RCS_106.03 Automatic Train Control (ATC) 1 RCS_106.04 Automatic Train Protection (ATP) 1
								RCS_107.01 Time Division Data Transmission Systems (TDM) 1 RCS_107.02 Frequency Division Data Transmission Systems (1 RCS_107.03 Radio Electronic Tokenless Block (RETB) 1
								RCS_107.04 Lockout Device (LOD) 1 RCS_107.05 Alarms, Warnings, and Controls 1 RCS_107.06 Other Remote Control Systems 1
								RCS_108.01 Cables 1 RCS_108.02 Containment devices 1 RCS_108.03 Theft Protection devices 1
		_						RCS_109.01 Freestanding Single Post 1 RCS_109.02 Structural Ancillaries 1 RCS_109.03 Cantilevers 1
								RCS_109.04 Gantry / Portal 1 RCS_110.01 Location Case - Racking and Equipment 1 RCS_110.02 Portable Building - REB Container 1
								RCS_110.03 Trackside Equipment 1 RCS_111.01 Highway 1 RCS_111.02 Barriers 1
								RCS_111.02 Barriers 1 RCS_111.03 Signalling & Traffic Protection 1 RCS_111.04 Control and Operating Systems 1 RCS_112.01 Other Signalling Systems Components (digital or 1
								RCS_201.01 Hardware Components 1 RCS_201.02 Software Components 1
								RCS_202.01 Hardware Components 1 RCS_202.02 Software Components 1 RCS_203.01 Hardware Components 1 RCS_203.02 Software Components 1
								RCS_203.02 Software Components 1 RCS_204.01 Hardware Components 1 RCS_204.02 Software Components 1 PCS_204.01 Nicoral Display Units 1
								RCS_301.01 Visual Display Units 1 RCS_301.02 Signal Box Control Panel 1 RCS_302.01 Masts 1
			<u>-</u>					



	Level 1		Level 2		Level 3		Level 4		Level 5	
						Asset		Asset Repeatable	Asset Repeatable Work Item	
Asset/Deliverable	Asset/Deliverables Group	Asset ID	Asset Name	Discipline ID	Discipline/Phase	Repeatable	Asset Repeatable Work Item		Element/Component - this level will not be	No.
s Group ID						Work Item ID		ID	standardised for client-side schedules	
								RCS_302.02		1
									Base Stations	1
									Transmission Network	1
									Transmission Equipment	1
									Communication Cables and Containment	1
									Telephone Concentrators	1
									Operational Radio	1
									Zone Control Communication Systems	1
									Other Stated Concentrators	1
						- - - - - - - - - - 			Access Point	1
								RCS_306.02		1
									Emergency	1
						 			Lineside Plug	1
									Emergency Telephone Devices (ETD)	1
									Signal Post Telephone (SPT)	1
										1
									Point Zone Telephone (PZT)	1
									Ground Frame Circuit	1
									Tunnel Emergency Circuit	1
									Level Crossing Public Emergency Telephone Syst	t 1
									CCTV Cameras	1
								RCS_307.02		1
								RCS_307.03		1
									Control Panels	1
									Microphones and Speaking Points	1
								RCS_307.06		1
								RCS_307.07		1
									Primary Object Detectors (POD)	1
									Complementary Object Detectors (COD)	1
									Automatic Train Reporting (ATR)	1
									Station Information VDU stepping (SIts)	1
									Train Running Under System TOPS (TRUST)	1
									Point Heaters	1
									Standby Generators	1
								RCS_309.03		1
								RCS_309.04	SCADA Equipment	1
									Relocatable Equipment Buildings (REB)	1
								RCS_310.01	. Speakers	1
									Microphones and Speaking Points	1
									Amplifiers	1
									Ambient Noise Sensor	1
									Audio & Video Control Panels	1
									Video Display Units	1
									Recorders	1
									Racking Equipment Location Case	1
								RCS 311.02	Relocatable Equipment Buildings (REB)	1
								RCS 311.03	Trackside Equipment	1

			Current WBS		
Туре	Current RMM Level 1	Current WBS Level Name	Correspondent	Comments	RMM Cost Estimate Tables
			Level		
	Railway Control System	Rail & Road Control System	Level 1		
	Train Power System	Power Systems	Level 2		
	Electric Power and Plant	Electric Power and Plant	Level 2		
Direct	Permanent Way	Track (Permanent Way)	Level 2		3.2.5 Tables for Cost Estimates and Cost Plans
Construction Works	Operational Telecommunications Systems	Telecommunications Systems	Level 2		
VVOIKS	Buildings and Property	Buildings and Property	Level 1		Group Element 1.01 Railway Control Systems
1	Civil Engineering	Civil & Structures	Level 2		Group Element 1.02 Train Power Systems
	Enabling Works	Enabling Works	Level 3		Group Element 1.03 Electric Power and Plant
	Rolling Stock	Rolling Stock & Vehicles	Level 2		Group Element 1.04 Permanent Way
Indirect	Main Contractors Preliminaries	Preliminary Works	Level 3		Group Element 1.05 Operational Telecommunications Systems
Construction Works	Main Contractors Overheads and Profit	N/A	N/A	Not related to a specific asset	Group Element 1.06 Buildings and Property
	Design	Feasibility Design & Early Studies/Concept/Detailed Design	Level 3		Group Element 1.07 Civil Engineering Group Element 1.08 Enabling Works Group Element 1.09 Rolling Stock
Design,	Project Management	Project/Programme Management	Level 2		Group Element 2.01 Main Contractor's Preliminaries
Project Management and other costs	Other Costs	N/A	Level 3	Not related to a specific scope (Land, statutory and public bodies is captured under Consents and Authorisations)	Group Element 3.03 Other Project Costs
Risk	Risk Allowance	Risk & Value Management	Level 3		Group Element 6.01 Taxation and Grants
Inflation	Inflation	N/A	N/A	Not related to a specific scope	
Taxation and Grants	Tax Allowance and Grants	N/A	N/A	Not related to a specific scope	

TRANSPORT for LONDON – COMMERCIAL SURFACE TRANSPORT

Major Asset Renewals Programme (MARP) - Brent Cross Structures Feasibility Study

Scope Appendix F

Cost Estimate Scope

Project Reference Number: tfl_scp_001845



COMMERCIAL SURFACE TRANSPORT

Brent Cross Structures Cost Estimate Scope and Specification

DRAFT REVISION 1

(Services Delivery) Agreement between Surface Transport PPD and (Consultant name here)

Project Reference Number: ST-PJ529C

Transport for London Palestra 197 Blackfriars Road London SE1 8NJ

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Brent Cross Structures

Cost Estimate Scope and Specification Scope

The Consultant is to provide estimating support to the Brent Cross Structures project. This is to include:-

- Preparing a comprehensive estimate for the works, based upon the outline/ reference design
- Development of and information gathering for the estimate based upon the outline/ reference design during the preparation of the design
- Provision of costings to support option selection/refinement
- Provision of life cycle cost for the proposed works, including gathering input from others, including asset managers and experts within Transport for London and externally
- Estimating support to the project as required and instructed by the Project Manager.

Works are to be carried out in accordance with the specification set out below.

Specification

1. Purpose

The consultant is to produce estimates for the works forming the Brent Cross Structures including all temporary and permanent works costs, client costs, land and legal fees, licence fees, charges, statutory costs, compensations and the like. The outline/reference design estimate is to include:-

- An estimate and estimate summary in the format set out within TfL's Estimate Template, a copy of which is attached to this brief.
- A supporting detailed bill of quantities
- An estimate report
- All supporting information necessary to demonstrate the derivation of the estimate, including take-off sheets, quotations, assumptions and the like
- Presenting the estimate to TfL, including preparing any presentation material to enable the estimate, its basis and its preparation to be fully understood and evaluated



2. Summary Estimate

- The estimate is to be prepared using TfL's standard estimate template, a copy of which is attached to this specification.
- The estimate should be set out in accordance with TfL's Cost Feedback Structure.

3. Bill of Quantities

The consultant is to prepare a full Bill of Quantities for the works at a level appropriate to the level of design information available. The following describe requirements for the bill:-

- The bill should be measured and presented in a manner consistent with the Cost Feedback Structure and the Estimate template. [Note: the estimate template may be subject to change. Prior to populating the template, the Consultant should check with TfL to ensure that the latest version of the template is used.]
- It should utilise a recognised method of measurement (e.g. MCHW for highways or CES MM4 for civils/structural engineering works) for detailed measurements where insufficient detail is available within the Cost Feedback Structure. However, all detailed measurement should fit within the overall cost feedback structure and all items forming each high level cost feedback structure item should be clearly identifiable.
- Each item should have a cost breakdown/ method of measurement code representing its classification within the method of measurement.
- It should incorporate all elements required for the works whether shown within the
 design information or not. The design team shall be consulted during the
 preparation of the bill of quantities to ensure that the full extent of works is
 understood.
- It should be fully quantified and reflect the requirements of the project. Where
 necessary, the consultant shall engage with appropriate specialists to properly
 interpret all the data available and ensure that quantities accurately reflect the works
 required.

Measurement used to prepare the bill of quantities should always use the most accurate available information. Where marked dimensions are not provided on drawings, electronic measurements from a BIM model or directly from CAD should be used wherever these are available.

A clear audit trail should be provided of the production of all measurement including the transfer from the measurement to the summary of the quantities in the bill of quantities. A quality assurance check should be carried out to demonstrate that the measurement has been cross checked by an independent checker (see also section 6, below).

4. Source Information

The information upon which the estimate is based should be appropriate to the Pathway stage for which the estimate is being prepared (Stage 3 for the principal estimate being sought via this specification, although the Consultant should also refer to information produced at Pathway Stage 2 in order to provide context and clarification of design information.).



As a minimum, the Consultant should ensure it has all of the "core" products required for the Pathway stage, in order to inform the estimate. The Consultant should work with other members of its design team and other members of the wider project team to obtain this information.

In the event that the Consultant uses its best efforts to obtain the correct information but that elements of the information remain unavailable, due account of the level of information available should be taken in the preparation of the estimate and, in particular, in the assessment of risk and estimating uncertainty. The level of information available should be stated within the estimate report and any concerns or advice regarding the suitability of the estimate for the proposed Pathway stage should also be stated.

5. Estimating

The consultant is to provide an Estimate for the works based upon the bill of quantities. The estimate is to:-

Have a base date of 2nd Quarter 2021

Reflect accurate current prices, at the time of preparing the estimate, based upon:-

Quotations and other advice from contractors, subcontractors and other industry specialists

Known, accurate, industry data

Outturn costs of comparable projects

Any other information which may more accurately inform current pricing

The prices shall take account of prevailing market and economic conditions. Where it is anticipated that plant, materials or other resources will be obtained from outside the United Kingdom, this shall include taking account of appropriate currency exchange rates.

The estimate is to include all direct and indirect construction costs and all client's costs including design and other consultancy costs, all project management costs, all compensation payments and statutory undertakers' costs, appropriate allowance for risk, contingency and uncertainty and any other costs needed to deliver the works.

6. Risk

A robust allowance for risk and uncertainty shall be included within the estimate and shall be appropriate to the level of information available to inform the estimate. The risk and uncertainty allowance is to be prepared in consultation with TfL's risk managers and shall follow appropriate guidance from them.

7. Life Cycle Cost

In addition to the capital cost estimate, the Consultant is to prepare a Life Cycle Cost assessment for the scheme.

The Life Cycle Cost assessment should assume a lifespan of 120 years for the asset. The assessment should include all capital and subsequent costs including operation, maintenance and renewals of all elements of the scheme.



The Consultant shall ensure that appropriate input is provided by asset managers and other key stakeholders within TfL and shall co-ordinate this activity.

8. Estimate Report

The estimate is to be accompanied by a report that should fully explain the background to the estimate, its context and the methodology used in its creation. As a minimum it shall include:-

Details of the scheme being delivered

A summary of the estimate (in the form set out in the estimate template)

A comparison between the current cost estimate and the previous cost estimate for the proposed option under the main construction elements on an elemental basis and commentary on the source of these changes.

Details of all drawings, specifications, reports and other documents used in the preparation of the estimate

Details of all estimator's allowances made in the estimate, the reason for which each allowance has been made and the rationale for the quantum of each allowance

A full list of all assumptions made in the preparation of the estimate, qualifications to the estimate and exclusions from the estimate

Analysis of the estimate including details of key repeatable work items and proportions of the overall cost represented by each cost category

Details of the source of cost data for the items (eg. previous projects, known rates, quotations, etc.)

Benchmarking of the estimate against previous similar projects and against known rates for various work types and repeatable work items

Estimate of the Life Cycle Cost for the scheme, in accordance with section 6, above, and details of how this has been calculated

9. Personnel

Personnel involved in the preparation of the estimate will be appropriately experienced and qualified for the work being undertaken. The consultant will provide copies of proposed estimators' CVs to TfL for agreement prior to their working on the project.

10. Quality Assurance

Before the estimate is issued to TfL, a full internal review (QA) should be carried out by the consultant. The QA process should be made visible, once completed and it should include the estimate being signed by the reviewers noted below.



The estimate is to be checked to ensure it is free from arithmetic errors (including formula errors in spreadsheets) and that quantity measures are correct.

The estimate shall be reviewed by a senior member of the Consultant Staff (experienced in the type of work to be reviewed) who needs to be satisfied the estimate has been prepared and checked by suitably skilled staff. Final review and sign-off will be provided by a minimum of two directors.

The reviewers' signatures shall be taken to indicate that they believe the estimate to be accurately measured, appropriately priced and therefore represents a realistic assessment of the most likely project cost and that the product is thoroughly auditable.

11. Sign-off

Following completion of the consultant's own Quality Assurance processes, the estimate should be signed-off by appropriate members of the TfL project team, including the project manager, the commercial manager, the senior commercial manager, the estimator, the estimating manager and the sponsor, in accordance with TfL's "Pathway" procedures and Estimating guidance.

12. Communication

The consultant will liaise closely with the TfL Estimating team to ensure that the work being carried out is in line with TfL's requirements. The consultant will provide updates on the progress on the production of the cost estimate at intervals of no more than one week.

13. Option Costings and Ad-hoc Advice

As part of the scope, the Consultant is required to prepare costings to inform option refinement and may also be requested to provide other estimating support to the project. Unless specifically requested, neither an estimate report nor a presentation will be required to describe these costings. They should also be undertaken to a level of detail that reflects the level of information available and timescales required for completion. However, the same principles of using the best available data shall apply to these ad-hoc exercises as to the detailed outline/ reference design estimate and these shall also be checked and their quality assured to a similar standard.

TRANSPORT for LONDON – COMMERCIAL SURFACE TRANSPORT

Major Asset Renewals Programme (MARP) - Brent Cross Structures Feasibility Study

Scope Appendix G

BIM

Project Reference Number: tfl_scp_001845

Execution Plan

Project *		Name of	Name of Project or Programme			
Programm	ne *					
Reference	!	Recognis	Recognised reference code (e.g. profit centre, UIP, etc.)			
Stage		Pathway	Pathway Stage			
		Project / Programme* Manager		Name		
Responsil	Responsible					
		Signature		Date		
		Head of Delivery / Director of Delivery*		Name		
Accountal	ble		•			
		Signature)	Date		
Product Version		Date	Author	Summary of changes		
History 0.1		dd/mm/yy	Insert Name	First draft		

This document must be filed in accordance with the <u>document filing structure</u>

^{*} Delete as appropriate (the Accountable person should always be at least one management level higher than the Responsible person).

Product Context

Purpose

The Execution Plan acts as the central reference document for managing all aspects of the execution of the project or programme – including project management, engineering / technical management, construction management, health, safety, environment and sustainability management, procurement, maintenance readiness, operational readiness and stakeholders.

This product supports compliance with the Construction (Design and Management) Regulations. Therefore, it is mandatory that the supplied template must be used.

Applicability	Project	The Execution Plan is a core Pathway Product and must be produced for all projects. If the project is part of a programme, do not duplicate information contained in the programme level Execution Plan, cross reference to it instead.
	Programme	The Execution Plan is a core Pathway Product and must be produced for all programmes (which may either be to deliver a set of projects or to deliver a collection of renewals / enhancement work activities that are usually agreed on an annual basis).

Consult	Role	Detail
Consider	Sponsor	To ensure that the business case can be satisfied
these roles	Sporisor	and the benefits can be delivered using this plan
when	Project	To ensure that engineering and technical content is
developing	Engineer	adequately covered and correct.
this	Asset Owner	To ensure that user requirement content is
document	/ Operator	adequately covered and correct.
	Commercial	To ensure that procurement content is adequately
	Lead	covered and correct.
	Subject	To ensure that the overall contents are adequately
	Matter	covered and correct.
	Experts	
	Consents	To ensure that consents content is adequately
	Specialist	covered and correct.
	HSE Adviser	To ensure that health, safety and environment
		content is adequately covered and correct.
	People	To ensure that impacts to people content is
	Change	adequately covered and correct.
	Manager	
Inform	N/A	N/A
IIIIOIIII	13//	I IV/A



		Catego	ry Level			
Characterisation Table	Simple	Standard	Significan	Major		
			t			
1 Scope		Required a	at all levels			
2 Governance		Required a	at all levels			
3 Interfaces		Required a	at all levels			
4 Change Impact		Required a	at all levels			
5 Delivery Approach		Required a	at all levels			
A. CDM Duties &		Required at	all levels (1)			
Responsible Person						
B. Acceptance Schedule	Required at all levels ⁽²⁾					
C. Benefits Management	Append	Required	Required	Required		
Strategy	here	(3)	(3)	(3)		
D. Estimate Strategy	Append	Append	Required	Required		
	here	here	(3)	(3)		
E. Risk Management	Append	Required	Required	Required		
Strategy	here	(3)	(3)	(3)		
F. Stakeholder Engagement	Append	Required	Required	Required		
& Communications Plan	here	(3)	(3)	(3)		
G. Progress Reporting Plan	Append	Append	Required	Required		
	here	here	(3)	(3)		
H. Next Stage Plan	Required	Required	Required	Required		
			(4)	(4)		

Characterisation Notes:

- What is Characterisation? Find out here.
- The amount of effort applied in the production of this product should be proportionate to the size, scale, risk and complexity of the project / programme. The Characterisation Table above states which sections are required to be completed based on the level at which the project / programme was categorised at. A guide to the amount of effort applied is as follows:
 - o Simple one to two sentences per sub-heading.
 - o Standard one to two paragraphs per sub-heading.
 - Significant one to two pages per sub-heading.
 - Major greater than two pages per sub-heading to separate documents per heading.
- (1) Appendix must be completed when CDM is applicable to the works.
- (2) Section / Appendix only needs to be completed for LU projects and programmes.
- (3) Separate Pathway Products are required.
- (4) Can be broken out into separate documents, if necessary.

General Notes:

 It may be appropriate to create standalone Execution Plans for sub-projects or specific elements of the programme or project.



- Headings shouldn't be deleted in the Execution Plan; if the section is not required, write 'not applicable' beneath the heading to show that professional judgement has been applied.
- The Execution Plan must align with scope and requirements as set out in the Requirements Product.
- Please refer to the <u>Pathway Manual</u> before completing this Execution Plan.

Business Area Specific Notes:

The following are specific requirements of this product by business area:

- London Underground: This product is used to discharge part of the requirements for a Change Assurance Plan under <u>LUL Category 1 Standard</u> <u>1538</u>. As a consequence, it is mandatory that this template is used.
- Rail and Underground: Please note <u>Guidance Note Timesheet Policy and Process</u>.
- Technology & Data: Append the Project Estimating Tool (PET) summary page to this product.

If you have any queries, feedback or improvement suggestions about this product, then please contact tfl:gov.uk.



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DELETE BLUE TEXT AS THIS IS FOR GUIDANCE ONLY

1.0 Scope

1.1 Key Documents

Complete the following table. These six documents (in the majority of cases) form the scope of the work being delivered, upon which, this Execution Plan is being written.

Note that if this Execution Plan is being written for a project, but if any key documents are produced only at the programme level (for example, the Business Case), then reference needs to be made to those programme level products.

Do not repeat or summarise the scope and objective(s) in this document.

The project / programme is categorised as [Characterisation Score].

Baseline Item	Document Reference
Requirements	Enter document name and link to the latest version.
Business Case	Enter document name and link to the latest version.
Benefits Management Strategy	For 'Simple' projects / programmes, refer to Appendix C, otherwise, enter document name and link to the latest version.
Authority Submission	Enter document name and link to the latest version.
Estimate	Enter document name and link to the latest version.
Schedule	Enter document name and link to the latest version.

1.2 Key Milestones

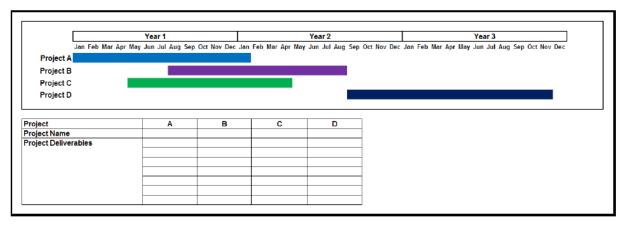
If the Execution Plan is being written for a project:

Provide a summary of the key milestones from the Schedule.

If the Execution Plan is being written for a programme:

- Provide an overview of the particular projects (tranches) of work that will make up the programme and how they contribute to the programme overall. The principles should be explained here and developed in the Schedule, structured according to the agreed work breakdown structure (WBS).
- For programmes, it is also important to show when the capabilities (outputs)
 will be made available from each completed project (tranche) so that the
 benefits can be realised this should also link with the Benefits Map (if
 applicable).





Example diagram of programme tranches

2.0 Governance

2.1 Governance Arrangements

If the Execution Plan is being written for a project:

 Provide a summary of the governance arrangements, including (a) applicable project / programme meetings, (b) project / programme management reviews.
 Provide a link to any terms of reference.

If the Execution Plan is being written for a programme:

- Provide a summary of the governance arrangements, including (a)
 programme meetings that affect this programme, (b) programme management
 reviews, (c) other programme level meetings. Provide a link to the terms of
 reference.
- Key decisions should be set out in this section and a preliminary view provided of what programme versus project level governance products and stage gate arrangements are to be used.
- Details should be included on who will make up the programme meeting. The
 programme meeting resolves issues that cannot be resolved by the internal
 controlling mechanisms of the programme itself.
- Details of Programme Evaluation Reviews (to complement project and programme stage gates) should be described here. These reviews should be chaired by the Sponsor and it is recommended that they are conducted on a periodic basis. The Sponsor and potentially other significant stakeholders are entitled to request information or conduct a review in addition to the governance processes already described.
- Sponsor's Instructions: The Sponsor may issue a number of requests or directions to the Programme. Where these are complex or potentially resource intensive, the Sponsor will discuss them in draft form with the relevant stakeholders before issue. Typically they could be:
 - Clarifications of requirements of scope.



- Decisions on specific scope or design issues resulting from trade off between capital cost or cost and benefits.
- New or revised Sponsor documents.
- Requests for estimates of impacts on time, costs and deliverables resulting from potential changes in funding or requirements.

2.1.1 Pathway Gates

Where the project / programme estimated final cost is less than £1million complete the following table to display which Gates will be undertaken:

Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
	[insert					
	approximate					
	date for each	า				
	stage]					

Provide clear reasoning, consultation and agreements are in place to support this approach.

Where the project / programme estimated final cost is over £1million, then an Integrated Assurance Plan (IAP) is required.

2.1.2 Next Stage Plan

Careful consideration for what needs to be undertaken in the subsequent lifecycle stage will act as a mechanism for providing evidence of first line assurance, not only to demonstrate that there is a thoughtful plan in place for what comes next (which can be used to help develop the **Schedule**) but can be used as a backwards review to demonstrate that all the previously planned key activities and tasks were undertaken (or with justification if not). The **Next Stage Plan** is therefore the key element at each gate to provide confidence and assurance to the gate panel.

The activities and tasks to be undertaken for the project/programme should use the standardised Pathway **Lifecycle Stage Activities & Tasks** diagrams as a reference/benchmark, then (if necessary) and using professional judgement to scale/tailor as appropriate. Record the final intention of what activities and tasks will be undertaken in Appendix H to this Execution Plan, remembering to state how they will be undertaken. If any tailoring is proposed, or any activity/task not planned to be undertaken, reasons as to why should also be recorded.

2.2 Organisation

2.2.1 Core roles and resourcing

Complete the following table. Where any of the TfL Pathway roles are not required then insert the words "not required" rather than deleting the row. Alongside each role, list the planned resource requirements which the project will need in order to meet the schedule. Additional roles may be added to the table.



Include from where the resources will be sourced and any specific skills / training requirements foreseen. Also identify any special equipment, tools or other requirements needed by each resource.

TfL Pathway core roles and other roles are indicated by the guidance in the table below for whether the Execution Plan is being written for a project or programme.

Role	Person	Directorate / Organisation	Commitment (hours/week)
Head of Delivery / Director of Delivery* delete as appropriate			
Sponsor			
Project core role Programme core role			
Programme Manager			
Project core role Programme core role			
Project Manager			
Project core role Programme role			
Project Engineer			
Project core role			
Programme Engineer			
Programme role			
Project Controls Manager			
Project core role			
Subject Matter Expert			
Project core role			
HSE Adviser			
Project core role Programme role			
Commercial Lead			
Project core role Programme role			
People Change Manager			
Project core role			



Operations Representative Project core role		
Maintenance Representative Project core role		
Finance (Business Accountant) Project core role		
Construction Manager		
Project role Programme role		
<add additional="" and="" appropriate="" as="" assessor,="" breeam="" ceequal="" customer="" e.g.="" environment="" experience="" insight,="" manager,="" or="" roles="" strategy="" –="">></add>		

2.2.2 CDM Applicability, Appointments and Notifications

This section must be completed for:

- All projects that involve construction.
- All programmes that involve construction, unless produced at project level.

State the outcome of the CDM applicability assessment from the Pathway Product Management Plan questionnaire.

The following organisations have been appointed to undertake CDM roles for this project:

Role	Organisation
Client	
Principal Designer	
Designer(s)	
Principal Contractor	
Contractor(s)	



The plan for appointments of CDM duty holders, i.e. when will CDM appointments be made if not already in place? Projects considering taking on the Principal Designer or Principal Contractor roles must complete the CDM Role Optimisation Tool.

Also describe any planned transfer of CDM roles between organisations during the life of the project/programme and how the transfer of CDM responsibilities will be managed.

For programmes, define how Principal Designer responsibilities are structured below programme level between specific Principal Designer roles or individual projects (or groups of projects). Define how this structure is endorsed through design governance structure for the programme (e.g. Design Authority Panel – see section 5.10.1)

Identify if the project is not handing over assets into operations and maintenance on completion, but is instead delivering assets (together with operations, maintenance and CDM Health and Safety File information) for use by another project/programme/organisation and how the transfer of CDM responsibilities will be managed.

For all CDM duties to be undertaken, use the <u>Allocation of CDM Duties Matrix</u>, identifying the specific role within the project / programme team that will be discharging each duty.

For all construction projects, provide a link to the Team HSE Competency Assessment.

For guidance refer to the HSE Handbook

Under CDM, this project is notifiable / not notifiable (delete as appropriate). Note: CDM is applicable for all construction works, even if NOT notifiable.

If the work is notifiable, provide a link to the F10 (HSE/ORR notification).

The team carries out its duties by compliance with Pathway and undertaking of risk based verification activities.

For programmes, define how Principal Designer responsibilities are structured below programme level between specific Principal Designer roles on individual projects (or groups of projects). Define how this structure is endorsed through the design governance structure for the programme (e.g. Design Authority Panel for MPD only programmes – see section 5.10.1).

[For programmes where a number of projects are undertaking similar types of work at numerous locations and the same individuals undertake the same CDM duties at each location, it is acceptable for a single Allocation of CDM Duties Matrix to be produced for multiple projects, and for this to be referenced in the corresponding PEP.]

2.2.3 Other construction roles

This section must be completed for all programmes that involve construction. Complete the following table as necessary, including any other significant roles not identified above.

Role	Directorate / Organisation
------	----------------------------



2.2.4 Organisation chart

Include an organisation chart. If appropriate, append the chart at the back of this product and refer to it from here or provide a link to where it is held in the filing structure.

2.3 Controls

The following elements need to be considered (providing links to other products if appropriate). If not described in other products, describe here how controls will be implemented within the specific setting.

Further guidance is provided within the Project Controls Handbook.

2.3.1 Estimating

This should be captured in the Estimate Strategy. When the project / programme has been Characterised as either 'Simple' or 'Standard', then the Estimate Strategy can be appended as Appendix D to this Execution Plan, rather than a standalone Product.

2.3.2 Risk Management

This should be captured in the Risk Management Strategy. When the project / programme has been Characterised as 'Simple', then only the Risk Strategy Matrix from the Risk Management Strategy is required and this can be appended as Appendix E to this Execution Plan and no other standalone Products are required.

Provide links to the Risk Register and the Issue Register.

2.3.3 Reporting Progress and Performance

This should be captured in the Progress Reporting Plan. When the project / programme has been Characterised as either 'Simple' or 'Standard', then only the 'Local Progress Reporting' section of the Progress Reporting Plan is required and can be appended as Appendix G to this Execution Plan and no other standalone Products are required.

2.3.4 Planning and Scheduling

Describe here the strategic approach being taken to planning, the choice of system chosen and the reporting requirements.

2.3.5 Document Management

The document management system should be set up under the standard TfL model (SharePoint for Work in Progress, Asite for collaboration and publishing, and Livelink for archive).

Folder structures should be set up utilising the standard **document filing structure**.

2.3.6 Cost Management

Describe here the approach being taken to cost management.

Controls Resource (responsibilities for project / programme controls).

2.3.7 Change Control



Describe here the approach being taken to Baseline Management, Scope Management and Design Change Control.

2.3.8 Data Governance (where relevant)

Where relevant, describe the approach being taken to manage the information and records.

View Managing TfL's information and records if required.

2.3.9 Programme/Project Relationship (where relevant)

For programmes; provide a diagram illustrating how the programme is divided into projects (or types of projects) or refer to where this is defined. Provide an outline for the rationale.

For projects; identify which programme the project forms part of, or alternatively identify if it is a standalone project.

3.0 Interfaces

3.1 Sharing of Information, Co-ordination and Co-operation Arrangements

3.1.1 Privacy and Data Protection

Complete the self-assessment flowchart within Project & Programme Privacy by Default and Design / Data Protection Assurance Plan to assess if a Data Protection Impact Assessment (DPIA) is needed to assess GDPR / Privacy compliance risk, and ensure these risks are identified and mitigated at an early stage.

The project / programme must comply with;

- The Data Protection Act
- The Freedom of Information Act
- The Human Rights Act
- TfL Privacy & Data Protection Policy
- TfL Cyber Security Framework and Policies

Include a link to the project folder / filing site (e.g. Asite, SharePoint site or Livelink area). Confirm that the standard filing structure is being used.

Provide details of (or link to) the Project Exchange Information Requirements.

3.1.2 CDM Information, Coordination and Cooperation

This section must be completed for:

- All projects that involve construction.
- All programmes that involve construction, unless produced at project level.



This section shall include the arrangements for how to meet the information requirements of CDM. Provide details of how information will be shared with team members, principal designer, designers, principal contractor, contractor(s), suppliers, operations, stakeholders, interfacing projects / programmes and projects / programmes on adjacent sites in a timely manner. Include details regarding what type of information will be shared and when. Consider different arrangements / requirements for the different stages of the project / programme life-cycle.

This section shall include the arrangements for how to meet the coordination and cooperation requirements of CDM. Provide details of the arrangements for ensuring coordination and cooperation between team members, principal designer, designers, principal contractor, contractor(s), suppliers, operators, stakeholders, interfacing projects / programmes and projects / programmes on adjacent sites. Include details of how the project / programme will interface, coordinate its activities with and cooperate with other parts of TfL to ensure that risks from and to those parts of TfL are understood and managed.

3.1.3 Project Environment Appraisals

Complete this section for all projects / programmes that meet the criteria described on Working at TfL – Project Environment Appraisals.

The Requirements will mandate the appropriate appraisal method(s) to be used (e.g. CEEQUAL, BREEAM or both), award type and rating to be achieved. Outline these in this section.

This section shall define the arrangements for how the projects / programmes will deliver the appraisal method, award type and rating. Consider how and who will deliver Client and Contractor roles and responsibilities for the different stages of the project / programme life-cycle (refer to section 2.2.1Core roles and resourcing).

Consider what stage of the project / programme life-cycle pre-assessment, interim assessment and final assessments are needed, and how many interim assessments are required to support delivery. (Refer to section 1.2 Key Milestones and the Schedule) and note them here with reasons for decision.

Define governance arrangements for monitoring delivery of the appraisal method, award type and progress towards delivery of the desired rating.

3.2 Stakeholder Engagement and Communication

Appropriate to the size, risk and complexity of the project / programme, either a stand alone Stakeholder Engagement and Communication Plan should be produced; or for 'Simple' Characterised projects / programmes, only the Initial Stakeholder List table is needed and can be appended to this Execution Plan.

3.3 Customer Requirements

Appropriate to the size, risk and complexity of the project / programme, projects that directly affect customer experience should consult with the Customer Insight, Strategy and Experience team (mailto:CISE@tfl.gov.uk) for guidance how to optimise their project outputs. This might be done by referring to past customer



research and analysis, conducting Customer Acceptance Testing, and/or ensuring customer requirements are met as fully as possible.

3.4 Dependencies

Provide details on the following dependencies:

- Internal project / programme dependencies.
- Internal TfL organisational dependencies.
- External project / programme dependencies.
- Other dependencies.

3.5 Key Assumptions

State the key assumptions that have been made in producing this Execution Plan and how these will be tested.

4.0 Business and Asset Change Impact

Project Managers and People Change Managers need to be certain that everybody is ready for the change(s) that are being delivered and that action plans are in place to ensure that any impact will be minimised and managed during the transition to the new ways of working.

For additional guidance on Business Change, please refer to <u>TfL's Business Change</u> Framework.

The level of business change effort may vary across project / programme.

For projects that are part of a wider programme, it is recommended that the change effort is managed at the highest level to ensure synergies, consistency, reduced duplication, effective engagement and communication.

4.1 People Change

4.1.1 People Change Impact

Provide a link to the project's People Change Plan or, for 'Simple' Characterised projects / programmes, in this section describe the activities to be undertaken to facilitate successful adoption, commitment to and embedding of change by all affected groups.

This change may include (but is not limited to) aspects such as ways of working, processes and procedures, organisational structures, roles and responsibilities, new equipment / technology, rosters, location, etc. Describe who will lead and enable the change both at a senior level and locally. Include reference to actions which will be taken to communicate and achieve buy-in to the case for change, support people through it and respond to issues arising. Identify interventions to ensure communications and engagement, involvement, training and rewards/incentives for the change as appropriate.

4.1.2 Training



Describe the training activities that are required to take place for those affected by the changes, when the training will be completed and by whom.

Provide any links to training strategy and/or plans (if applicable).

4.1.3 Transition

Broadly describe the activities needed to support transition to any new ways of working.

4.2 Infrastructure / Asset Change

Identify all functions and / or asset areas on which the project / programme will have an impact - state 'Yes' to all the boxes below that apply. Add the asset type or function if not already outlined.

Primary: The main assets that will be affected by this project / programme.

Secondary: Other assets that will also be affected by this project / programme.

Asset Areas and Functions	Primary Impact	Secondary Impact
Highway	Yes / No	Yes / No
T&D / Information Communication Technology (ICT) see note below	Yes / No	Yes / No
Track	Yes / No	Yes / No
Civils	Yes / No	Yes / No
Premises	Yes / No	Yes / No
Fire	Yes / No	Yes / No
Electrical & Mechanical	Yes / No	Yes / No
Power	Yes / No	Yes / No
Lifts & Escalators	Yes / No	Yes / No
Rolling Stock	Yes / No	Yes / No
Signalling	Yes / No	Yes / No
Communications & Information Technology	Yes / No	Yes / No
Systems Integration	Yes / No	Yes / No
Human Factors	Yes / No	Yes / No
Electro-Magnetic Compatibility	Yes / No	Yes / No



Station Planning	Yes / No	Yes / No
Operations	Yes / No	Yes / No
Maintenance	Yes / No	Yes / No
Other assets as required	Yes / No	Yes / No

Note: ICT is anything that has both data processing capability and telecommunication capability. Typically, this involves systems containing: data processing, data storage and retrieval, software, telecommunication, person-system interfaces, machine-system interfaces, environment-system interfaces covering a huge range of systems, including: "classic IT"; telephony and radio systems; remote monitoring; remote control; semi-autonomous systems; un-real time systems; real-time systems; embedded systems under remote monitoring or supervision.

For LU Only: If the project / programme has an ICT requirement, for clarity, assistance or guidance, please email: ICTAssetStrategyl@tfl.gov.uk

4.3 Verification of Change

This sub-section is not required for a programme Execution Plan.

Provide a plan of activities that TfL will undertake to verify assurances given by those delivering assets, projects, changes or contracts for service, that risks are controlled and requirements are met. This should specify clearly how changes are managed throughout the lifecycle including the construction phase.

It covers delivery by Suppliers or TfL itself and covers all activities by all Business Units. It does not apply solely to external Suppliers.

Indicate the type of deliverable and the governance authority or named individual who will be consulted to undertake verification.

For LU Only: Provide details of (or a link to) the Verification Activity Plan.

4.4 Acceptance Schedule - LU Only

Provide an Acceptance Schedule based on the Verification Activity Plan.

For a project / programme that follows a single linear lifecycle (i.e. it goes through each assurance stage once), the following wording and table can be used.

Deliverable	For Checking by Project (Date)	Verification (Name & Date)
Options Development Report		
Scope Baseline (created in Stage 2)		
Conceptual Design Statement(s) (CDS)		
Concept Documentation		



Compliance Documentation	
Compliance Declaration	
Completion Documentation	
Completion Certificate	
Add or delete items as required	

For a project / programme that follows a complex lifecycle that may be divided into multiple sub-stages of deliverables due to geographic work sites, migration phases or the number of assets being changed, the project / programme should produce a deliverables Acceptance Schedule, based on the table above or as appropriate and be attached to this Execution Plan as Appendix B. Between updates of this Execution Plan, the Acceptance Schedule may be kept up-to-date as a standalone document that reflects the current schedule for gaining acceptance of assurance deliverables. The Acceptance Schedule will be used by the Accredited Assurers as a look-ahead tool for planning their workload. To describe this approach, the table above should be deleted, and the following wording added:

"The complexity of providing assurance for this project / programme requires that a detailed Acceptance Schedule be provided and kept up-to-date as the project / programme progresses through its lifecycle. The following outlines the reasons for subdividing the lifecycle and the requirement for an Acceptance Schedule;

{for example}

- Conceptual or detailed designs based on several options
- Detailed designs for each site
- Specific designs for each asset provided by different suppliers or contractors
- Commissioning of the works in specific geographical areas
- The current version of the Acceptance Schedule at the time of issue of this plan can be found in or referenced from Appendix B."

5.0 Delivery Approach

5.1 Approach Description

Provide a description of the approach being used to deliver the project / programme, which should include the following;

5.1.1 Sourcing and Resourcing

Describe how is the solution will be sourced and resourced; will it be by internal TfL staff, hiring in contracted expertise or a combination? Are we going to contract it out or are we purchasing a ready-made solution?



For CDM applicable projects arrangements for CDM roles should be included in section 2.2.2. Projects considering taking on the Principal Designer or Principal Contractor roles must first complete the CDM Role Optimisation Tool and the recommendation report must be submitted to the relevant Delivery Director for approval. A list of approved signatories can be found on <u>Pathway</u>

5.1.2 Novelty

Describe the delivery approach, will this be done in a tried and tested way? Will it be an adaption of an existing TfL solution or will it incorporate technology/features which are new to TfL or being used in a different application? Are we designing something from scratch or bespoke?

5.1.3 Implementation/Migration Strategy

Describe the implementation / migration strategy that the project / programme will be adopting. Is the solution planned to be delivered in one physical / geographical stage or several? Will all construction work be undertaken on site or will elements be prefabricated off-site and lifted in?

Is all functionality and performance planned to be delivered in a single stage or will it be delivered incrementally?

Will there be an impact on operational service delivery, e.g. are service affecting closures planned or will the work be carried out in a way that does not affect service delivery e.g. in Engineering Hours.

Reference should be made to the baseline schedule. A Table for Tier 1 delivery milestones should also be captured here.

Reference should also be made to the Benefits Management Strategy (Appendix C) with a brief explanation as how the planned delivery of benefits relates to the proposed implementation phases and/or delivery milestones. Will the benefits be realised immediately when the project is delivered, or is a business change beyond the scope of the project (e.g. new timetable, contract or organisational change) required in order to realise the benefits?

Where the implementation strategy has not yet been fully developed, identify what assumptions have been made for estimating and planning purposes with respect to elements above.

This section should also be used to identify where this project is delivering assets to enable another project to be undertaken, rather than delivering assets directly into operational service and how this will be undertaken.

5.2 Approach Reason

Explain why the selected approach is considered optimal.

Projects considering taking on the Principal Designer or Principal Contractor roles must first complete the CDM Role Optimisation Tool.

5.3 Procurement

5.3.1 Procurement Strategy and Contract Award Recommendation



Provide a link to (or insert details of) the Procurement Strategy and Contract Award Recommendation. Note that where an approved Procurement Strategy / Contract Award Recommendation is required, a separate document must be produced and details must not be included in this Execution Plan. More than one Procurement Strategy / Contract Award Recommendation may be required for the project / programme – so all Procurement Strategies should be referenced here.

5.3.2 Responsible Procurement

Responsible Procurement must be considered for all Projects, see Responsible Procurement Guidance Document for guidance and Commercial Handbook for further details.

5.3.3 Contract Management Plan

A separate Contract Management Plan is required for Contracts over £5 million. For smaller value contracts the below template can be utilised, if required.

Contract Name / Title	Summary of Contract	
Key Dates	Type of Contract Key Personnel	
Key Clauses		
Key Performance Indicators (KPI's) and measurement regime		
Performance against KPI's and Contract on a periodic basis		

5.3.4 Supplier Assurance

Where an external Supplier is being used to deliver aspects of the project / programme, outline how assurance will be obtained from the Supplier.

For LU Only: The default position is that an 'Assurance Plan' is produced by a Supplier and assurance is provided in accordance with that plan. However, there may be circumstances where alternative arrangements are more appropriate. For example, the supplies of a pre-fabricated building from a standard catalogue or deliverables are non-asset related.

Service	Supplier	Assurance Mechanism
[list all services to be provided]	[to be completed on appointment of service provider]	[e.g. Assurance Plan to be produced, or assurance to be obtained by another mechanism] [if not required, state "not required"]

5.4 Site Access

For non LU: Provide details of any required approvals for site access.

For LU Only: Provide details of (or a link to) the project / programme Access Plan.



5.5 Remote Site Set Up

If the Execution Plan is being written for a project, provide details of any remote site setup requirements. For LU Only, refer to the Remote Site Office Setup Guidance.

This sub-section is not required for a programme Execution Plan.

5.6 Operational Readiness

If the Execution Plan is being written for a project, provide details of (or a link to) the Operational Readiness Plan.

This sub-section is not required for a programme Execution Plan.

5.7 Maintenance Readiness

If the Execution Plan is being written for a project, provide details of (or a link to) the Maintenance Readiness Plan.

This sub-section is not required for a programme Execution Plan.

5.8 Consents Management

Provide details of or a link to, the Consents Strategy and the Consents Plan.

5.9 Health, Safety, Environmental and Sustainability Management

Provide details of the project / programme Heath, Safety & Environment (HS&E) objectives and the targets throughout the lifecycle. Environmental targets used to fulfil compliance obligations are within the TfL Corporate Environmental Framework; these are translated into to annual Environmental Improvement Programme (EIP) and scorecards measure. The HSE Adviser will be able to provide all.

Provide details of the overall Sustainability principles and objectives of the project / programme, including target rating for relevant environmental appraisal method.

Detail the HS&E management arrangements for the project / programme providing reference to any supporting documents / plans. The HS&E management arrangements shall include arrangements for both office and site locations and cover all relevant HS&E topics, including but not limited to: TfL employee workplace risk assessments, display screen equipment (DSE), fatigue, first aid, fire safety, planned HSE monitoring, incident reporting and investigation and health (e.g. age medicals). See the pages of Working at TfL 'Health, Safety and Environment' section for more information. For large projects or programmes these arrangements shall cover all sub projects and activities. The arrangements can be described in this section or in a separate document with a link placed in this section to the separate document. In addition, where no specific arrangements are put into place locally / specifically for the programme/project team reference can be made to arrangements at department level.

State how roles and responsibilities for delivering HS&E requirements will be discharged by the project / programme team if different from the roles and responsibilities as stated in the TfL Pathway Manual and within the TfL Pathway Products and Working at TfL.



Include the results of the <u>HSE RBI tool assessment</u> and the impact this will have on the level of HSE verification that will be undertaken on the project.

Include reference to verification activities with regards to site monitoring activities, performance reporting, review of Safe System of Work, etc.

Specify how consultation with operatives regarding health and safety matters will be carried out.

For construction projects also include details of how the HSE Pre-Construction Information and the Health and Safety File Information will be collated and managed.

5.10 Design Governance

5.10.1 Design Structure

Define the structure and accountability for making design decisions so as to ensure application of the Principles of Prevention and the ALARP principle, taking into account all aspects of health and safety risk (covering both system safety and construction/CDM risks as applicable).

Define how co-ordination of design with interfacing projects (both internal and external to the programme) will be managed.

[For CDM applicable projects these functions will normally be discharged in conjunction with the Principal Designer role. For MPD only programmes it is recommended that this function is discharged by a Design Authority Panel, established at programme level.]

5.10.2 Management Plans

Define the management plans which will be put in place to manage the technical/engineering activities.

For non LU Business Units: Detail the local practices for technical / engineering including management of design changes during the construction phase and provide details of (or a link to) the project / programme Design Management Plan.

For LU Business Units: Provide details of (or a link to) the project / programme Design Management Plan and the Systems Engineering Management Plan (SEMP). The programme manager must decide, depending on the size, scale, complexity and risk of the programme, whether it is necessary to have a SEMP at the programme level. The project manager must decide, depending on the size, scale, complexity and risk of the project / programme, whether it is necessary to have the following products or combine the requirements into a single SEMP:

- The TfL Corporate Requirements Management Process
- Human Factors Integration Plan (HFIP)
- Reliability, Availability & Maintainability (RAM) Plan
- Interface Management Plan



- EMC Control Plan
- Verification & Validation Plan
- Configuration Management Plan

If the Execution Plan is being written for a project, provide details of (or a link to) the:

- Exchange Information Requirements (EIR)
- BIM Execution Plan (BEP)

For LU Business Units: Provide details of (or a link to) the project / programme Engineering Safety Management Plan and the Inspection & Testing Plan. Provide details of (or link to) Production Drawings, Red Line Information and As-Built Drawings (refer to guidance G1353).

5.11 Construction Management

Provide details of (or a link to) the Construction Phase and Environmental Management Plan and / or the Construction Management Plan.

This sub-section must be completed for all construction projects and programmes.

5.12 Equality Impact Assessment (EqIA)

Provide details of (or a link to) the Equality Impact Assessment (EqIA). The EqIA must be produced by all projects / programmes that have been identified to have a potential impact on members of staff or customers.

Its purpose is to assess the impact the project may have upon the TfL equality target groups, ensuring that everyone who lives in, work in, or visits London has equal access to transport services and to ensure TfL complies with the Equality Act 2010.



Appendix A - Not Used

This appendix is no longer used. The Allocation of CDM Duties Matrix product is now a standalone product on the Product Matrix to ensure greater visibility, rather than an embedded link within this Execution Plan.



Appendix B – Acceptance Schedule (LU Only)

LU Business Units: Referenced from this Execution Plan Section 4.4 Non-LU Business Unites: This appendix can be deleted if not a LU project / programme.



Appendix C – Benefits Management Strategy

Referenced from the Benefits Management Strategy Characterisation.

The Benefits Realisation Plan section of the Benefits Management Strategy should only be included in this appendix if the project / programme has been characterised as Simple.

If the project / programme has been characterised as Standard, Significant or Major, then the Benefits Realisation Plan should be included in a separate Benefits Management Strategy, and this appendix in this Execution Plan can be deleted.



Appendix D – Estimate Strategy

Referenced from the Execution Plan Section 2.3.1 and the Estimate Strategy Characterisation table.

The Estimate Strategy should only be included in this appendix if the project / programme has been characterised as Simple or Standard.

If the project / programme has been characterised as Significant or Major, then a separate Estimate Strategy should be produced, and this appendix in this Execution Plan can be deleted.



Appendix E – Risk Management Strategy

Referenced from the Execution Plan Section 2.3.2 and the Risk Management Strategy Characterisation table.

The Risk Strategy Matrix section of the Risk Management Strategy should only be included in this appendix if the project / programme has been characterised as Simple.

If the project / programme has been characterised as Standard, Significant or Major, then the Risk Strategy Matrix should be included in a separate Risk Management Strategy, and this appendix in this Execution Plan can be deleted.



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