MARSH BARTON UNCERTAINTY F 06/03/2014 DCC Review

						Pre - Mitigation Analysis (i.e with current project controls)								Mitigation				Post Mitigation Analysis					
No.	The uncertainty around the base cost assumption "The possibility that [event] occurs" "The uncertainty in [element] In the base cost assumptions"	Because of ..... Describe the root causes that trigger the possible event, or describe the root causes of the uncertainty in the base cost assumptions.	Resulting in ..... Describe the resulting consequencial chain of events and the impact on objectives. Be clear whether the uncertain event or uncertain base cost element will definitely or possibly lead to the end consequences.	Uncertainty Owner	Support statement (evidence / assumptions)	Probability of ocurring during project lifecycle	Min Cost (£k)	Most Likely Cost (£k)	Max Cost (£k)	Support statement (evidence / assumptions)	Project Phase when uncertain event will occur or base cost uncertainty becomes certain (i.e uncertainty materialises)	Approved Type of Mitigation	Ideal Project Phase to Mitigate Risk	Description	Project Phase	Up front commitment (£k)	Controllability	Probability of ocurring during project lifecycle	Min Cost (£k)	Most Likely Cost (£k)	Max Cost (£k)	Support statement (evidence / assumptions)	Risk Type
Step 1	Step 1	Step 1	Step 1	Step 1	Step 1	Step 2	Step 2	Step 2	Step 2	Step 2	Step 2	Step 5	Step 3	Step 3	Step 3	Step 3	Step 3	Step 4	Step 4	Step 4	Step 4	Step 4	
1	The possibility that the timetable amendments require reductions in service elsewhere	Concerns on performance within the TOC	Fewer station calls at some other stations	Devon CC	Timetable work underway	40%	£20	£40	£60	Estimated revenue risk at Dawlish Warren and Starcross	GRIP5	Reduce threat	GRIP4/5	Engagement with affected TOC's through timetable planning process.	GRIP4/5		Low						Rail
2	The possibility that the timetable cannot be amended to include the additional stop at Marsh Barton	Intransigence on the part of NR and /or the TOC	Few trains stopping and the station being unviable (DCC underwriting Opex)	Devon CC	Timetable work underway	20%	£40	£50	£60	One year revenue risk from underwriting opex (excluding train fuel cost)	GRIP5	Reduce threat	GRIP4/5	Engagement with affected TOC's through timetable planning process.	GRIP4/5		Medium						Rail
3	The possibility of objections to Network Change application and consent & withheld	Disagreement on timetable amendments	Delay to project	Devon CC	Timetable work underway	20%	£40	£50	£60	One year revenue risk from underwriting opex (excluding train fuel cost)	GRIP5	Reduce threat	GRIP4/5	Engagement with affected TOC's through timetable planning process.	GRIP4/5		Medium						Rail
4	The possibility that the TOC changes prior to station opening	Station construction programme finishes later than franchise renewal date	New TOC requires different/additional SISS equipment which requires additional design and approvals	Devon CC	Approved AiP with equipment matching that on other similar stations in the area	10%	£10	£20	£30	Based on CIS cost estimate	GRIP6	Accept uncertainty	GRIP4/5	Liason with TOC/NR	GRIP4/5		Low						Rail
5	The possibility that NR refuse to take the station into their asset base	Failure to achieve contractual agreement between DCC/NR & DfT	DCC owning the station and paying maintenance costs	Devon CC	BAPA	5%	£15	£30	£45	One year estimated cost (equivalent to LTAC)	GRIP6	Reduce threat	GRIP4/5	Put in place APA	GRIP4/5		Medium						Rail
6	The possibility that transfer of additional land requires financial contribution	Transfer of additional land	Additional land acquisition costs	Devon CC	Land required from ECC for access road on east side	5%	£1	£2	£5	Amenity land value	GRIP5	Reduce threat	GRIP4	Early engagement with ECC	GRIP4/5		High						land
7	The possibility that Land acquisition may not be agreed	Land transfer agreements may delay project	Delay to project	Devon CC	Land required from ECC for access road on east side	2%	£5	£10	£15	Cost of deferring access road works	GRIP5	Reduce threat	GRIP4/5	Early engagement with ECC	GRIP4/5		High						land
8	The possibility that NR upholds planning objection due to failure to resolve footpath safety concerns	Objections to public footpath diversion/closure	Planning approval cannot be confirmed causing delay to the project	Devon CC	NR objection to planning application	25%	£30	£60	£90	two, four or six week extension of time as % of prelims (24 week construction period)	GRIP5	Reduce threat	GRIP4	Apply for footpath diversion	GRIP4		Medium						planning
9	The possibility of delay to discharge of planning conditions	DCC delays instructing work	Delayed commencement of works leading to acceleration of works	Devon CC		5%	£15	£30	£45	one, two or three week extension of time as % of prelims (24 week construction period)	GRIP5	Reduce threat	GRIP4/5	Work with Planning Officer to minimise requirements. Ensure planning conditions are addressed early.	GRIP4/5		High						planning
10	Lack of competition for D+B contract	Limited market interest for D+B contract	Increased contract prices	Devon CC	Poor turnout for Newcourt and withdrawal at Cranbrook	20%	£250	£500	£750	NR experience with recent projects	GRIP4	Reduce threat	GRIP4	Stimulate market interest through engagement with suppliers and contracts agencies	GRIP4		Medium						contract
11	The possibility of delay in D+B contract award	Delay in confirmation of LTB funding due to election	Delay to project	Devon CC	General election during contract award period	5%	£45	£90	£135	One year inflation	GRIP4	Reduce threat	GRIP4	Early submission of business case to LTB and robust D+B procurement programme	GRIP4		Medium						contract
12	The possibility that a temporary haul road cannot be constructed to provide HGV access to the site	Environmental issues on the proposed haul road route	All materials deliveries to the site by rail or canal	Contractor		20%	£200	£350	£500	four, six or eight week extension of time as % of prelims (24 week construction period) + buildability cost impact (5%, 10%, 15% on direct works)	GRIP5	Reduce threat	GRIP4	Early site investigation	GRIP4		Low						contract
13	the possibility that insufficient possessions are available to complete works	Station located on busy main line	Extended construction period/additional costs	Contractor	Constrained site sensitive to the availability of possessions	40%	£30	£60	£90	two, four or six week extension of time as % of prelims (24 week construction period)	GRIP5	Reduce threat	GRIP4/5	Early engagement with NR and FGW	GRIP4/5		Low						contract
14	The possibility that Contractor insolvency may occur	Economic conditions	Engage another contractor to complete the works at extra cost	Devon CC		5%	£35	£50	£100	On-cost for delay and additional prelims for new contractor	GRIP6	Reduce threat	D+B contractor procurement	rigorous tender process	D+B contractor procurement		Medium						contract
15	Adverse weather conditons encountered	Weather	Delay to programme and increased costs	Devon CC		10%	£30	£60	£90	two, four or six week extension of time as % of prelims (24 week construction period)	GRIP6	Reduce threat	GRIP5/6	Monitor conditions and amend plan if possible when adverse weather forecast	GRIP5/6		Medium						contract
16	The possibility that Contractor may cause environmental event	Lack of control on site - takes down more trees than required or has oil spillage	Clean up costs, fines, investigation by EA.	Contractor		5%	£30	£45	£75	cost of delaying contractors and clean up costs	GRIP6	Transfer to supplier x	D+B contractor procurement	Selection of competent contractor. Site management	D+B contractor procurement and GRIP6		Medium						contract
17	The possibility that Contractor's construction team may under-perform	Poor management, inappropriate team, shortage of labour, etc	Replacement of key people, inefficiencies, delay	Devon CC		5%	£4	£8	£12	one, two or three weeks extra supervision costs (8 man days per week)	GRIP6	Reduce threat	D+B contractor procurement	Selection of competent contractor. Site management	D+B contractor procurement and GRIP6		Medium						contract
18	The possibility that Client turnaround exceeds contract provisions	Design changes or extended negotiations resulting in CEs	Additional cost	Devon CC		5%	£15	£30	£45	one, two or three week extension of time as % of prelims (24 week construction period)	GRIP5	Reduce threat	D+B contractor procurement	Selection of competent contractor. Site management	D+B contractor procurement and GRIP6		High						contract
19	H&S incident may occur on site	contractor failure	HSE investigation, prohibition notice, site closure	Contractor		5%	£15	£30	£45	one, two or three week extension of time as % of prelims (24 week construction period)	GRIP6	Transfer to supplier x	D+B contractor procurement	Selection of competent contractor. Site management	D+B contractor procurement and GRIP6		Medium						contract
20	The possibility that ecological issues delay construction start	Nesting season and/or unexpected wildlife	Delay to site clearance and construction programme	Devon CC		5%	£15	£30	£45	one, two or three week extension of time as % of prelims (24 week construction period)	GRIP6	Reduce threat	GRIP4/5	Site clearance prior to commencement of nesting season.	GRIP4/5	£5	High						contract
21	The possibility of complaints from Viridor over construction programme	Unacceptable impact on EfW from construction programme	Delay to start of construction programme and/or restricted programme	Devon CC	Viridor concerns due to promiximity of EfW	20%	£15	£30	£45	one, two or three week extension of time as % of prelims (24 week construction period)	GRIP6	Reduce threat	GRIP5/6	Early engagement with Viridor	GRIP4/5		High						contract
22	The possibility that designs fail to achieve safety and interoperability validation	The designs do not comply with standards	Delay/additional costs	Contractor	AiP signed off	5%	£30	£50	£100	est cost of additional works	GRIP5	Transfer to supplier x	GRIP4	NR standard designs used in accordance with standards. Engagement of NCB.	GRIP4/5		Medium						contract
23	Disruption to trains services during construction	Incident during construction works	Compensation to TOC	Contractor		5%	£250	£500	£750	1/2 days disruption	GRIP6	Transfer to supplier x	GRIP5/6	Selection of competent contractor.	D+B contractor procurement		Medium						contract
24	The possibility that there are unidentifed contaminants or other hazardous material on site or on proposed haul road	Previously unidentifed contaminants from former landfill on proposed haul road or waste spillage from former incinerator and waste transfer station adjacent to station	Additional costs in dealing with contaminated waste and treating ground/ potential delay	Jacobs	Trial hole tests	30%	£25	£50	£75	est cost of additional works	GRIP6	Reduce threat	GRIP4/5	Carry out more extensive contamination testing prior to GRIP5	GRIP4/5	£5	Medium						construction
25	the possibility that the track is realigned between detailed design and construction	Track will be subject to maintenance tamping	Platform coper design has to be re-worked	Jacobs	Coper design to existing track alignment	10%	£5	£10	£15	est cost of additional works	GRIP5	Reduce threat	GRIP5	Liaison with NR during detailed design/construction - further survey at GRIP5	GRIP5		Low						construction
26	the possibility that there are unidentified buried services (e.g. Western Power cables) that require protection or diversion	Additional services may have been installed since original buried services search.	Additional costs of protection/diversion	Jacobs	Original search evidence	10%	£5	£10	£20	cost of additional concrete raft over cables	GRIP6	Reduce threat	GRIP5	Carry out additional buied services search at GRIP5	GRIP5		Medium						construction
27	The uncertainty in Telecomms equipment In the base cost assumptions	Increase in equipment cost	Additional costs	Jacobs	Best available information used for estimates	20%	£10	£20	£30	5%, 10%, 15% cost increase	GRIP6	Accept uncertainty	GRIP5	Monitor market prices	GRIP5		Low						construction
28	The possibility that cost of DNO supply increases above inflation	Additional material costs or additional demand on local network (DNO quote only vaid for a short period)	Additional cost	Jacobs		15%	£2	£5	£15	est cost of additional works	GRIP6	Accept uncertainty	GRIP5	Monitor situation	GRIP5		Low						construction
29	The possibility that preferential engineering by NR increases costs	NR require specific types of equipment or designs that are more expensive than standard designs, or require existing infrastructure deficiencies rectified at the project's expense	Additional costs. Potential delay while issues are resolved	Devon CC	AiP signed off	5%	£15	£30	£60	est cost of additional works	GRIP5	Reduce threat	GRIP4/5	Work with NR to remove unreasonable requirements. Following GRIP4 sign off risk passes to Contractor.	GRIP4/5		Medium						construction
30	The possibility that Inflation may be higher than the allowance	Financial climate	Additional costs	Devon CC		10%	£45	£90	£135	allowance for 3% additional inflation	GRIP6	Accept uncertainty	GRIP5	Monitor costs closely	GRIP4/5		Low						construction
31	The possibility that the cost of piling works increases	Pile design is inadequate and deeper piles are required	Additional costs	Devon CC	AiP signed off	5%	£10	£15	£20	5%, 10%, 15% piling cost increase	GRIP5	Transfer to supplier x	GRIP4	Competent design	GRIP4		Medium						construction
32	The possibility that DfT refuses to accept 1:15 gradient ramps	Objections from disabled user groups	Redesign with 1:20 gradient ramps	Devon CC	AiP signed off	5%	£60	£75	£90	est cost of additional works	GRIP5	Reduce threat	GRIP4	Early engagement with disabled groups and DfT	GRIP4		High						construction
33	The possibility that emergency vehicle access cannot be provided through the Waste Transfer Station	Waste Transfer Station layout cannot fire appliances turning	Alterations to Waste Transfer Station highway layout	Devon CC		10%	£30	£60	£90	two, four or six week extension of time as % of prelims (24 week construction period)	GRIP5	Reduce threat	GRIP4	Early engagement with WTS designers	GRIP4		High						construction