

Risk Register

Approx quantification (min)	£	Risk register	689,500.00
Approx quantification (expected)	£	1,237,500.00	P50 Value
Approx quantification (max)	£	1,795,000.00	

SCORE	L	M	H
	1	2	3
Prob (%)			
Approx. Cost Impact	< 10k	10-100k	>100
Approx. Time Impact	< 1wks	2-5wks	>6 wks

Impact	Min	Expected	Max
1	1000	5000	10000
2	10000	50000	100000
3	100000	175000	250000

Risk Register	Description	Owner of Risk	Example/Consequence	Comments/Mitigation	Impact	Prob	Prob %	Risk	Time (weeks)	Min. Cost (£k)	Expected Cost (£k)	Max. Cost (£k)	Approx quantification output			Amendments from previous revision
													P x Min	P x Exp.	P x Max	
01	Preparation & Supervision															
	Scheme programme															
01.01	Not following Generic Risk Management Process	All parties	Project Review identifies significant +/-	Review all risks, mitigate and reduce or remove risks. Focus on top risks	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.02	Awareness of other schemes and County/City initiatives	LCC	Lancaster City Councils Proposals/Statutory Undertakers Works	Put in early TMA notices for the work. Liaise with Co-ordination team. Stakeholder Management and Communications are vital	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.03	Insufficient time / resource to negotiate target Cost ?	All parties	Risk of not reached agreed FTC	Use NEC3/NEC4 Option A	2	1	10	2		10,000	50,000	100,000	1,000	5,000	10,000	
01.04	Technical Approval Procedures	LCC / Designer	AIPs / departures /geotech approvals	Low number of AIPs required for the works	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.05	Loss of key resource	All parties	LCC carrying out design work in house. Framework consultant contract has not yet been awarded resulting in no design staff.	LCC carrying out Design work in house.	2	1	10	2		10,000	50,000	100,000	1,000	5,000	10,000	
01.06	Partnership performance	All parties	Approach to partnering		1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.07	Design issues - General	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.08	Design issues - Parapets	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	2	50	2		1,000	5,000	10,000	500	2,500	5,000	
01.09	Design issues - Joints	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	3	1	10	3		10,000	50,000	100,000	1,000	5,000	10,000	
01.10	Design issues - Pavement	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.11	Design issues - Street Lighting	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.12	Design issues - Bearings	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.13	Design issues - Painting	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.14	Design issues - Drainage	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.15	Design issues - Roads	LCC / Designer	Inaccurate pricing, Buildability	Ensure adequate time given for design and preparation	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
1.16	Statutory Undertakers	LCC	Statutory Undertakers delay in designing and programming works and not meeting programme timescales	Gain early involvement and buy in to the scheme.	3	3	75	9		100,000	175,000	250,000	75,000	131,250	187,500	
1.17	DfT timescale too tight to efficiently spend the allocation	LCC	DfT may demand monies spent in 2020/21.	Demonstrate benefits of producing accurate Works Information. Show lessons learnt from previous schemes	3	3	75	9		100,000	175,000	250,000	75,000	131,250	187,500	
	Cost Risks															
01.18	Inadequate allowance for change in economic conditions	All parties	Tax / Inflation	2.7% inflation in estimate - monitor and adjust if required	2	1	10	2		10,000	50,000	100,000	1,000	5,000	10,000	
01.19	Third party Fees (supervision / possession)	All parties	EA Consent Canal and Rivers Trust	Stakeholder Management	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.20	Significant variation in target price vs estimate	All parties	Rework to agree price - delay	Robust estimate and option to revisit scope	1	1	10	1		1,000	5,000	10,000	100	500	1,000	
01.21	Significant disruption to Highway Network unavoidable	All parties	Road closures for removal of Higher North Road	Redesign road system for the duration of the works.Remove sections of central reservation to allow both lanes to be used in both directions.	3	2	50	6		100,000	175,000	250,000	50,000	87,500	125,000	
01.22	Funding from LEP/DfT not being available	LCC	Finances not in place to deliver scheme. Some abortive design and development costs for scheme development.	Keep close consultation with LCC Asset Group. Ensure A601(M) issues well known to team producing Lancaster Masterplan	3	2	50	6		100,000	175,000	250,000	50,000	87,500	125,000	
01.23	Escalation of Concrete Repair Costs	LCC / Contractor	Concrete repairs more than double from expected repairs shown in PBI	Schedule of Rates to be agreed during tender. Contingency in place in requested finances to accommodate projected increase in repair sizes. Sectional Completion dates included in contract.	3	3	75	9		100,000	175,000	250,000	75,000	131,250	187,500	
01.24	Statutory Undertakers Costs	All parties	Difficulty in obtaining statutory undertakers buy into the programme. Delays to subsequent activities.	Early involvement in the project prior to tender stage. Allow sufficient contingency in the programme.	3	3	75	9		100,000	175,000	250,000	75,000	131,250	187,500	
02	Land and Legal															
	Land & landowners															
2.01	Land Access and purchase of areas on site	LCC	Access to land made difficult by land owner.	Majority of works will not require land access. Obtain scheme buy-in at earliest possible stage.	3	2	50	6		100,000	175,000	250,000	50,000	87,500	125,000	
03	Strategic															
03.01	Impact of national/international incidents	Not assigned	F&M / Influenza / Terrorism / Civil strike / Rioting	Potential mitigation unclear at present	3	1	10	3		100,000	175,000	250,000	10,000	17,500	25,000	
03.02	LCC financial ordering and approval procedures and systems (Oracle)	LCC	Approval Final Target Cost etc. Oracle ordering limitations		1	1	10	1		1,000	5,000	10,000	100	500	1,000	

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													P x Min	P x Exp.	P x Max				
03.03	Major disruption to the highway network during the works	LCC	Road closure required demolish Higher North Road	Redesign road system for the duration of the works to reduce disruption. Cannot completely eliminate this but need to demonstrate the long term gain vs the short term pain.	3	3	75	9		100,000	175,000	250,000	75,000	131,250	187,500				
03.04	Brexit	LCC	Instability around construction industry affecting prices.	Difficult to quantify effects as unknown	3	3	75	9		100,000	175,000	250,000	75,000	131,250	187,500				
Resource risks																			
03.05	Insufficient communication / co-ordination across Project Team	All Parties	Silo working	Robust supervision of design to avoid rework due to invalid assumptions	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
03.06	Lack of clarity in role definition	All Parties		Robust project management	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
04 Design Baseline																			
04.02	DMRB revisions	LCC/Designer	DMRB updates between design fixity and start on site	Reasonably short design timescale, issue should not arise	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
04.03	Changes in staff at outside bodies, with different perspective on current proposals.	LCC	Lack of agreement in writing. Redesign and planning issues. Delay & extra cost		1	1	10	1		1,000	5,000	10,000	100	500	1,000				
04.04	Use of As-Built info	All Parties	As built drawings incorrect	Remeasure and resurvey if required	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
04.05	Design errors	LCC / Designer	Delay and abortive cost	Robust supervision of design	2	1	10	2		10,000	50,000	100,000	1,000	5,000	10,000				
Detailed design																			
05 Engineering: Roads/Drainage and Structures																			
Structures Design standards																			
05.01	Difficulties getting AIP's approved.	LCC / Designer	Delay & extra cost	Low number of AIPs required for the works	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
Structures Detailed design																			
05.02	Failure to achieve detailed design completion in advance of site.	LCC	Additional cost of compensation events on site. Miss critical programme windows.	Robust supervision of design. Build float into the programme.	3	1	10	3		100,000	175,000	250,000	10,000	17,500	25,000				
05.03	Checking of 3rd party designs	LCC	AIPS	Programme to be agreed for timely approval.	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
05.04	Existing bridges in worst state that expected.	LCC	Concrete repairs scope larger than shown on PBIs	PBIs show extensive areas of concrete repair. Given extent of works already known about it is unlikely that they would increase above that scope.	3	2	50	6		100,000	175,000	250,000	50,000	87,500	125,000				
05.05	Error in design	LCC	Delay and abortive cost.	Early stage discuss of experience of designer and possible further engagement of experienced designer. Design already complete.	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
06 Statutory Undertakers																			
06.01	Statutory Undertaker delay	All Parties	Increased scheme cost due to inflation	Early involvement and agreement with stats. Same a programme risk above.	3	1	10	3	12	100,000	175,000	250,000	10,000	17,500	25,000				
06.02	Stats costs greater than estimates	All Parties	Street lighting connection	Early involvement and agreement with stats.	2	1	10	2		10,000	50,000	100,000	1,000	5,000	10,000				
07 Construction/Contractual																			
Quality Risks																			
07.01	Timely submission and processing of Traffic Regulation Orders	LCC / Contractor	Road closures	TMA and TTROs submitted in timely manner	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
07.02	Insolvency - Contractor	LCC	Re-tender	Cost risk with time to re tender. Without time it is a strategic risk. PQQ - Financial standing of contractor checked	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
Financial processes																			
07.03	Extraordinary material/fuel price increase/fluctuation	All parties		Potential mitigation unclear at present.	1	1	10	1		1,000	5,000	10,000	100	500	1,000				
07.04	Volatility in Insurance market resulting in unexpectedly high premiums	All parties		Potential mitigation unclear at present	1	2	50	2		1,000	5,000	10,000	500	2,500	5,000				
Totals													689,500	1,237,500	1,795,000				

P50

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