	Min	Exp	Max
1	10000	15000	20000
2	25000	35000	45000
3	55000	65000	75000
4	85000	95000	105000
5	115000	125000	140000

Burnley - Pendle - Hyndburn Growth Deal Risk Register - Junction 13 Package

													Ī	Appro	ox Quantificati	ion Output	1
k No	Description	Risk Owner	Risk Type	Example/Consequence	Comments/Mitigation	Impact	Prob	Prob %	Risk	Time	Min Cost (fk)	Expected Cost (£k)	Max Cost (£k)	P x Min	P x Exp	P x Max	Amendments from previous revision
	·	KISK OWITEI	KISK Type	Example/Consequence	Comments/Mitigation	Impact	PIOD	PIOD %	NISK	(weeks)	IVIIII. COST (EK)	Expected Cost (EK)	IVIAX COST (EK)	P X IVIIII	РХЕХР	PXIVIdX	Amendments from previous revision
L	and and Legal																
-	Legal Land and Landowners							-			ł				ł		
	Land and Landowners	1		Tarantan an annual land and in LCC							<u> </u>				 		
				Transfer or access to land not in LCC	pre-implementation discusions with Estates												
	Land accomplish to compatible			ownership delayed/not agreed	and District/landowners	2	١.		_			65000	75000	550	650	750	
	Land ownership issues at junction	LCC				3	1	1	3		55000	65000	75000	550	650	750	
	N																
S	Strategic																
				local contributions delayed or not	early discussions and agreement on												
	War and a large the state of th			forthcoming	contributions from all parties.	_										4500	
	Financial contributions shortfall					2	2	10	4		25000	35000	45000	2500	3500	4500	
-	Desire Bessline			1													
-	Design Baseline			Updates may be made during detailed design													
				stages - Changes may have to be made/ will													
	DMRB revisions	LCC		take time and increase design cost		2	1	1	2		25000	35000	45000	250	350	450	
				take time and increase design cost													
		-		Confusion/ inability to produce detailed				-			 		 			 	1
	Topo survey anomalies	LCC		design - Times delays/ increased cost		2	1	1	2		25000	35000	45000	250	350	450	
	. Tet tall reg anomalies			aco.g Times aciays, increased cost		-	*	1				33000	.5500	230	330		
\dashv				Essential information not received - Cause			1				1		 			1	
	Late information from 3rd parties	LCC		time delays and potential increase re-design		3	2	10	6		55000	65000	75000	5500	6500	7500	
	•			costs		-											
E	Engineering: Roads																
	Alignment Detailed design																
				General design errors, calculations/incorrect													
	Design errors	LCC		measurements could cause errors - Incur		1	,	10	2		10000	15000	20000	1000	1500	2000	
	a congression of			delays due to rectifying errors, potential		-	-	1 10	_		10000	13000	20000	1000	1500	2000	
				financial implications													
				Other scheme has priority - Delayed start	Pre discussions with Network co ordination												
	Inadequate notice of road space booking	LCC			and early submission of all notices.	2	1	1	2		25000	35000	45000	250	350	450	
							ļ										
				Additional design work creating additional	ST 2 SA to be carried out as soon as detailed												
	Stage 2 safety audit	LCC		construction work - Increasing cost and	design completed so any re-design con be	2	2	10	4		25000	35000	45000	2500	3500	4500	
	- '			increasing time in design and construction	completed before construction stage.												
-	ngineering: Structures																
	Structures Detailed Design																
				increased cost / delay due to unforeseen	Identify affetced strucures and carry out early						†				†		
	Bridges			repairs - remedial work	assessment	2	1	1	2		25000	35000	45000	250	350	450	
S	Statutory undertakers																
				Delay in design - may cause delays and cost	All utility Companies contacted at design												
				implications	stage and provided with GPR survey and												
					construction plans to minimise risk.												
	Statutory undertaker design delay	LCC			Trial holes in critical areas to be dug early in	3	2	10	6		55000	65000	75000	5500	6500	7500	
					the construction phase to identify potential												
					problems.												
	Stats cost greater than estimates	LCC		Inaccuarate estimate		2	3	25	6		25000	35000	45000	6250	8750	11250	
	Charles was after the state of the			Underperformance for contractors,	preplanning, and, liaison meeting with Main				4.6		05000	05000	405000	42500	47500	F2=22	
	Stats performance delay	LCC		unforeseen issues/ additional works - Time	Contractor to minimise delay	4	4	50	16		85000	95000	105000	42500	47500	52500	
	Invironment - Landscape and Ecology			delay and increased cost													
-	vironinent - Lanuscape and Ecology			Management plans for sensitive areas (ponds	In hand												
				woodland, est.) may mean consent/licences	in nand												
	Specific management plans	LCC		form EA, NE - Time and cost implications		2	1	1	2		25000	35000	45000	250	350	450	
				Torm En, ME - Time and cost implications													
-+				Invasive weeds like, Japanese Knot weed,	potential observed in reports by Jacobs		1	 			+		 			+	
				Himalayan Balsam est Require further	adjacent but not on site												
	Invasive plants	LCC		works causing delays and incurring costs		3	3	25	9		55000	65000	75000	13750	16250	18750	
				and the costs and meaning costs													

	Birds nesting (Timing conflict)	LCC	Ground nesting birds appear on cleared site, birds nesting in trees (due to time of year) - Delayed start, pushing programme back, cost implications on lost time	Trees and shrubs could be removed before works commence if necessary	3	1	1	3	55000	65000	75000	550	650	750	
	Pollution events	Contractor	Site runoff, fuel spills, materials spilt/ lost into watercourse/ and or ground - possibility of find's/ costly clean up/ time delays/ other cost implications	Onus put on Contractors. Close supervision required	2	1	1	2	25000	35000	45000	250	350	450	
	Archaeology														
	Unexpected archaeological finds	LCC	Site clearance and/ or excavation may lead to archaeological discoveries - May cause major time delays due to investigation and increase cost due to delay or extra works	archaeological experts to determine the size	2	1	1		25000	35000	45000	250	350	450	
	Construction/ Contractual														
	Adverse weather risk	LCC	Strong winds, heavy rainfall, flooding est Delays to works, loss/ damage to material/ equipment, financial loss and costs	Some adverse weather is to be anticipated and allowed for	3	2	10	6	55000	65000	75000	5500	6500	7500	
	Employer's change and inconsistency in the works information	LCC	Staff leaving, new staff taking on job - may lead to changes due to opinion , misunderstanding est Cause of dispute with contractor/ other staff, delays on works and costs due to delays and misunderstandings	records to be kept and consistency of staff were possible	2	2	10	4	25000	35000	45000	2500	3500	4500	
	Restricted working hours	Contractor	Working hours may be restricted due to residential properties limiting the works that can be done at night, causing delays. Possibility to increase number of labours to make up for restricted hours, increased costs.	Accounted for and built into the contract documents	2	1	1	2	25000	35000	45000	250	350	450	
	Access to site for materials/ plant	LCC	Limited access due roads unable to accommodate large/ oversized loads, road safety issues, abnormal loads unable to access site est Potential cause for delays if materials cannot be delivered, costs incurred with finding alternative methods of delivering materials.	Sites are easily accessable with easy acces to Motorway	2	1	1	2	25000	35000	45000	250	350	450	
	Working in close proximity to residential/ private property	LCC	Risk of trespass, encroaching onto private land/ possibility of damage, potential delays and costs regarding despots	Establish fenced site boundaries early on	2	2	10		25000	35000	45000	2500	3500	4500	
	Requirements to maintain pedestrian access through works	Contractor	Public footpaths/ rights of way lead through site - May cause H&S issues, potential for delays and extra costs for accommodating measures	Public footpaths to be diverted or closed as necessary	3	1	1	3	55000	65000	75000	550	650	750	
	Timely submissions and processing of Traffic Regulation Orders (TRO's) or temporary TRO's	LCC	Late submission/ incorrect submission of TRO's or TTRO'/ slow processing of docs - Cause delays to works and potentially incur costs	All necessary Oders to be applied for in good time	1	2	10	2	10000	15000	20000	1000	1500	2000	
	Unforeseen services	LCC	Discovery of services that were not identified by surveys or the statutory undertakers - Delays in discovering owner, possible devotions/ protection works, costs and delays		3	3	25	9	55000	65000	75000	13750	16250	18750	
	Traffic signs, road markings & signals	LCC	Shortage of posts, sign plates, delay in making signs, unforeseen issues in erecting signs on site - Delays to works, costs and time implications		2	3	25	6	25000	35000	45000	6250	8750	11250	
	Ground Conditions Bill of Quantities														
 	Bill of Quantities Financial Processes														
	Extraordinary material/ fuel price increase	LCC	Various reasons leading to material/ fuel dramatic price increase		1	1	1	1	10000	15000	20000	100	150	200	
	Unexpected rise in insurance costs	LCC	Rise in insurance costs - Higher than expected premiums		1	1	1	1	10000	15000	20000	100	150	200	
	Stage 3 safety audit	LCC	Carried out after completion of works. May identify additional works		2	3	25	6	25000	35000	45000	6250	8750	11250	

TOTAL COST (£K) £121,350 £148,150 £174,950

		Min	Exp	Max
Н	1	10000	15000	20000
⊢	1			
╙	2	25000	35000	45000
	3	55000	65000	75000
	4	85000	95000	105000
	5	115000	125000	1/10000

Burnley - Pendle - Hyndburn Growth Deal Risk Register - Junction 12 Package

											I	Appr	ox Quantificat	on Output			
New Risk No	Description	Risk Owner	Risk Type	Example/Consequence	Comments/Mitigation	Impact	Prob	Prob %	Risk	Time	Min. Cost (£k)	Expected Cost (£k)	Max Cost (£k)	P x Min	P x Exp	P x Max	Amendments from previous revision
	Jestinpuo	HISK OWNER	nisk Type	Example, consequence	comments/witagation	impact	1105	1100 %	HISK	(weeks)	Willia Cost (ER)	Expected cost (ER)	Wide Cost (ER)	1 7 141111	1 A EAP	1 X IVIUX	Amendments from previous revision
Land and Legal	Legal																
	Land and Landowners														1		
	ownership issues at junction	LCC		Transfer or access to land not in LCC ownership delayed/not agreed	pre-implementation discusions with Estates and District/landowners	3	3	25	9		55000	65000	75000	13750	16250	18750	
Strategic		<u> </u>															
	ncial contributions shortfall			local contributions delayed or not forthcoming	early discussions and agreement on contributions from all parties.	2	2	10	4		25000	35000	45000	2500	3500	4500	
Design Baseline																	
- Story, Storent	DMRB revisions	LCC		Updates may be made during detailed design stages - Changes may have to be made/ will take time and increase design cost		2	1	1	2		25000	35000	45000	250	350	450	
Т	Topo survey anomalies	LCC		Confusion/ inability to produce detailed design - Times delays/ increased cost		2	1	1	2		25000	35000	45000	250	350	450	
Late in	nformation from 3rd parties	LCC		Essential information not received - Cause time delays and potential increase re-design costs		3	2	10	6		55000	65000	75000	5500	6500	7500	
Engineering: Roads																	
Ali	ignment Detailed design																
	Design errors	LCC		General design errors, calculations/ incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		1	2	10	2		10000	15000	20000	1000	1500	2000	
Inadequa	te notice of road space booking	LCC		Other scheme has priority - Delayed start	Pre discussions with Network co ordination and early submission of all notices.	2	1	1	2		25000	35000	45000	250	350	450	
	Stage 2 safety audit	LCC		Additional design work creating additional construction work - Increasing cost and increasing time in design and construction	ST 2 SA to be carried out as soon as detailed design completed so any re-design con be completed before construction stage.	2	2	10	4		25000	35000	45000	2500	3500	4500	
Engineering: Structures		1															
	ructures Detailed Design																
Statutory undertakers Statuto	ory undertaker design delay	LCC		Delay in design - may cause delays and cost implications	All utility Companies contacted at design stage and provided with GPR survey and construction plans to minimise risk. Trial holes in critical areas to be dug early in the construction phase to identify potential problems.	3	2	10	6		55000	65000	75000	5500	6500	7500	
Stats	cost greater than estimates	LCC		Inaccuarate estimate		2	3	25	6		25000	35000	45000	6250	8750	11250	
	tats performance delay	LCC			preplanning, and, liaison meeting with Main Contractor to minimise delay	4	2	10	8		85000	95000	105000	8500	9500	10500	
Environment - Landscape	and Ecology																
Spo	ecific management plans	LCC		Management plans for sensitive areas (ponds, woodland, est.) may mean consent/ licences form EA, NE - Time and cost implications		2	1	1	2		25000	35000	45000	250	350	450	
	Invasive plants	LCC		Invasive weeds like, Japanese Knot weed, Himalayan Balsam est Require further works causing delays and incurring costs	Nothing observed during numerous surveys and reports by Jacobs	1	1	1	1		10000	15000	20000	100	150	200	

Birds nesting (Timing conflict)	LCC	Ground nesting birds appear on cleared site, birds nesting in trees (due to time of year) - Delayed start, pushing programme back, cost implications on lost time	Trees and shrubs could be removed before works commence if necessary	3	1	1	3	55000	65000	75000	550	650	750	
Pollution events	Contractor	Site runoff, fuel spills, materials spilt/ lost into watercourse/ and or ground - possibility of find's/ costly clean up/ time delays/ other cost implications	Onus put on Contractors. Close supervision required	2	1	1	2	25000	35000	45000	250	350	450	
Archaeology														
Unexpected archaeological finds	LCC	Site clearance and/ or excavation may lead to archaeological discoveries - May cause major time delays due to investigation and increase cost due to delay or extra works	archaeological experts to determine the size	2	1	1	2	25000	35000	45000	250	350	450	
Construction/ Contractual														
Adverse weather risk	LCC	Strong winds, heavy rainfall, flooding est Delays to works, loss/ damage to material/ equipment, financial loss and costs	Some adverse weather is to be anticipated and allowed for	3	2	10	6	55000	65000	75000	5500	6500	7500	
Employer's change and inconsistency in the works information	LCC	Staff leaving, new staff taking on job - may lead to changes due to opinion , misunderstanding est Cause of dispute with contractor/ other staff, delays on works and costs due to delays and misunderstandings	records to be kept and consistency of staff were possible	2	2	10	4	25000	35000	45000	2500	3500	4500	
Restricted working hours	Contractor	Working hours may be restricted due to residential properties limiting the works that can be done at night, causing delays. Possibility to increase number of labours to make up for restricted hours, increased costs.	Accounted for and built into the contract documents	2	1	1	2	25000	35000	45000	250	350	450	
Access to site for materials/ plant	LCC	Limited access due roads unable to accommodate large/ oversized loads, road safety issues, abnormal loads unable to access site est Potential cause for delays if materials cannot be delivered, costs incurred with finding alternative methods of delivering materials.	Sites are easily accessable with easy acces to Motorway	2	1	1	2	25000	35000	45000	250	350	450	
Working in close proximity to residential/ private property	LCC	Risk of trespass, encroaching onto private land/ possibility of damage, potential delays and costs regarding despots	Establish fenced site boundaries early on	2	2	10	4	25000	35000	45000	2500	3500	4500	
Requirements to maintain pedestrian access through works	Contractor	Public footpaths/ rights of way lead through site - May cause H&S issues, potential for delays and extra costs for accommodating measures	Public footpaths to be diverted or closed as necessary	3	1	1	3	55000	65000	75000	550	650	750	
Timely submissions and processing of Traffic Regulation Orders (TRO's) or temporary TRO's	LCC	Late submission/ incorrect submission of TRO's or TTRO'/ slow processing of docs - Cause delays to works and potentially incur costs	All necessary Oders to be applied for in good time	1	1	1	1	10000	15000	20000	100	150	200	
Unforeseen services	LCC	Discovery of services that were not identified by surveys or the statutory undertakers - Delays in discovering owner, possible devotions/ protection works, costs and delays		3	3	25	9	 55000	65000	75000	13750	16250	18750	
Traffic signs, road markings & signals	LCC	Shortage of posts, sign plates, delay in making signs, unforeseen issues in erecting signs on site - Delays to works, costs and time implications		2	3	25	6	25000	35000	45000	6250	8750	11250	
Ground Conditions														
Bill of Quantities														
Financial Processes Extraordinary material/ fuel price increase	LCC	Various reasons leading to material/ fuel dramatic price increase		1	1	1	1	10000	15000	20000	100	150	200	
Unexpected rise in insurance costs	LCC	Rise in insurance costs - Higher than expected		1	1	1	1	10000	15000	20000	100	150	200	
Stage 3 safety audit	LCC	premiums Carried out after completion of works. May identify additional works		2	3	25	6	25000	35000	45000	6250	8750	11250	
		 /												

TOTAL COST (£K) £85,750 £107,950 £130,150

	Min	Exp	Max
1	10000	15000	20000
2	25000	35000	45000
3	55000	65000	75000
4	85000	95000	105000
5	115000	125000	1/10000

Burnley - Pendle - Hyndburn Growth Deal Risk Register - Junction 9 Package & Rose Grove A646/A679 signal junction

														Appro	ox Quantificat	ion Output	
New Risk No	Description	Risk Owner	Risk Type	Example/Consequence	Comments/Mitigation	Impact	Prob	Prob %	Risk	Time	Min. Cost (£k)	Expected Cost (£k)	Max Cost (£k)	P x Min	P x Exp	P x Max	Amendments from previous revision
	Land and Legal									(weeks)	` '		` '				
	Legal																
	Planning permission			Planning permission may be reuired for North car park - possible delays		3	3	25	9		55000	65000	75000	13750	16250	18750	
	Land and Landowners	·		lear park possible delays													
	Land ownership issues at junction	LCC		Transfer or access to land not in LCC ownership delayed/not agreed	pre-implementation discusions with Estates and District/landowners	3	3	25	9		55000	65000	75000	13750	16250	18750	
	Strategic																
	Financial contributions shortfall			local contributions delayed or not forthcoming	early discussions and agreement on contributions from all parties.	2	2	10	4		25000	35000	45000	2500	3500	4500	
	Design Baseline																
	DMRB revisions	LCC		Updates may be made during detailed design stages - Changes may have to be made/ will take time and increase design cost		2	1	1	2		25000	35000	45000	250	350	450	
	Topo survey anomalies	LCC		Confusion/ inability to produce detailed design - Times delays/ increased cost		2	2	10	4		25000	35000	45000	2500	3500	4500	
	Late information from 3rd parties	LCC		Essential information not received - Cause time delays and potential increase re-design costs		3	2	10	6		55000	65000	75000	5500	6500	7500	
	Engineering: Roads																
	Alignment Detailed design Design errors	rcc		General design errors, calculations/ incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		1	2	10	2		10000	15000	20000	1000	1500	2000	
	Inadequate notice of road space booking	LCC		Other scheme has priority - Delayed start	Pre discussions with Network co ordination and early submission of all notices.	2	2	10	4		25000	35000	45000	2500	3500	4500	
	Stage 2 safety audit	rcc		Additional design work creating additional construction work - Increasing cost and increasing time in design and construction	ST 2 SA to be carried out as soon as detailed design completed so any re-design con be completed before construction stage.	2	2	10	4		25000	35000	45000	2500	3500	4500	
	Engineering: Structures																
	Structures Detailed Design																
	Statutory undertakers Statutory undertaker design delay	LCC		implications	All utility Companies contacted at design stage and provided with GPR survey and construction plans to minimise risk. Trial holes in critical areas to be dug early in the construction phase to identify potential problems.	3	3	25	9		55000	65000	75000	13750	16250	18750	
	Stats cost greater than estimates	LCC		Inaccuarate estimate		2	3	25	6		25000	35000	45000	6250	8750	11250	
	Stats performance delay	LCC		Underperformance for contractors, unforeseen issues/ additional works - Time delay and increased cost	preplanning, and, liaison meeting with Main Contractor to minimise delay	4	2	10	8		85000	95000	105000	8500	9500	10500	
	Environment - Landscape and Ecology			1													
	Specific management plans	LCC		Management plans for sensitive areas (ponds, woodland, est.) may mean consent/ licences form EA, NE - Time and cost implications	In hand	3	2	10	6		55000	65000	75000	5500	6500	7500	

								 					1	T
Invasive plants	LCC	Invasive weeds like, Japanese Knot weed, Himalayan Balsam est Require further works causing delays and incurring costs	Nothing observed during numerous surveys and reports by Jacobs	1	1	1	1	10000	15000	20000	100	150	200	
Consent from, Natural England, Environments Agency est.	LCC	Potential delays in gaining consent, consent refused - May cause delays or prevent works from starting/ progressing, incurring cost implications.	Pre-submission to NE sought	2	1	1	2	25000	35000	45000	250	350	450	
Presence of Endangered Species	LCC	Potential delay to works		3	1	1	3	10000	15000	20000	100	150	200	
Contractors/ workers may breach licence requirements	Contractor	Finds, works stopped by EA/ NE est Cause for delay, cost implications regarding fines and delay	Onus put on Contractors. Close supervision required	4	1	1	4	85000	95000	105000	850	950	1050	
Birds nesting (Timing conflict)	LCC	Ground nesting birds appear on cleared site, birds nesting in trees (due to time of year) - Delayed start, pushing programme back, cost implications on lost time	Trees and shrubs could be removed before works commence if necessary	3	1	1	3	55000	65000	75000	550	650	750	
Pollution events	Contractor	Site runoff, fuel spills, materials spilt/ lost int watercourse/ and or ground - possibility of find's/ costly clean up/ time delays/ other cost implications	o Onus put on Contractors. Close supervision required	2	2	10	4	25000	35000	45000	2500	3500	4500	
Failed planting/ seeding	Contractor	Failure to prior/ post mitigation works for wildlife, late orders of large number of plants Could cause time delays and costs due to reseeding/ replanting	Ensure orders placed in time. Works could be completed during maintenance period.	2	1	1	2	25000	35000	45000	250	350	450	
Archaeology		Cite sheets	Daine annual basis and discussion of the control of											
Unexpected archaeological finds	LCC	Site clearance and/ or excavation may lead to archaeological discoveries - May cause major time delays due to investigation and increase cost due to delay or extra works	archaeological experts to determine the size	2	2	10	2	25000	35000	45000	2500	3500	4500	
Construction/ Contractual														
Adverse weather risk	LCC	Strong winds, heavy rainfall, flooding est Delays to works, loss/ damage to material/ equipment, financial loss and costs	Some adverse weather is to be anticipated and allowed for	3	2	10	6	55000	65000	75000	5500	6500	7500	
Employer's change and inconsistency in the works information	rcc	Staff leaving, new staff taking on job - may lead to changes due to opinion , misunderstanding est Cause of dispute with contractor/ other staff, delays on works and costs due to delays and misunderstandings	records to be kept and consistency of staff were possible	2	2	10	4	25000	35000	45000	2500	3500	4500	
Restricted working hours	Contractor	Working hours may be restricted due to residential properties limiting the works that can be done at night, causing delays. Possibility to increase number of labours to make up for restricted hours, increased costs		3	2	10	6	55000	65000	75000	5500	6500	7500	
Access to site for materials/ plant	LCC	Limited access due roads unable to accommodate large/ oversized loads, road safety issues, abnormal loads unable to access site est Potential cause for delays if materials cannot be delivered, costs incurred with finding alternative methods of delivering materials.		2	2	10	4	25000	35000	45000	2500	3500	4500	
Working in close proximity to residential/ private property	LCC	Risk of trespass, encroaching onto private land/ possibility of damage, potential delays and costs regarding despots	Establish fenced site boundaries early on	2	2	10	4	25000	35000	45000	2500	3500	4500	
Requirements to maintain pedestrian access through works	Contractor	Public footpaths/ rights of way lead through site - May cause H&S issues, potential for delays and extra costs for accommodating measures	Public footpaths to be diverted or closed as necessary	3	1	1	3	55000	65000	75000	550	650	750	
Timely submissions and processing of Traffic Regulation Orders (TRO's) or temporary TRO's	LCC	Late submission/incorrect submission of TRO's or TTRO'/ slow processing of docs - Cause delays to works and potentially incur costs	All necessary Oders to be applied for in good time	1	1	1	1	10000	15000	20000	100	150	200	
Unforeseen services	LCC	Discovery of services that were not identified by surveys or the statutory undertakers - Delays in discovering owner, possible devotions/ protection works, costs and delay		3	3	25	9	 55000	65000	75000	13750	16250	18750	
Traffic signs, road markings & signals	LCC	Shortage of posts, sign plates, delay in makin signs, unforeseen issues in erecting signs on site - Delays to works, costs and time implications	g	2	2	10	4	25000	35000	45000	2500	3500	4500	
Ground Conditions														
Bill of Quantities Financial Processes														
Extraordinary material/ fuel price increase	LCC	Various reasons leading to material/ fuel dramatic price increase		1	1	1	1	10000	15000	20000	100	150	200	

Unexpected rise in insurance costs	LCC	Rise in insurance costs - Higher than expected premiums	1	1	1	1	10000	15000	20000	100	150	200	
Stage 3 safety audit	LCC	Carried out after completion of works. May identify additional works	2	3	25	6	25000	35000	45000	6250	8750	11250	

TOTAL COST (£K) £127,200 £158,550 £189,900

	Min	Exp	Max
1	10000	15000	20000
2	25000	35000	45000
3	55000	65000	75000
4	85000	95000	105000
5	115000	125000	140000

Burnley - Pendle - Hyndburn Growth Deal Risk Register - Burnley town centre Junctions

														Appro	ox Quantificati	ion Output	
New Risk No	Description	Risk Owner	Risk Type	Example/Consequence	Comments/Mitigation	Impact	Prob	Prob %	Risk	Time (weeks)	Min. Cost (£k)	Expected Cost (£k)	Max Cost (£k)	P x Min	P x Exp	P x Max	Amendments from previous revision
	Land and Legal																
	Legal																
	Land and Landowners																
	Land ownership issues at junction	LCC		Transfer or access to land not in LCC ownership delayed/not agreed	pre-implementation discusions with Estates and District/landowners	3	2	10	6		55000	65000	75000	5500	6500	7500	
	Strategic																
	Strategic	1	1 1.														
	Financial contributions shortfall			local contributions delayed or not forthcoming	early discussions and agreement on contributions from all parties.	2	1	1	2		25000	35000	45000	250	350	450	
	Design Baseline		1														
	DMRB revisions	LCC		Updates may be made during detailed design stages - Changes may have to be made/ will take time and increase design cost		2	1	1	2		25000	35000	45000	250	350	450	
	Topo survey anomalies	rcc	1 1	Confusion/ inability to produce detailed design - Times delays/ increased cost		2	2	10	4		25000	35000	45000	2500	3500	4500	
	Late information from 3rd parties	rcc		Essential information not received - Cause time delays and potential increase re-design costs		3	2	10	6		55000	65000	75000	5500	6500	7500	
	Engineering: Roads																
	Alignment Detailed design																
	Design errors	LCC		General design errors, calculations/ incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		1	2	10	2		10000	15000	20000	1000	1500	2000	
	Inadequate notice of road space booking	LCC		Other scheme has priority - Delayed start	Pre discussions with Network co ordination and early submission of all notices.	2	2	10	4		25000	35000	45000	2500	3500	4500	
	Stage 2 safety audit	LCC		Additional design work creating additional construction work - Increasing cost and increasing time in design and construction	ST 2 SA to be carried out as soon as detailed design completed so any re-design con be completed before construction stage.	2	2	10	4		25000	35000	45000	2500	3500	4500	
	Engineering: Structures																
	Structures Detailed Design																
9	Statutory undertakers																
	Statutory undertaker design delay	LCC	1 1	Delay in design - may cause delays and cost implications	All utility Companies contacted at design stage and provided with GPR survey and construction plans to minimise risk. Trial holes in critical areas to be dug early in the construction phase to identify potential problems.	3	2	10	6		55000	65000	75000	5500	6500	7500	
-	Stats cost greater than estimates	LCC	+	Inaccuarate estimate		2	3	25	6		25000	35000	45000	6250	8750	11250	
	Stats performance delay	rcc		Underperformance for contractors,	preplanning, and, liaison meeting with Main Contractor to minimise delay	4	2	10	8		85000	95000	105000	8500	9500	10500	
	Environment - Landscape and Ecology	•															
	Pollution events	Contractor	l l	Site runoff, fuel spills, materials spilt/ lost into watercourse/ and or ground - possibility of find's/ costly clean up/ time delays/ other cost implications	Onus put on Contractors. Close supervision required	2	1	1	2		25000	35000	45000	250	350	450	
	Archaeology																
	Construction/ Contractual																
	Adverse weather risk	LCC		Strong winds, heavy rainfall, flooding est Delays to works, loss/ damage to material/ equipment, financial loss and costs	Some adverse weather is to be anticipated and allowed for	3	2	10	6		55000	65000	75000	5500	6500	7500	

Employer's change and inconsistency in the works information	гсс		Is to be kept and consistency of staff possible	2	2	10	4		25000	35000	45000	2500	3500	4500	
Restricted working hours	Contractor	Working hours may be restricted due to residential properties limiting the works that can be done at night, causing delays. Possibility to increase number of labours to make up for restricted hours, increased costs.	nted for and built into the contract nents	2	2	10	4		25000	35000	45000	2500	3500	4500	
Access to site for materials/ plant	rcc	Limited access due roads unable to accommodate large/ oversized loads, road safety issues, abnormal loads unable to access site est Potential cause for delays if materials cannot be delivered, costs incurred with finding alternative methods of delivering materials.	are easily accessable with easy acces to way	2	2	10	4		25000	35000	45000	2500	3500	4500	
Working in close proximity to residential/ private property	rcc	Risk of trespass, encroaching onto private land/ possibility of damage, potential delays and costs regarding despots	ish fenced site boundaries early on	2	2	10	4		25000	35000	45000	2500	3500	4500	
Requirements to maintain pedestrian access through works	Contractor	Public footpaths/ rights of way lead through site - May cause H&S issues, potential for delays and extra costs for accommodating measures	footpaths to be diverted or closed as sary	3	2	10	6		55000	65000	75000	5500	6500	7500	
Timely submissions and processing of Traffic Regulation Orders (TRO's) or temporary TRO's	rcc	Late submission/ incorrect submission of TRO's or TTRO'/ slow processing of docs - Cause delays to works and potentially incur costs	cessary Oders to be applied for in good	1	2	10	2		10000	15000	20000	1000	1500	2000	
Unforeseen services	гсс	Discovery of services that were not identified by surveys or the statutory undertakers - Delays in discovering owner, possible devotions/ protection works, costs and delays		3	3	25	9		55000	65000	75000	13750	16250	18750	
Traffic signs, road markings & signals	LCC	Shortage of posts, sign plates, delay in making signs, unforeseen issues in erecting signs on site - Delays to works, costs and time implications		2	3	25	6		25000	35000	45000	6250	8750	11250	
Ground Conditions															
Bill of Quantities															
Financial Processes Extraordinary material/ fuel price increase	LCC	Various reasons leading to material/ fuel dramatic price increase		1	1	1	1		10000	15000	20000	100	150	200	
Unexpected rise in insurance costs	LCC	Rise in insurance costs - Higher than expected premiums		1	1	1	1		10000	15000	20000	100	150	200	
Stage 3 safety audit	LCC	Carried out after completion of works. May identify additional works		2	3	25	6	TOTAL COST	25000	35000	45000	6250	8750 £113 350	11250 £137,750	

TOTAL COST (£K) £88,950 £113,350 £137,750

	Min	Exp	Max
1	10000	15000	20000
2	25000	35000	45000
3	55000	65000	75000
4	85000	95000	105000
5	115000	125000	1/10000

 PROBABILITY

 75%
 Almost Certain
 5
 5
 10
 15
 20
 25

 50%
 Likely
 4
 4
 8
 12
 16
 20

 25%
 Possible
 3
 3
 6
 9
 12
 15

 10%
 Unlikely
 2
 2
 4
 6
 8
 10

 1%
 Rare
 1
 1
 2
 3
 4
 5

 Colour Key
 1
 1
 2
 3
 4
 5

 CRITICAL RISK
 Cost
 <€25-75K</td>
 £100K to £150k
 £175k to £225k
 £250k to £300k
 £325k to £400k

 HIGH RISK
 Time
 <1weeks</td>
 1 to 2 weeks
 2 to 3 weeks
 3 to 4 weeks
 ▶ 4
 weeks

 MEDIUM RISK
 Quality
 Criteria to be decided
 Criteria to be decided</t

Burnley - Pendle - Hyndburn Growth Deal Risk Register - Junction 8 Package

New Risk No Land and Strategic Design B: Engineer	Legal Land and Landowners ic Baseline Late information from 3rd parties ering: Roads Alignment Detailed design Design errors Inadequate notice of road space booking	LCC LCC	Essential information not received - Cause time delays and potential increase re-design costs General design errors, calculations/ incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications Other scheme has priority - Delayed start	Comments/Mitigation	Impact 3	Prob	Prob %	Risk 6	Time (weeks)	Min. Cost (£k)	Expected Cost (£k) 65000	Max Cost (£k) 75000	P x Min 5500	P x Exp 6500	P x Max 7500	Amendments from previous revision
Strategic Design Ba	Legal Land and Landowners ic Baseline Late information from 3rd parties ering: Roads Alignment Detailed design Design errors Inadequate notice of road space booking	rcc	time delays and potential increase re-design costs General design errors, calculations/incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		3	2	10	6		55000	65000	75000	5500	6500	7500	
Design Bi	Land and Landowners ic Baseline Late information from 3rd parties ering: Roads Alignment Detailed design Design errors Inadequate notice of road space booking	rcc	time delays and potential increase re-design costs General design errors, calculations/incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		3	2	10	6		55000	65000	75000	5500	6500	7500	
Design B	ic Baseline Late information from 3rd parties ering: Roads Alignment Detailed design Design errors Inadequate notice of road space booking	rcc	time delays and potential increase re-design costs General design errors, calculations/incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		3	2	10	6		55000	65000	75000	5500	6500	7500	
Design Ba	Late information from 3rd parties ering: Roads Alignment Detailed design Design errors Inadequate notice of road space booking	rcc	time delays and potential increase re-design costs General design errors, calculations/incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		3	2	10	6		55000	65000	75000	5500	6500	7500	
	Late information from 3rd parties ering: Roads Alignment Detailed design Design errors Inadequate notice of road space booking	rcc	time delays and potential increase re-design costs General design errors, calculations/incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		3	2	10	6		55000	65000	75000	5500	6500	7500	
Engineer	Pering: Roads Alignment Detailed design Design errors Inadequate notice of road space booking	rcc	time delays and potential increase re-design costs General design errors, calculations/incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		3	2	10	6		55000	65000	75000	5500	6500	7500	
Enginee	Alignment Detailed design Design errors Inadequate notice of road space booking		measurements could cause errors - Incur delays due to rectifying errors, potential financial implications							i l						1
	Design errors Inadequate notice of road space booking		measurements could cause errors - Incur delays due to rectifying errors, potential financial implications													
	Inadequate notice of road space booking		measurements could cause errors - Incur delays due to rectifying errors, potential financial implications													
		LCC	·		1	2	10	2		10000	15000	20000	1000	1500	2000	
		LCC		Pre discussions with Network co ordination												
				and early submission of all notices.	2	1	1			25000	35000	45000	250	350	450	
	Stage 2 safety audit	LCC	Additional design work creating additional construction work - Increasing cost and increasing time in design and construction	ST 2 SA to be carried out as soon as detailed design completed so any re-design con be completed before construction stage.	2	2	10	4		25000	35000	45000	2500	3500	4500	
Engineer	ering: Structures		'													
	Structures Detailed Design															
Statutor	ry undertakers															
Environn	ment - Landscape and Ecology															
	Archaeology															
Construc	uction/ Contractual															
	Adverse weather risk	LCC	Strong winds, heavy rainfall, flooding est Delays to works, loss/ damage to material/ equipment, financial loss and costs	Some adverse weather is to be anticipated and allowed for	3	2	10	6		55000	65000	75000	5500	6500	7500	
Emį	nployer's change and inconsistency in the works information	LCC	Staff leaving, new staff taking on job - may lead to changes due to opinion , misunderstanding est Cause of dispute with contractor/ other staff, delays on works and costs due to delays and misunderstandings	records to be kept and consistency of staff were possible	2	2	10	4		25000	35000	45000	2500	3500	4500	
	Restricted working hours	Contractor	Working hours may be restricted due to residential properties limiting the works that can be done at night, causing delays. Possibility to increase number of labours to make up for restricted hours, increased costs.	Accounted for and built into the contract documents	2	1	1	2		25000	35000	45000	250	350	450	
	Access to site for materials/ plant	LCC	Limited access due roads unable to accommodate large/ oversized loads, road safety issues, abnormal loads unable to access site est Potential cause for delays if materials cannot be delivered, costs incurred with finding alternative methods of delivering materials.	Sites are easily accessable with easy acces to Motorway	2	1	1	2		25000	35000	45000	250	350	450	
Re	Requirements to maintain pedestrian access through works	Contractor	Public footpaths/ rights of way lead through site - May cause H&S issues, potential for delays and extra costs for accommodating measures	Public footpaths to be diverted or closed as necessary	3	1	1	3		55000	65000	75000	550	650	750	
Timely s	submissions and processing of Traffic Regulation Orders (TRO's) or temporary TRO's	LCC	Late submission/ incorrect submission of TRO's or TTRO'/ slow processing of docs - Cause delays to works and potentially incur costs	All necessary Oders to be applied for in good time	1	1	1	1		10000	15000	20000	100	150	200	
	Traffic signs, road markings & signals	LCC	Shortage of posts, sign plates, delay in making signs, unforeseen issues in erecting signs on site - Delays to works, costs and time implications		2	3	25	6		25000	35000	45000	6250	8750	11250	

Bill of Quantities													
Financial Processes													
Extraordinary material/ fuel price increase	LCC	Various reasons leading to material/ fuel dramatic price increase	1	1	1	1	10000	15000	20000	100	150	200	
Unexpected rise in insurance costs	LCC	Rise in insurance costs - Higher than expected premiums	1	1	1	1	10000	15000	20000	100	150	200	
Stage 3 safety audit	LCC	Carried out after completion of works. May identify additional works	2	3	25	6	25000	35000	45000	6250	8750	11250	

TOTAL COST (£K) £31,100 £41,150 £51,200

	Min	Exp	Max
1	10000	15000	20000
2	25000	35000	45000
3	55000	65000	75000
4	85000	95000	105000
5	115000	125000	140000

Burnley - Pendle - Hyndburn Growth Deal Risk Register - Junction 7 Package

													Appro	ox Quantificati	on Output			
New Risk No		Description	Risk Owner	Risk Type	Example/Consequence	Comments/Mitigation	Impact	Prob	Prob %	Risk	Time (weeks)	Min. Cost (£k)	Expected Cost (£k)	Max Cost (£k)	P x Min	Р х Ехр	P x Max	Amendments from previous revision
	Land and Legal				•													
		Legal																
		Land and Landowners																
		Land ownership issues at junction	LCC		Transfer or access to land not in LCC ownership delayed/not agreed	pre-implementation discusions with Estates and District/landowners	4	3	25	12		85000	95000	105000	21250	23750	26250	
	Strategic																	
	oti ategic			Т	local contributions delayed or not	and discussions and agreement on												
		Financial contributions shortfall			forthcoming	early discussions and agreement on contributions from all parties.	3	2	10			55000	65000	75000	5500	6500	7500	
	Design Baseline				'													
		DMRB revisions	rcc		Updates may be made during detailed design stages - Changes may have to be made/ will take time and increase design cost		2	2	10	4		25000	35000	45000	2500	3500	4500	
		Topo survey anomalies	rcc		Confusion/ inability to produce detailed design - Times delays/ increased cost		3	2	10	6		55000	65000	75000	5500	6500	7500	
		Late information from 3rd parties	rcc		Essential information not received - Cause time delays and potential increase re-design costs		3	3	25	9		55000	65000	75000	13750	16250	18750	
	Engineering: Road																	
		Alignment Detailed design																
		Design errors	LCC		General design errors, calculations/ incorrect measurements could cause errors - Incur delays due to rectifying errors, potential financial implications		2	2	10			25000	35000	45000	2500	3500	4500	
	Ir	nadequate notice of road space booking	rcc		Other scheme has priority - Delayed start	Pre discussions with Network co ordination and early submission of all notices.	2	3	25	6		25000	35000	45000	6250	8750	11250	
		Stage 2 safety audit	rcc		Additional design work creating additional construction work - Increasing cost and increasing time in design and construction	ST 2 SA to be carried out as soon as detailed design completed so any re-design con be completed before construction stage.	2	2	10	4		25000	35000	45000	2500	3500	4500	
	Engineering: Stru	ctures																
		Structures Detailed Design																
	Statutory underta																	
		Statutory undertaker design delay	гсс		Delay in design - may cause delays and cost implications	All utility Companies contacted at design stage and provided with GPR survey and construction plans to minimise risk. Trial holes in critical areas to be dug early in the construction phase to identify potential problems.	3	3	25			55000	65000	75000	13750	16250	18750	
		Stats cost greater than estimates	LCC		Inaccuarate estimate		2	2	10	4		25000	35000	45000	2500	3500	4500	
		Stats performance delay	rcc			preplanning, and, liaison meeting with Main Contractor to minimise delay	4	2	10	8		85000	95000	105000	8500	9500	10500	
	Environment - La	ndscape and Ecology																
		Archaeology																
		Unexpected archaeological finds	LCC		Site clearance and/ or excavation may lead to archaeological discoveries - May cause major time delays due to investigation and increase cost due to delay or extra works	archaeological experts to determine the size	2	0	FALSE	2		25000	35000	45000	0	0	0	
	Construction/ Co	ntractual	<u> </u>		•													
	, ,	Adverse weather risk	rcc		Strong winds, heavy rainfall, flooding est Delays to works, loss/ damage to material/ equipment, financial loss and costs	Some adverse weather is to be anticipated and allowed for	3	2	10	6		55000	65000	75000	5500	6500	7500	

Employer's change and inconsistency in the works information	LCC		records to be kept and consistency of staff were possible	2	2	10	4		25000	35000	45000	2500	3500	4500	
Restricted working hours	Contractor	Working hours may be restricted due to residential properties limiting the works that can be done at night, causing delays. Possibility to increase number of labours to make up for restricted hours, increased costs.	Accounted for and built into the contract documents	2	2	10	4		25000	35000	45000	2500	3500	4500	
Access to site for materials/ plant	LCC	_	Sites are easily accessable with easy acces to Motorway	2	2	10	4		25000	35000	45000	2500	3500	4500	
Working in close proximity to residential/ private property	LCC	Risk of trespass, encroaching onto private land/ possibility of damage, potential delays and costs regarding despots	Establish fenced site boundaries early on	2	1	1	2		25000	35000	45000	250	350	450	
Requirements to maintain pedestrian access through works	Contractor		Public footpaths to be diverted or closed as necessary	3	1	1	3		55000	65000	75000	550	650	750	
Timely submissions and processing of Traffic Regulation Orders (TRO's) or temporary TRO's	LCC	Late submission/ incorrect submission of TRO's or TTRO'/ slow processing of docs - Cause delays to works and potentially incur costs	All necessary Oders to be applied for in good time	2	2	10	4		25000	35000	45000	2500	3500	4500	
Unforeseen services	LCC	Discovery of services that were not identified by surveys or the statutory undertakers - Delays in discovering owner, possible devotions/ protection works, costs and delays		3	3	25	9		55000	65000	75000	13750	16250	18750	
Traffic signs, road markings & signals	LCC	Shortage of posts, sign plates, delay in making signs, unforeseen issues in erecting signs on site - Delays to works, costs and time implications		2	2	10	4		25000	35000	45000	2500	3500	4500	
Ground Conditions															
Bill of Quantities															
Financial Processes Extraordinary material/ fuel price increase	LCC	Various reasons leading to material/ fuel dramatic price increase		1	1	1	1		10000	15000	20000	100	150	200	
Unexpected rise in insurance costs	LCC	Rise in insurance costs - Higher than expected premiums		1	1	1	1		10000	15000	20000	100	150	200	
Stage 3 safety audit	LCC	Carried out after completion of works. May identify additional works		2	3	25	6	TOTAL COS	25000	35000	45000	6250	8750 £151 800	11250 £180 100	

TOTAL COST (£K) £123,500 £151,800 £180,100

		Min	Exp	Max
Н	1	10000	15000	20000
⊢	1			
╙	2	25000	35000	45000
	3	55000	65000	75000
	4	85000	95000	105000
	5	115000	125000	1/10000

 PROBABILITY

 75%
 Almost Certain
 5
 5
 10
 15
 20
 25

 50%
 Likely
 4
 4
 8
 12
 16
 20

 25%
 Possible
 3
 3
 6
 9
 12
 15

 10%
 Unlikely
 2
 2
 4
 6
 8
 10

 1%
 Rare
 1
 1
 2
 3
 4
 5

 Colour Key
 1
 2
 3
 4
 5

 CRITICAL RISK
 Cost
 <€25-75K</td>
 £100K to £150k
 £175k to £225k
 £250k to £300k
 £325k to £400k

 HIGH RISK
 Time
 <1 weeks</td>
 1 to 2 weeks
 2 to 3 weeks
 3 to 4 weeks
 4
 weeks

 MEDIUM RISK
 Quality
 Criteria to be decided
 Criteria to be decided
 Criteria to be decided
 Criteria to be decided
 Criteria to be decided

Burnley - Pendle - Hyndburn Growth Deal Risk Register - Burnley manchester road Car Park

												Appro	ox Quantificati	on Output		
New Risk No	Description	Risk Owner	r Risk Type Example/Consequence	Comments/Mitigation	Impact	Prob	Prob %	Risk	Time (weeks)	Min. Cost (£k)	Expected Cost (£k)	Max Cost (£k)	P x Min	P x Exp	P x Max	Amendments from previous revision
	Land and Legal	•							, ,							
	Legal															
	Planning permsision required	LCC	delay in planning concsent delaying scheme construction		3	2	10	6		55000	65000	75000	5500	6500	7500	
	Land and Landowners		construction													
		1	Transfer or access to land not in LCC	pre-implementation discusions with Estates												
	Land ownership issues at junction	LCC	ownership delayed/not agreed	and District/landowners	3	3	25	9		55000	65000	75000	13750	16250	18750	
	Charlesia															
	Strategic Financial contributions shortfall		local contributions delayed or not forthcoming	early discussions and agreement on contributions from all parties.	2	1	1	2		25000	35000	45000	250	350	450	
	Design Baseline															
		1	Confusion/ inability to produce detailed													
	Topo survey anomalies	LCC	design - Times delays/ increased cost		2	1	1	2		25000	35000	45000	250	350	450	
	Late information from 3rd parties	LCC	Essential information not received - Cause time delays and potential increase re-design	1	3	2	10	6		55000	65000	75000	5500	6500	7500	
	Engineering: Roads		costs													
-	Alignment Detailed design															
	Design errors	LCC	General design errors, calculations/ incorre measurements could cause errors - Incur delays due to rectifying errors, potential financial implications	ct	1	2	10	2		10000	15000	20000	1000	1500	2000	
	Inadequate notice of road space booking	LCC	Other scheme has priority - Delayed start	Pre discussions with Network co ordination and early submission of all notices.	1	1	1	1		10000	15000	20000	100	150	200	
	Stage 2 safety audit	LCC	Additional design work creating additional construction work - Increasing cost and increasing time in design and construction	ST 2 SA to be carried out as soon as detailed design completed so any re-design con be completed before construction stage.	1	1	1	1		10000	15000	20000	100	150	200	
	Engineering: Structures	•														
	Structures Detailed Design															
	Statutory undertakers															
	Statutory undertaker design delay	LCC	Delay in design - may cause delays and cos implications	All utility Companies contacted at design stage and provided with GPR survey and construction plans to minimise risk. Trial holes in critical areas to be dug early in the construction phase to identify potential problems.	3	1	1	3		55000	65000	75000	550	650	750	
	Stats cost greater than estimates	LCC	Inaccuarate estimate	1	2	1	1	2		25000	35000	45000	250	350	450	
	Stats performance delay	LCC	Underperformance for contractors, unforeseen issues/ additional works - Time	preplanning, and, liaison meeting with Main Contractor to minimise delay	4	1	1	4		85000	95000	105000	850	950	1050	
	Environment - Landscape and Ecology		delay and increased cost													
		1	Invasive weeds like, Japanese Knot weed,	Nothing observed during numerous surveys												
	Invasive plants	LCC	Himalayan Balsam est Require further works causing delays and incurring costs	and reports by Jacobs	1	1	1	1		10000	15000	20000	100	150	200	
	Pollution events	Contractor	Site runoff, fuel spills, materials spilt/ lost ir watercourse/ and or ground - possibility of find's/ costly clean up/ time delays/ other cost implications		2	1	1	2		25000	35000	45000	250	350	450	
	Failed planting/ seeding	Contractor	Failure to prior/ post mitigation works for wildlife, late orders of large number of plan Could cause time delays and costs due to reseeding/ replanting	Ensure orders placed in time. Works could be ts -completed during maintenance period.	1	2	10	2		10000	15000	20000	1000	1500	2000	
	Archaeology															
							-	-								

		arc	e clearance and/ or excavation may lead to chaeological discoveries - May cause major	archaeological experts to determine the size											
Unexpected archaeological finds	LCC		ne delays due to investigation and increase of the state	of the risk	2	1	1	2	25000	35000	45000	250	350	450	
Construction / Contractual															
Construction/ Contractual	l	ls.	and the base of the first of	Commendation and the state has a state and											
				Some adverse weather is to be anticipated and allowed for											
Adverse weather risk	LCC		lays to works, loss/ damage to material/ uipment, financial loss and costs	and anowed for	2	2	10	4	25000	35000	45000	2500	3500	4500	
		lede	ulpinent, ililanciai loss and costs												
		Sta	aff leaving, new staff taking on job - may	records to be kept and consistency of staff											
			nd to changes due to opinion ,	were possible											
Employer's change and inconsistency in the works information	100		sunderstanding est Cause of dispute with		2	ا ا	10	,	35000	35000	45000	2500	3500	4500	
Employer's change and inconsistency in the works information	LCC		ntractor/ other staff, delays on works and		2	2	10	4	25000	35000	45000	2500	3500	4500	
		cos	sts due to delays and misunderstandings												
				Accounted for and built into the contract											
			sidential properties limiting the works that	documents											
Restricted working hours	Contractor		n be done at night, causing delays. ssibility to increase number of labours to		2	1	1	2	25000	35000	45000	250	350	450	
			ake up for restricted hours, increased costs.												
			ane up to trestricted floats, mareused costs.												
		Lim	nited access due roads unable to	Sites are easily accessable with easy acces to								İ			
		acc	commodate large/ oversized loads, road	Motorway											
		safe	fety issues, abnormal loads unable to												
Access to site for materials/ plant	LCC		cess site est Potential cause for delays if		2	1	1	2	25000	35000	45000	250	350	450	
			aterials cannot be delivered, costs incurred												
		I	th finding alternative methods of delivering												
		ma	aterials.												
		Risl	sk of trespass, encroaching onto private	Establish fenced site boundaries early on											
Working in close proximity to residential/ private property	100		nd/ possibility of damage, potential delays		2	2	10		25000	35000	45000	2500	3500	4500	
working in close proximity to residentially private property	LCC	and	d costs regarding despots		2	2	10	4	25000	33000	45000	2500	3300	4500	
Timely submissions and processing of Traffic Regulation Orders (TRO's)			te submission/ incorrect submission of	All necessary Oders to be applied for in good											
Timely submissions and processing of Traffic Regulation Orders (TRO's) or temporary TRO's	LCC		O's or TTRO'/ slow processing of docs - use delays to works and potentially incur	time	1	1	1	1	10000	15000	20000	100	150	200	
or temporary the s		cos													
			scovery of services that were not identified												
			surveys or the statutory undertakers -												
Unforeseen services	LCC	Del	lays in discovering owner, possible		3	2	10	6	55000	65000	75000	5500	6500	7500	
		dev	votions/ protection works, costs and delays												
		Ch.	ortago of posts sign plates delay in maline									 			
			ortage of posts, sign plates, delay in making ns, unforeseen issues in erecting signs on												
Traffic signs, road markings & signals	LCC		e - Delays to works, costs and time		1	2	10	2	10000	15000	20000	1000	1500	2000	
			plications												
Ground Conditions															
Bill of Quantities															
Financial Processes		lv.	riana arang landing ta matarial/												
Extraordinary material/ fuel price increase	LCC		rious reasons leading to material/ fuel amatic price increase		1	1	1	1	10000	15000	20000	100	150	200	
Unexpected rise in insurance costs	LCC		se in insurance costs - Higher than expected emiums		1	1	1	1	10000	15000	20000	100	150	200	
Stage 3 safety audit	LCC	Car	rried out after completion of works. May		2	2	10	4	25000	35000	45000	2500	3500	4500	
<u> </u>	l	ide	entify additional works				-								

TOTAL COST (£K) £47,000 £59,200 £71,400