

Lincoln Eastern Bypass

Project Risk Review

September 2016

Produced by



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1 Introduction

The purpose of this report is to provide an update on the risk review process for the Lincoln Eastern Bypass (LEB) Scheme. The report sets out the process adopted to identify, assess and manage the risks associated with the following two areas:

1. **Project Risks:** Those affecting the delivery and cost of the LEB single carriageway scheme.
2. **Strategic Risks:** Those affecting the ability of the Lincolnshire County Council (LCC) to deliver the wider LEB programme.

1.1 Risk Review Process

The risk management, assessment and identification processes outlined within this document are continuous and all mitigation measures are regularly reviewed. As such the following table details the stages in the life of the project where risks will be assessed and reviewed. To date the LEB project risks (for the single carriageway scheme) have been reviewed prior to programme entry (Stage 1), during the planning application validation period (Stage 2), during detailed design (Stage 3), and after completion of the statutory approvals process. This report documents the risk review as required for Stage 5.

Table 1-1 – Project Life Cycle Risk Review Stages

Action Stage	Description
1	Before new Preferred Route Announcement / prior to programme entry
2	Submission of new Planning Application
3	During detailed design
4	Post Statutory Approvals
5	Prior to final funding
6	During construction

1.2 Structure

The remainder of this document is structured as follows:

- Section 2 provides an overview of the methodology and systematic approach used to assess risk throughout all stages of the project;
- Section 3 outlines the significant project risks to the LEB delivery or budget;
- Section 4 details the significant strategic risks to the delivery of the wider LEB project; and
- Section 5 provides a summary of the current project risks and risk value.

2 Risk Management

2.1 Project Risk Identification

A Project Risk Register has been developed to consider the risks associated with the delivery of the scheme. The register logs risks identified during the planning and design phases and outlines any unrealised issues that have the potential to adversely impact the scheme delivery programme and cost.

The risk register has been in place since the LEB programme's inception and updated on an ad hoc basis and through more formal risk workshops. To date the single carriageway scheme has been subject to five formal risk workshops in line with the risk review stages completed to date. The most recent of which took place in July 2016. As described in Section 1.1 this report describes the review process for the July 2016 workshop.

As with the previous risk reviews the July 2016 workshop reviewed the existing risks contained within the register, specifically considering whether they were still relevant to the scheme, whether appropriate mitigation was in place and whether they still constituted a risk. Secondly the workshop looked to identify any new or emerging risks and add these to the register. As always each risk was classified and grouped into one of the following areas:

- Engineering – including scheme design, structures and earthworks.
- Planning & Site Supervision – including legal/statutory processes, site supervision, policy changes and overall programme.
- Strategic – Including funding, policy, planning, stakeholder consultation
- Statutory Undertakers – including unforeseen statutory services and delivery programme risks.
- Environment – including contaminated land, construction phase impact, protected species discoveries.
- Ground Conditions – including land drainage and unforeseen ground conditions.
- Contractual/ Construction - including adverse weather, programme delays and resource issues.

2.2 Project Risk Assessment

All risks within the register are assessed and classified across three areas:

- the probability of the risk occurring;

- the most likely impact on costs; and,
- the time which would arise if the risk did occur.

The register assesses all risks across the three areas using the evaluation scale detailed in Table 2-1. The register then qualifies each of the risks based on the combination of the likelihood of occurrence and the likely impact. The probability impact grid is shown in Figure 2-1 and determines if the risk category is low, medium or high based on the red-amber-green (RAG) assessment.

During the July 2016 risk workshop the key impacts of each risk were reviewed and the register amended accordingly. The workshop also reviewed the proposed risk mitigation and assessed whether it remained valid and appropriate. The workshop identified any new or emerging risks, assessed them using the same criteria and assigned an appropriate risk category. The most appropriate mitigation measures were also discussed and added to the register.

The process adopted for outlining such mitigation measures follows the approach proposed within the HM Orange Book¹ as summarised in Table 2-2.

Table 2-1 – Risk Evaluation Scales

	Nil 0	Very Low 1	Low 2	Moderate 3	High 4	Very High 5
Probability (%)	0	≤15	>15 ≤35	>35 ≤65	>65 ≤85	>85
Most Likely Cost Impact (£k)	0	≤50	>50 ≤250	>250 ≤750	>750 ≤2250	>2250
Time Impact (weeks)	0	≤1	>1 ≤4	>4 ≤12	>12 ≤26	>26

Figure 2-1 – Probability Impact Grid

PROBABILITY	VH	0	5	10	15	20	25
	H	0	4	8	12	16	20
	M	0	3	6	9	12	15
	L	0	2	4	6	8	10
	VL	0	1	2	3	4	5
	Nil	0	0	0	0	0	0
		Nil	VL	L	M	H	VH
		COST IMPACT					

¹ HM Treasury, 2004. *The Orange Book: Management of Risk - Principles and Concepts* [online]. [Accessed on 27 May 2011]. Available from: http://www.hm-treasury.gov.uk/d/orange_book.pdf

Table 2-2 – Addressing Risk Aspects

Aspect	Applicable for	Action
Tolerate	Risks which mitigation opportunities are limited or which the cost of any mitigation measure is disproportionate to the risk the measure is designed to control	Risk tolerated and no further action taken
Transfer	Risks linked to construction works that can be transferred to contractor or risks that can be covered by insurance	Appropriate clauses included in the contract to ensure relevant insurance cover has been obtained
Terminate	Risks that can be eliminated by incorporating changes to the scheme design	Scheme design amendments as appropriate
Treat	All other risks	Mitigation actions taken to constrain the risk to an acceptable level

2.3 Project Risk Quantification

Based on the cost impact established for each risk, the Risk Register includes a minimum, maximum and most likely cost estimate.

The impact of each risk identified within the register has been quantified and an overall risk value calculated using the Palisade @RISK analysis software. The purpose of which is to provide a robust risk value that can be included within the overall scheme cost estimate. The @RISK software performs risk analysis using Monte Carlo simulation, importantly this method is considered robust and is recommended by DfT².

The Quantified Risk Allowance (QRA) outputs from the latest review of the Risk Register are provided in Appendix B. The current risk estimate, based on the analysis, is £6,086,000.

2.4 Strategic Risk Identification

The identification and recording of strategic risks follows the same format and process as the programme risks. However, as these are judged to impact the ability of LCC to deliver the wider programme as opposed to impacting on the scheme costs they are not included in the quantified risk assessment.

The major strategic risks are detailed in Section 4.

² DfT, 2014. *TAG Unit A1.2: Scheme Costs*. Available from:
<https://www.gov.uk/government/publications/webtag-tag-unit-a1-2-scheme-costs>

3 LEB Project Risks

Following the latest review the scheme Risk Register contains 42 ‘open’ risks and a quantified risk allowance of £6.086M. The table below summarises those risks with an outturn risk value of more than £250,000. The full scheme risk register showing probability, risk ranking, owners etc. is included in Appendix A.

The following table presents the Major Risks confirmed during the latest Risk Workshop.

Table 3-1 – LEB Major Risks

Risk Description		Initial Risk Exposure			QRA VALUE	Mitigation/ Risk Reduction Measures / Other Comments
There is a risk that	Resulting In...	Prob	Cost Impact	Risk Rank		
		Cat	Cat	(P x CI)		
Network Rail cancel possession and/or the Network Rail contractor does not meet programme.	Delay to Lincoln to Spalding railway structure has significant impact upon earthworks	M	H	12	£750,000	Early engagement with Network Rail has commenced. Also looking into an alternative option which would use weekend possession. Book Christmas and Easter possessions
Weather above 1 in 10 year event	Delay during construction	M	H	12	£750,000	Add to contract to make it contractor risk (i.e. add z clause in contract).
Significant archaeological remains discovered during construction.	Require excavation / preservation in situ before construction commences. Resulting in delay to construction.	M	H	12	£750,000	Undertake the programme of archaeological work outside of critical path (programme).
Poor performance of utility companies affects programme	Causing scheme delay	H	M	12	£375,000	Early liaison with utilities companies.
Design changes to the LEB during the construction phase.	Cost of varied works and possible delay.	L	H	8	£375,000	Identification by Employer of possible impacts of forthcoming changes.
Ground water infiltration into works causing delay/disruption to earthworks.	Ground water infiltration into works causes delay / disruption to earthworks.	M	M	9	£250,000	Liaise with landowners, ensure existing land drainage network is fully designed

Risk Description		Initial Risk Exposure			QRA VALUE	Mitigation/ Risk Reduction
Delay in approval from relevant bodies (inc EA, Canals & Rivers Trust) for temporary works including River Witham temporary crossing.	Delay and increased cost	M	M	9	£250,000	Early liaison with relevant bodies (EA, NE and Canal & River Trust).

4 LEB Strategic Risks

The table below summarises the major strategic risks to the LEB programme. As defined in Section 1 strategic risks are those which affect the ability of LCC to deliver the wider LEB programme.

Table 4-1 – LEB Major Strategic Risks

Risk Type	Risk Description There is a risk that	Mitigation/ Risk Reduction Measures / Other Comments
Economics / Funding	Expected developer contributions not achieved	Engagement with developers and GLAG.
Economics / Funding	District use funding for other purposes (S106)	Political engagement with stakeholders. Obtain a signed memorandum on funding.
Economics / Funding	Funding contributions towards the scheme not forthcoming (CIL)	Scheme has regional priority. LCC to seek Memorandum of Understanding (MoU) with district councils on CIL contributions.
Economics / Funding	Scheme costs over-run	Tight budgetary control / value engineering. Draw up appropriate contract.
Strategic/ Policy	Political endorsement of scheme (not forthcoming)	The scheme has full Political backing
Strategic/ Policy	Political influence on the scheme. Resulting in changes to time scales or delivery requirements.	
Strategic/ Policy	Change in political climate (national and local) resulting in less support for the LEB scheme.	Political engagement with stakeholders and DfT to further promote and publicise the benefits of the LEB scheme.
Land/ Statutory Process	Scheme CPO increases cost following the withdrawal / delay to commencement of the strategic development areas	LCC and / or Districts will grant / reject the planning application with conditions, i.e. dedication of land for the road.

5 Summary

This report demonstrates that a structured and systematic process is being employed to identify, assess and manage risk for the LEB Scheme. The process is robust and based on an accepted methodology and ensures that the uncertainty associated with the scheme delivery is effectively managed. It provides a clear understanding of the risks inherent in the scheme and their likely impact. The use of Monte Carlo analysis through the @Risk software provides a robust quantification of the risk, allowing the potential impact to be considered as part of the overall scheme cost estimate.

As described in Section 3, as a result of the July 2016 review the following revised quantified risk allowance will be used in the scheme cost estimate:

- £6,086,000.

5.1 Next Steps

The next risk review will be completed during construction.

We have used our reasonable endeavours to provide information that is correct and accurate and have discussed above the reasonable conclusions that can be reached on the basis of the information available. Having issued the range of conclusions it is for the client to decide how to proceed with this project.

Appendix A - LEB Risk Register

LINCOLN EASTERN BYPASS - RISK REGISTER

Risk Reference	Risk Type Select from drop down list	Risk Description There is a risk that	Consequence resulting in	Initial Risk Exposure									Spreadsheet Risk Value			Mitigation/ Risk Reduction Measures / Other Comments	
				Probability			Cost Impact (£k)						Risk Rank	Min	Most Likely		Max
				Rank	Cat	%	Cat	Min	ML	Max	(P x CI)						
01 05	Planning/ Site Supervision	There are some prior to commencement planning conditions still to discharge.	Delay to start of construction.	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Engage contractors early enough to enable the responsibility for discharging some of the conditions to be placed onto the contractor. Archaeological works to be procured separately to the main works.	
02 02	Land/ Statutory Process	The scope for Accommodation works is increased.	Increased cost	1	VL	10%	2	L	50	150	250	2	£5,000	£15,000	£25,000	Continue to engage with landowners and tenants during construction. Drainage works to be procured separately to the main contract.	
02 07	Land/ Statutory Process	There will be a change in the cost of the land because market values fluctuate.	Higher scheme costs	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Land values to be reassessed	
03 03 (b)	3rd Parties - Public	Protector Action	Delay to start of construction.	1	VL	10%	1	VL	20	35	50	1	£2,000	£3,500	£5,000		
03 06	Economics / Funding	Changes in DfT appraisal process (CO2)	The WebTAG appraisal process is continually evolving and it is likely that changes will occur during the development of the scheme and business case which are a risk to the programme and fee estimate. This is a significant risk as it is outside the control of LCC and Mouchel. It could result in the need for additional work, abortive work and the requirement to extend the critical path of the programme.	1	VL	10%	3	M	250	500	750	3	£25,000	£50,000	£75,000	Rerun the model with updated processes and confirm DfT are happy with it.	
03 07	Economics / Funding	DfT approval programme extended for full approval.	The critical path on the programme assumes a finite timeline associated with submitting the business case and gaining DfT approval. However, this is a significant risk as it is outside of the control of LCC and Mouchel. If additional queries are raised by the DfT which delay approval then the commencement of the next stages of the process and the programmes critical path with be delayed.	2	L	25%	3	M	250	500	750	6	£62,500	£125,000	£187,500	Early consultation and ongoing consultation with DfT. Build in some tolerance into the start of works date for targeting costing contract.	
03 08	Economics / Funding	Gateway Reviews result in low score and generate action plan	Gateways reviews are a mandatory requirement for Major Schemes with a capital cost in excess of £50m.	2	L	25%	1	VL	20	35	50	2	£5,000	£8,750	£12,500	Arrange GW3 Review	
03 10	Programme	Network Rail cancel possession and/or the NR contractor does not meet programme.	Delay to Lincoln to Spalding railway structure has significant impact upon earthworks	3	M	50%	4	H	750	1500	2250	12	£375,000	£750,000	£1,125,000	Early engagement with NR has commenced. Also looking into an alternative option which would use weekend possession. Book Christmas and Easter possessions	
03 13	Strategic/ Policy	DfT acceptance of LTS progress (DfT do not accept LTS)	The LTS for the Lincoln Model needs to be endorsed by the DfT in order for them to accept the traffic flows, environmental appraisal, BCR and Safety benefits that it will be used to inform. In essence it is a critical part of the Business Case	1	VL	10%	1	VL	20	35	50	1	£2,000	£3,500	£5,000	Progress review completed. Share with DfT.	
05 01	Design	Safety Audit process leading to a requirement to redesign elements of the scheme.	Issues of Road Safety Audits results in a significant amount of rework (design).	1	VL	10%	1	VL	20	35	50	1	£2,000	£3,500	£5,000	Stage 1 and 2 complete. Stage 3 to be completed at the completion of construction of the scheme.	

LINCOLN EASTERN BYPASS - RISK REGISTER

Risk Reference	Risk Type Select from drop down list	Risk Description There is a risk that	Consequence resulting in	Initial Risk Exposure									Spreadsheet Risk Value			Mitigation/ Risk Reduction Measures / Other Comments	
				Probability			Cost Impact (£k)						Risk Rank	Min	Most Likely		Max
				Rank	Cat	%	Cat	Min	ML	Max	(P x CI)						
06 01	Design	Uncharted SU plants increases diversion costs	Delay to scheme	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Look at alternatives. Further consultation with SU.	
06 02	Design	Increase in scope / size of signage on approach to the scheme	Additional costs	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Undertaken signing strategy for the wider area not just the LEB.	
06 03	Design	Loss of key members of Mouchel staff impacting on the continuity of the programme.	Delay in programme/reduction in quality of service	2	L	25%	1	VL	20	35	50	2	£5,000	£8,750	£12,500	Mouchel quality systems will ensure continuity, and other team members will remain. Mouchel will arrange for staff with equivalent experience/key skills to fill any gaps.	
07 01	3rd Parties - SU	Poor performance of utility companies affects programme	Causing scheme delay	4	H	75%	3	M	250	500	750	12	£187,500	£375,000	£562,500	Early liaison with utilities companies.	
08 02 (b)	Environment	Unforeseen ecological species.	Increase in mitigation cost.	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Review / update surveys as part of the LEB contract	
10 01	Contractual / Construction	Unforeseen contaminated land within the LEB site.	Delays and restrictions to site activities.	1	VL	10%	1	VL	20	35	50	1	£2,000	£3,500	£5,000	Contaminated land report completed. No contaminated land issues identified.	
10 01 (b)	Contractual / Construction	Ground conditions not as predicted to the south of the River Witham / geotech issues within the LEB site.	Delays and restrictions to site activities.	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500		
10 02	Contractual / Construction	Suitability of site won fill material resulting in a cut / fill earthworks imbalance	Increased import volume and disposal of unsuitable material	2	L	25%	3	M	250	500	750	6	£62,500	£125,000	£187,500	Allow for improving material properties. More detailed analysis of the interpretive report.	
10 05	Contractual / Construction	Design changes to the LEB during the construction phase.	Cost of varied works and possible delay.	2	L	25%	4	H	750	1500	2250	8	£187,500	£375,000	£562,500	Identification by Employer of possible impacts of forthcoming changes.	
10 06	Contractual / Construction	Train delay damages on Market Rasen railway line.	Costs of overrunning possession (No details of LADs)	1	VL	10%	2	L	50	150	250	2	£5,000	£15,000	£25,000	Shorter possessions increases likelihood of train delays. Write into the contract so it becomes the contractors risk.	
10 08	Contractual / Construction	Adverse weather during construction that occurs more frequently than once in 10 years (below 1 in 10)	Delay to the construction phase and therefore increased cost	2	L	25%	3	M	250	500	750	6	£62,500	£125,000	£187,500	Set up weather warnings with the EA. Site weather station. Ensure the works start on programme. (Contractor Risk)	
10 10	Contractual / Construction	Damage to crops outside LCC land ownership	Compensation to farmer	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Dust control and regular liaison with farmers and landowners.	
10 13	Contractual / Construction	Outbreak of disease, such as Foot and Mouth in the scheme area.	Disease impacts upon site activities	1	VL	10%	1	VL	20	35	50	1	£2,000	£3,500	£5,000		
10 15	Contractual / Construction	Weather above 1 in 10 year event	Delay during construction	3	M	50%	4	H	750	1500	2250	12	£375,000	£750,000	£1,125,000	Add to contract to make it contractor risk (i.e. add z clause in contract).	
10 17	Contractual / Construction	Longer settlement period required for Witham embankments.	Delay during construction	2	L	25%	3	M	250	500	750	6	£62,500	£125,000	£187,500	Monitoring equipment to be used.	
10 18	Contractual / Construction	Ground water infiltration into works causing delay/disruption to earthworks.	Ground water infiltration into works causes delay / disruption to earthworks.	3	M	50%	3	M	250	500	750	9	£125,000	£250,000	£375,000	Liaise with landowners, ensure existing land drainage network is fully designed	
10 19	Contractual / Construction	Lower CBR increases foundation depth	Excavation of soft spots. Increased capping required.	1	VL	10%	3	M	250	500	750	3	£25,000	£50,000	£75,000		
10 20	Contractual / Construction	The presence of uncharted or inaccurate siting of utilities along the LEB route presenting a safety risk.	Accident, personal injury, increased cost	2	L	25%	3	M	250	500	750	6	£62,500	£125,000	£187,500	Trial holes to locate. Keep close contact with the Statutory Undertakers. Give clear identification of underground services	
10 21	Contractual / Construction	Pollution incident during the construction phase.	Delay to works, cost of clean up, possible prosecution	2	L	25%	3	M	250	500	750	6	£62,500	£125,000	£187,500	Pollution control measures in place	
10 22	Contractual / Construction	Fly tipping	Additional costs of disposal	2	L	25%	1	VL	20	35	50	2	£5,000	£8,750	£12,500	Prosecution notices and site security	

LINCOLN EASTERN BYPASS - RISK REGISTER

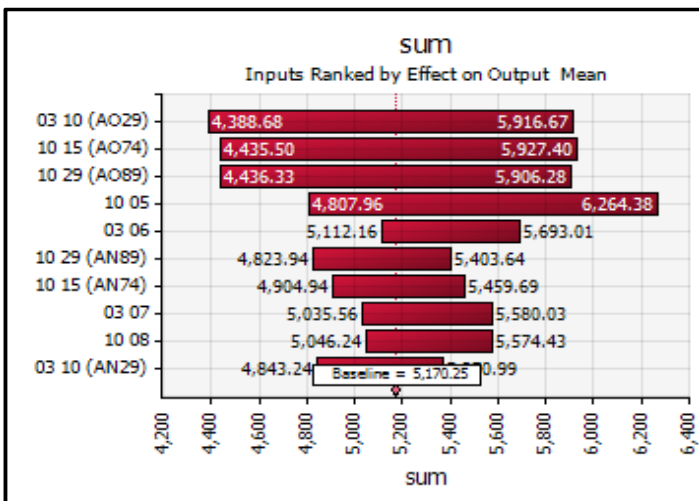
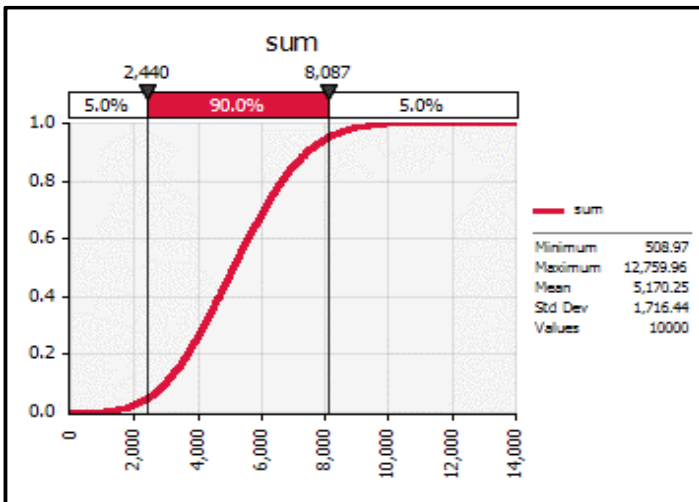
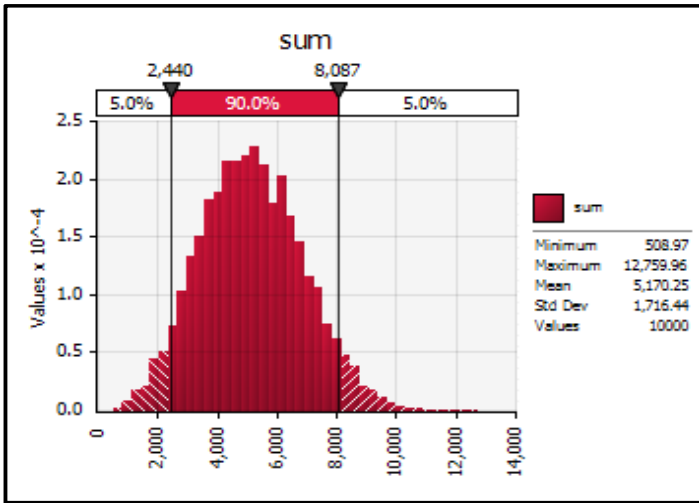
Risk Reference	Risk Type Select from drop down list	Risk Description There is a risk that	Consequence resulting in	Initial Risk Exposure									Spreadsheet Risk Value			Mitigation/ Risk Reduction Measures / Other Comments	
				Probability			Cost Impact (£k)						Risk Rank	Min	Most Likely		Max
				Rank	Cat	%	Cat	Min	ML	Max	(P x CI)						
10 23	Contractual / Construction	Traffic management congestion problems during construction	Traffic delays and a higher probability of potential road traffic accidents	2	L	25%	1	VL	20	35	50	2	£5,000	£8,750	£12,500	Maintenance and cleanliness of advanced warning signs and cones. Use of VMS included within the LEB contract.	
10 24 (b)	Contractual / Construction	Network Rail Services damaged at Market Rasen Railway bridge.	Accident, personal injury, increased cost	1	VL	25%	3	M	250	500	750	3	£62,500	£125,000	£187,500	Contractor to undertake mitigation.	
10 27	Contractual / Construction	Travellers settle on the site	Poor PR, security and delays	3	M	50%	1	VL	20	35	50	3	£10,000	£17,500	£25,000	Keep accesses to the works to a minimum. Site to be secure at weekends.	
10 28	Environment	Excessive noise impact during construction.	Nuisance caused to local residents due to excessive noise and vibration levels during the construction phase	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Undertake pre-construction noise and vibration assessment to ensure effective mitigation and best practicable means are considered prior to the commencement of the construction phase.	
10 29	Contractual / Construction	Significant archaeological remains discovered during construction.	Require excavation / preservation in situ before construction commences. Resulting in delay to construction.	3	M	50%	4	H	750	1500	2250	12	£375,000	£750,000	£1,125,000	Undertake the programme of archaeological work outside of critical path (programme).	
10 31	Contractual / Construction	The increase in cost for material will be higher than already allowed for	Increased scheme costs	1	VL	10%	3	M	250	500	750	3	£25,000	£50,000	£75,000		
11 01	Consents / Approvals	Delay in approval from relevant bodies (inc EA, Canals & Rivers Trust) for temporary works including River Witham temporary crossing.	Delay and increased cost	3	M	50%	3	M	250	500	750	9	£125,000	£250,000	£375,000	Early liaison with relevant bodies (EA, NE and Canal & River Trust).	
11 05	Design	Delay in obtaining ecological licences (as required) at construction stage	Impact on construction programme	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500		
11 07	Consents / Approval	Changes to temporary material storage areas	Changes to planning permission Delay to programme due to land acquisition and planning	2	L	25%	3	M	250	500	750	6	£62,500	£125,000	£187,500	Early review of contractor's earthwork assumptions	
10 33	Contractual / Construction	Delay to commencing earthworks (2017) as a result of wider delays to the project (DfT Full Approval process / contractor mobilisation)	Increase in scheme costs.	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Continue to monitor programme and identify key issues.	
11 08	Consents / Approval	Land not covered by CPO	Additional land access and negotiations impacting on programme.	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Ongoing discussions with HE	
11 09	Consents / Approval	Updated traffic modelling not accepted by DfT	Further review and update of model	2	L	25%	2	L	50	150	250	4	£12,500	£37,500	£62,500	Review of traffic model outputs and further discussion with DfT.	

Appendix B - @Risk Outputs

@RISK Output Report for sum

Performed By: John Pollard (Manchester St Johns House)

Date: 29 September 2016 12:24:11



Simulation Summary Information	
Workbook Name	1030171-LOGMGT-Project R
Number of Simulations	1
Number of Iterations	10000
Number of Inputs	94
Number of Outputs	48
Sampling Type	Monte Carlo
Simulation Start Time	29/09/2016 12:20
Simulation Duration	00:01:31
Random # Generator	Mersenne Twister
Random Seed	141592654

Summary Statistics for sum			
Statistics		Percentile	
Minimum	509	5%	2440
Maximum	12760	10%	2980
Mean	5170	15%	3366
Std Dev	1716	20%	3667
Variance	2946150.097	25%	3934
Skewness	0.178028576	30%	4196
Kurtosis	2.773646389	35%	4431
Median	5116	40%	4669
Mode	5177	45%	4893
Left X	2440	50%	5116
Left P	5%	55%	5334
Right X	8087	60%	5570
Right P	95%	65%	5828
Diff X	5647	70%	6086
Diff P	90%	75%	6338
#Errors	0	80%	6636
Filter Min	Off	85%	6982
Filter Max	Off	90%	7430
#Filtered	0	95%	8087

Change in Output Statistic for sum			
Rank	Name	Lower	Upper
1	03 10 (AO29)	4389	5917
2	10 15 (AO74)	4435	5927
3	10 29 (AO89)	4436	5906
4	10 05	4808	6264
5	03 06	5112	5693
6	10 29 (AN89)	4824	5404
7	10 15 (AN74)	4905	5460
8	03 07	5036	5580
9	10 08	5046	5574
10	03 10 (AN29)	4843	5371