

City of London: Projects Procedure Corporate Risks Register

Project Name:		Tower Bridge HV Replacement and Increasing Resilience							PM's overall risk rating:	Medium		CRP requested this gateway	£ 1,545,000		Average unmitigated risk score		10.1		Open Risks		41			
Unique project identifier:		11520							Total estimated cost (exc risk):	£ 5,914,408		Total CRP used to date	£ 222,811		Average mitigated risk score		5.9		Closed Risks		20			
Risk ID	Gateway	Category	Description of the Risk	Risk Impact Description	Likelihood Classification pre-mitigation	Impact Classification pre-mitigation	Risk score	Costed impact pre-mitigation (£)	Costed Risk Provision requested Y/N	Confidence in the estimation	Mitigating actions	Mitigation cost (£)	Likelihood Classification on post-mitigation	Impact Classification on post-mitigation	Costed impact post-mitigation (£)	Post-Mitigation risk score	CRP used to date	Use of CRP	Date raised	Named Departmental Risk Manager/Coordinator	Risk owner (Named Officer or External Party)	Date Closed OR/Realised & moved to issues	Action dependencies	Comment(s)
R1	5	(10) Physical	Terrorism	Terrorist attack affecting site, ability to get to site, affecting planned or completed works. Additional works costs including: prelims, damage, restarting. Tower Bridge is a Tier 1 terrorist target.	Possible	Extreme	24	£150,000.00	N	D – Very Uncomfortable	Site security lines to be determined and agreed with TB operations team during RIBA Stage 4. Specific harding requirements to be specified within ITT documents and pricing document. Harding lines not to obstruct vision of existing CCTV cameras. Contractor to develop risk management plan.	£0.00	Possible	Extreme	£0.00	24	£0.00		17/08/2020		COLC (NB)			Site storage areas are limited. The ITT pricing document shall allow for off-site storage of materials, for just in time delivery.
R4	5	(1) Compliance/Regulatory	Failure to obtain Statutory Approvals	A number of approvals are required prior to commencement of the works. These include: TFL (adopted Highway), PLA, UKPN Lease / Wayleaves/ Licenses required etc. Delay in obtaining such approvals could lead to project delay.	Possible	Major	12	£150,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Early engagement with duty holders (from RIBA Stage 3)	£0.00	Possible	Serious	£15,000.00	6	£0.00		17/08/2020		COLC (NB) / Pellings (AF)			Early engagement with TFL & PLA will require the appointment of a Transport Consultant. A transport Consultant shall be procured following and utilising RIBA Stage 3 design & phasing information. Costs impact post-mitigation based upon 3wks construction delay. Potential road diversion costs are excluded from the post-mitigation figure identified. Contractor TMAN application required.
R5	5	(1) Compliance/Regulatory	Reliance on Third Party Statutory Works e.g. UKPN	Time and cost (extension of time claims from contractor and design team )	Possible	Major	12	£150,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Early engagement and submission of application to UKPN by COLC: New north shore supply application to be submitted during RIBA Stage 2. Existing UKPN south shore supply upgrade application to be submitted during RIBA Stage 3.	£0.00	Possible	Serious	£50,000.00	6	£0.00		17/08/2020		COLC (NB) / AECOM (PB)			AECOM submitted the UKPN application during early RIBA Stage 2. UKPN Lease processes ongoing.
R6	5	(3) Reputation	Disturbance to neighbours during construction works resulting in negative reputation of project and client, increased costs and delays to programme.	Reputation	Possible	Serious	6	£0.00	N	B – Fairly Confident	Contractor(s) to identify and provide works liaison manager as part of contractor team. Contractor to identify timings on noisy or disruptive works which should be undertaken out of hours where possible. Contractor to ensure that logistics plan and environmental health requirements are met by. Contractors shall be required to submit an outline/draft CEMP (Construction Environmental Management Plan) as part of ITT process / tender.	£0.00	Possible	Serious	£0.00	6	£0.00		17/08/2020		COLC (NB) / CBRE (hbc)			No post-mitigation costs are applicable to Risk Register as the Contractor(s) shall be required to allow for project liaison and sequencing related costs within their tender submission / Contract Sum.
R7	5	(3) Reputation	Disturbance or effect on Business As Usual Activities of Tower Bridge including the TB attraction.	Revenue impact (est £420K per month)	Possible	Major	12	£0.00	N	B – Fairly Confident	The works shall be phased. Out of hours working and back up supply's will be required to avoid BAU interruption. The works will require the temporary relocation of ticket office functions to the north tower, 2nd floor. Pedestrian footways and lift access must remain open to allow pedestrian access at bridge level from north to south.	£0.00	Rare	Major	£0.00	4	£0.00		17/08/2020		COLC(NB) / Design Team(PB & DB AECOM/ LPM(SMC)			Design team shall develop the project phasing strategy / sectional completion proposals prior to ITT issue. Relocation of the ticket office has occurred before for previous TB projects and shall be completed by the TB operations team. No post-mitigation costs are applicable to Risk Register as the Contractor(s) shall be required to allow for project phasing within their tender submission / Contract Sum.
R8	5	(9) Environmental	Poor consultant / contractor Team Performance	Time and cost impacts due to dispute, leading to potential delay and/or replacement of resource	Possible	Serious	6	£500,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	LPM to monitor the integration and performance of the project team / contractors team. LPM / CB to ensure that the correct level of management and expertise is demonstrated by tendering contractors where the project tender shall have a quality bias. KPI scoring processes to be considered by CoLC during the development of the project / works.	£0.00	Unlikely	Serious	£20,000.00	4	£0.00		17/08/2020		COLC(NB) / CURRIE & BROWN (IT) / LEADENHALL PM(SMC) / CBRE (TBC)			
R9	5	(3) Reputation	Negative Press	Reputation	Possible	Serious	6	£20,000.00	Y - for costed impact post-mitigation	B – Fairly Confident	Liaison with TB Marketing/ Col press office ahead of commencement of works.	£0.00	Possible	Serious	£10,000.00	6	£0.00		17/08/2020		COLC(NB)			Press release to be issued to provide sufficient and advanced warning of works. Communications Strategy to be developed with TB & COLC. Potential use of comms consultant if negative press is received due to bridge closure / bus diversions etc.
R10	5	(3) Reputation	Local transport disruption caused by construction traffic	Reputation	Likely	Minor	4	£0.00	N	C – Uncomfortable	Highlight traffic management sensitivities to UKPN & TFL upon engagement	£0.00	Possible	Minor	£0.00	3	£0.00		17/08/2020		COLC(NB)			Refer to Risk 4 above.

R11	5	(10) Physical	Contractor Delays: Delay during construction leading to the Contractor being unable to achieve practical completion as defined within the Construction Contract.	Time and Cost (consultant TA fees, staff costs)	Possible	Major	12	£500,000.00	N	C – Uncomfortable	Ensure ITT documents are robust. Obtain contractor(s) programme(s) as part of ITT submission(s). Ensure robust project management processes are in place during design development and works. Liquidated Damages to be defined by CoLC prior to ITT issue. Contract Administrator to closely monitor works and maintain good supervision of contractor.	£0.00	Possible	Serious	£0.00	6	£0.00	17/08/2020	CBRE (Tbc)		Contractors Programme to be carefully assessed prior to appointment / Contract Award.
R12	5	(10) Physical	The site presents space constraints for construction, access and logistics.	Site logistics impacting on cost, time and quality of completing the works	Possible	Major	12	£500,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Site Phasing information shall be developed and included in ITT documentation. Contractors to provide site logistics plan as part of ITT submission. Briefing to project team and Contractor to be clear, with options, access and logistics discussed.	£0.00	Unlikely	Major	£25,000.00	8	£0.00	17/08/2020	COLC(NB)/ Design Team(PB AECOM/ DB AECOM)/ Arch(AF)		Contractors to provide site logistics plan as part of ITT submission. Costed impact post-mitigation based upon need for additional unforeseen works to existing structure. This may include access hatches of bridge level which can not be opened prior to works commencing.
R13	5	(10) Physical	Unavoidable and unanticipated bridge activities affecting the works.	Time and Cost - extension of time claim(s) from contractor	Likely	Serious	8	£250,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Normal bridge operation includes bridge lifts and events. The Contractor shall be required to allow for out of sequence working due to normal bridge operations within the tender pricing documents. Any unavoidable or unanticipated liaise closely with TB Team and contractor on programme	£0.00	Possible	Serious	£40,000.00	6	£0.00	17/08/2020	COLC(NB) / LPM(SMC) / CBRE (Tbc)		Tendering contractors shall be required to allow for normal bridge operations within their priced submission. This includes all costs relating to out of sequence working and bridge lifts etc. Contractors will be required to assess historical data for bridge lifts and the number of events anticipated during the works period. Contractors shall be up able to claim EoTs relating to normal bridge operation(s).
R15	5	(1) Compliance/Regulatory	Works could be subject to change further to Statutory requirements. This includes Heritage England etc.	Staff costs, re-design fees and additional application / discharge of condition(s) fee(s)	Possible	Major	12	£150,000.00	Y - for costed impact post-mitigation	B – Fairly Confident	Early engagement with Planning Authorities & Heritage England via planning consultant and thorough understanding of any conditions which require discharge	£0.00	Unlikely	Serious	£75,000.00	4	£0.00	17/08/2020	COLC(NB) / Planning Consultant(AF)		Planning Consultant to maintain engagement with LPAs and Heritage England throughout the determination period. Draft conditions to be requested prior to formal determination. Costed impact post-mitigation principally relates to cable routes behind historical fabric.
R17	5	(10) Physical	Long Lead-in for specialist / Materials / Services not accounted for in contractors programme / not anticipated	Time delay due to long lead-in items. It is highlighted that COVID-19 has significantly affected global material and equipment supply chains.	Likely	Serious	8	£150,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Project team, specifically CB, to undertake early engagement with manufacturers to understand lead-in time periods. Contractor to place early orders for long lead-in items. CoLC to ensure early placement of placement of UKPN orders and prior to Contractor engagement.	£0.00	Likely	Serious	£150,000.00	8	£102,702.45	17/08/2020	COLC(NB) / Design Team (AECOM (PB) / Arch (AF) / CBRE (Tbc)		It is not proposed for CoLC to order specialist equipment as this will form part of the Construction Contract to de-risk liability and coordination issues. Long lead-in times identified within contractor programme.
R21	5	(10) Physical	Existing structure is in poor condition leading to additional and unforeseen works and / or poor working areas. E.g. Cable routes.	Time & Cost: Additional works and / or remedial works required which were unplanned	Possible	Serious	6	£250,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Project team to identify existing structure surveys required during RIBA Stage 2/3. Early contractor engagement to be undertaken post RIBA Stage 3. High risk areas relate to existing cable routes where a track and trace survey is proposed to be undertaken during RIBA Stage 4.	£0.00	Unlikely	Serious	£60,000.00	4	£6,061.92	17/08/2020	COLC(NB) / Lead Designer (AECOM (PB))		Costed impact post-mitigation principally relates to cable routes requiring additional / unforeseen remedial works. Unforeseen works may require CA instruction and result in addition costs / time.
R22	5	(5) H&S/Wellbeing	Uncovering of unknown hazardous materials (Lead Paint, Asbestos, any other hazardous material)	Time impact if works stopped, additional cost if further surveys or works required	Likely	Major	16	£100,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	R&D Survey to be completed by contractor due to opening up works required. Risk can not be eliminated as the majority of cable routes are inaccessible at this stage and until works commence.	£0.00	Likely	Serious	£80,000.00	8	£0.00	17/08/2020	COLC(NB) / CBRE (Tbc)		CB have excluded this from the cost plan until a detailed or location to be provided in which to base costs on within the budget.
R24	5	(3) Reputation	Existing HL/LV equipment failure before project commences and / or is completed	Reputational Risk / Cost Risk: If the existing equipment fails prior to works commencing or works completing this may lead to acceleration of the works and or remedial works being required. Acceleration or remedial works would inevitably increase project costs and potential disruption to bridge operations.	Possible	Extreme	24	£300,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	The project should be brought to market as quickly as possible to reduce risks relating to the failure of existing equipment. A temporary generator will be included in the scope of works. This will act as a back up power supply during switch overs.	£0.00	possible	Serious	£50,000.00	6	£0.00	17/08/2020	COLC(NB)		Contractor risk during construction for defined works only. Contractors contract does not cover items prior to the programme start on site date.
R26	5	(10) Physical	Services to neighbouring sites disrupted during construction	Cost & Time: Contractor disrupts existing services serving neighbouring land /property.	Possible	Major	12	£250,000.00	N	C – Uncomfortable	The Contractor shall be responsible for ensuring that no neighbouring services are disrupted. The contractor shall rely upon track and trace survey information contained within PCI and may be required to complete additional surveys to verify existing services / supplies.	£0.00	Possible	Serious	£0.00	6	£0.00	17/08/2020	CBRE (Tbc)		
R29	5	(10) Physical	Site Conditions unsuitable for new UKPN supply / sub-station	Cost and Time	Possible	Serious	6	£300,000.00	N	C – Uncomfortable	Undertake site identification surveys early in RIBA Stage 2/3 and complete site visit with UKPN during RIBA Stage 4. Site surveys (Ground & Measured Building Surveys) already included in project plan.	£0.00	Possible	Serious	£0.00	6	£0.00	17/08/2020	COLC(NB) / Lead Designer (AECOM (PB))		Sub-Station sizing to be determined by UKPN during 12wk UKPN design phase. If the current proposed position of the UKPN sub-station is deemed not viable, an additional site may need to be acquired. This Risk Register does not allow for land acquisition costs.

R31	5	(10) Physical	Works outside of the site boundary not accounted for within Project Cost Plan.	Legal, licenses, authority implications	Possible	Major	12	£350,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Works to be developed in detail and in conjunction with legal/ asset managers and statutory powers to determine site demise. This is already part of the project plan. Additional works outside of the site boundary excluded from project with exception of UKPN works.	£0.00	possible	Serious	£20,000.00	6	£0.00	17/08/2020	COLC(NB) / LEADENHALL PM (SMC) / CURRIE & BROWN (IT)	Legal costs to be allowed as part of project cost. COLC to confirm legal status of UKPN substation location and cable routes.
R33	5	(1) Compliance/Regulatory	Difficulty completing works inline with legal bridge lifting constraints / normal bridge lifting activities.	Possible extension of time claims leading to increased project cost / time.	Possible	Major	12	£250,000.00	N	C – Uncomfortable	Contractors will be required to work around Bridge lifts / normal bridge operation. COLC/LPM/CA/Contractor to agree daily construction communications strategy for day to day operations.	£0.00	possible	Minor	£0.00	3	£0.00	17/08/2020	COLC(NB)	Refer to Risk 13. Tendering contractors shall be aware of the need to work around Bridge lifts / live site. Temporary generator to be installed as part of works, currently under RIBA Stage 4 development.
R34	5	(5) H&S/Wellbeing	Working around public / tourists / staff	Impact on completing works and associated costs	Likely	Major	16	£150,000.00	N	D – Very Uncomfortable	Ensure that sensitivities are included in the tender pack for contractors, PD to include all information in Pre-Construction Information IT pack. PD / CDM Advisor and Contractor to ensure all H&S considerations are taken into account and implemented. PTE & tender pricing document to allow for public separation and contractor communication processes / management.	£0.00	possible	serious	£0.00	6	£0.00	17/08/2020	COLC(NB) / CBRE (Tbc)	Specific hoarding requirements to be identified within ITT Documents. Hoarding and security costs allowed for within Cost Plan.
R35	5	(10) Physical	Revised management / restricted visitor numbers if fire routes are amended.	Reduction on visitor numbers may affect ticket sales, ability to let out venue, require training on different emergency procedures.	Possible	Serious	6	£150,000.00	N	C – Uncomfortable	The project is to be developed on the basis that BAU is not affected. Tendering contractors shall be required to outline a logistics and phasing plan for the project. Any impact on existing fire strategies is not to impact BAU.	£0.00	Unlikely	serious	£0.00	4	£0.00	17/08/2020	COLC(NB) / Lead Designer(AECOM (PB)) / Fire Eng(AECOM (AM)) / CBRE (TBC)	Project Team to develop phasing strategy to avoid any restrictions. Fire Consultant to review phasing proposals throughout design development.
R37	5	(4) Contractual/Partnership	Valid Extension of Time request from Contractor	Cost	Possible	Serious	6	£150,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Continue to assess project risks during construction.	£0.00	possible	serious	£75,000.00	6	£75,000.00	17/08/2020	COLC(NB) / LEADENHALL PM (SMC) / CURRIE & BROWN (DS)	Implement robust contract administration. Post-mitigation cost based upon c.3wk EoT.
R38	5	(4) Contractual/Partnership	Valid additional fee requests from Professional Team	Cost	Possible	Serious	6	£150,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Ensure that programme takes account of risks with float to deal with any unforeseen issues prior to tendering consultant fee. Robust project management and Change Control Processes.	£0.00	possible	serious	£30,000.00	6	£30,000.00	17/08/2020	COLC(NB)	Extender tender period and an RIBA Stage 5 may see potential consultant claims based upon scope of services documents however this has not been raised to date.
R41	5	(10) Physical	Archaeological finds	Cost & Time	Possible	Major	12	£200,000.00	N	D – Very Uncomfortable	The current design proposals include limited excavation works. Archaeological finds are not expected. No additional or desktop surveys have been requested by LPAs / Heritage England during pre-application meetings.	£0.00	Rare	minor	£0.00	1	£0.00	17/08/2020	COLC(NB) / PELLINGS (AF)	Limited excavation proposed-UKPN substation area only for ground bearing slab.
R44	5	(10) Physical	Contamination from Contractors works	Time, Cost and Reputational risk.	Possible	Serious	6	£300,000.00	N	C – Uncomfortable	The design team shall document all know risks within the Designer Risks Assessments. This shall include temporary generator pollution/CO2, oil storage areas and high risk pollutants relating to switch gear / M&E services etc. The contractor shall be required to assess all contamination risks as part of works/RAMS. The contractor may also be required to submit and discharge and Environmental Management Plan (CEMP) under planning conditions.	£0.00	Unlikely	serious	£0.00	4	£0.00	17/08/2020	COLC(NB) / LEADENHALL PM(SMC)	Refer to Risk 22 & 62.
R45	5	(9) Environmental	Ecological site constraints	Legal, reputational, cost and time	Possible	Serious	6	£50,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Ecological surveys determined as not required as part of planning pre-app process.	£0.00	Unlikely	Serious	£5,000.00	4	£0.00	17/08/2020	COLC(NB) / AECOM(PB)	Planning consultant to engage with LPAs. Pre-Application processes to be implemented. Risk allowance for desktop surveys only.
R48	5	(2) Financial	Project exceeding budget	Cost	Possible	Major	12	£500,000.00	Y - for costed impact post-mitigation	D – Very Uncomfortable	Cost Consultant to closely monitor design development throughout all project stages and prepare Stage Boundary Cost Plans / Pre-tender estimate / Monthly Construction Costs Reports.	£0.00	possible	serious	£150,000.00	6	£0.00	17/08/2020	COLC(NB) / CURRIE & BROWN (DS/IT)	Tender process complete. Risk remains until Final Account.
R49	5	(4) Contractual/Partnership	Contractual disputes/ team disagreements	Cost and Time	Unlikely	Serious	4	£150,000.00	Y - for costed impact post-mitigation	B – Fairly Confident	Clear lines of communication to be closely monitored by LPM. A responsibility assignment matrix (RACI Matrix- responsible, accountable, consulted, and informed) has been put in place as part of project plan for the Project Team. LPM shall ensure clear lines of communication are maintained with the Contractor / Contract Administrator and Client / Project Team which shall be documents in Monthly PM Reports.	£0.00	rare	Serious	£20,000.00	2	£0.00	17/08/2020	COLC(NB) / LPM(SMC) / Project Team(All)	

R50	5	(10) Physical	Incident weather construction	Adverse weather affecting works being able to go ahead / completed	Possible	Serious	6	£25,000.00	N	C – Uncomfortable	Works commencement date avoids winter months. Internal works are not weather dependant. No further mitigation actions can be taken.	£0.00	rare	minor	£0.00	1	£0.00	17/08/2020	COLC(NB)		
R51	5	(10) Physical	Other projects impacting this project	Time and Cost due to project stoppage / interface costs.	Possible	Major	12	£50,000.00	N	C – Uncomfortable	CoLC to confirm other works planned / scheduled on the site. This information shall be provided to contractors for information as part of ITT PCI pack. The Construction works programme shall identify planned maintenance periods where available.	£0.00	possible	minor	£0.00	3	£0.00	17/08/2020	COLC(NB) / LPM(SMC) / Lead Designer(PB) AECOM / Principal Designer (AS)		Maintain close dialogue with TB Team in relation to planned / unplanned works.
R52	5	(10) Physical	Damage to Bridge during works by contractor	Cost / Quality / Programme Delay	Possible	Serious	6	£0.00	N	D – Very Uncomfortable	Grade 1 Listed Structure: All contractors shall be made aware of asset heritage and Listing Protection. Any costs associated with making good to be apportioned to the contractor / insurance(s).	£0.00	unlikely	serious	£0.00	4	£0.00	17/08/2020	CBRE (Tbc) / CoLC (NB)		Clerk of Works to be consider by CoLC. Contractor RAMS to be obtained prior to starting works. All RAMS to be shared with TB Team & Principal Designer for H&S.
R53	5	(10) Physical	Unforeseen technical problems during installation	Problems with fixings / fittings / infrastructure	Possible	Major	12	£200,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Existing LV/HV infrastructure to be assessed by electrical consultant (Aecom). All track and trace survey information to be utilised to develop RIBA Stage 4 design. Contractor to undertake pre-survey of all areas prior to removal / installation of switchgear.	£0.00	unlikely	Major	£80,000.00	8	£0.00	17/08/2020	COLC(NB) / CURRIE & BROWN (DS) / Lead Designer AECOM (PB) / CBRE (Tbc)		
R54	5	(10) Physical	Additional Security requirements for working in live environment	Cost	Possible	Serious	6	£50,000.00	N	C – Uncomfortable	Security requirements and secure lines to be developed during RIBA Stage 4 and defined within ITT documents. Any additional requirements to be advised by CoLC.	£0.00	likely	Serious	£0.00	8	£0.00	17/08/2020	COLC(NB)		Tower Bridge is a tier 1 terrorist target. All areas shall require permits to work. This shall be identified within ITT Documents.
R55	5	(10) Physical	Current infrastructure feeds river traffic lights and CCTV feed disrupted by works.	Reputational Risk - CCTV impact, river traffic disruption	Possible	Major	12	£0.00	N	C – Uncomfortable	Track and trace surveys will be undertaken during RIBA Stage 4. The contractor shall be responsible for ensuring that CCTV and river lights are not disrupted. A reporting procedure shall be implemented in case of such event.	£0.00	unlikely	major	£0.00	8	£0.00	17/08/2020	Lead Designer AECOM (PB) / CBRE (Tbc) / CURRIE & BROWN (IT)		Track and trace survey to be instructed during RIBA Stage 4. ITT Documents to reinforce requirement for additional tracing surveys if required to prevent CCTV / river light disruption.
R56	5	(10) Physical	Tower Bridge Events / Promotion of events (Eg. London Marathon, World Cup, Wimbledon, Rugby etc. disrupting works on site	Time	Likely	Minor	4	£0.00	N	C – Uncomfortable	Forward notice to be provided by Tower Bridge operations team. Information to be provided to contractor as soon as possible. Contractors shall be required to allow for an average number of events based upon historical data / events information as part of ITT process.	£0.00	possible	minor	£0.00	3	£0.00	17/08/2020	COLC(NB)		No post-mitigation costs applicable as events will be deemed part of normal bridge operation. Early engagement with TB Team once event / promotional information is made available.
R57	5	(1) Compliance/Regulatory	Requirement to undertake remedial works and / or replace existing LV cables which require reconnection to new switchgear should they not pass certification.	Time & cost: If existing LV cables are unable to be reconnected, this could lead to increased construction works costs and / or redesign of the existing LV infrastructure.	Likely	Serious	8	£250,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Review of existing fixed wire testing certs. Complete track and trace cable survey during RIBA Stage 4. If LV cables are found to be in poor condition, such items may be required upgrade or renewal under this project. Additional LV cable works would be subject to CoLC Change Control Processes prior to instructing the design team.	£0.00	possible	Serious	£150,000.00	6	£0.00	17/08/2020	COLC(NB)/Lead Designer AECOM (PB) / CBRE (Tbc) / CURRIE & BROWN (IT)		Refer to Risk No.25 which relates to the risk of failure of existing back-up generator and / or LV supplies prior to commencing or during the works.
R58	5	(1) Compliance/Regulatory	UKPN works delayed	Delay the project programme, resulting in incurring extension of time	Possible	Major	12	£100,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Early engagement with UKPN and order(s) placed prior to contractor appointment.	£0.00	possible	serious	£50,000.00	6	£0.00	17/08/2020	COLC(NB) / Lead Designer AECOM (PB)		Temporary generator to be provided as back-up. Currently allowed for within RIBA Stage 3 Cost Plan. Cost impact post-mitigation based upon 2wks construction delay.
R59	5	(1) Compliance/Regulatory	Contractors works delayed by UKPN / UKPN connection work.	Delay to project programme, resulting in extension of Time submission from Contractor.	Possible	Major	12	£60,000.00	N	C – Uncomfortable	Engagement to be maintained with contractor and UKPN orders placed prior to contractor appointment.	£0.00	possible	serious	£0.00	6	£0.00	17/08/2020	COLC(NB) / CBRE (Tbc)		UKPN and construction programme closely monitored by the Contractor. CoLC to ensure that UKPN lease(s) / Wayleaves are agreed in sufficient time & Pre-Contract
R60	5	(10) Physical	Time delay due to Bridge House Estates / CoLC not agreeing to transfer of UKPN lease / come to a legal agreement for the new substation land.	Programme delay and costs for design team whilst on hold / additional design work and extensions of time. Additional staff costs	Possible	Major	12	£250,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Early engagement with CoLC legal team to undertake work to resolve land ownership / lease with UKPN.	£0.00	possible	Serious	£20,000.00	6	£0.00	17/08/2020	COLC(NB)		UKPN Lease to be in an agreed form prior to contractor appointment.
R61	5	(10) Physical	Capacity / routes of existing cable routes are not sufficient for routing new HV cables prior to removing existing.	Re-design costs and unforeseen works costs due to alternative routes. Programme delays	Likely	Major	16	£300,000.00	Y - for costed impact post-mitigation	C – Uncomfortable	Site surveys and track and trace to be undertaken during RIBA Stage 4. Aecom to attend site during track and trace survey to instruct opening of existing containment / cable routes where appropriate.	£0.00	possible	Major	£80,000.00	12	£0.00	17/08/2020	COLC(NB) / Lead Designer AECOM (PB) / PELLINGS (AF)		If existing service routes are not suffice following survey information, alternative routes will require investigation and development with engagement with the planning & heritage consultants.