

Risk Framework

Project Risk Register.....South Humber Bank and A180 Major Maintenance.....
 Risk Champion.....Holly Hall and Luke Greaves.....

Totals
 G 1
 Y 1
 O 5
 R 14

		LIKELIHOOD					
		0	1	2	3	4	5
RISK	1	G	G	G	G	Y	Y
	2	G	G	G	Y	Y	Y
	3	Y	Y	Y	Y	Y	Y
	4	Y	O	O	R	R	R
	5	O	R	R	R	R	R

Reference	Category	Risk Event	Cause	Consequence	Inherent Risk				Overall Score	Mitigation To Be Applied	Residual Risk				Overall Score	Major issues Giving Concern	Impact & Current Status	Action Plan	Forecast / Final Impact	Risk Owner
					D Imp act	S Imp act	C2 Imp act	Like liho od			D Imp act	S Imp act	C2 Imp act	Like liho od						
1	Construction	Poor contractor performance	Inadequate procurement processes enabling unsuitable contractors to be selected. Ineffective site management by the contractor. In sufficient resources on site. Poor programme management	Delays to completion. Target price or scheme budget exceeded. Poor quality of workmanship. Increased SHEQ non compliance risk.	5	5	3	4	R	Ensure that contractors that are invited to tender have been thoroughly appraised. Ensure good quality contract administration. Involve CDM-C in vetting H&S plans. Adequate levels of site supervision by Engie. Regular formal and informal communication with the contractor. Engie staff have good working knowledge of the scheme, the contract documentation and the form of contract. Good Engie management processes in place. Adequate levels of site supervision of the contractor.	2	2	2	2	G					
2	Construction	Lack of additional contractor resources to accelerate programme if required	Contractor has insufficient additional in house resource available. Contractor does not have a good sub-contractor network in place.	Lack of ability to regain any time lost in the programme. Failure to meet spend deadlines. Work not completed before March 2018.	5	2	3	3	R	Ensure that contractors that are invited to tender have been thoroughly appraised. Ensure good quality contract administration. Regular formal and informal communication with the contractor. Engie staff have good working knowledge of the scheme, the contract documentation and the form of contract. Good Engie management processes in place.	2	1	1	2	G					
3	Construction	Delays due to the late issue of statutory licences and approvals from public bodies eg Network Rail, EA	Late submission of information by Engie/contractor. Lack of knowledge of the applicable approval systems and processes employed by the public bodies. Inefficient processing of information submitted by the public body leading to a delay in issuing approval.	Completion delayed. Cost increase on site due to claims/compensation events.	4	2	2	4	R	Make allowance in the programme for delays during the design and procurement process. Early communication with public bodies affected by our works. Have details available of key contacts within public bodies. Submit information required in a timely manner. Ensure that deadlines are met.	2	1	1	1	G	Only public body affected by works on Woiaid Lane are Network Rail.Approvals are agreed in principle (subject to funding award).				
4	Design	Design amendments during construction	Inadequate design. Designer becomes aware of additional information following commencement of work on site. Change in design due to presence of unforeseen circumstances or events.	Nature of the contract data and the activities to be undertaken by the contractor changes. Project budget exposed. Potential for delay.	4	2	4	4	R	Early awareness of any changes. Design changes undertaken promptly. Any potential impact on the contractor is notified early or via an early warning	2	1	2	2	G	Detailed Design undertaken in advance of potential funding award.				
5	Construction	Impact on habitat and ecology eg nesting birds, protected species and/or flora and fauna, bats within highway structures	Ecological survey not completed at design stage. Contractor not been made aware of any risk by the designer. Contractor fails to put adequate mitigation measures in place.	Delays to completion. Target price or scheme budget increased due to delay. Reputational risk.	1	2	2	1	G	Undertake environmental survey to identify areas of concern	1	1	1	1	G	Due to the location of the works it is highly unlikely that there will be any significant risk.				
6	Construction	Working in or around existing services	Unable to divert or de-commission existing services affected by or in close proximity to the works. Impact of existing services not considered at design stage. Potential conflict between the contractor and those undertaking work on site for the utilities at the same time.	H&S risk due to exposure to live services. Costs associated with damaging or having to divert existing services. Delays to programme and completion.	3	4	3	5	R	Confirmation of presence and position of existing services by the designer. Adoption of safe working methods by the contractor. CDM-C to vet contractors methods of working. Early discussions with any utility companies. Designer, contract documents and the programme of works highlight the need for additional contractors to be on site at the same time.	1	1	1	3	G	There is an increased risk when working in an urban setting or where excavation adjacent to existing live services are required, such as this scheme.				
7	Construction	Working in or close to excavations	Nature of work requires excavations and /or trenches to be dug within the site area. These may have an impact on other activities or the safety of staff on site	Poor ground conditions resulting in collapse, inundation etc. Contact with contaminants. RH&S risk due to unplanned ground or trench collapse. Impact on other activities.	3	3	1	2	Y	Provide adequate information about ground conditions and the position of services. Where practicable, limit the depth of excavation. Contractor to implement safe methods of working	1	2	1	1	G					
8	Construction	Traffic congestion created by the works	The traffic management measures that are required to protect both the workforce and other road users, leads to additional congestion in and around adjacent routes	Delays for other road users, including public transport. Additional costs to business. Significant reputational risk	5	4	1	4	R	Plan the types and timings of any road closure or temporary diversion of traffic at design stage. Work closely with the contractor and local business/industry. Monitor impact of any road closures or temporary traffic diversions. Consider alternative options. Advance notification of works to road users. Clearly sign alternative routes. Contractor to use competent traffic management sub-contractor	3	2	1	2	Y	Very difficult to completely mitigate against the risk of the works creating any congestion to road users. Need to provide early notification to temporary traffic management or road closures changes and be aware of any alternatives should congest be a significant issue.	Currently advanced planning has taken place and any congestion or disruption is minimal.			
8	Construction	Negative publicity	Nature of work, construction methods or materials used. Duration of works. Dust or noise nuisance. Impact of the work on the public.	Concerns raised by elected members, public local press.	5	1	1	4	R	Consult with key stakeholders. Issues press releases. Keep key elected members including the PfH updated at all times. Ensure contractor has experience of working in town centre locations and his methods of working take account of this risk.	2	1	1	3	Y	Good early consultation. Engaging with Engie PR staff.	No major issues at the moment but staff need to be vigilant for this risk.			
9	Design	Traffic Regulation Orders (TROs)	TROs are required to facilitate either temporary or permanat works but are not in place.	Unable to enforce traffic regulations. Disruption. Congestion. Impact on key stakeholders eg taxis, buses, cyclists	5	2	1	3	R	TROs required are identified during the design stage. Discussion and way forward agreed with Cofely TRO Officer. TROs in place in a timely manner. Any potential legal issues dealt with at design stage	2	1	1	1	G					
10	Design	Road safety risk	Failure to obtain approval for final design from Road Safety Engineer	Increased road safety risk due to nature of scheme design	3	4	3	3	O	Designer to arrange for a design stage and post completion safety audit. Review findings with Road Safety Engineer. Where practicable action all relevant recommendations.	1	2	1	1	G					
11	Project Management	Changes to Engie Staff	Key design and site supervisory staff changed due to illness, absence or other reasons of non availability. Higher risk for specialist activities such as structures	Project delays due to lack of co-ordination	4	1	1	3	O	Ensure good Project Management available to make use of intra office resources if required. Ensure design team have good filing data and project management systems. Ensure that there are sufficient resources within the team or available via the supply chain.	2	1	1	1	G					
12	Project Management	Insufficient budget	Design and construction costs exceed budget available. Insufficient contingency budget.	Unable to complete scheme as designed or complete within the required timescale	4	1	3	4	R	Good project management. Good monthly budget monitoring to manage costs and assess future financial shortfalls. Submit bid for additional funding. Use contingency within LTP.	2	1	2	2	G					

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13	Project Management	Inaccurate assessment of scheme costs at design stage	Rates used to produce estimated cost are inaccurate. Quotes from specialist contractors inaccurate due to a lack of information provided. Underestimate of contingencies required. Scope of work changes during design stage.	Nature of the Contract Data changes and hence the Price of Work. Project budget exposed.	4	2	3	3	O	Ensure good QA at design stage and good quality Contract Administration during the works. Contractors who provide specialist quotes must have adequate information and sufficient time. Build up estimated rates based on similar types of work undertaken previously. Review and amend scheme budget.	2	1	2	2	G					
14	Construction	Construction impractical i.e. buildability	Unforeseen circumstances or unplanned occurrences make it difficult or impossible to construct the scheme as originally designed	Nature of the Contract Data changes via compensation events and hence the Price of Work. Project budget exposed.	4	2	3	2	O	Ensure good quality QA at design stage. Ensure full involvement of Contractor in buildability assessments at the stage of deriving the Target Cost. Involve potential contractors at ECI stage. Undertake archaeological surveys. Undertake ground investigations. Undertake ground radar survey in urban areas to locate services.	2	1	2	1	G					
15	Construction	Hazardous materials	Hazardous materials such as asbestos, paint, solvents are either present on site or are to be used as part of the construction of the works	Hazardous materials can pose a significant H&S risk to construction staff and/or to members of the public	2	5	2	4	R	Ensure adequate site surveys are undertaken at design stage. Make the contractor aware of risks at tender stage. Employ specialist consultants to undertake testing. Ensure contractor provides COSHH data sheets and has adequate RAs and MSs in place to manage the risk	1	2	1	2	G					
17	Construction	Contractor becomes insolvent during construction period	Appointed contractor unable to complete works	Delays to completion. Target price or scheme budget exceeded. Need to try and source alternative contractor at short notice	4	1	2	4	R	Ensure that contractors that are invited to tender have been thoroughly appraised and financial checks undertaken if necessary. Ensure that a bond is in place.	1	1	1	2	G					
18	Design	External influence on design process	Stakeholders require design changes to meet their requirements and/or expectations from the scheme	Delays to completion of design. Final design becomes expensive to maintain. Impact on scheme buildability. Negative impact when stakeholders objectives cannot be met. Insufficient budget to meet stakeholders requirements.	4	1	3	3	O	Hold consultation with key stakeholders at each stage of the design process. Identify what their objectives are. If necessary seek alternative solutions which are less risky.	2	1	1	1	G					
19	Construction	Adverse weather conditions	Weather conditions hinder progress of work on site.	Delays to completion. Target price or scheme budget exceeded. Need to try and source alternative contractor at short notice	4	1	2	4	R	Consider best time of year to undertake work and programme accordingly. Contractor to build some contingency into his programme. Consider suitable methods of working. Identify temperature susceptible programme activities.	4	1	1	2	O					
20	Project Management	Expected outcomes from scheme not achieved	Identified outcomes for scheme are not delivered following completion e.g. air quality targets, reduction in accidents, reduction in congestion, reduced maintenance costs.	Reputational risk. May require additional work to be undertaken, over and above scheme works themselves to achieve objectives. None or an unrealistic assessment of objectives at design stage. Outcomes not measurable.	5	2	3	3	R	Ensure objectives are clear prior to design. Ensure objectives are measurable. Undertake design stage review of whether objectives have been met. Model design solution to test likelihood that it will have a suitable impact.	2	1	1	2	G					
21	Project Management	Project Governance	Inadequate procedures in place to manage scheme during design/tender/construction period.	None or poor decision making on scheme detail that may have a critical impact on the design or the costs. Information flow to NELC/ elected members on critical aspects of the scheme is impacted.	5	1	3	3	R	Have a Project Board, approved by H of H&T, in place for all schemes above a critical value level. Ensure that Project Board has documented governance procedures. Appoint head of project Board. Use Monthly LTP Review meetings to "project board" lower value LTP schemes. Designers to follow internal documented procedures during design/tender/construction phases.	1	1	1	1	G					
22	Project Management	Client approval of design	Inadequate procedures in place to obtain final approval for scheme in a timely manner, prior to commencing tender process. Scheme commences without having obtained final client approval.	Delays to scheme whilst seeking client approval. Scheme commences without final client approval.	4	1	2	5	R	Follow LTP governance arrangements for LTP schemes. Involve client in discussions during design stage. Identify in a timely manner who will "sign off" the final scheme design on behalf of NELC. Forward scheme details for approval to NELC in advance of the tender process commencing.	2	1	1	2	G					
23	Project Management	External funding not spent in accordance with funding bodies requirements	Budgets are under/over spent. Objectives linked to the awarding of the funding are not met. Funding used for activities which are not covered as part of the scheme remit.	Under/over spend has a cost impact on the client. Detrimental impact on opportunities to bid for further funding.	4	1	3	5	R	Adequate project governance in place. Monthly review of actual spend and forecast spend by Designer. Designer to flag up an early warning if issues are identified. Raise any concerns either with NELC or directly with the funding body. Use LTP Monthly Review meetings to manage actual and forecast spend against a + or - 5% target.	2	1	1	2	G					
					1	1	1	1	G		1	1	1	1	G					
					1	1	1	1	G		1	1	1	1	G					

4	Y	O	O	R	R
5	O	R	R	R	R