

West of England
 Ashton Vale to Temple Meads Rapid Transit
 Risk Register - General Scheme Risks
 AS AT: February 2009

No.	Description	Category	Risk Assessment					RAG	Proximity (date)	Approach Avoid, Accept, Reduce, Transfer	Mitigation Measures	Workstream	PERSON RESPONSIBLE	DATE OF UPDATE	STATUS	Residual Risk					RAG	DATE OF CLOSURE	REASON FOR CLOSURE & COMMENTS
			Impact			Rating	Prob.									Cost	Time	Performance	Rating	Prob.			
			Cost	Time	Performance																		
1	Change of Central Government policy may remove support for scheme	Political / Policy	H	H	H	L	3.00	ongoing	Accept	Regular briefing of Members Strategy of communications with Govt	Project Management	Senior Responsible Owner	25/01/2008	No change	H	H	H	L	3.00				
2	Change of Regional Government policy may remove support for scheme	Political / Policy	H	H	H	L	3.00	ongoing	Accept	Regular briefing of Members Strategy of communications with Regnl Govt	Project Management	Senior Responsible Owner	25/01/2008	No change	H	H	H	L	3.00				
3	Change of Local Government policy may remove support for scheme	Political / Policy	H	H	H	L	3.00	ongoing	Reduce	Regular briefing of Members Aim for cross party support	Project Management	Senior Responsible Owner	25/01/2008	No change	H	H	H	L	3.00				
2	Appropriate project governance not in place	Political / Policy	H	H	H	M	6.00	Sep-08	Reduce	Determine governance and procurement structure for BRT Integration and contribution to discussion of wider major scheme governance structure	Project Management	Senior Responsible Owner	25/01/2008	Reducing	M	M	M	M	4.00				
3	Policy makers do not perceive benefits, believe adverse impacts not tolerable, or place scheme low priority on agenda	Political / Policy	H	H	H	M	6.00	current	Reduce	Regular briefing of Members Address incorrect information in public domain Scope in works to address concerns	Project Management	Senior Responsible Owner	25/01/2008	Increasing	H	H	H	M	6.00				
4	Overall required level of funding does not materialise/become available.	Political / Policy	H	H	M	M	5.33	April 08 (RFA refresh)	Reduce	Meet RFA programme deadlines Regular communication with GOSW Robust major scheme bid	Project Management	Senior Responsible Owner	25/01/2008	No change	M	H	M	L	2.33				
5	Scheme objectives and quality are overly compromised	Political / Policy	L	M	H	M	4.00	current	Reduce	Identify project champion Regular briefing of Members	Project Management	Senior Responsible Owner	25/01/2008	No change	L	M	H	L	2.00				
6	Adverse press coverage creates negative feeling towards the scheme which impact on Members	Political / Policy	M	H	H	L	2.67	current	Reduce	Proactive media management Regular briefing of Members Adherence to communications strategy	Project Management	Senior Responsible Owner	28/05/2008	reducing	M	H	H	M	5.33				
7	Change of political balance in the sub-region	Political / Policy	H	H	H	M	6.00	ongoing	Accept	Regular briefing of Members Aim for cross party support	Project Management	Senior Responsible Owner	28/05/2008	No change	H	H	H	L	3.00				
8	Lack of high profile and marketing campaign results in poor information in the media and public perception (lack of real information on the scheme)	Communications	M	M	M	L	2.00	current	Reduce	Clear communications and key messages Use of high quality images Coherent overall PT marketing strategy Identification of communications resources engaging with supportive groups	Communications	Project Manager	28/05/2008	reducing	M	M	M	L	2.00				
9	Developer contributions (matched funding) are not secured or sufficient	Funding	M	H	M	H	7.00	Oct-08	Reduce	Identification of sources for funding Early agreement with developers on contributions Underwritten by LAs	Project Management	Senior Responsible Owner	28/05/2008	No change	M	H	M	L	2.33				
10	Inability to continue scheme development work while awaiting DFT approval	Funding	H	H	L	M	4.67	Oct-08	Reduce	Identification of sources for funding Early agreement with developers on contributions Underwritten by LAs	Project Management	Senior Responsible Owner	28/05/2008	No change	M	H	L	L	2.00				
11	Delay to complementary developer funded elements or funding	Funding	M	H	M	H	7.00	2011 to 2014	Reduce / Transfer	Identification of sources for funding Early agreement with developers on contributions Underwritten by LAs	Project Management	Senior Responsible Owner	28/05/2008	No change	M	H	M	L	2.33				
12	Capital costs escalate resulting in failure to secure funding (DFT)	Funding	H	H	H	H	9.00	from Nov 08	Reduce	Robust major scheme bid Strict change control processes independent review of costs	Project Management	Project Manager	28/05/2008	No change	H	H	H	M	6.00				
13	Compulsory Purchase Orders successfully resisted by land owners	Acceptability / Objection	M	M	L	M	3.33	2009/2010	Reduce	Clear communications with affected parties Robust technical case for need	Project Management	Project Manager	28/05/2008	No change	M	M	L	M	3.33				
14	Opposition prevents introduction of new TROs	Acceptability / Objection	L	L	L	M	2.00	2011 to 2014	Reduce	Clear communications with affected parties Robust technical case for need	Project Management	Project Manager	28/05/2008	No change	L	L	L	M	2.00				
15	Objection to scheme from rail lobby (other modes)	Acceptability / Objection	M	M	L	M	3.33	current	Reduce	Clear communications and key messages Proactive engagement with objectors regular and clear Members briefings Robust technology appraisal	Communications	Project Manager	28/05/2008	Reducing	L	L	L	L	1.00				
16	Objection to scheme from residents groups	Acceptability / Objection	M	M	M	H	6.00	current	Reduce	Clear communications and key messages Proactive engagement with objectors regular and clear Members briefings	Communications	Project Manager	28/05/2008	No change	M	M	M	M	4.00				
17	Objection to scheme from cyclists, environmental	Acceptability / Objection	M	M	M	M	4.00	current	Reduce	Clear communications and key messages Proactive engagement with objectors regular and clear Members briefings	Communications	Project Manager	28/05/2008	No change	M	M	M	M	4.00				
18	Lack of support from local media	Acceptability / Objection	M	M	M	L	2.00	current	Reduce	Regular media briefings and proactive relationship management Media monitoring	Communications	Project Manager	28/05/2008	reducing	M	M	M	L	2.00				
19	Opposition to on-street measures	Acceptability / Objection	L	M	H	M	4.00	ongoing	Reduce	Clear communications with affected parties Robust technical case for need TWA process	Communications	Project Manager	28/05/2008	No change	L	M	H	L	2.00				
20	Submission of non-compliant MSBC	Business Case	M	H	L	L	2.00	Oct-08	Reduce	Sense checking of model results Regular engagement with DFT Application new guidance Project Team review of work (cross-consultancy)	Modelling/Appraisal	Project Manager	28/05/2008	No change	M	H	L	L	2.00				
21	Delay in DFT approval	Business Case	H	H	L	H	7.00	2009	Reduce	Involvement of GOSW with view on RFA programme deadlines Regular engagement with DFT Compliant and High Quality MSBC submission	Project Management	Project Manager	28/05/2008	No change	H	H	L	M	4.67				
22	Land costs higher than predictions escalate scheme costs or additional CPO costs.	Costs	M	M	L	M	3.33	from programme entry	Accept/Reduce	Ensure robust initial estimate Ensure estimate assesses likely future prices Early buy-out of required properties	Land	Project Manager	28/05/2008	No change	M	M	L	M	3.33				
23	Cost of statutory undertakers diversions escalates	Costs	M	M	L	H	5.00	from programme entry	Reduce	Early engagement of utility companies	Engineering	Project Manager	28/05/2008	No change	M	M	L	M	3.33				
24	High ongoing maintenance costs for LAs	Costs/Funding	M	L	L	M	2.67	2014	Reduce/Transfer	Consider access charge pegged to maintenance costs Consider maintenance costs in design work Agree procurement regime	Engineering	Project Manager	28/05/2008	No change	M	L	L	M	2.67				
25	Construction inflation	Costs	H	M	M	M	4.67	from Nov 08	Accept/Reduce	Ensure cost estimates include best up to date forecasts on construction inflation Include in QRA	Engineering	Project Manager	28/05/2008	No change	H	M	M	M	4.67				
26	Compensation claims (noise etc.)	Costs	H	M	L	M	4.00	from 2014	Reduce	Minimise impacts on properties in design Fully assess impacts Ensure appropriate mitigation measures included in the scheme	Engineering	Project Manager	28/05/2008	No change	H	M	L	L	2.00				
27	Ineffective procurement strategy	Delivery	H	H	H	M	6.00	from Nov 08	Reduce	Ensure robust procurement strategy Discussion/test with private party providers/partners	Project Management	Senior Responsible Owner	28/05/2008	No change	H	H	H	L	3.00				

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			Cost	Time	Performance	Rating	Cost									Time	Performance	Rating					
28	Contractor experiences financial difficulties and cannot complete construction	Delivery	H	H	M	L	2.67	2011	Reduce/transfer	Contractual transfer of risk Reduce bespoke elements where possible Discussion/test with with private party providers/partners Robust procurement strategy	Project Management	Project Manager	28/05/2008	No change	H	H	M	L	2.67				
29	On-street bus lanes not properly enforced	Delivery	L	L	H	L	1.67	2014	Reduce	Ensure effective programme in pace with BCC and NS	Project Management	Project Manager	28/05/2008	No change	L	L	H	L	1.67				
30	Delays in supply or ordering buses not ready for service on opening day	Delivery	L	M	L	L	1.33	2014	Reduce	Ensure robust procurement strategy Discussion/test with with private party providers/partners Early agreement with partners re requirements	Project Management	Project Manager	28/05/2008	No change	L	M	L	L	1.33				
31	Insufficient space in city centre for stops	Delivery	L	L	H	M	3.33	2014	Reduce	Ensure robust design and modelling of proposed stops	Engineering	Project Manager	28/05/2008	No change	L	L	H	L	1.67				
32	Contaminated land identified	Environment	M	M	L	H	5.00	2008/2009	Reduce/Accept	Ensure adequate ground investigations Specific site surveys of high-risk areas	Environment	Project Manager	28/05/2008	No change	M	M	L	M	3.33				
33	Noise pollution objections raised by local residents	Environment	L	L	L	H	3.00	2008/2009	Reduce	Draft and implement SEMP Ensure contractor signed up to SEMP Ensure proper engagement with affected parties	Environment	Project Manager	28/05/2008	No change	L	L	L	M	2.00				
34	Environmental legislation changes requiring significant design amendments	Environment	M	M	M	L	2.00	ongoing	Reduce	Monitoring of relevant legislation during project Engagement of qualified consultants and contractors	Environment	Project Manager	28/05/2008	No change	M	M	M	L	2.00				
35	Potential of archaeological surveys (and finds), impacting on time, cost, route option	Environment	M	M	L	H	5.00	2008/2009	Reduce/Accept	Ensure adequate ground investigations and ES scoping Specific site surveys of high-risk areas	Environment	Project Manager	28/05/2008	Increasing	M	M	L	M	3.33				
36	Unforeseen ground conditions	Environment	H	L	L	H	5.00	2008/2009	Reduce	Ensure adequate ground investigations Specific site surveys of high-risk areas	Environment	Project Manager	28/05/2008	No change	H	L	L	M	3.33				
37	Heritage issues - Listed building impacts, settings etc.	Environment	L	L	L	M	2.00	2008/2009	Reduce	Ensure adequate ES scoping and assessment Ensure build in adequate mitigation measures Specific site surveys of high-risk areas	Environment	Project Manager	28/05/2008	No change	L	L	L	L	1.00				
38	Prince Street Bridge - objection to impacts	Acceptability / Objection	L	L	M	H	4.00	2008/2009	Reduce	Ensure adequate consultation with stakeholders Ensure appropriate design	Project Management	Project Manager	28/05/2008	No change	L	L	M	H	4.00				
39	Seasonal mitigation requirements impact on programme	Environment	M	H	L	L	2.00	2008/2009	Reduce	Ensure works undertaken early in programme	Environment	Project Manager	28/05/2008	No change	M	H	L	L	2.00				
40	Design does not satisfactorily achieve reduced visual and amenity impacts	Environment	H	M	L	H	6.00	2008/2009	Reduce	Ensure adequate ES scoping and assessment Ensure build in adequate mitigation measures Specific site surveys of high-risk areas Progress design in detail for sensitive sections	Environment	Project Manager	28/05/2008	No change	H	M	L	L	2.00				
41	Identification protected species	Environment	M	M	L	M	3.33	2008/2009	Reduce	Ensure adequate ES scoping and assessment Ensure build in adequate mitigation measures Specific site surveys of high-risk areas	Environment	Project Manager	28/05/2008	No change	M	M	L	L	1.67				
42	Water contamination	Environment	H	M	L	M	4.00	2008/2009	Reduce	Ensure adequate ES scoping and assessment Ensure build in adequate mitigation measures Specific site surveys of high-risk areas Progress design in detail for sensitive sections Draft and implement SEMP Ensure contractor signed up to SEMP	Environment	Project Manager	28/05/2008	No change	H	M	L	L	2.00				
43	Impact on habitats	Environment	H	M	L	M	4.00	2008/2009	Reduce	Ensure adequate ES scoping and assessment Ensure build in adequate mitigation measures Specific site surveys of high-risk areas Progress design in detail for sensitive sections	Environment	Project Manager	28/05/2008	No change	H	M	L	L	2.00				
44	Failure to provide services that are accessible for all	Operational	L	L	L	L	1.00	2008/2009	Reduce	Ensure appropriate design standards are adhered to Consult with disabled groups	Engineering / Consultation	Project Manager	28/05/2008	No change	L	L	L	L	1.00				
45	Operating companies not interested in new services as commercial terms unattractive	Operational	M	M	M	M	4.00	2014	Reduce	Review service procurement options Continue engagement with potential operator(s)	Project Management	Project Manager	28/05/2008	No change	M	M	M	L	2.00				
46	Negative response to Bristol BRT by competitor operators	Operational	M	M	M	M	4.00	2014	Reduce	Review service procurement options Continue engagement with potential operator(s)	Project Management	Project Manager	28/05/2008	No change	M	M	M	L	2.00				
47	Failure to co-ordinate services and integrate timetables could dilute benefits	Operational	L	L	H	H	5.00	2014	Reduce	Ensure delivery of integrated system (operationally)	Project Management	Project Manager	28/05/2008	No change	L	L	H	M	3.33				
48	Unspecified operating regime - fares, frequencies, services, competition	Operational	H	H	H	L	3.00	current	Reduce	Ensure delivery of integrated system (operationally)	Project Management	Project Manager	28/05/2008	No change	H	H	H	L	3.00				
49	Service operator does not maintain reliability or quality standards	Operational	L	L	H	L	1.67	2014	Reduce/Transfer	Contractual commitment with bus operator	Project Management	Project Manager	28/05/2008	No change	L	L	H	L	1.67				
50	Market unable to supply required vehicles	Operational	L	L	L	L	1.00	2014	Reduce/Transfer	Contractual commitment with bus operator	Project Management	Project Manager	28/05/2008	No change	L	L	L	L	1.00				
51	Infrastructure not maintained to high standard	Operational	M	L	M	L	1.67	2014	Reduce/Transfer	Contractual commitment with bus operator	Project Management	Project Manager	28/05/2008	No change	M	L	M	L	1.67				
52	Vandalism	Operational	M	L	M	H	5.00	2014	Accept/Reduce	Ensure sufficient commitment made to maintenance of the system (infrastructure and vehicles)	Project Management	Project Manager	28/05/2008	No change	M	L	M	M	3.33				
54	Breakdowns on the guideway	Operational	L	L	H	M	3.33	2014	Reduce	Good maintenance arrangements Ensure adequate provision is made for recovery areas in design Ensure adequate provision is made for recovery in costs	Project Management	Project Manager	28/05/2008	No change	L	L	H	M	3.33				
55	Key decisions are delayed affecting programme and scheme confidence	Project Management	H	H	L	H	7.00	ongoing	Reduce	Regular reporting to decision makers Regular briefing of Members	Project Management	Senior Responsible Owner	28/05/2008	No change	H	H	L	M	4.67				
56	Failure to meet RFA programme	Project Management	H	H	H	M	6.00	ongoing	Reduce	Regular monitoring of programme Strict change control process Regular discussions with DfT Lessons learned from other schemes	Project Management	Senior Responsible Owner	28/05/2008	No change	H	H	H	L	3.00				
57	Contractor fails to keep to programme leading to late completion	Project Management	H	H	M	M	5.33	2011	Reduce/Transfer	Contractual commitment with contractor and penalty clauses	Project Management	Project Manager	28/05/2008	No change	H	H	M	M	5.33				
58	On-street measures not in place when needed	Project Management	L	L	H	M	3.33	2014	Reduce	Early programme identification of measures and agreement with LAS	Project Management	Project Manager	28/05/2008	No change	L	L	H	L	1.67				
59	General industry shortage of resources	Project Management	H	H	L	M	4.67	2011	Accept/Reduce	Ensure programme takes resource issues in to account Consultation with potential contractors	Project Management	Project Manager	28/05/2008	No change	H	H	L	M	4.67				
60	Failure to secure powers and/or operating rights	Project Management	H	H	H	M	6.00	2011	Reduce	Ensure political support Ensure robust technical case Reduce opposition to the scheme as far as possible	Project Management	Project Manager	28/05/2008	No change	H	H	H	L	3.00				

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			Impact			Prob.	Rating									Cost	Time	Performance	Rating	RAG			
			Cost	Time	Performance																		
61	Lack of resources to progress the scheme	Project Management	L	M	L	M	2.67	current	Reduce	Agree resource commitments upfront in PID for different stages of work Agree budget commitments from Las Ensure robust project management and reportin processes	Project Management	Senior Responsible Owner	28/05/2008	No change	L	L	L	M	2.00				
62	Additional risk to pedestrian/cyclist safety from bus lanes	Safety	L	L	M	L	1.33	2014	Reduce	Ensure design meets safety standards	Engineering	Project Manager	28/05/2008	No change	L	L	M	L	1.33				
63	Safety legislation changes requiring significant design amendments	Safety	H	M	L	L	2.00	ongoing	Reduce	Monitoring of relevant legislation during project Engagement of qualified consultants and contractors	Engineering	Project Manager	28/05/2008	No change	H	M	L	L	2.00				
64	Serious accidents on opening of the scheme	Safety	L	L	L	L	1.00	2014	Reduce	Ensure CDM requirements are adhered to Safety audits to be undertaken for scheme	Engineering	Project Manager	28/05/2008	No change	L	L	L	L	1.00				
65	Project requirements are not protected through development control and negotiations with developers	Project Management	H	H	M	M	5.33	ongoing	Reduce	Close engagement with LPAs	Project Management	Project Manager	28/05/2008	No change	H	H	M	L	2.67				
66	Design cannot facilitate access for planned or emergency access	Technical	H	H	L	L	2.33	2014	Reduce	Ensure appropriate design standards are applied. Site specific access plans Engagement with emergency services	Engineering	Project Manager	28/05/2008	No change	H	H	L	L	2.33				
67	Technical problems with structural / civil works come to light during design	Technical	H	H	M	H	8.00	2013	Reduce/Transfer	Ensure appropriate provision made in scheme cost estimate (QRA) Contractual transfer of risk to contractor Independent review of cost allowances Progress detailed design work on high risk items	Engineering	Project Manager	28/05/2008	No change	H	H	M	M	5.33				
68	Bus stop locations provide insufficient space for passengers and pedestrians	Design/Safety	M	L	H	L	2.00	2014	Reduce	Ensure appropriate design standards are applied. Site specific access plans	Engineering	Project Manager	28/05/2008	No change	M	L	H	L	2.00				
69	Inappropriate number of spaces provided at P&R sites	Technical	M	M	H	M	4.67	2014	Reduce	Appropriate modelling of demand for P&R	Modelling/Appraisal	Project Manager	28/05/2008	No change	M	M	H	L	2.33				
70	Technical problems with Temple Meads Interchange	Engineering	H	H	M	H	8.00	2011	Reduce	Advance survey and design work	Engineering	Project Manager	19/01/2009	Increasing	M	M	M	M	4.00				

Categories

- Political / Policy
- Environment
- Technical
- Operational
- Acceptability / Objection
- Quality
- Project Management
- Safety
- Cost
- Business Case
- Third parties

	L	M	H
Rating	<35%	35-65%	>65%
descrip	Unlikely	Possible	Likely
Cost	1%	5%	10%
Emillion	0.8	4.0	8.0
Programme	1-4 months	4-6 months	>6 months