

APPENDIX B: QUANTITATIVE RISK ASSESSMENT

Work Package 1: New Landmark Pedestrian / Cycle Bridge to reconnect Gypsy Hill Lane and Black Horse Lane over M5 Motorway

Estimate Base: Year 2008, Quarter 4

Series	Description	Total	Risk Level	%	Cost	Notes
100	Preliminaries	£493,000	L	2.5	£12,325	Allowance for preliminary costs considered adequate
200	Site Clearance	£10,000	L	2.5	£250	Estimate is based on measure and value therefore risk is considered to be low
400	Restraint Systems	£206,000	H	15	£30,900	Risks associated with specification of finishing requirements
500	Drainage	£6,000	H	15	£900	Risks associated with ground conditions / detailed design development
600	Earthworks	£305,000	H	15	£45,750	Risks associated with ground conditions / detailed design development
1100	Kerbs / Footways	£22,000	L	2.5	£550	Estimate is based on measure and value therefore risk is considered to be low
1700	Structural Concrete	£197,000	H	15	£29,550	Risks associated with ground conditions / detailed design development
1800	Steelwork for structures	£1,498,000	H	15	£224,700	Risks associated with specification of finishing requirements
1900	Protection of Steelwork	£107,000	H	15	£16,050	Risks associated with specification of finishing requirements
2000	Waterproofing	£32,000	L	2.5	£800	Estimate is based on measure and value therefore risk is considered to be low
2100	Bearings	£2,000	L	2.5	£50	Estimate is based on measure and value therefore risk is considered to be low
2300	Bridge expansion Joints	£5,000	L	2.5	£125	Estimate is based on measure and value therefore risk is considered to be low
2400	Special Structures	£59,000	H	15	£8,850	Risks associated with detailed design development
3000	Landscaping	£20,000	L	2.5	£500	Allowance for landscaping considered adequate
	Total	£2,962,000			£371,300	

Work Package 2: Pedestrian and Cycle Improvements to Gypsy Hill Lane from Cumberland Ave / Hollow Lane Junction to the new Landmark Pedestrian / Cycle Bridge

Estimate Base: Year 2008, Quarter 4

Series	Description	Total	Risk Level	%	Cost	Notes
100	Preliminaries	£35,000	L	2.5	£875	Allowance for preliminary costs considered adequate
200	Site Clearance	£13,000	M	5	£650	Risks associated with measure of tree / shrub clearance, survey to be undertaken
300	Fencing and Environmental Barriers	£2,000	L	2.5	£50	Estimate is based on measure and value therefore risk is considered to be low
400	Road Restraint Systems (Vehicle & Pedestrian)	£0				
500	Drainage	£13,000	H	15	£1,950	Risks associated with ground conditions / detailed design development
600	Earthworks	£37,000	H	15	£5,550	Risks associated with ground conditions / detailed design development
700	Road Pavements	£47,000	M	5	£2,350	Risk of inflation associated with the cost of oil
1100	Kerbs, Footways, & Paved Areas	£12,000	L	5	£600	Estimate is based on measure and value therefore risk is considered to be low
1200	Traffic Signs and Road Markings	£2,000	L	2.5	£50	Estimate is based on measure and value therefore risk is considered to be low
1300	Road Lighting Columns and Brackets	£3,000	L	2.5	£75	Estimate is based on measure and value therefore risk is considered to be low
1400-1500	Electrical Work and Communications	£1,000	H	15	£150	Risk associated with location of LV supply
1600-2500	Structures	£76,000	H	15	£11,400	Risks associated with ground conditions / detailed design development
2700	Statutory Undertakers Works	£15,000	H	15	£2,250	Risks associated with Statutory Undertakers costs and unidentified services
2700	Noise Insulation Works	£0				
2700	Accommodation Works	£0				
3000	Landscape and Ecology	£10,000	H	15	£1,500	Risks associated with ecological surveys and environmental mitigation measures
	Other Costs; Testing	£7,500	L	2.5	£188	Estimate is based on measure and value therefore risk is considered to be low
	Total	£273,500			£27,638	

Work Package 3: Tithebarn lane Bridge Carriageway Widening Works

Estimate Base: Year 2008, Quarter 4

Series	Description	Total	Risk Level	%	Cost	Notes
100	Preliminaries	£10,000	L	2.5	£250	Allowance for preliminary costs considered adequate
200	Site Clearance	£2,000	L	2.5	£50	Estimate is based on measure and value therefore risk is considered to be low
400	Restraint Systems	£0				
500	Drainage	£3,000	L	2.5	£75	Allowance for preliminary costs considered adequate
600	Earthworks	£2,000	L	2.5	£50	Estimate is based on measure and value therefore risk is considered to be low
1100	Kerbs / Footways	£5,000	L	2.5	£125	Estimate is based on measure and value therefore risk is considered to be low
1700	Structural Concrete	£0				
1800	Steelwork for structures	£0				
1900	Protection of Steelwork	£0				
2000	Waterproofing	£0				
2100	Bearings	£0				
2300	Bridge expansion Joints	£27,200	M	5	£1,360	Risks associated with Highway Authority requirements
2400	Special Structures	£0				
2700	Statutory Undertakers Works	£0	H	15	£5,000	Risk associated with diverting / protecting unidentified service
3000	Landscaping	£0				
	Total	£49,200			£6,910	

Works Package 4: Exeter Science Park Bus Link Road and Tithebarn Lane Carriageway Widening Works

Estimate Base: Year 2008, Quarter 4

Series	Description	Total	Risk Level	%	Cost	Notes
100	Preliminaries	£76,000	L	2.5	£1,900	Allowance for preliminary costs considered adequate
200	Site Clearance	£6,000	L	2.5	£150	Estimate is based on measure and value therefore risk is considered to be low
300	Fencing and Environmental Barriers	£20,000	L	2.5	£500	Estimate is based on measure and value therefore risk is considered to be low
400	Road Restraint Systems (Vehicle & Pedestrian)	£0				
500	Drainage	£93,000	H	15	£13,950	Risks associated with ground conditions / detailed design development
600	Earthworks	£151,000	H	15	£22,650	Risks associated with ground conditions / detailed design development
700	Road Pavements	£159,000	M	5	£7,950	Risk of inflation associated with the cost of oil
1100	Kerbs, Footways, & Paved Areas	£23,000	L	2.5	£575	Estimate is based on measure and value therefore risk is considered to be low
1200	Traffic Signs and Road Markings	£5,000	L	2.5	£125	Estimate is based on measure and value therefore risk is considered to be low
1300	Road Lighting Columns and Brackets	£3,000	L	2.5	£75	Estimate is based on measure and value therefore risk is considered to be low
1400-1500	Electrical Work and Communications	£8,000	H	15	£1,200	Risk associated with location of HV / LV supply
1600-2500	Structures	£0				
2700	Statutory Undertakers Works	£25,000	H	15	£3,750	Risks associated with Statutory Undertakers costs and unidentified services
2700	Noise Insulation Works	£0				
2700	Accommodation Works	£0				
300	Landscape and Ecology	£0				
	Other Costs; Testing	£12,000	L	2.5	£300	Estimate is based on measure and value therefore risk is considered to be low
	Total	£581,000			£53,125	