

APPENDIX B: QUANTITATIVE RISK ASSESSMENT

Work Package 1: Broadway Road to Greenhill Way Link Road and Cycle Route

Estimate Base: Year 2009, Quarter 2

Series	Description	Total	Risk Level	%	Cost	Notes
100	Preliminaries	£606,000	L	2.5	£15,150	Allowance for preliminary costs considered adequate
200	Site Clearance	£50,000	L	2.5	£1,250	Estimate is based on measure and value therefore risk is considered to be low
300 & 400	Fencing and Environmental Barriers & Road Restraint Systems	£72,000	L	2.5	£1,800	Estimate is based on measure and value therefore risk is considered to be low
500	Drainage	£510,000	H	15	£76,500	Risks associated detailed design development
600	Earthworks	£1,896,000	H	15	£284,400	Risks associated with ground conditions / detailed design development
700	Road pavement	£1,302,000	M	5	£65,100	Risk of inflation associated with the cost of oil
1100	Kerbs, Footways, & Paved Areas	£414,000	L	2.5	£10,350	Estimate is based on measure and value therefore risk is considered to be low
1200	Traffic Signs and Road Markings	£140,000	L	2.5	£3,500	Estimate is based on measure and value therefore risk is considered to be low
1300 - 1500	Road Lighting Columns and Brackets & Electrical Work and Communication	£85,000	L	2.5	£2,125	Estimate is based on measure and value therefore risk is considered to be low
1600 - 2500	Structures	£150,000	H	15	£22,500	Risks associated detailed design development
2700	Statutory Undertakers Works	£350,000	H	15	£52,500	Risks associated with Statutory Undertakers costs and unidentified services
3000	Landscape and Ecology	£500,000	H	15	£75,000	Risks associated detailed design development
	Total	£6,075,000			£610,175	

Work Package 2: Connect 2 Cycle Route 9

Estimate Base: Year 2009, Quarter 2

Description		Total	Risk Level	%	Cost	Notes
100	Preliminaries	£73,500	L	2.5	£1,838	Allowance for preliminary costs considered adequate
200	Site Clearance	£11,000	L	2.5	£275	Estimate is based on measure and value therefore risk is considered to be low
300	Fencing and Environmental Barriers	£80,000	L	2.5	£2,000	Estimate is based on measure and value therefore risk is considered to be low
500	Drainage	£33,000	M	5	£1,650	Risks associated detailed design development
600	Earthworks	£158,000	M	5	£7,900	Risks associated with ground conditions / detailed design development
1100	Kerbs, Footways, & Paved Areas	£296,000	M	5	£14,800	Risks associated detailed design development
1200	Traffic Signs and Road Markings	£116,000	L	2.5	£2,900	Estimate is based on measure and value therefore risk is considered to be low
1300	Road Lighting Columns and Brackets	£8,000	L	2.5	£200	Estimate is based on measure and value therefore risk is considered to be low
1400-1500	Electrical Work and Communications	£2,500	L	2.5	£63	Estimate is based on measure and value therefore risk is considered to be low
1600-2500	Structures	£1,660,000	H	15	£249,000	Risks associated with ground conditions / detailed design development
2700	Statutory Undertakers Works	£65,000	H	15	£9,750	Risks associated with Statutory Undertakers costs and unidentified services
3000	Landscape and Ecology	£10,000	H	15	£1,500	Risks associated detailed design development
Total		£2,513,000			£291,875	

Work Package 3: Proposed Signalised junction at Old Exeter Road / Chudleigh Road

Estimate Base: Year 2009, Quarter 2

Series	Description	Total	Risk Level	%	Cost	Notes
100	Preliminaries	£127,109	L	2.5	£3,178	Allowance for preliminary costs considered adequate
200	Site Clearance	£9,500	L	2.5	£238	Estimate is based on measure and value therefore risk is considered to be low
300	Fencing and Environmental Barriers	£9,636	L	2.5	£241	Estimate is based on measure and value therefore risk is considered to be low
400	Road Restraint Systems (Vehicle & Pedestrian)	£3,493	L	2.5	£87	Estimate is based on measure and value therefore risk is considered to be low
500	Drainage	£66,411	M	5	£3,321	Risks associated detailed design development
600	Earthworks	£259,035	H	15	£38,855	Risks associated with ground conditions / detailed design development
700	Road Pavements	£390,762	M	5	£19,538	Risk of inflation associated with the cost of oil
1100	Kerbs, Footways, & Paved Areas	£120,969	L	2.5	£3,024	Estimate is based on measure and value therefore risk is considered to be low
1200	Traffic Signs and Road Markings	£133,380	L	2.5	£3,335	Estimate is based on measure and value therefore risk is considered to be low
1300	Road Lighting Columns and Brackets	£20,900	L	2.5	£523	Estimate is based on measure and value therefore risk is considered to be low
1400-1500	Electrical Work and Communications	£7,980	L	2.5	£200	Estimate is based on measure and value therefore risk is considered to be low
1600-2500	Structures	£0				
2700	Statutory Undertakers Works	£28,500	H	15	£4,275	Risks associated with Statutory Undertakers costs and unidentified services
3000	Landscape and Ecology	£14,250	H	15	£2,138	Risks associated detailed design development
	Total	£1,191,924			£78,950	

Works Package 4: Strap Lane Junction Improvements

Estimate Base: Year 2009, Quarter 2

Series	Description	Total	Risk Level	%	Cost	Notes
100	Preliminaries	£46,500	L	2.5	£1,163	Allowance for preliminary costs considered adequate
200	Site Clearance	£1,000	L	2.5	£25	Estimate is based on measure and value therefore risk is considered to be low
300	Fencing and Environmental Barriers					
400	Road Restraint Systems (Vehicle & Pedestrian)					
500	Drainage	£12,000	L	2.5	£300	Estimate is based on measure and value therefore risk is considered to be low
600	Earthworks	£35,400	H	15	£5,310	Risks associated with ground conditions / detailed design development
700	Road Pavements	£85,000	M	5	£4,250	Risk of inflation associated with the cost of oil
1100	Kerbs, Footways, & Paved Areas	£28,400	L	2.5	£710	Estimate is based on measure and value therefore risk is considered to be low
1200	Traffic Signs and Road Markings	£94,700	L	2.5	£2,368	Estimate is based on measure and value therefore risk is considered to be low
1300	Road Lighting Columns and Brackets	£6,000	L	2.5	£150	Estimate is based on measure and value therefore risk is considered to be low
	Total	£309,000			£14,275	

Works Package 5: Bus Lane to Newton Road (Southbound)

Estimate Base: Year 2009, Quarter 2

Series	Description	Total	Risk Level	%	Cost	Notes
100	Preliminaries	£15,038	L	2.5	£376	Allowance for preliminary costs considered adequate
200	Site Clearance	£1,000	L	2.5	£25	Estimate is based on measure and value therefore risk is considered to be low
300	Fencing and Environmental Barriers	£0				
400	Road Restraint Systems (Vehicle & Pedestrian)	£0				
500	Drainage	£7,500	M	5	£375	Risks associated detailed design development
600	Earthworks	£10,315	H	15	£1,547	Risks associated with ground conditions / detailed design development
700	Road Pavements	£25,358	M	5	£1,268	Risk of inflation associated with the cost of oil
1100	Kerbs, Footways, & Paved Areas	£11,710	L	2.5	£293	Estimate is based on measure and value therefore risk is considered to be low
1200	Traffic Signs and Road Markings	£55,500	L	2.5	£1,388	Estimate is based on measure and value therefore risk is considered to be low
1300	Road Lighting Columns and Brackets	£10,000	L	2.5	£250	Estimate is based on measure and value therefore risk is considered to be low
1400-1500	Electrical Work and Communications	£3,000	L	2.5	£75	Estimate is based on measure and value therefore risk is considered to be low
1600-2500	Structures	£0				
2700	Statutory Undertakers Works	£25,000	H	15	£3,750	Risks associated with Statutory Undertakers costs and unidentified services
3000	Landscape and Ecology	£1,000	H	15	£150	Risks associated detailed design development
	Total	£165,421			£9,346	