APPENDIX D LANCEFIELD ROAD JACKSONS CREEK CROSSING (LR-BR-01) OPINION OF PROBABLE COST SCHEDULE

	LR-BR-01)		LR-BR-01 - Bri	idge Steel Girder IC	CP Adopted	LR	BR-01 Hatch/Spiire Option	on A	
Item Descrip	tion	Quantity Unit	Ap Rate	prox. length 490m Amount	Comments	Quantity	Approx length 2 Unit Rate	245m (7 Super T spar	s @35Lm each) Comments
WORKS 1 SITEWORKS AND EAF									
1.1 Pre-con 1.1.1	Site preparation	2 Item	5,500.00 \$	11,000		2 Ite			
1.1.2 1.2 Earthwo		0 sq.m	2.75			sq.		\$ -	
1.2.1	Bulk excavation and fill	10,000 cu.m	43.2 \$	432,000	EO allowance of encountering	81,100 cu	m 43.2	\$ 3,503,520	
1.2.2 1.2.3	EO Allowance for rock excavation works Fill only	5,000 cu.m 0 cu.m	96.8 \$ 37.8	484,000	rock to 50% of excvation area	9500 cu.			
1.3 Set-Out 1.3.1		1 Item	12,500.00 \$	12,500		1 Ite		\$ -	
	ASSOCIATED INFRASTRUCTURE		,	,			··· ,		
	ong Bridge Option to support Shorter span bridge ie addition 150mm Shotcrete retaining wall with soil nails	onal length pavement, retain	ing walls etc)						
10.1.1 10.1.2	Shotcrete and mesh Soil nails					6180 sq. 3461 Ite			
10.1.2 10.3	SSP Type Retaining wall					0 sq. 0 LM	m 1,500.00	\$ -	
10.5 10.4 10.5	Guard Rail Safety Fencing at top of Cutting Additional Length Roadway (ICP adopted Bridge length r					500 LM 245 LM	250.00	\$ 125,000	
2 STRUCTURE	Additional Length Roadway (ICP adopted Bridge length I	ninus Proposea structure ien	guij			245 LIV	3,000.00	\$ 1,225,000	
	Foundations/Piers/Beams								
									Allow for reinforced single
					Conc slab (200mm thk) including 3000mm deep steel				span concrete bridge (Total width 13.5m approx.) 200mm
					girdersSteel Girder, 50m spans				thick deck slab on top of
2.1.1	Bridge Structure	7,383 sq.m	4,450.00 \$	32,854,350	with reinforced concrete deck	3,308 sq.		\$ -	super 1800mm T Beams
2.1.2 2.1.3	Elastomeric Bearings Cast in-situ concrete base slab with footings	0 Item 0 sq.m	1,650.00 550			0 0 Ite	m 1650	\$ - \$ -	
					Pier concrete Column				Pier Concrete column 2No. 3000w x 3000d as per
2.1.4	Bridge Columns	8,970 cu.m	1,100.00 \$	9,867,000	12,000wx2500d 40Mpa	1,327 cu	m 1,800.00	\$ 2,387,880	GHD SS-BR-01
2.1.5	Pile	2,600 Lm	1,800.00 \$	4,680,000	Foundation Concrete bored Piles 900dx2000I 50 Mpa	70 Ite	m 5400	\$ 378,000	Unit price for driven piles as per GHD SS-BR-01. 10 per pier
2.1.6	Pile Cap	624 cu.m	1,800.00 \$		Concrete pier Pile Cap 16,000lx2500wx1200d 40Mpa	384 Ite			per pier
2.1.7	Retaining Walls - Wing & Keeper Walls	0 sq.m	1,100.00	405,600	10,0001A23UUWX12UUQ 4UMPA	0 sq.	m 1,100.00	\$ -	
2.1.8 2.1.9	Retaining Walls - Fender Wall Retaining Wall	0 Item 0 sq.m	16,500.00 1,120.00			0 Ite 0 sq.	m 1120	\$ -	
2.1.10	Bridge deck	0 sq.m	480		Includes site reinstatement,	0 sq.			
2.1.11 2.2 Abutme	Constructability ents	1 Item	7,624,177.50 \$	7,624,178	temporary works, staging etc.	1 Ite		\$ -	
2.2.1 2.2.2	RC Abutment / Crosshead Beam Anti Sliding Blocks	1,208 cu.m 0 Item	2,500.00 \$ 2,500.00	3,020,900	1200w x 1000d 40Mpa	162 cu 8 Ite			
2.2.3 2.2.4	Abutment Walls and Bearings Bored piles	0 Item 0 Item	400,000.00 9.712.80			85.725 cu. 8 Ite	m 1800	\$ 154,305	Bored piles at abutments
2.3 Bridge 0 2.3.1	Containment Barriers Bridge containment barriers	1,000 Lm	2,850.00 \$	2,850,000		490 LM		\$ -	
2.3.2 2.3.3	Barriers - Medium Containment Barriers - Armco (off structure)	0 LM 0 LM	1,750.00 110	2,030,000		0 LN 0 LN	1750	\$ -	
2.4 Other	Barriers - Arrico (orr structure)	O LIW	110			O LIV		\$ -	
3.1 Ashphal	It Wearing Course Over Slab							\$ -	
3.1.1 3.1.2	Asphalt pavement Road pavement under bridge	4,410 sq.m 0 sq.m	110 \$ 250	485,100		1715 sq. 0 sq.	m 250	\$ -	
3.1.3 3.2 Kerb an		0 sq.m	1,200.00			0 sq.		\$ -	
3.2.1 3.3 Footpat	Kerb and channel th	1,000 Lm	75 \$	75,000		490 LM	75	\$ 36,750 \$ -	
3.3.1 3.3 Footpat	Footpath th	1,500 sq.m	66 \$	99,000		1225 sq.	m 85.00	\$ 104,125	2m on one side, 3m on the oth
3.3.1 3.3.2	Bridge walkway Pedestrian footpath	0 sq.m 0 sq.m	1,500.00 155			0 sq.	m 155 155		
3.3.3 3.4 Lighting	Shared path	0 sq.m	155			0			
3.4.1 3.4.2	Lighting Allowance for Conduits	34 Item 0 LM	17,500.00 \$ 16.5	595,000	Includes Poles	9 Ite 0 LN		\$ 157,500 \$ -	
3.5 Other 4 OFF-BRIDGE WORKS								\$ -	
4.1 Approar	ch Slabs Reinforced concrete slabs (approach slabs)	50 cu.m	500 \$	25.000		50 sq.	m 500	\$ - \$ 25,000	
	Gurad Rail/Barrier Handrails	0 Item	5,000.00	23,000		0 Ite		\$ -	
4.2.2	Guard rails	200 LM	1,500.00 \$	300,000	Vehicle approach barriers	200 LN	1,500.00	\$ 300,000	
4.2.3 4.3 Drainag		0 Item	1,700.00			0 Ite	0	\$ -	
4.3.1 4.3.2	Drainage to bridge Drainage to lowered road under	0 Item 0 Item	22,000.00 100,000.00			0 Ite 0 Ite	m 100,000.00	\$ -	
4.3.3 4.4 Scour P	Rock Beaching Protection	0 cu.m	100			0 cu.	m 100	\$ -	
4.5 Other 5 MISCELLANEOUS								\$ - \$ -	
5.1 Archited 5.2 Anti Thr	ctural screens / cladding to Piers / Deck row screens	1,000 LM 979.94 LM	1,200.00 \$ 1,650.00 \$			490 LN 490 LN			
5.3 Dewate 5.4 Melbou	ering works Irne Water Temp Diversion	0 Item 0 sq.m	250,000.00 1,000.00			0 Ite 0 sq.			
5.5 Lineman 5.6 Signage	rking	490 Item 0 Item	32 \$ 25,000.00	15,680		245 LM 0 Ite	32	\$ 7,840	
5.7 Occupa		0 Item	20,000.00			0 Ite	m 20,000.00	\$ -	
	Compensation Fee (Estimate)	1 Item	19,497.12 \$	19,497	Estimate from DELWP	0 Ite			Not Considered
6.1 Occupa	ition costs (minor)	0 Item	20,000.00			0 Ite			
6.3 Signallir	action occupation ng Adjustments	0 Item 0 Item	1,035,000.00 750,000.00			0 Ite 0 Ite	m 750,000.00	\$ -	
6.5 Rail Occ	cupation Costs (Power Off) - N/A Vline Only cupation Costs (Major) - Vline	0 Note 0 Weekend	100,000.00			0 No	end 100,000.00	\$ -	
	: Ballast Assume + 100m each way)	0 Item 0 TM	1,650.00 550			0 Ite 0 TM			
7 SERVICES 7.1 APA Gas		0 Item	4,400,000.00			0 Ite			
7.2 Telstra I 7.3 Western	NBN n Water Sewer	0 Item 0 Item	400,000.00 300,000.00			0 Ite 0 Ite	m 300,000.00	\$ -	
7.4 Services		0 Item 3% %	150,000.00 66,672,705.62 \$	2,000,181		0 Ite 3% %			
8 DELIVERY			TOTAL WORKS \$					\$ 32,319,901	
8.1 Council 8.2 VicRoad		3% Item 0% Item	\$	2,231,869		3% Ite 0% Ite		\$ 1,050,396.79 \$	
8.3 Traffic N	Management Imental Management	5% Item 1% Item	\$	3,433,644 343,364		5% Ite	m	\$ 1,615,995.07 \$ 161,599.51	
8.4 Environ 8.5 Survey		1% Item 5% Item	\$		Increased due to scale of	1% Ite		\$ 1,615,995.07	
8.6 Supervi	ision & Project Management	15% Item 3% Item	\$		project	12% Ite 3% Ite		\$ 3,878,388 \$ 807.998	
8.7 Site Esta 8.8 Conting		20% Item	\$	13,734,577		3% Ite 20% Ite		\$ 6,463,980	
		SUB TOTAL - DELIVERY TOTAL	\$	35,194,854 103,867,741				\$ 15,594,352 \$ 47,914,254	

Lancefield Road Bridge 01 (LR-BR-01)		LR-BR-01 - Bri	idge Steel Girder II	CP Adopted	LR-I	BR-01 Hatch/Spiire Opti	on B	
Item Description	Quantity Unit	Ap Rate	prox. length 490m Amount	Comments		Approx length 9	00m (3 Super T spans	@ 30Lm each) Comments
WORKS 1 SITEWORKS AND EARTHWORKS								
1.1 Pre-construction 1.1.1 Site preparation	2 Item	5,500.00 \$	11,000		2 Iten			
1.1.2 Strip Site Locally 1.2 Earthworks	0 sq.m	2.75			sq.n		\$ -	
1.2.1 Bulk excavation and fill	10,000 cu.m	43.2 \$	432,000	EO allowance of encountering	65,000 cu.r	n 43.2	\$ 2,808,000	
1.2.2 EO Allowance for rock excavation works 1.2.3 Fill only	5,000 cu.m 0 cu.m	96.8 \$ 37.8	484,000	rock to 50% of excvation area	9500 cu.r			
1.3 Set-Out 1.3.1 Allow for site setout and marking	1 Item	12,500.00 \$	12,500		1 Iten		\$ -	
10 ROADWORKS AND ASSOCIATED INFRASTRUCTURE		,	,			,	,	
(Works additional to GHD Long Bridge Option to support Shorter span bridge ie a 10.1 150mm Shotcrete retaining wall with soil nails	dditional length pavement, retair	ning walls etc)						
10.1.1 Shotcrete and mesh 10.1.2 Soil nails					4480 Iten 2509 sq.n			
10.2 SSP Type Retaining wall					0 sq.n 330 LM		\$ -	
10.3 Guard Rail 10.4 Safety Fencing at top of Cutting 10.5 Additional Length Roadway (ICP adopted Bridge Ier					660 LM 1100 LM	250.00 5.000.00	\$ 165,000	
2 STRUCTURE	gtri militas Proposea structure iei	iguij			1100 LW	5,000.00	\$ 5,500,000	
2.1 Slab & Foundations/Piers/Beams								
								Allow for reinforced single
				Conc slab (200mm thk) including 3000mm deep steel				span concrete bridge (Total width 13.5m approx.) 200mm
				girdersSteel Girder, 50m spans				thick deck slab on top of
2.1.1 Bridge Structure	7,383 sq.m	4,450.00 \$	32,854,350	with reinforced concrete deck	1,215 sq.n		\$ -	super 1800mm T Beams
2.1.2 Elastomeric Bearings 2.1.3 Cast in-situ concrete base slab with footings	0 Item 0 sq.m	1,650.00 550			0 0 Iten	1650	\$ - \$ -	
				Pier concrete Column				Pier Concrete column 2No. 3000w x 3000d as per
2.1.4 Bridge Columns	8,970 cu.m	1,100.00 \$	9,867,000	12,000wx2500d 40Mpa	185 cu.r	n 1,800.00	\$ 333,720	GHD SS-BR-01
2.1.5 Pile	2,600 Lm	1,800.00 \$	4,680,000	Foundation Concrete bored Piles 900dx2000l 50 Mpa	20 Iten	5400	\$ 108,000	Unit price for driven piles as per GHD SS-BR-01. 10 per pier
2.1.6 Pile Cap	2,600 Lm	1,800.00 \$		Concrete pier Pile Cap 16,000lx2500wx1200d 40Mpa	96 Iten			per pier
2.1.7 Retaining Walls - Wing & Keeper Walls	0 sq.m	1,100.00	405,600	16,0001X2500WX12000 40Wpa	0 sq.n	1,100.00	\$ -	
2.1.8 Retaining Walls - Fender Wall 2.1.9 Retaining Wall	0 Item 0 sq.m	16,500.00 1,120.00			0 Iten 0 sq.n	1120	\$ -	
2.1.10 Bridge deck	0 sq.m	480		Includes site reinstatement,	0 sq.n			
2.1.11 Constructability 2.2 Abutments	1 Item	7,624,177.50 \$	7,624,178	temporary works, staging etc.	1 Iten	1,500,000	\$ -	
2.2.1 RC Abutment / Crosshead Beam 2.2.2 Anti Sliding Blocks	1,208 cu.m 0 Item	2,500.00 \$ 2,500.00	3,020,900	1200w x 1000d 40Mpa	64.8 cu.r 4 Iten			
2.2.3 Abutment Walls and Bearings 2.2.4 Bored piles	0 Item 0 Item	400,000.00 9.712.80			37.8 cu.r 8 Iten	n 1800	\$ 68,040	Bored piles at abutments
Bridge Containment Barriers 2.3.1 Bridge containment barriers	1,000 Lm	2,850.00 \$	2,850,000		180 LM	2850	\$ -	
2.3.2 Barriers - Medium Containment 2.3.3 Barriers - Armco (off structure)	0 LM 0 LM	1,750.00	2,030,000		0 LM 0 LM	1750 110	\$ -	
2.4 Other	O EW	110			O LIVI		\$ -	
3.1 Ashphalt Wearing Course Over Slab							\$ -	
3.1.1 Asphalt pavement 3.1.2 Road pavement under bridge	4,410 sq.m 0 sq.m	110 \$ 250	485,100		630 sq.n 0 sq.n	1 250	\$ -	
3.1.3 Cycle track 3.2 Kerb and Channel	0 sq.m	1,200.00			0 sq.n		\$ -	
3.2.1 Kerb and channel 3.3 Footpath	1,000 Lm	75 \$	75,000		180 LM	75	\$ 13,500 \$ -	
3.3.1 Footpath 3.3 Footpath	1,500 sq.m	66 \$	99,000		450 sq.n	n 85.00	\$ 38,250	2m on one side, 3m on the oth
3.3.1 Bridge walkway 3.3.2 Pedestrian footpath	0 sq.m 0 sq.m	1,500.00 155			0 sq.n	155 155		
3.3.3 Shared path 3.4 Lighting On-Bridge	0 sq.m	155			0			
3.4.1 Lighting 3.4.2 Allowance for Conduits	34 Item 0 LM	17,500.00 \$ 16.5	595,000	Includes Poles	7 Iten 0 LM		\$ 122,500 \$ -	
3.5 Other 4 OFF-BRIDGE WORKS							\$ -	
4.1 Approach Slabs 4.1.1 Reinforced concrete slabs (approach slabs)	50 cu.m	500 \$	25.000		50 sq.n	n 500	\$ - \$ 25.000	
4.2 Safety Gurad Rail/Barrier			25,000				\$ -	
4.2.1 Handrails 4.2.2 Guard rails	0 Item 200 LM	5,000.00 1,500.00 \$	300,000	Vehicle approach barriers	0 Iten 200 LM	1,500.00	\$ 300,000	
4.2.3 Safety rails 4.3 Drainage	0 Item	1,700.00			0 Iten	0	\$ -	
4.3.1 Drainage to bridge 4.3.2 Drainage to lowered road under	0 Item 0 Item	22,000.00 100,000.00			0 Iten 0 Iten	100,000.00	\$ -	
4.3.3 Rock Beaching 4.4 Scour Protection	0 cu.m	100			0 cu.r	n 100	\$ - \$ -	
4.5 Other 5 MISCELLANEOUS							\$ -	
 Architectural screens / cladding to Piers / Deck Anti Throw screens 	1,000 LM 979.94 LM	1,200.00 \$ 1,650.00 \$			180 LM 180 LM	2,000.00 1,650.00	\$ 297,000	
5.3 Dewatering works 5.4 Melbourne Water Temp Diversion	0 Item 0 sq.m	250,000.00 1,000.00			0 Iten 0 sq.n	250,000.00	\$ -	
5.5 Linemarking 5.6 Signage	490 Item 0 Item	32 \$ 25,000.00	15,680		90 LM 0 Iten	32	\$ 2,880	
5.7 Occupation costs 5.8 Construction occupation	0 Item 0 Item	20,000.00			0 Iten 0 Iten	20,000.00	\$ -	
5.9 Habitat Compensation Fee (Estimate)	1 Item	19,497.12 \$	19,497	Estimate from DELWP	0 Iten			Not Considered
6 RAIL RELATED ITEMS 6.1 Occupation costs (minor)	0 Item	20,000.00			0 Iten			
6.2 Construction occupation 6.3 Signalling Adjustments	0 Item 0 Item	1,035,000.00 750,000.00			0 Iten 0 Iten	750,000.00	\$ -	
6.4 Rail Occupation Costs (Power Off) - N/A Vline Only 6.5 Rail Occupation Costs (Major) - Vline	0 Note 0 Weekend	100,000.00			0 Not 0 Wke	end 100,000.00	\$ -	
6.6 Track & Ballast 6.7 OHLE (Assume + 100m each way)	0 Item 0 TM	1,650.00 550			0 Iten 0 TM	1,650.00 550		
7 SERVICES 7.1 APA Gas	0 Item	4,400,000.00			0 Iten	4,400,000.00	\$ -	
7.2 Telstra NBN 7.3 Western Water Sewer	0 Item 0 Item	400,000.00 300,000.00			0 Iten 0 Iten	400,000.00	\$ -	
7.4 Services relocation 7.5 Increase in Head Contractor Preliminaries (22% to 25%)	0 Item 3% %	150,000.00 66,672,705.62 \$	2,000,181		0 Iten 3% %			
7.5 Increase in nead contractor Preliminaries (22% to 25%) 8 DELIVERY		TOTAL WORKS \$			3/6 /6		\$ 20,591,698	
8.1 Council Fees	3% Item	\$	2,231,869		3% Iten		\$ 669,230.19	
8.2 VicRoads Fees 8.3 Traffic Management	0% Item 5% Item	\$			0% Iten 5% Iten	1	\$ 1,029,584.91	
8.4 Environmental Management 8.5 Survey & Design	1% Item 5% Item	\$	343,364 3,433,644		1% Iten 5% Iten		\$ 102,958.49 \$ 1,029,584.91	
8.6 Supervision & Project Management	15% Item	\$		Increased due to scale of project	12% Iten		\$ 2,471,004	
8.7 Site Establishment 8.8 Contingency	3% Item 20% Item	\$ \$	13,734,577		3% Iten 20% Iten		\$ 514,792 \$ 4,118,340	
	SUB TOTAL - DELIVERY TOTAL	\$	35,194,854				\$ 9,935,494 \$ 30,527,193	

APPENDIX E SUNBURY SOUTH JACKSONS CREEK CROSSING (SS-BR-01) OPINION OF PROBABLE COST SCHEDULE

Sunbury South Bridge 1 (SS-BR-01)	SS-BI	R-01 (Lo	ng Option) - ICP ad rox. length 315m	lopted				iplire Option A	Box Girders spans @	€Ol m oash)
Item Description	Quantity Uni		Rate	Amount	Comments	Quantity Unit	mate ien	Rate		Comments
1 SITEWORKS AND EARTHWORKS 1.1 Pre-construction										
1.1.1 Site preparation 1.1.2 Strip Site Locally	2 Item 0 sq.m	\$	5,500.00 \$ 2.75	11,000		2 Item sq.m	\$ \$	5,500.00 2.75		
1.2 Earthworks 1.2.1 Bulk excavation and fill	6.922 cu.m	Ś	43.20 S	299.009		20.100 cu.m	Ś	43.20		
1.2.1 Bulk excavation and III	6,922 Cu.m	>	43.20 \$	299,009	EO allowance of	20,100 cu.m	Þ	43.20	\$ 808,320	
1.2.2 EO Allowance for rock excavation works	3,461 cu.m	\$	96.80 \$	335,001	encountering rock to 50% of excavated area	cu.m	\$	96.80		
1.2.3 Fill only 1.3 Set-Out	0 cu.m	\$	37.80			100 cu.m	\$	55.00	\$ -	
1.3.1 Allow for site setout and marking	1 Item	\$	12,500.00 \$	12,500		1 Item	\$	12,500.00	\$ 12,500	
10 ROADWORKS AND ASSOCIATED INFRASTRUCTURE (Works additional to GHD Long Bridge Option to support Shorter span bridge ie additional length pavem	ent, retaining walls	etc)								
10.1 150mm Shotcrete retaining wall with soil nails 10.1.1 Shotcrete and mesh						0 sq.m		300.00		
10.1.2 Soil nails 10.2 SSP Type Retaining wall						0 Item 0 sq.m		1,000.00 1,500.00	\$ -	
10.3 Guard Rail 10.4 Safety Fencing at top of Cutting						0 LM 0 LM		100.00 250.00		
10.5 Additional Length Roadway (ICP adopted Bridge length minus Proposed stru	icture length)					75 LM		5,000.00	\$ 375,000	
2 STRUCTURE 2.1 Slab & Foundations/Piers/Beams										
					Allow for reinforced single					
					span concrete bridge (Total width 13.5m approx.)					
					200mm thick deck slab on top of super 1800mm T					
2.1.1 Bridge structure	4,785 sq.m	\$	2,450.00 \$	11,723,250		3,240 sq.m		4,450.00	\$ 14,418,000	
								1.650.00		
2.1.2 Elastomeric Bearings 2.1.3 Cast in-situ concrete base slab with footings	0 Item 0 sq.m	\$	1,650.00 550.00			0 Item 0 sq.m	\$		\$ - \$ -	
2.1.4 Bridge Columns	1,386 sq.m	\$	3,500.00 \$	4,851,000		2,502 cu.m		1,800.00	\$ 4,503,600	Pier concrete Column 12,000wx2500d 40Mpa
2.1.5 Piles	80 Item	\$	3,584.70 \$		Driven piles Approx. 10 per pier	40 Item	\$	6,500.00		
2.1.6 Pile Cap 2.1.7 Retaining Walls - Wing & Keeper Walls	8 Item 0 sq.m	\$	31,950.00 \$ 1,100.00	255,600		3 Item 0 sq.m	\$	31,950.00 1,100.00		
2.1.8 Retaining Walls - Fender Wall 2.1.9 Retaining Wall	0 Item 0 sq.m	\$	16,500.00 1,120.00			0 Item 0 sq.m	\$		\$ - \$ -	
2.1.10 Bridge Deck	0 sq.m	\$	480.00			0 sq.m	\$	480.00	\$ -	
2.1.11 Constructability	1 Item	\$	2,691,649.26 \$	2 691 649	Allowance for temporary works due to site conditions	1 Item	<	2,500,000.00	\$ 2,500,000	
2.2 Abutments 2.2.1 RC Abutment / Crosshead Beam	130 cu.m	\$	2,500.00 \$			81 cu.m	\$	2.500.00		
2.2.2 Anti Sliding Blocks 2.2.3 Abutment Walls and Bearings	10 Item 1 Item	\$	2,500.00 \$ 2,500.00 \$ 400,000.00 \$	25,000		0 Item 1 Item	\$	2,500.00 2,500.00 400,000.00	\$ -	
2.2.4 Bored piles	8 Item				Bored piles behind RC	8 Item	\$	12.000.00		
2.3 Bridge Containment Barriers		\$	9,712.80 \$		retaining wall					
2.3.1 Bridge containment barriers 2.3.2 Barriers - Medium Containment	646 LM 0 LM	\$	2,850.00 \$ 1,750.00	1,841,100		480 LM LM	\$	2,850.00 1,750.00	\$ -	
2.3.3 Barriers - Armco (off structure) 2.4 Other	0 LM	\$	110.00			LM	\$	110.00	\$ -	
3 ON-BRIDGE WORKS 3.1 Ashphalt Wearing Course Over Slab										
					Road pavement - Traffic lane.					
3.1.1 Asphalt pavement 3.1.2 Road pavement under bridge	2,205 sq.m 0 sq.m	\$	110.00 \$ 250.00	242,550	Allow traffic lane (7m) wide	1,680 sq.m 0 sq.m	\$	110.00 250.00		
3.1.3 Cycle track 3.2 Kerb and Channel	0 sq.m	\$	1,200.00			0 sq.m	\$	1,200.00	\$ -	
3.2.1 Kerb and channel 3.3 Footpath	630 LM	\$	75.00 \$	47,250		480 LM	\$	75.00	\$ 36,000	
3.3.1 Bridge walkway 3.3.2 Pedestrian footpath	0 sq.m 0 sq.m	\$	1,500.00 155.00			sq.m sq.m	\$	1,500.00 155.00		
3.3.3 Shared path 3.4 Lighting On-Bridge	1,575 sq.m	\$	132.00 \$	207,900	Shared path overlay total	1,200 sq.m	\$	132.00		
3.4.1 Lighting	11 Item	\$	17,500.00 \$	103 500	Assumed poles 12m high with luminaries	9 Item	\$	17,500.00	\$ 157,500	
3.4.2 Allowance for Conduits 3.5 Other	0 LM	\$	16.50	132,300		LM	\$	16.50		
4 OFF-BRIDGE WORKS										
4.1 Approach Slabs 4.1.1 Reinforced concrete slabs (approach slabs)	108 sq.m	\$	500.00 \$	54,000	Assumed 200mm thick	108 sq.m	\$	500.00	\$ 54,000	
4.2 Safety Gurad Rail/Barrier 4.2.1 Handrails	0 Item	\$	5,000.00			Item	\$	5,000.00		
4.2.2 Guard rails 4.2.3 Safety rails	200 LM 0 Item	\$	1,500.00 \$ 20,000.00	300,000	Vehicle approach barriers	200 LM Item	\$		\$ 300,000 \$ -	
4.3 Drainage 4.3.1 Drainage to bridge	2 Item	\$	150,000.00 \$	300,000	Works to approach slabs	2 Item	\$	150,000.00		
4.3.2 Drainage to lowered road under 4.3.3 Rock Beaching	0 Item 560 cu.m	\$	100,000.00 100.00 \$	56,000	300mm thick	Item 560 cu.m	\$	100,000.00 100.00		
4.4 Scour Protection 4.5 Other										
5 MISCELLANEOUS 5.1 Architectural screens / cladding to Piers / Deck	630 LM	Ś	2.000.00 \$	1.260.000		480 LM	Ś	2.000.00	\$ 960,000	
5.2 Anti Throw screnes	630 LM	\$	1,650.00 \$	1,039,500	Allowance for dewaterinh	480 LM	\$	1,650.00	\$ 792,000	
5.3 Dewatering works 5.4 Melbourne Water Temp Diversion	1 Item 0 sq.m	\$	250,000.00 \$	250,000		1 Item	\$	250,000.00	\$ 250,000 \$ -	
5.5 Linemarking	315 LM 0 Item	\$	32.00 \$ 25,000.00	10,080		240 LM Item	\$		\$ 7,680	
5.6 Signage 5.7 Occupation costs	0 Item	\$	20,000.00			Item	\$	20,000.00	\$ -	
5.8 Construction occupation 5.9 Habitat compensaion fee	0 Item 1 Item	\$	1,035,000.00 88,000.88 \$	88,001	Estimate from DELWP	Item 0 Item	\$	1,035,000.00 88,000.88		Not Considered
6 RAIL RELATED ITEMS 6.1 Occupation costs (minor)	0 Item	\$	20,000.00			Item	\$	20,000.00		
6.2 Construction occupation 6.3 Signalling Adjustments	0 Item 0 Item	\$	1,035,000.00 750,000.00			Item Item	\$	1,035,000.00 750,000.00	\$ - \$ -	
6.4 Rail Occupation Costs (Power Off) - N/A Vline Only 6.5 Rail Occupation Costs (Major) - Vline	0 Note 0 Wkend	1 \$	100,000.00			Note Wkend	\$	100,000.00	\$ - \$ -	
6.6 Track & Ballast 6.7 OHLE (Assume +100m each way)	0 Item 0 TM	\$	1,650.00 550.00			Item TM	\$	1,650.00 550.00	\$ - \$ -	
7 SERVICES 7.1 APA Gas	0 Item	\$	4,400,000.00			Item	\$	4,400,000.00		
7.2 Telstra NBN 7.3 Western Water Sewer	0 Item 0 Item	\$	400,000.00			Item Item	\$	400,000.00 300,000.00	\$ -	
			,		Allowances for service relocation surrounding					
7.4 Services relocation	1 Item	\$	150,000.00 \$	150,000	approach slabs	1 Item	\$	150,000.00	\$ 150,000	
7.5 Increase in Hood Contractor Brailing (201/ x- 201/)	20/ 0/		27 332 267 04	910.071	Allowance for early of and	20/ 0/			\$ 055,670,50	
7.5 Increase in Head Contractor Preliminaries (22% to 25%)	3% %	SUB T	27,332,367.94 \$ OTAL - WORKS \$	819,971 28,152,339	Allowance for scale of project	3% %			\$ 855,679.50 \$ 29,378,330	
8 DELIVERY 8.1 Council Fees	3.25% Item		\$	914,951		3.25% Item			\$ 954,796	
8.2 VicRoads Fees 8.3 Traffic Management	0% Item 5% Item		\$			0% Item 5% Item			\$ - \$ 1,468,916	
8.4 Environmental Management 8.5 Survey & Design	0.5% Item 5% Item		\$			0.5% Item 5% Item			\$ 146,892 \$ 1,468,916	
8.6 Supervision & Project Management	12% Item		\$		Increase due to scale of project	12% Item			\$ 3,525,400	
8.7 Site Establishment 8.8 Contingency	2.5% Item 20% Item		\$	5,630,468		2.5% Item 20% Item			\$ 734,458 \$ 5,875,666	
		SUB TO	TAL - DELIVERY \$	13,583,504					\$ 14,175,044 \$ 43,553,373	
		_								

Sunbury South Bridge 1 (SS-BR-01)	SS-E	R-01 (Lo	ng Option) - ICP	adopted					/Spiire Option B		
Item Description	Quantity Un	App	ox. length 315m Rate		Comments					der @60Lm and 6 S Amount	uper T spans @30Lm each) Comments
WORKS 1 SIEWORKS AND EARTHWORKS 1.1 Pre-construction											
1.1.1 Site preparation 1.1.2 Strip Site Locally	2 Item 0 sq.m	\$ \$	5,500.00 2.75	\$ 11,0	00		2 Item sq.m	\$ \$	5,500.00 2.75		
1.2 Earthworks 1.2.1 Bulk excavation and fill	6,922 cu.m	s	43.20	\$ 299,0	09	Н	35,600 cu.m	\$	43.20		
					EO allowance of encountering rock to 50% of	f					
1.2.2 EO Allowance for rock excavation works 1.2.3 Fill only	3,461 cu.m 0 cu.m	\$ \$	96.80 37.80	\$ 335,0	01 excavated area		cu.m 0 cu.m	\$ \$	96.80 55.00	-	
1.3 Set-Out 1.3.1 Allow for site setout and marking	1 Item	\$	12,500.00	\$ 12,5	00		1 Item	\$	12,500.00		
10 ROADWORKS AND ASSOCIATED INFRASTRUCTURE [Works additional to GHD Long Bridge Option to support Shorter span bridge ie additional ler	ath payomont rot	nining w	alle atel								
10.1 150mm Shotcrete retaining wall with soil nails 10.1.1 Shotcrete and mesh	gui pavement, rei	anning w	ans etc)			Н	0 sq.m		300.00		
10.1.2 Soil nails 10.2 SSP Type Retaining wall							0 Item 0 sq.m		1,000.00 1,500.00	-	
10.3 Guard Rail 10.4 Safety Fencing at top of Cutting						Ш	0 LM 0 LM		100.00 250.00		
10.5 Additional Length Roadway (ICP adopted Bridge length minus Proposed str	ucture length)					Н	75 LM		5,000.00	375,000	
2 STRUCTURE 2.1 Slab & Foundations/Piers/Beams											
					Allow for reinforced single span concrete bridge (Total						
					width 13.5m approx.) 200mm thick deck slab on						
2.1.1 Bridge structure	4,785 sq.m	\$	2,450.00	\$ 11,723,2	top of super 1800mm T 50 Beams		2,430 sq.m	\$	2,450.00	5,953,500	Concrete Spans
2.1.1 Bridge structure							810 sq.m		4,450.00		Steel Span
2.1.2 Elastomeric Bearings 2.1.3 Cast in-situ concrete base slab with footings	0 Item 0 sq.m	\$	1,650.00 550.00				0 Item 0 sq.m	\$ \$	1,650.00 550.00		
											Pier Concrete column 2No. 3000w x 3000d as per
2.1.4 Bridge Columns	1,386 sq.m	\$	3,500.00		Driven piles Approx. 10 per		1,782 cu.m		1,800.00		GHD SS-BR-01
2.1.5 Piles 2.1.6 Pile Cap 2.1.7 Retaining Walls - Wing & Keeper Walls	80 Item 8 Item 0 sq.m	\$ \$ \$	3,584.70 31,950.00 1,100.00	\$ 286,7 \$ 255,6	76 pier 00		60 Item 6 Item 0 sq.m	\$ \$ \$	5,400.00 31,950.00 1,100.00	191,700	
2.1.8 Retaining Walls - Fender Wall 2.1.9 Retaining Walls - Fender Wall	0 Item 0 sq.m	\$	16,500.00 1,120.00				0 Item 0 sq.m	\$ \$	16,500.00 1,120.00	-	
2.1.10 Bridge Deck	0 sq.m	\$	480.00				0 sq.m	\$	480.00		
2.1.11 Constructability	1 Item	\$	2,691,649.26	\$ 2,691,6	Allowance for temporary 49 works due to site conditions		1 Item	\$	3,000,000.00	3,000,000	
2.2 Abutments											
2.2.1 RC Abutment / Crosshead Beam 2.2.2 Anti Sliding Blocks	130 cu.m 10 Item	\$	2,500.00 2,500.00	\$ 25,0	00		129.6 cu.m 8 Item	\$	2,500.00 2,500.00	20,000	
2.2.3 Abutment Walls and Bearings 2.2.4 Bored piles	1 Item 8 Item	\$ \$	9.712.80	\$ 400,0	00 Bored piles behind RC 02 retaining wall		1 Item 8 Item	ş	12,000,00		
2.3 Bridge Containment Barriers 2.3.1 Bridge containment barriers	646 LM	\$	2,850.00		-		480 IM	ş	2,850.00		
2.3.2 Barriers - Medium Containment 2.3.3 Barriers - Armco (off structure)	0 LM 0 LM	\$	1,750.00 110.00	,,-			LM LM	ş s	1,750.00 110.00	-	
2.4 Other 3 ON-BRIDGE WORKS											
3.1 Ashphalt Wearing Course Over Slab											
3.1.1 Asphalt pavement	2,205 sq.m	ş	110.00	\$ 242,5	Road pavement - Traffic lane 50 Allow traffic lane (7m) wide	e.	1,680 sq.m	\$	110.00		
3.1.2 Road pavement under bridge 3.1.3 Cycle track 3.2 Kerb and Channel	0 sq.m 0 sq.m	\$	250.00 1,200.00				0 sq.m 0 sq.m	\$ \$	250.00 : 1,200.00 :		
3.2.1 Kerb and channel 3.3. Footbath	630 LM	\$	75.00	\$ 47,2	50		480 LM	\$	75.00	36,000	
3.3.1 Bridge walkway 3.3.2 Pedestrian footpath	0 sq.m 0 sq.m	\$	1,500.00 155.00				sq.m sq.m	ş ş	1,500.00 155.00		
3.3.3 Shared path 3.4 Lighting On-Bridge	1,575 sq.m	\$		\$ 207,9	00 Shared path overlay total		1,200 sq.m	\$	132.00		
3.4.1 Lighting	11 Item	\$	17,500.00	\$ 192,5	Assumed poles 12m high 00 with luminaries		9 Item	\$	17,500.00		
3.4.2 Allowance for Conduits 3.5 Other	0 LM	\$	16.50				LM	\$	16.50	-	
4 OFF-BRIDGE WORKS 4.1 Approach Slabs 4.1.1 Reinforced concrete slabs (approach slabs)	108 sq.m	s	500.00		00 Assumed 200mm thick		108 sq.m	s	500.00	54.000	
4.1.1 Reinforced concrete slabs (approach slabs) 4.2 Safety Gurad Rail/Barrier 4.2.1 Handrails	0 Item	s	5,000.00	\$ 54,0	OU ASSUMED ZOOMM CHICK		Item	ş	5,000.00	-	
4.2.2 Guard rails 4.2.3 Safety rails	200 LM 0 Item	\$	1,500.00	\$ 300,0	00 Vehicle approach barriers		200 LM	ş s	1,500.00	300,000	
4.3 Drainage 4.3.1 Drainage to bridge	2 Item	\$	150,000.00	\$ 300,0	00 Works to approach slabs		2 Item	\$ \$	150,000.00	300,000	
4.3.2 Drainage to lowered road under 4.3.3 Rock Beaching	0 Item 560 cu.m	\$	100,000.00 100.00	\$ 56,0	00 300mm thick		Item 560 cu.m	\$ \$	100,000.00	56,000	
4.4 Scour Protection 4.5 Other EMECRIANCOUS											
5 MISCELLANEOUS 5.1 Architectural screens / cladding to Piers / Deck 5.2 Anti Throw screnes	630 LM 630 LM	\$	2,000.00 1,650.00				480 LM 480 LM	\$ \$	2,000.00 1,650.00	960,000 792,000	
5.2 Anti Inrow screnes 5.3 Dewatering works	1 Item	\$	250,000.00		Allowance for dewaterinh O works		480 LM 1 Item	\$	250,000.00		
5.4 Melbourne Water Temp Diversion 5.5 Linemarking	0 sq.m 315 LM	\$	32.00				sq.m 240 LM	\$	32.00	7,680	
5.6 Signage 5.7 Occupation costs	0 Item 0 Item	\$	25,000.00 20,000.00	,,			Item Item	\$ \$	25,000.00 20,000.00	-	
5.8 Construction occupation 5.9 Habitat compenstaion fee	0 Item 1 Item	\$	1,035,000.00 88,000.88	\$ 88,0	01 Estimate from DELWP		Item 0 Item	\$ \$	1,035,000.00 88,000.88		Not Considered
6 RAIL RELATED ITEMS 6.1 Occupation costs (minor) 6.2 Construction occupation	0 Item 0 Item	\$ \$	20,000.00				Item Item	ş s	20,000.00		
6.3 Signalling Adjustments	0 Item 0 Item 0 Note	\$	750,000.00				Item Item Note	\$ \$ \$	750,000.00	-	
6.4 Rail Occupation Costs (Power Off) - N/A Vline Only 6.5 Rail Occupation Costs (Major) - Vline 6.6 Track & Ballast	0 Wken 0 Item	d \$	100,000.00 1,650.00				Wkend Item	\$ \$ \$	100,000.00 1,650.00	-	
6.7 OHLE (Assume +100m each way) 7 SERVICES	0 TM	\$	550.00				TM	\$	550.00	-	
7.1 APA Gas 7.2 Telstra NBN	0 Item 0 Item	\$ \$	4,400,000.00 400,000.00				Item Item	\$ \$	4,400,000.00 400,000.00	-	
7.3 Western Water Sewer	0 Item	\$	300,000.00		Allowances for service		Item	\$	300,000.00	-	
7.4 Services relocation	1 Item	\$	150,000.00	\$ 150,0	relocation surrounding 00 approach slabs		1 Item	\$	150,000.00	150,000	
7.5 Increase in Head Contractor Proliminarios (23% to 25%)	3% %		27,332,367.94	\$ 010.0	Allowance for scale of		3% %			714.963.00	
7.5 Increase in Head Contractor Preliminaries (22% to 25%) 8 DELIVERY	376 %		27,332,367.94 OTAL - WORKS		71 project 39	\parallel	376 %				
8.1 Council Fees 8.2 VicRoads Fees	3.25% Item 0% Item			\$ 914,9	51		3.25% Item 0% Item				
8.3 Traffic Management 8.4 Environmental Management	5% Item 0.5% Item			\$ 1,407,6 \$ 140,7	62		5% Item 0.5% Item			1,227,353 122,735	
8.5 Survey & Design	5% Item			\$ 1,407,6	Increase due to scale of		5% Item				
8.6 Supervision & Project Management 8.7 Site Establishment 8.8 Contingency	12% Item 2.5% Item			\$ 703,8			12% Item 2.5% Item 20% Item			613,677	
8.8 Contingency	20% Item	SUB TO	AL - DELIVERY TOTAL		04		20% Item			4,909,413 11,843,958 36,391,021	
			TOTAL	\$ 41,735,8	M3	- 1				50,391,021	

USER REPORT FOR SITE

Project: 210209-V198070-Sunbury Growth ICP Modelling_Ultimate Scenario - SS03 - for VPA

Site: 105 [SS-IN-03-AM Peak - 100% (Option 2a) - PSP Ultimate Design (GHD) - Base]

Template: GTA Appendix Site

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site Practical Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

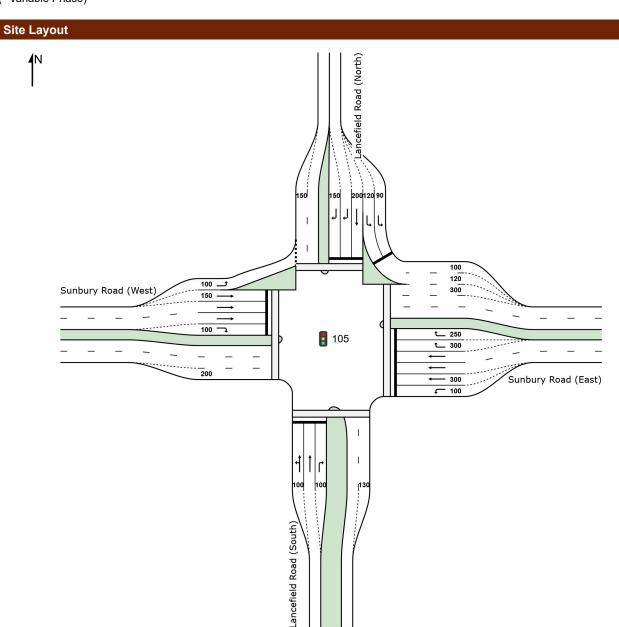
Phase Sequence: Variable Phasing

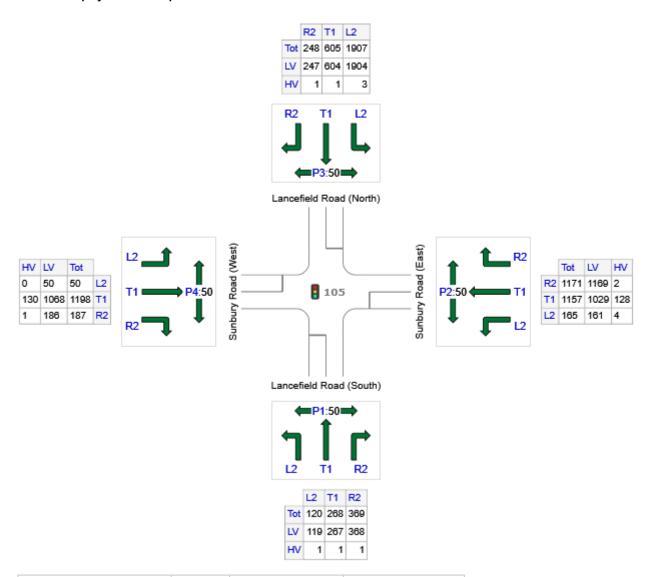
Reference Phase: Phase C

Input Phase Sequence: A, D2, B, B1*, B2*, C, D1

Output Phase Sequence: D2, B, C, D1

(* Variable Phase)



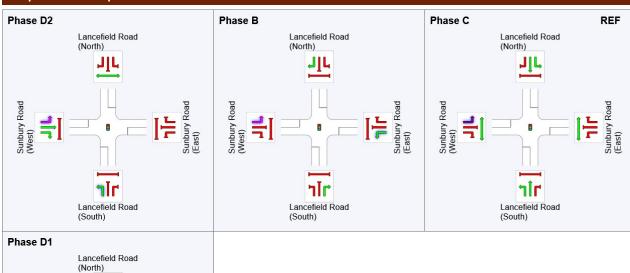


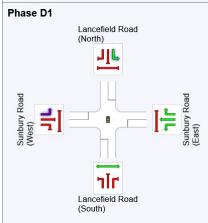
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	757	754	3
E: Sunbury Road (East)	2493	2359	134
N: Lancefield Road (North)	2760	2755	5
W: Sunbury Road (West)	1435	1304	131
Total	7445	7172	273

Phase	D2	В	С	D1
Phase Change Time (sec)	86	114	0	44
Green Time (sec)	22	20	38	36
Phase Time (sec)	28	26	44	42
Phase Split	20%	19%	31%	30%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





REF: Reference Phase VAR: Variable Phase



Lane Use a	nd Per	forma	ince										
		mand	Can	Deg.		Average	Level of	95% Back	of Queue	Lane	Lane		Prob.
	Total	Flows HV	Cap.	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h		veh/h	v/c	%	sec			m		m	%	%
South: Lance	field Ro	ad (So	outh)										
Lane 1	193	0.7	553	0.348	94 ⁶	34.9	LOS C	7.4	52.3	Short	100	0.0	NA
Lane 2	195	0.4	528	0.370	100	44.2	LOS D	10.7	75.4	Full	500	0.0	4.6 ⁸
Lane 3	369	0.3	265	1.394	100	423.0	LOS F	71.0	498.0	Short	100	0.0	NA
Approach	757	0.4		1.394		226.5	LOS F	71.0	498.0				
East: Sunbur	y Road	(East)											
Lane 1	165	2.4	730	0.226	100	21.1	LOS C	4.4	31.5	Short	100	0.0	NA
Lane 2	374	11.1	446 ¹	0.837	100	58.7	LOS E	25.8	197.9	Short	300	0.0	NA
Lane 3	392	11.1	468	0.837	100	59.0	LOS E	27.3	209.2	Full	500	0.0	0.0
Lane 4	392	11.1	468	0.837	100	59.0	LOS E	27.3	209.2	Full	500	0.0	42.3 ⁸
Lane 5	553	0.2	477	1.159	89 ⁶	223.4	LOS F	77.1	540.2	Short	300	0.0	NA
Lane 6	618	0.2	477	1.296	100	337.6	LOS F	107.2	751.4	Short	250	0.0	NA
Approach	2493	5.4		1.296		162.0	LOS F	107.2	751.4				
North: Lance	field Ro	ad (No	,										
Lane 1	800	0.2	652 ¹		86 ⁶	277.2	LOS F	132.3	927.2	Short	90	0.0	NA
Lane 2	1107	0.2	774 ¹		100	451.1	LOS F	230.3	1614.4	Short	120	0.0	NA
Lane 3	605	0.2	471 ¹	1.286	100	323.7	LOS F	103.7	727.1	Short	200	0.0	NA
Lane 4	124	0.4	265	0.469	100	66.0	LOS E	7.9	55.6	Full	500	0.0	100.0 ⁸
Lane 5	124	0.4	265	0.469	100	66.0	LOS E	7.9	55.6	Short	150	0.0	NA
Approach	2760	0.2		1.430		338.1	LOS F	230.3	1614.4				
West: Sunbu	ry Road	(West	t)										
Lane 1	50	0.0	1032	0.048	100	16.8	LOS B	1.3	9.3	Short	100	0.0	NA
Lane 2	399	10.9	286	1.395	100	418.8	LOS F	77.1	589.6	Short	150	0.0	NA
Lane 3	399	10.9	286	1.395	100	418.8	LOS F	77.1	589.6	Full	500	0.0	<mark>19.9</mark>
Lane 4	399	10.9	286	1.395	100	418.8	LOS F	77.1	589.6	Full	500	0.0	<mark>19.9</mark>
Lane 5	187	0.5	291	0.643	100	66.2	LOS E	12.2	85.7	Short	100	0.0	NA
Approach	1435	9.1		1.395		358.8	LOS F	77.1	589.6				
Intersectio n	7445	3.7		1.430		271.8	LOS F	230.3	1614.4				

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

- 1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
- 6 Lane under-utilisation due to downstream effects
- 8 Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

Site: 105 [SS-IN-03-PM Peak - 100% (Option 2a) - PSP Ultimate Design (GHD) - Base]

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site Practical Cycle Time) Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

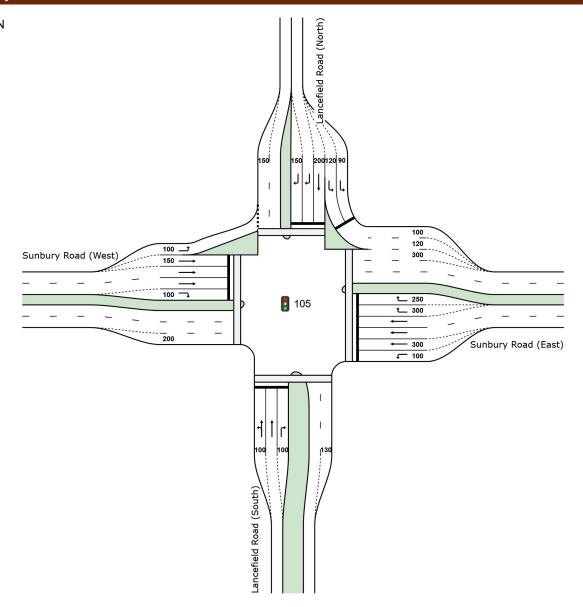
Phase Times determined by the program

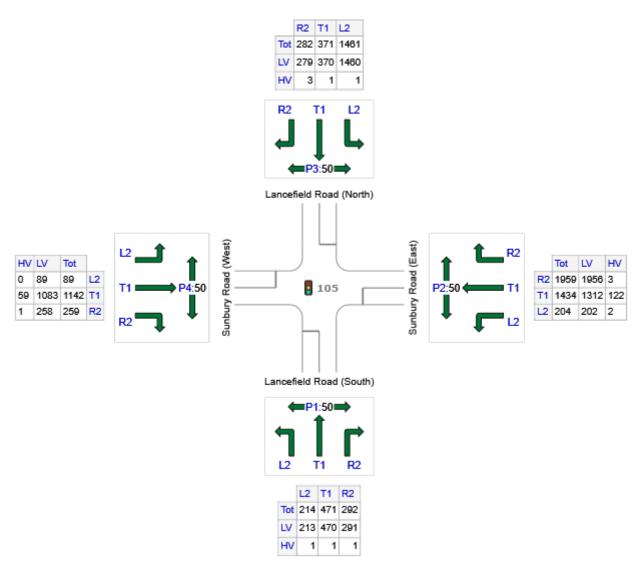
Phase Sequence: Variable Phasing
Reference Phase: Phase C
Input Phase Sequence: A, D2, B, B1*, B2*, C, D1

Output Phase Sequence: D2, B, C, D1

(* Variable Phase)

Site Layout



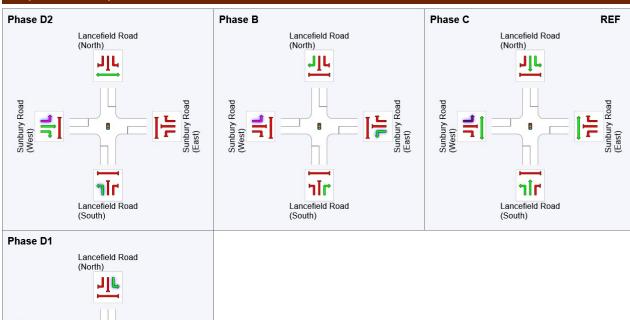


	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	977	974	3
E: Sunbury Road (East)	3597	3470	127
N: Lancefield Road (North)	2114	2109	5
W: Sunbury Road (West)	1490	1430	60
Total	8178	7983	195

Phase	D2	В	С	D1
Phase Change Time (sec)	96	120	0	38
Green Time (sec)	18	14	32	52
Phase Time (sec)	24	20	38	58
Phase Split	17%	14%	27%	41%

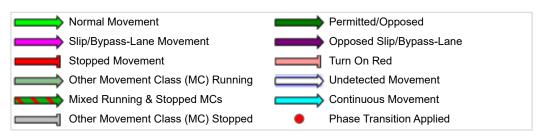
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase

Lancefield Road (South)



Lane Use a	nd Perf	forma	nce										
		mand	Can	Deg.		Average	Level of	95% Back	of Queue	Lane	Lane		Prob.
	Total	lows HV	Сар.	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h		veh/h	v/c	%	sec			m		m	%	%
South: Lance	efield Ro	ad (So	outh)										
Lane 1	343	0.4	473	0.724	94 ⁶	53.2	LOS D	18.7	131.4	Short	100	0.0	NA
Lane 2	342	0.2	445	0.769	100	56.4	LOS E	22.5	157.9	Full	500	0.0	0.0
Lane 3	292	0.3	185	1.576	100	581.2	LOS F	65.7	460.9	Short	100	0.0	NA
Approach	977	0.3		1.576		212.1	LOS F	65.7	460.9				
East: Sunbur	ry Road ((East)											
Lane 1	204	1.0	869	0.235	100	17.9	LOS B	4.9	34.3	Short	100	0.0	NA
Lane 2	425	8.5	577 ¹	0.735	100	38.3	LOS D	23.5	176.2	Short	300	0.0	NA
Lane 3	505	8.5	686	0.735	100	40.6	LOS D	29.6	222.2	Full	500	0.0	0.0
Lane 4	505	8.5	686	0.735	100	40.6	LOS D	29.6	222.2	Full	500	0.0	100.0 ⁸
Lane 5	925	0.2	689	1.342	89 ⁶	374.8	LOS F	171.8	1203.9	Short	300	0.0	NA
Lane 6	1034	0.2	689	1.501	100	513.6	LOS F	223.8	1568.9	Short	250	0.0	NA
Approach	3597	3.5		1.501		260.9	LOS F	223.8	1568.9				
North: Lance	field Roa	ad (No	, ,										
Lane 1	694	0.1	849 ¹	0.818	86 ⁶	21.8	LOS C	27.2	190.6	Short	90	0.0	NA
Lane 2	767	0.1	805 ¹	0.952	100	57.1	LOS E	49.5	346.7	Short	120	0.0	NA
Lane 3	371	0.3	445	0.834	100	60.9	LOS E	25.9	181.6	Short	200	0.0	NA
Lane 4	141	1.1	184	0.765	100	76.7	LOS E	10.0	70.8	Full	500	0.0	0.0
Lane 5	141	1.1	184	0.765	100	76.7	LOS E	10.0	70.8	Short	150	0.0	NA
Approach	2114	0.2		0.952		48.8	LOS D	49.5	346.7				
West: Sunbu	ry Road	(West	:)										
Lane 1	89	0.0	709	0.126	100	32.9	LOS C	3.8	26.5	Short	100	0.0	NA
Lane 2	381	5.2	243	1.569	100	569.7	LOS F	85.2	623.1	Short	150	0.0	NA
Lane 3	381	5.2	243	1.569	100	569.7	LOS F	85.2	623.1	Full	500	0.0	<mark>25.0</mark> 8
Lane 4	381	5.2	243	1.569	100	569.7	LOS F	85.2	623.1	Full	500	0.0	<mark>25.0</mark>
Lane 5	259	0.4	238	1.088	100	171.4	LOS F	30.2	212.1	Short	100	0.0	NA
Approach	1490	4.0		1.569		468.4	LOS F	85.2	623.1				
Intersectio n	8178	2.4		1.576		238.1	LOS F	223.8	1568.9				

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

- 1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
- 6 Lane under-utilisation due to downstream effects
- 8 Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

Site: 105 [SS-IN-03-AM Peak - 100% (Option 2a) - PSP Ultimate Design (GHD) - Base - GTA updates - 3 lanes]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

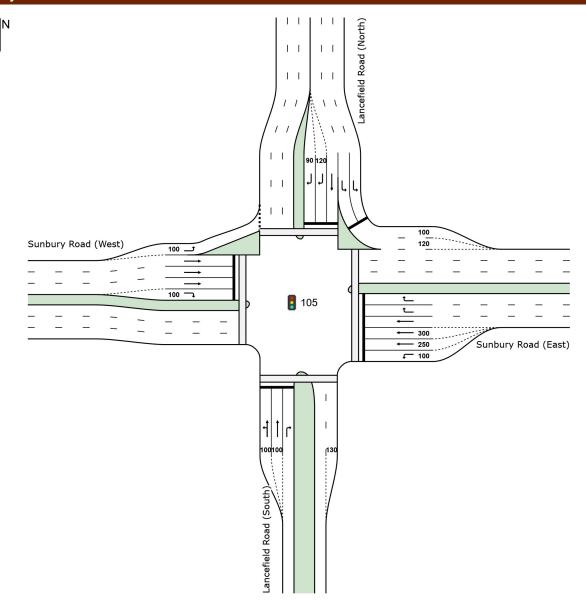
Phase Sequence: Variable Phasing Reference Phase: Phase C

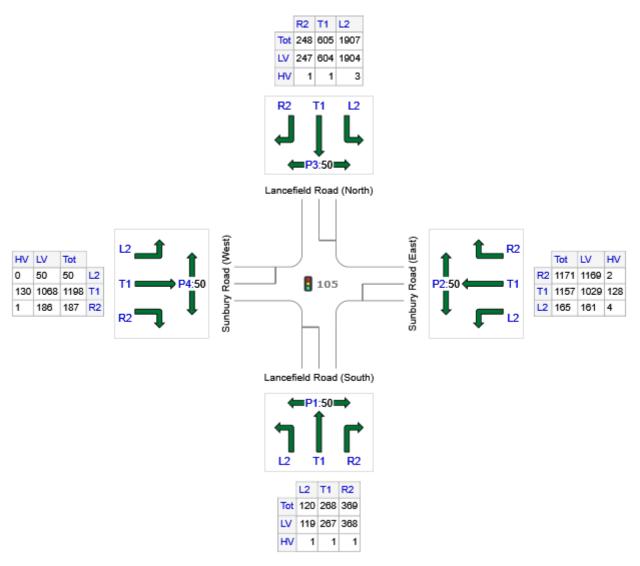
Input Phase Sequence: A, D2, B, B1*, B2*, C, D1

Output Phase Sequence: A, D2, B, C, D1

(* Variable Phase)

Site Layout





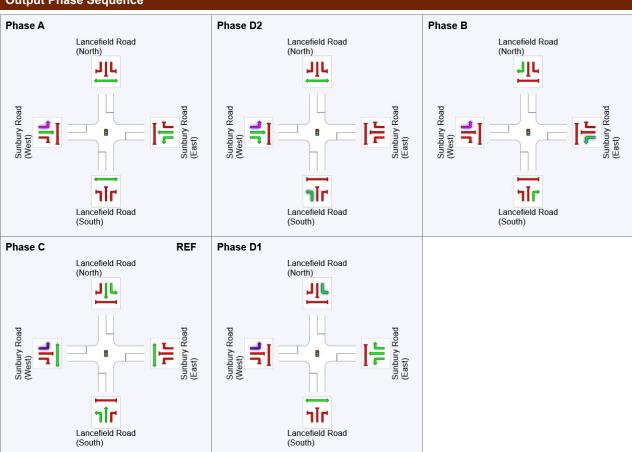
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	757	754	3
E: Sunbury Road (East)	2493	2359	134
N: Lancefield Road (North)	2760	2755	5
W: Sunbury Road (West)	1435	1304	131
Total	7445	7172	273

Phase	Α	D2	В	С	D1
Phase Change Time (sec)	82	87	112	0	41
Green Time (sec)	***	19	22	35	35
Phase Time (sec)	5	25	28	41	41
Phase Split	4%	18%	20%	29%	29%

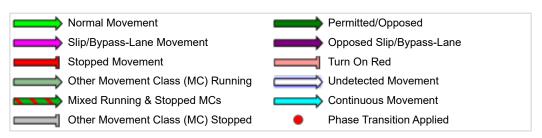
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

*** No green time has been calculated for this phase because the next phase starts during its intergreen time. This occurs with overlap phasing where there is no single movement connecting this phase to the next, or where the only such movement is a dummy movement with zero minimum green time specified. If a green time is required for this phase, specify a dummy movement with a non-zero minimum green time.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase



Lane Use a	Lane Use and Performance												
		mand	Can		Lane	Average	Level of	95% Back o	of Queue	Lane	Lane		Prob.
	Total	Flows HV	Сар.	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h		veh/h	v/c	%	sec		V 0.11	m		m	%	%
South: Lance	field Ro	ad (Sc	outh)										
Lane 1	199	0.7	510	0.389	100	39.5	LOS D	8.4	59.0	Short	100	0.0	NA
Lane 2	189	0.4	486	0.389	100	46.8	LOS D	10.7	75.2	Short	100	0.0	NA
Lane 3	369	0.3	291	1.267	100	314.9	LOS F	60.8	426.3	Full	500	0.0	0.0
Approach	757	0.4		1.267		175.6	LOS F	60.8	426.3				
East: Sunbur	y Road	(East)											
Lane 1	165	2.4	808	0.204	100	19.0	LOS B	4.1	29.5	Short	100	0.0	NA
Lane 2	382	11.1	512 ¹	0.746	100	49.2	LOS D	23.8	182.3	Short	250	0.0	NA
Lane 3	387	11.1	520	0.746	100	49.3	LOS D	24.2	185.5	Short	300	0.0	NA
Lane 4	387	11.1	520	0.746	100	49.3	LOS D	24.2	185.5	Full	500	0.0	0.0
Lane 5	586	0.2	464	1.263	100	309.5	LOS F	96.9	679.3	Full	500	0.0	<mark>32.9</mark>
Lane 6	586	0.2	464	1.263	100	309.5	LOS F	96.9	679.3	Full	500	0.0	<mark>32.9</mark>
Approach	2493	5.4		1.263		169.5	LOS F	96.9	679.3				
North: Lance	field Ro	ad (No	rth)										
Lane 1	881	0.2	1007	0.875	86 ⁶	39.8	LOS D	55.2	386.8	Full	500	0.0	0.0
Lane 2	1026	0.2	1007	1.019	100	101.4	LOS F	105.2	737.5	Full	500	0.0	<mark>40.5</mark>
Lane 3	605	0.2	479 ¹	1.264	100	304.5	LOS F	100.2	702.1	Full	500	0.0	<mark>36.0</mark>
Lane 4	124	0.4	291	0.426	100	63.8	LOS E	7.8	54.5	Short	120	0.0	NA
Lane 5	124	0.4	291	0.426	100	63.8	LOS E	7.8	54.5	Short	90	0.0	NA
Approach	2760	0.2		1.264		122.9	LOS F	105.2	737.5				
West: Sunbu	ry Road	(West	t)										
Lane 1	50	0.0	1040	0.048	100	16.5	LOS B	1.3	9.2	Short	100	0.0	NA
Lane 2	399	10.9	312	1.279	100	319.4	LOS F	67.1	513.0	Full	500	0.0	<mark>7.3</mark>
Lane 3	399	10.9	312	1.279	100	319.4	LOS F	67.1	513.0	Full	500	0.0	<mark>7.3</mark>
Lane 4	399	10.9	312	1.279	100	319.4	LOS F	67.1	513.0	Full	500	0.0	<mark>7.3</mark>
Lane 5	187	0.5	251	0.745	100	71.6	LOS E	12.9	90.6	Short	100	0.0	NA
Approach	1435	9.1		1.279		276.5	LOS F	67.1	513.0				
Intersectio n	7445	3.7		1.279		173.5	LOS F	105.2	737.5				

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Site: 105 [SS-IN-03-PM Peak - 100% (Option 2a) - PSP Ultimate Design (GHD) - Base - GTA Updates - 3 lanes]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog

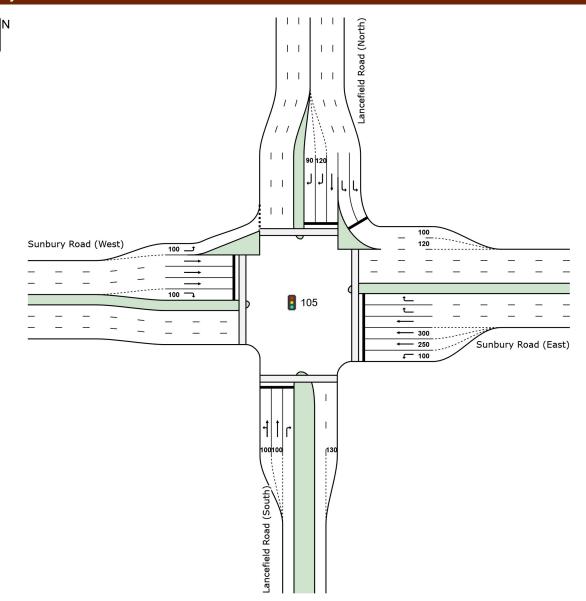
Phase Times determined by the program

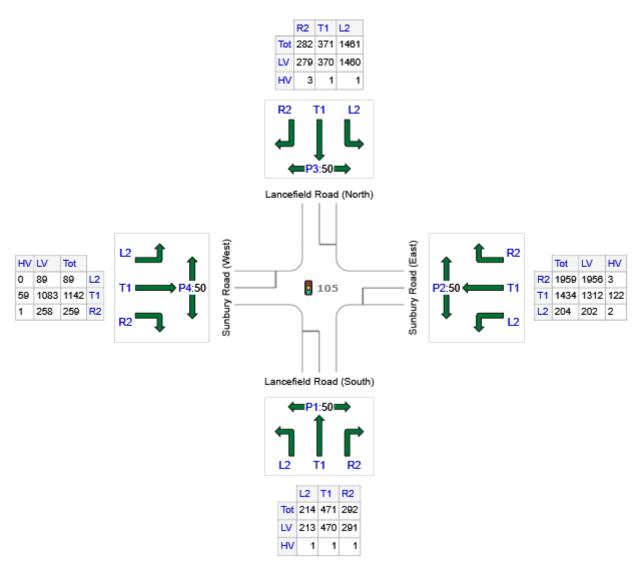
Phase Sequence: Variable Phasing Reference Phase: Phase C

Input Phase Sequence: A, D2, B, B1*, B2*, C, D1 Output Phase Sequence: D2, B, B2*, C, D1

(* Variable Phase)

Site Layout





	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	977	974	3
E: Sunbury Road (East)	3597	3470	127
N: Lancefield Road (North)	2114	2109	5
W: Sunbury Road (West)	1490	1430	60
Total	8178	7983	195

Phase	D2	В	B2	С	D1
Phase Change Time (sec)	93	119	139	0	38
Green Time (sec)	20	14	***	32	49
Phase Time (sec)	26	20	1	38	55
Phase Split	19%	14%	1%	27%	39%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

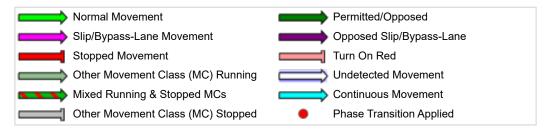
*** No green time has been calculated for this phase because the next phase starts during its intergreen time. This occurs with overlap phasing where there is no single movement connecting this phase to the next, or where the only such movement is a dummy movement with zero minimum green time specified. If a green time is required for this phase, specify a dummy movement with a non-zero minimum green time.

Output Phase Sequence Phase D2 Phase B Phase B2 VAR Lancefield Road Lancefield Road Lancefield Road (North) (North) Lancefield Road Lancefield Road Lancefield Road (South) (South) (South) Phase C REF Phase D1 Lancefield Road Lancefield Road (North) (North) Lancefield Road Lancefield Road

(South)

REF: Reference Phase VAR: Variable Phase

(South)



Lane Use a	Lane Use and Performance												
		nand	Can		Lane	Average	Level of	95% Back	of Queue	Lane	Lane		Prob.
	F Total	lows HV	Сар.	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h		veh/h	v/c	%	sec		VOIT	m		m	%	%
South: Lance	efield Ro	ad (Sc	outh)										
Lane 1	352	0.4	485	0.726	100	52.7	LOS D	19.4	136.1	Short	100	0.0	NA
Lane 2	333	0.2	459	0.726	100	53.6	LOS D	21.1	148.3	Short	100	0.0	NA
Lane 3	292	0.3	198	1.471	100	490.0	LOS F	60.4	424.0	Full	500	0.0	0.0
Approach	977	0.3		1.471		183.7	LOS F	60.4	424.0				
East: Sunbur	y Road ((East)											
Lane 1	204	1.0	843	0.242	100	18.4	LOS B	4.9	34.4	Short	100	0.0	NA
Lane 2	427	8.5	548 ¹	0.779	100	42.9	LOS D	25.2	189.1	Short	250	0.0	NA
Lane 3	504	8.5	647	0.779	100	44.2	LOS D	30.9	231.9	Short	300	0.0	NA
Lane 4	504	8.5	647	0.779	100	44.2	LOS D	30.9	231.9	Full	500	0.0	0.0
Lane 5	980	0.2	649	1.509	100	520.9	LOS F	213.0	1493.2	Full	500	0.0	100.0
Lane 6	980	0.2	649	1.509	100	520.9	LOS F	213.0	1493.2	Full	500	0.0	100.0
Approach	3597	3.5		1.509		302.2	LOS F	213.0	1493.2				
North: Lance	field Roa	ad (No	rth)										
Lane 1	675	0.1	1154	0.585	86 ⁶	22.2	LOS C	26.9	188.1	Full	500	0.0	0.0
Lane 2	786	0.1	1154	0.681	100	24.0	LOS C	34.6	242.0	Full	500	0.0	0.0
Lane 3	371	0.3	445	0.834	100	60.9	LOS E	25.9	181.6	Full	500	0.0	0.0
Lane 4	141	1.1	184	0.765	100	76.7	LOS E	10.0	70.8	Short	120	0.0	NA
Lane 5	141	1.1	184	0.765	100	76.7	LOS E	10.0	70.8	Short	90	0.0	NA
Approach	2114	0.2		0.834		36.9	LOS D	34.6	242.0				
West: Sunbu	ry Road	(West	t)										
Lane 1	89	0.0	746	0.119	100	30.3	LOS C	3.6	25.2	Short	100	0.0	NA
Lane 2	381	5.2	270	1.412	100	433.5	LOS F	74.6	545.5	Full	500	0.0	<mark>12.9</mark>
Lane 3	381	5.2	270	1.412	100	433.5	LOS F	74.6	545.5	Full	500	0.0	<mark>12.9</mark>
Lane 4	381	5.2	270	1.412	100	433.5	LOS F	74.6	545.5	Full	500	0.0	12.9
Lane 5	259	0.4	265	0.979	100	106.0	LOS F	23.2	162.7	Short	100	0.0	NA
Approach	1490	4.0		1.412		352.5	LOS F	74.6	545.5				
Intersectio n	8178	2.4		1.509		228.6	LOS F	213.0	1493.2				

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Site: 105 [SS-IN-03-AM Peak - 100% (Option 2a) - Scenario 1 - GTA]

New Site

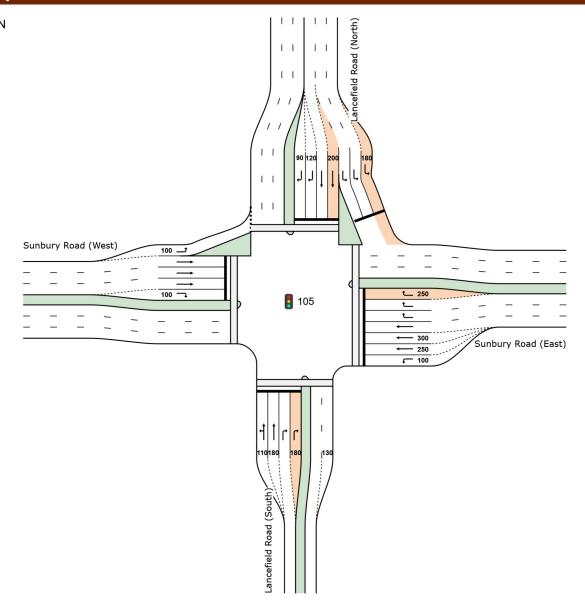
Site Category: (None)

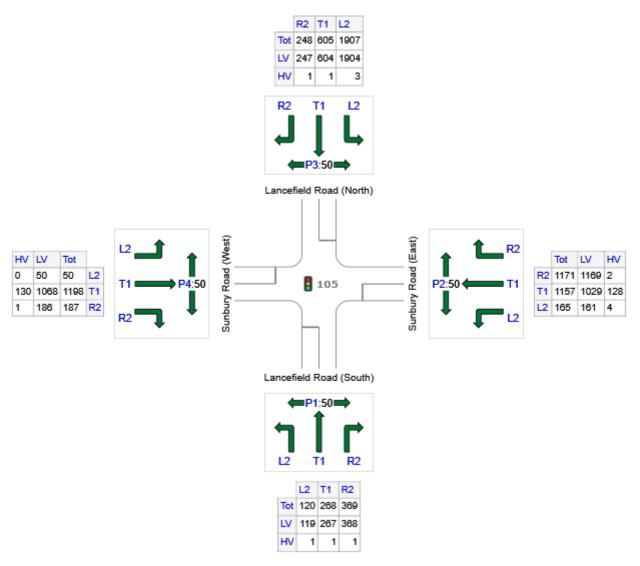
Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Phase Sequence: Variable Phasing Reference Phase: Phase C Input Phase Sequence: A, D2, B, B1*, B2*, C, D1 Output Phase Sequence: A, D2, B, C, D1

(* Variable Phase)

Site Layout



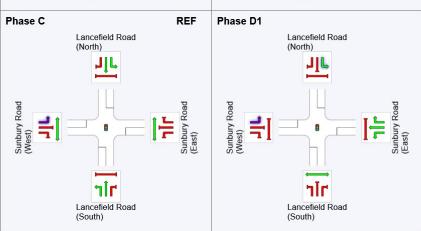


	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	757	754	3
E: Sunbury Road (East)	2493	2359	134
N: Lancefield Road (North)	2760	2755	5
W: Sunbury Road (West)	1435	1304	131
Total	7445	7172	273

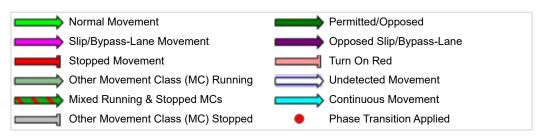
Phase	Α	D2	В	С	D1
Phase Change Time (sec)	76	89	118	0	36
Green Time (sec)	7	23	16	30	34
Phase Time (sec)	13	29	22	36	40
Phase Split	9%	21%	16%	26%	29%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Phase A Phase B Lancefield Road (North) Peoul Lancefield Road (North) Lancefield Road (South) Phase B Lancefield Road (North) Lancefield Road (South)



REF: Reference Phase VAR: Variable Phase



Lane Use and Performance													
		mand	Cap.	Deg.	Lane	Average	Level of	95% Back o	f Queue	Lane	Lane	Сар.	Prob.
	Total	Flows HV	Сар.	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: Lance	efield Ro		outh)										
Lane 1	200	0.6		0.452	100	45.3	LOS D	9.1	63.9	Short	110	0.0	NA
Lane 2	188	0.4	417	0.452	100	51.6	LOS D	11.2	78.7	Short	180	0.0	NA
Lane 3	185	0.3	212	0.871	100	81.9	LOS F	13.9	97.5	Full	500	0.0	0.0
Lane 4	185	0.3	212	0.871	100	81.9	LOS F	13.9	97.5	Short	180	0.0	NA
Approach	757	0.4		0.871		64.7	LOS E	13.9	97.5				
East: Sunbur	y Road	(East)											
Lane 1	165	2.4	822	0.201	100	18.3	LOS B	3.7	26.3	Short	100	0.0	NA
Lane 2	386	11.1	611	0.631	100	42.0	LOS D	22.1	169.2	Short	250	0.0	NA
Lane 3	386	11.1	611	0.631	100	42.0	LOS D	22.1	169.2	Short	300	0.0	NA
Lane 4	386	11.1	611	0.631	100	42.0	LOS D	22.1	169.2	Full	500	0.0	0.0
Lane 5	390	0.2	450	0.866	100	69.3	LOS E	28.3	198.7	Full	500	0.0	0.0
Lane 6	390	0.2	450	0.866	100	69.3	LOS E	28.3	198.7	Full	500	0.0	0.0
Lane 7	390	0.2	450	0.866	100	69.3	LOS E	28.3	198.7	Short	250	0.0	NA
Approach	2493	5.4		0.866		53.2	LOS D	28.3	198.7				
North: Lance	field Ro	ad (No	rth)										
Lane 1	636	0.2	928	0.685	100	33.8	LOS C	32.5	228.0	Short	180	0.0	NA
Lane 2	636	0.2	928	0.685	100	33.8	LOS C	32.5	228.0	Full	500	0.0	0.0
Lane 3	636	0.2	928	0.685	100	33.8	LOS C	32.5	228.0	Full	500	0.0	0.0
Lane 4	271	0.2	417	0.650	81 ⁶	54.3	LOS D	17.0	119.2	Short	200	0.0	NA
Lane 5	334	0.2	417	0.799	100	59.7	LOS E	22.7	158.9	Full	500	0.0	0.0
Lane 6	124	0.4	212	0.586	100	70.7	LOS E	8.3	58.1	Short	120	0.0	NA
Lane 7	124	0.4	212	0.586	100	70.7	LOS E	8.3	58.1	Short	90	0.0	NA
Approach	2760	0.2		0.799		42.3	LOS D	32.5	228.0				
West: Sunbu	ry Road	(West	:)										
Lane 1	50	0.0	1099	0.046	100	14.2	LOS B	1.2	8.1	Short	100	0.0	NA
Lane 2	403	10.9	461 ¹	0.875	100	63.6	LOS E	29.4	225.2	Full	500	0.0	0.0
Lane 3	410	10.9	468	0.875	100	63.7	LOS E	30.0	229.7	Full	500	0.0	0.0
Lane 4	386	10.9	441 ¹	0.875	100	63.4	LOS E	28.0	214.2	Full	500	0.0	0.0
Lane 5	187	0.5	304	0.615	100	65.0	LOS E	12.1	84.8	Short	100	0.0	NA
Approach	1435	9.1		0.875		62.0	LOS E	30.0	229.7				
Intersectio n	7445	3.7		0.875		52.0	LOS D	32.5	229.7				

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Site: 105 [SS-IN-03-PM Peak - 100% (Option 2a) - Scenario 1 - GTA]

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site Practical Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

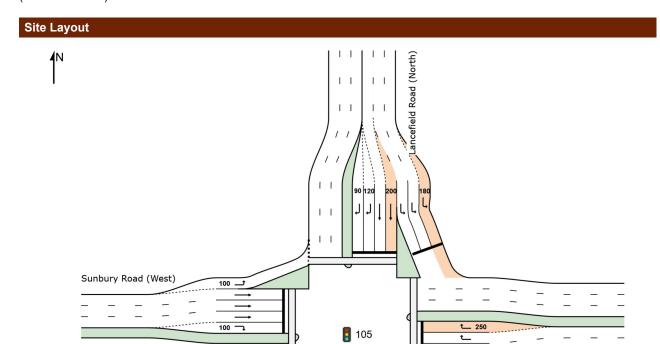
Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Variable Phasing
Reference Phase: Phase C
Input Phase Sequence: A, D2, B, B1*, B2*, C, D1

Output Phase Sequence: A, D2, B, C, D1

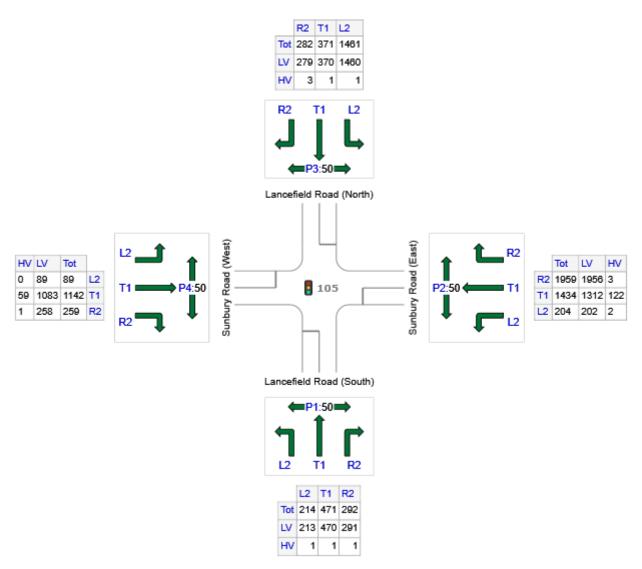
(* Variable Phase)



Lancefield Road (South)

- 300

- 250 **_** 100 Sunbury Road (East)



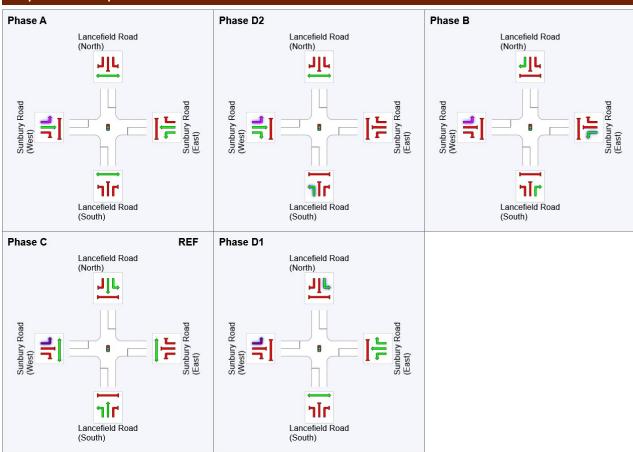
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	977	974	3
E: Sunbury Road (East)	3597	3470	127
N: Lancefield Road (North)	2114	2109	5
W: Sunbury Road (West)	1490	1430	60
Total	8178	7983	195

Phase	Α	D2	В	С	D1
Phase Change Time (sec)	89	92	123	0	36
Green Time (sec)	***	25	11	30	47
Phase Time (sec)	3	31	17	36	53
Phase Split	2%	22%	12%	26%	38%

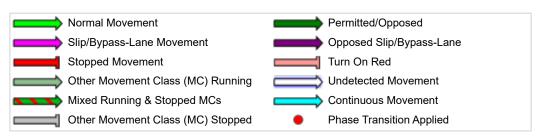
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

*** No green time has been calculated for this phase because the next phase starts during its intergreen time. This occurs with overlap phasing where there is no single movement connecting this phase to the next, or where the only such movement is a dummy movement with zero minimum green time specified. If a green time is required for this phase, specify a dummy movement with a non-zero minimum green time.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase



Lane Use a	Lane Use and Performance												
		nand	Cara	Deg.	Lane	Average	Level of	95% Back	of Queue	Lane	Lane	Сар.	Prob.
	F Total	lows HV	Сар.	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h		veh/h	v/c	%	sec		Veli	m		m	%	%
South: Lance	field Ro	ad (Sc	outh)										
Lane 1	353	0.4	444	0.795	100	58.4	LOS E	21.1	148.0	Short	110	0.0	NA
Lane 2	332	0.2	417	0.795	100	59.5	LOS E	22.5	157.6	Short	180	0.0	NA
Lane 3	146	0.3	146	1.003	100	119.0	LOS F	13.5	94.9	Full	500	0.0	0.0
Lane 4	146	0.3	146	1.003	100	119.0	LOS F	13.5	94.9	Short	180	0.0	NA
Approach	977	0.3		1.003		76.9	LOS E	22.5	157.6				
East: Sunbur	y Road ((East)											
Lane 1	204	1.0	804	0.254	100	19.3	LOS B	4.6	32.8	Short	100	0.0	NA
Lane 2	426	8.5	557 ¹	0.764	100	41.1	LOS D	24.5	183.9	Short	250	0.0	NA
Lane 3	504	8.5	660	0.764	100	42.5	LOS D	30.3	227.2	Short	300	0.0	NA
Lane 4	504	8.5	660	0.764	100	42.5	LOS D	30.3	227.2	Full	500	0.0	0.0
Lane 5	653	0.2	623	1.049	100	135.7	LOS F	71.9	503.6	Full	500	0.0	5.7
Lane 6	653	0.2	623	1.049	100	135.7	LOS F	71.9	503.6	Full	500	0.0	<mark>5.7</mark> 8
Lane 7	653	0.2	623	1.049	100	135.7	LOS F	71.9	503.6	Short	250	0.0	NA
Approach	3597	3.5		1.049		91.8	LOS F	71.9	503.6				
North: Lancet	field Roa	ad (No	rth)										
Lane 1	487	0.1	1100	0.443	100	22.2	LOS C	18.0	125.9	Short	180	0.0	NA
Lane 2	487	0.1	1100	0.443	100	22.2	LOS C	18.0	125.9	Full	500	0.0	0.0
Lane 3	487	0.1	1100	0.443	100	22.2	LOS C	18.0	125.9	Full	500	0.0	0.0
Lane 4	166	0.3	417	0.399	81 ⁶	50.9	LOS D	9.8	68.6	Short	200	0.0	NA
Lane 5	205	0.3	417	0.490	100	52.1	LOS D	12.3	86.3	Full	500	0.0	0.0
Lane 6	141	1.1	145	0.974	100	105.8	LOS F	12.2	86.3	Short	120	0.0	NA
Lane 7	141	1.1	145	0.974	100	105.8	LOS F	12.2	86.3	Short	90	0.0	NA
Approach	2114	0.2		0.974		38.5	LOS D	18.0	125.9				
West: Sunbur	ry Road	(West	.)										
Lane 1	89	0.0	785	0.113	100	29.1	LOS C	3.5	24.7	Short	100	0.0	NA
Lane 2	381	5.2	372 ¹	1.023	100	120.6	LOS F	38.5	281.1	Full	500	0.0	0.0
Lane 3	386	5.2	377	1.023	100	120.4	LOS F	38.9	284.6	Full	500	0.0	0.0
Lane 4	375	5.2	367 ¹	1.023	100	120.9	LOS F	37.9	277.1	Full	500	0.0	0.0
Lane 5	259	0.4	331	0.783	100	68.6	LOS E	17.8	125.0	Short	100	0.0	NA
Approach	1490	4.0		1.023		106.1	LOS F	38.9	284.6				
Intersectio	8178	2.4		1.049		78.9	LOS E	71.9	503.6				
n													

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

- 1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
- 6 Lane under-utilisation due to downstream effects
- 8 Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

Site: 105 [SS-IN-03-AM Peak - 100% (Option 2a) - Scenario 2a- GTA - East approach RT]

New Site

Site Category: (None)

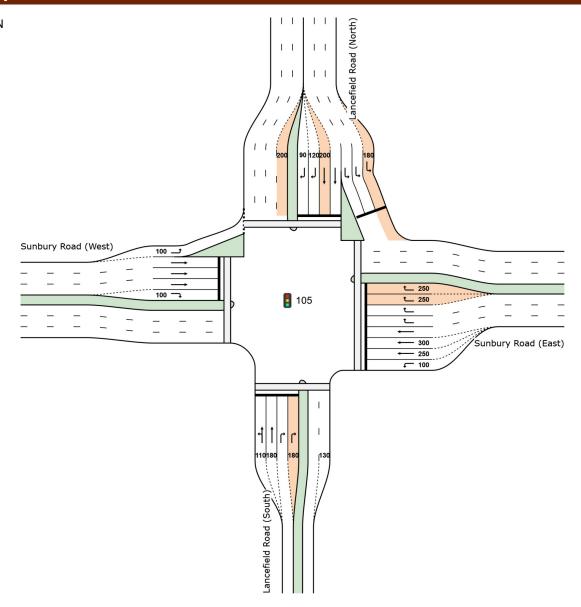
Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site Practical Cycle Time)

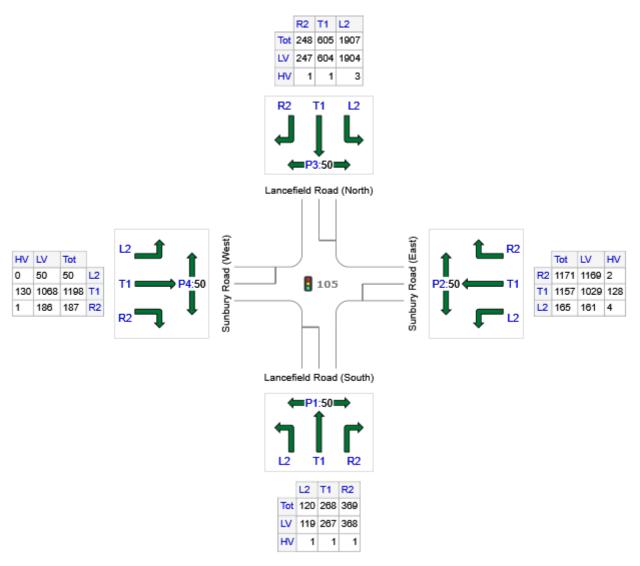
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Phase Sequence: Variable Phasing Reference Phase: Phase C Input Phase Sequence: A, D2, B, B1*, B2*, C, D1 Output Phase Sequence: A, D2, B, C, D1

(* Variable Phase)

Site Layout





	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	757	754	3
E: Sunbury Road (East)	2493	2359	134
N: Lancefield Road (North)	2760	2755	5
W: Sunbury Road (West)	1435	1304	131
Total	7445	7172	273

Phase	Α	D2	В	С	D1
Phase Change Time (sec)	64	77	100	0	36
Green Time (sec)	7	17	14	30	22
Phase Time (sec)	13	23	20	36	28
Phase Split	11%	19%	17%	30%	23%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence Phase A Phase D2 Phase B Lancefield Road (North) Lancefield Road (North) Lancefield Road (North) זור Lancefield Road Lancefield Road Lancefield Road (South) (South) (South) Phase C REF Phase D1 Lancefield Road (North) Lancefield Road (North)

זור

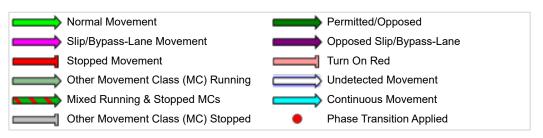
Lancefield Road

(South)

REF: Reference Phase VAR: Variable Phase

TIT Lancefield Road

(South)



Lane Use and Performance														
		mand	Сар.	Deg.	Lane	Average	Level of	95% Back c	of Queue	Lane	Lane		Prob.	
	Total	Flows HV	Оар.	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.	
	veh/h		veh/h	v/c	%	sec			m		m	%	%	
South: Lancefield Road (South)														
Lane 1	200	0.6	516	0.387	100	33.7	LOS C	6.9	48.6	Short	110	0.0	NA	
Lane 2	188	0.4	486	0.387	100	40.3	LOS D	9.2	64.4	Short	180	0.0	NA	
Lane 3	185	0.3	216	0.853	100	70.5	LOS E	11.9	83.4	Full	500	0.0	0.0	
Lane 4	185	0.3	216	0.853	100	70.5	LOS E	11.9	83.4	Short	180	0.0	NA	
Approach	757	0.4		0.853		53.3	LOS D	11.9	83.4					
East: Sunbury Road (East)														
Lane 1	165	2.4	745	0.221	100	18.6	LOS B	3.7	26.5	Short	100	0.0	NA	
Lane 2	386	11.1	531	0.727	100	41.7	LOS D	20.5	157.5	Short	250	0.0	NA	
Lane 3	386	11.1	531	0.727	100	41.7	LOS D	20.5	157.5	Short	300	0.0	NA	
Lane 4	386	11.1	531	0.727	100	41.7	LOS D	20.5	157.5	Full	500	0.0	0.0	
Lane 5	293	0.2	340	0.861	100	65.9	LOS E	18.7	131.2	Full	500	0.0	0.0	
Lane 6	293	0.2	340	0.861	100	65.9	LOS E	18.7	131.2	Full	500	0.0	0.0	
Lane 7	293	0.2	340	0.861	100	65.9	LOS E	18.7	131.2	Short	250	0.0	NA	
Lane 8	293	0.2	340	0.861	100	65.9	LOS E	18.7	131.2	Short	250	0.0	NA	
Approach	2493	5.4		0.861		51.5	LOS D	20.5	157.5					
North: Lance	North: Lancefield Road (North)													
Lane 1	636	0.2	897	0.709	100	31.6	LOS C	29.0	203.0	Short	180	0.0	NA	
Lane 2	636	0.2	897	0.709	100	31.6	LOS C	29.0	203.0	Full	500	0.0	0.0	
Lane 3	636	0.2	897	0.709	100	31.6	LOS C	29.0	203.0	Full	500	0.0	0.0	
Lane 4	275	0.2	487	0.564	83 ⁶	42.5	LOS D	14.1	98.9	Full	500	0.0	0.0	
Lane 5	330	0.2	487	0.678	100	44.0	LOS D	17.6	123.2	Short	200	0.0	NA	
Lane 6	124	0.4	216	0.574	100	61.5	LOS E	7.1	50.0	Short	120	0.0	NA	
Lane 7	124	0.4	216	0.574	100	61.5	LOS E	7.1	50.0	Short	90	0.0	NA	
Approach	2760	0.2		0.709		36.8	LOS D	29.0	203.0					
West: Sunbury Road (West)														
Lane 1	50	0.0	1175	0.043	100	11.1	LOS B	0.9	6.0	Short	100	0.0	NA	
Lane 2	399	10.9	455	0.877	100	57.3	LOS E	25.8	197.2	Full	500	0.0	0.0	
Lane 3	399	10.9	455	0.877	100	57.3	LOS E	25.8	197.2	Full	500	0.0	0.0	
Lane 4	399	10.9	455	0.877	100	57.3	LOS E	25.8	197.2	Full	500	0.0	0.0	
Lane 5	187	0.5	262	0.713	100	61.4	LOS E	11.0	77.2	Short	100	0.0	NA	
Approach	1435	9.1		0.877		56.2	LOS E	25.8	197.2		-			
Intersectio	7445	3.7		0.877		47.2	LOS D	29.0	203.0					
n														

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

6 Lane under-utilisation due to downstream effects

Site: 105 [SS-IN-03-PM Peak - 100% (Option 2a) - Scenario 2a- GTA - East approach RT]

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site Practical Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

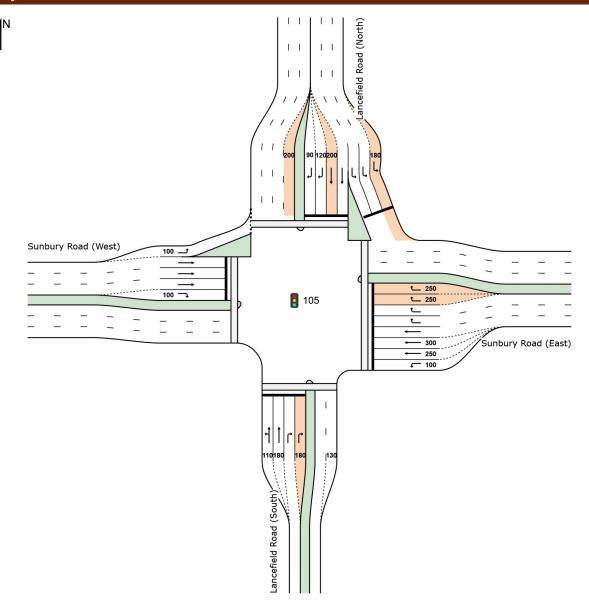
Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program

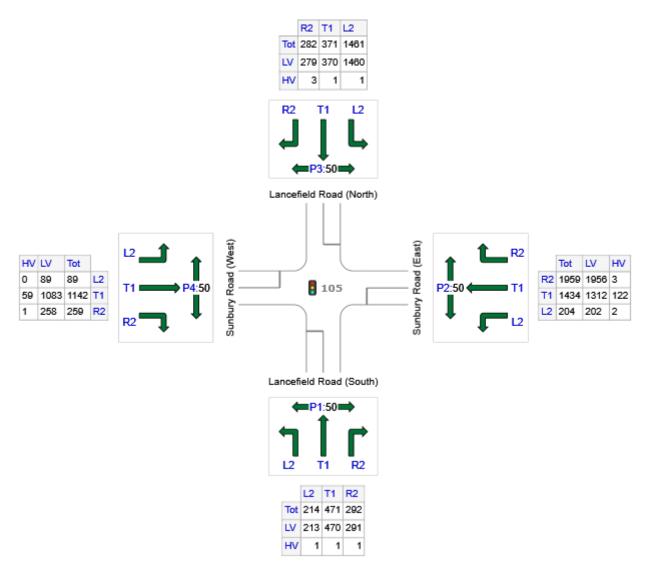
Phase Sequence: Variable Phasing
Reference Phase: Phase C
Input Phase Sequence: A, D2, B, B1*, B2*, C, D1

Output Phase Sequence: A, D2, B, C, D1

(* Variable Phase)

Site Layout





	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	977	974	3
E: Sunbury Road (East)	3597	3470	127
N: Lancefield Road (North)	2114	2109	5
W: Sunbury Road (West)	1490	1430	60
Total	8178	7983	195

Phase Timing Summary

Phase	Α	D2	В	С	D1
Phase Change Time (sec)	85	92	122	0	38
Green Time (sec)	1	24	12	32	41
Phase Time (sec)	7	30	18	38	47
Phase Split	5%	21%	13%	27%	34%

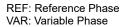
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence Phase A Phase D2 Phase B Lancefield Road (North) Lancefield Road (North) Lancefield Road (North) זור Lancefield Road Lancefield Road Lancefield Road (South) (South) (South) Phase C REF Phase D1 Lancefield Road (North) Lancefield Road (North)

זור

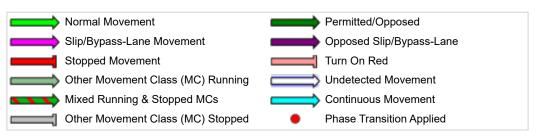
Lancefield Road

(South)



TIT Lancefield Road

(South)



Lane Use a	nd Peri	forma	ince										
		nand	Cara	Deg.	Lane	Average	Level of	95% Back c	f Queue	Lane	Lane	Сар.	Prob.
	⊢ Total	lows HV	Сар.	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h		veh/h	v/c	%	sec		VCII	m		m	%	%
South: Lance	field Ro	ad (Sc	outh)										
Lane 1	352	0.4	471	0.748	100	54.1	LOS D	19.9	139.7	Short	110	0.0	NA
Lane 2	333	0.2	445	0.748	100	55.3	LOS E	21.5	151.1	Short	180	0.0	NA
Lane 3	146	0.3	159	0.919	100	90.9	LOS F	11.6	81.4	Full	500	0.0	0.0
Lane 4	146	0.3	159	0.919	100	90.9	LOS F	11.6	81.4	Short	180	0.0	NA
Approach	977	0.3		0.919		65.5	LOS E	21.5	151.1				
East: Sunbur	y Road ((East)											
Lane 1	204	1.0	790	0.258	100	19.7	LOS B	4.9	34.4	Short	100	0.0	NA
Lane 2	428	8.5	539 ¹	0.794	100	44.8	LOS D	25.9	194.6	Short	250	0.0	NA
Lane 3	503	8.5	634	0.794	100	46.0	LOS D	31.6	237.2	Short	300	0.0	NA
Lane 4	503	8.5	634	0.794	100	46.0	LOS D	31.6	237.2	Full	500	0.0	0.0
Lane 5	490	0.2	543	0.901	100	70.6	LOS E	37.2	260.5	Full	500	0.0	0.0
Lane 6	490	0.2	543	0.901	100	70.6	LOS E	37.2	260.5	Full	500	0.0	0.0
Lane 7	490	0.2	543	0.901	100	70.6	LOS E	37.2	260.5	Short	250	0.0	NA
Lane 8	490	0.2	543	0.901	100	70.6	LOS E	37.2	260.5	Short	250	0.0	NA
Approach	3597	3.5		0.901		57.8	LOS E	37.2	260.5				
North: Lancet	field Roa	ad (No	rth)										
Lane 1	487	0.1	1047	0.465	100	24.6	LOS C	19.3	134.9	Short	180	0.0	NA
Lane 2	487	0.1	1047	0.465	100	24.6	LOS C	19.3	134.9	Full	500	0.0	0.0
Lane 3	487	0.1	1047	0.465	100	24.6	LOS C	19.3	134.9	Full	500	0.0	0.0
Lane 4	168	0.3	445	0.379	83 ⁶	49.0	LOS D	9.7	68.1	Full	500	0.0	0.0
Lane 5	203	0.3	445	0.455	100	50.1	LOS D	11.9	83.6	Short	200	0.0	NA
Lane 6	141	1.1	158	0.892	100	86.9	LOS F	10.9	76.9	Short	120	0.0	NA
Lane 7	141	1.1	158	0.892	100	86.9	LOS F	10.9	76.9	Short	90	0.0	NA
Approach	2114	0.2		0.892		37.3	LOS D	19.3	134.9				
West: Sunbu	ry Road	(West	t)										
Lane 1	89	0.0	878	0.101	100	22.4	LOS C	3.0	20.9	Short	100	0.0	NA
Lane 2	383	5.2	412 ¹	0.929	100	77.6	LOS E	30.9	226.0	Full	500	0.0	0.0
Lane 3	388	5.2	418	0.929	100	77.6	LOS E	31.4	229.4	Full	500	0.0	0.0
Lane 4	371	5.2	399 ¹	0.929	100	77.6	LOS E	29.8	217.7	Full	500	0.0	0.0
Lane 5	259	0.4	317	0.816	100	71.4	LOS E	18.3	128.4	Short	100	0.0	NA
Approach	1490	4.0		0.929		73.2	LOS E	31.4	229.4				
Intersectio n	8178	2.4		0.929		56.2	LOS E	37.2	260.5				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Site: 105 [SS-IN-03-AM Peak - 100% (Option 2a) - Scenario 2b - GTA - West approach lane]

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site Practical Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

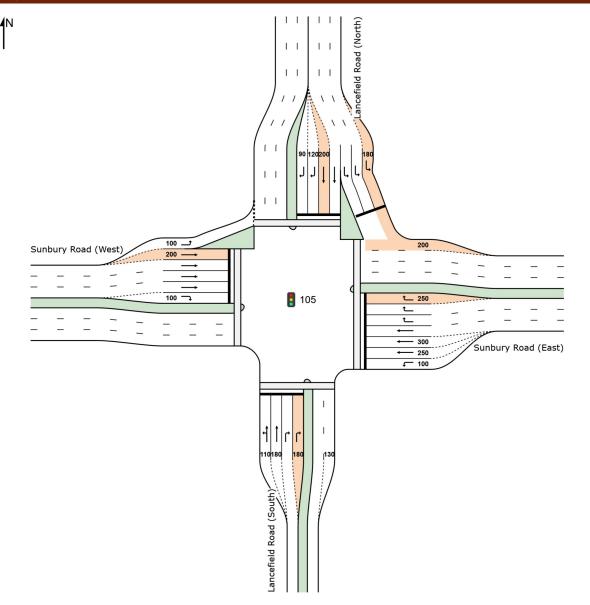
Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program

Phase Sequence: Variable Phasing
Reference Phase: Phase C
Input Phase Sequence: A, D2, B, B1*, B2*, C, D1

Output Phase Sequence: A, D2, B, C, D1

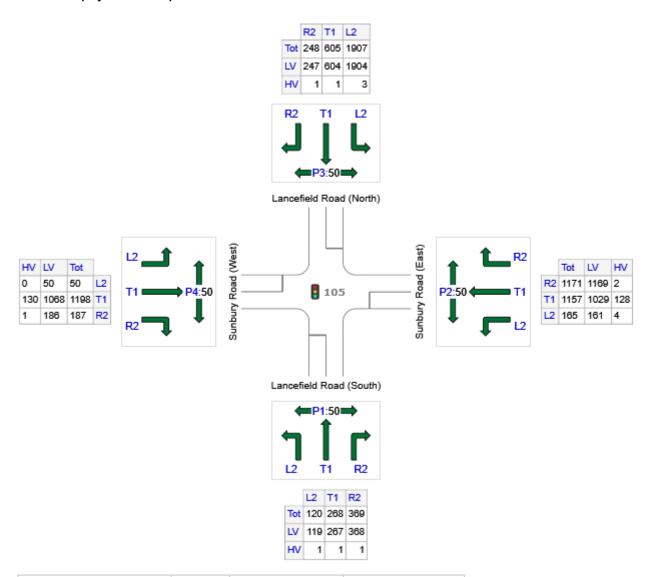
(* Variable Phase)





Input Volumes

Volume Display Method: Separate



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	757	754	3
E: Sunbury Road (East)	2493	2359	134
N: Lancefield Road (North)	2760	2755	5
W: Sunbury Road (West)	1435	1304	131
Total	7445	7172	273

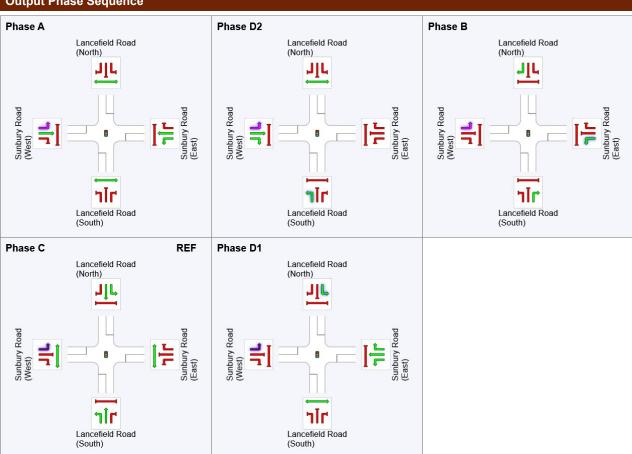
Phase Timing Summary

Phase	Α	D2	В	С	D1
Phase Change Time (sec)	71	77	100	0	36
Green Time (sec)	***	17	14	30	29
Phase Time (sec)	6	23	20	36	35
Phase Split	5%	19%	17%	30%	29%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

*** No green time has been calculated for this phase because the next phase starts during its intergreen time. This occurs with overlap phasing where there is no single movement connecting this phase to the next, or where the only such movement is a dummy movement with zero minimum green time specified. If a green time is required for this phase, specify a dummy movement with a non-zero minimum green time.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase



Demand Flows Cap. Sath Util. Delay Service Service P5% Back of Queue Lane Config Length Adj. Block.
Total HV Weh/h W Veh/h V/c W Sec Weh Dist m m W Weh/h Weh/h Weh/h V/c Weh/h V/c Weh/h We
veh/h % veh/h v/c % sec m m % % South: Lancefield Road (South) Lane 1 200 0.6 516 0.387 100 33.7 LOS C 6.9 48.6 Short 110 0.0 NA Lane 2 188 0.4 486 0.387 100 40.3 LOS D 9.2 64.4 Short 180 0.0 NA Lane 3 185 0.3 216 0.853 100 70.5 LOS E 11.9 83.4 Full 500 0.0 0.0 Lane 4 185 0.3 216 0.853 100 70.5 LOS E 11.9 83.4 Short 180 0.0 NA Approach 757 0.4 0.853 53.3 LOS D 11.9 83.4 Short 180 0.0 NA Lane 1 165 2.4 745 0.221 100 18.6 LOS B 3.7
Lane 1 200 0.6 516 0.387 100 33.7 LOS C 6.9 48.6 Short 110 0.0 NA Lane 2 188 0.4 486 0.387 100 40.3 LOS D 9.2 64.4 Short 180 0.0 NA Lane 3 185 0.3 216 0.853 100 70.5 LOS E 11.9 83.4 Full 500 0.0 0.0 Lane 4 185 0.3 216 0.853 100 70.5 LOS E 11.9 83.4 Short 180 0.0 NA Approach 757 0.4 0.853 53.3 LOS D 11.9 83.4 East: Sunbury Road (East) Lane 1 165 2.4 745 0.221 100 18.6 LOS B 3.7 26.5 Short 100 0.0 NA Lane 2 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 250 0.0 NA Lane 3 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 300 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 0.0 Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9 Short 250 0.0 NA
Lane 2 188 0.4 486 0.387 100 40.3 LOS D 9.2 64.4 Short 180 0.0 NA Lane 3 185 0.3 216 0.853 100 70.5 LOS E 11.9 83.4 Full 500 0.0 0.0 Lane 4 185 0.3 216 0.853 100 70.5 LOS E 11.9 83.4 Short 180 0.0 NA Approach 757 0.4 0.853 53.3 LOS D 11.9 83.4 East: Sunbury Road (East) Lane 1 165 2.4 745 0.221 100 18.6 LOS B 3.7 26.5 Short 100 0.0 NA Lane 2 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 250 0.0 NA Lane 3 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 300 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 300 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 0.0 Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9 Short 250 0.0 NA
Lane 3 185 0.3 216 0.853 100 70.5 LOS E 11.9 83.4 Full 500 0.0 0.0 Lane 4 185 0.3 216 0.853 100 70.5 LOS E 11.9 83.4 Short 180 0.0 NA Approach 757 0.4 0.853 53.3 LOS D 11.9 83.4 Short 180 0.0 NA East: Sunbury Road (East) Lane 1 165 2.4 745 0.221 100 18.6 LOS B 3.7 26.5 Short 100 0.0 NA Lane 2 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 250 0.0 NA Lane 3 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 300 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 0.0 Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9 Short 250 0.0 NA
Lane 4 185 0.3 216 0.853 100 70.5 LOS E 11.9 83.4 Short 180 0.0 NA Approach 757 0.4 0.853 53.3 LOS D 11.9 83.4 East: Sunbury Road (East) Lane 1 165 2.4 745 0.221 100 18.6 LOS B 3.7 26.5 Short 100 0.0 NA Lane 2 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 250 0.0 NA Lane 3 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 300 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 0.0 Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9 Short 250 0.0 NA
Approach 757 0.4 0.853 53.3 LOS D 11.9 83.4 East: Sunbury Road (East) Lane 1 165 2.4 745 0.221 100 18.6 LOS B 3.7 26.5 Short 100 0.0 NA Lane 2 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 250 0.0 NA Lane 3 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 300 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 NA Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 </td
East: Sunbury Road (East) Lane 1
Lane 1 165 2.4 745 0.221 100 18.6 LOS B 3.7 26.5 Short 100 0.0 NA Lane 2 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 250 0.0 NA Lane 3 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 300 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 NA Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250
Lane 2 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 250 0.0 NA Lane 3 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 300 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 0.0 Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9
Lane 3 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Short 300 0.0 NA Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 0.0 Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9
Lane 4 386 11.1 531 0.727 100 41.7 LOS D 20.5 157.5 Full 500 0.0 0.0 Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9
Lane 5 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9
Lane 6 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Full 500 0.0 0.0 Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9
Lane 7 390 0.2 448 0.871 100 62.5 LOS E 24.9 174.9 Short 250 0.0 NA Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9
Approach 2493 5.4 0.871 49.9 LOS D 24.9 174.9
North: Lancefield Road (North)
Horan Editoriola (Horan)
Lane 1 636 0.2 1005 0.633 100 26.0 LOS C 25.6 179.5 Short 180 0.0 NA
Lane 2 636 0.2 1005 0.633 100 26.0 LOS C 25.6 179.5 Full 500 0.0 0.0
Lane 3 636 0.2 1005 0.633 100 26.0 LOS C 25.6 179.5 Full 500 0.0 0.0
Lane 4 275 0.2 487 0.564 83 ⁶ 42.5 LOS D 14.1 98.9 Full 500 0.0 0.0
Lane 5 330 0.2 487 0.678 100 44.0 LOS D 17.6 123.2 Short 200 0.0 NA
Lane 6 124 0.4 216 0.574 100 61.5 LOS E 7.1 50.0 Short 120 0.0 NA
Lane 7 124 0.4 216 0.574 100 61.5 LOS E 7.1 50.0 Short 90 0.0 NA
Approach 2760 0.2 0.678 33.0 LOS C 25.6 179.5
West: Sunbury Road (West)
Lane 1 50 0.0 1072 0.047 100 12.8 LOS B 1.0 6.9 Short 100 0.0 NA
Lane 2 300 10.9 349 0.858 100 59.5 LOS E 19.1 146.0 Short 200 0.0 NA
Lane 3 300 10.9 349 0.858 100 59.5 LOS E 19.1 146.0 Full 500 0.0 0.0
Lane 4 300 10.9 349 0.858 100 59.5 LOS E 19.1 146.0 Full 500 0.0 0.0
Lane 5 300 10.9 349 0.858 100 59.5 LOS E 19.1 146.0 Full 500 0.0 0.0
Lane 6 187 0.5 262 0.713 100 61.4 LOS E 11.0 77.2 Short 100 0.0 NA
Approach 1435 9.1 0.858 58.1 LOS E 19.1 146.0
Intersectio 7445 3.7 0.871 45.6 LOS D 25.6 179.5
n

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

6 Lane under-utilisation due to downstream effects

Site: 105 [SS-IN-03-PM Peak - 100% (Option 2a) - Scenario 2b - GTA - West approach lane]

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site Practical Cycle Time) Variable Sequence Analysis applied. The results are given for the selected output sequence.

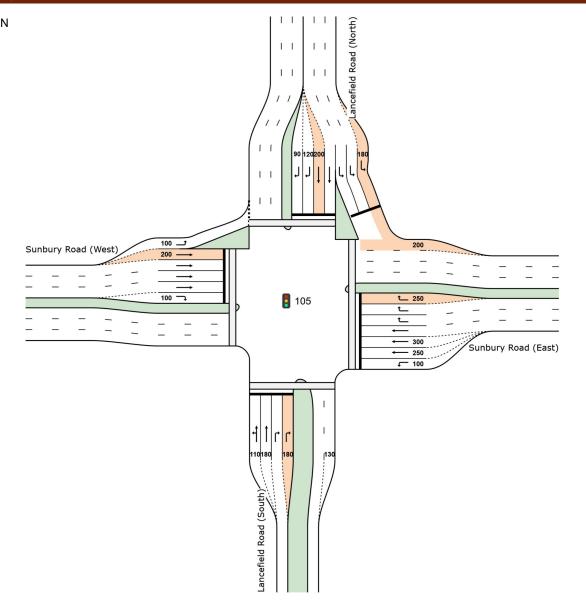
Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program

Phase Sequence: Variable Phasing
Reference Phase: Phase C
Input Phase Sequence: A, D2, B, B1*, B2*, C, D1

Output Phase Sequence: D2, B, C, D1

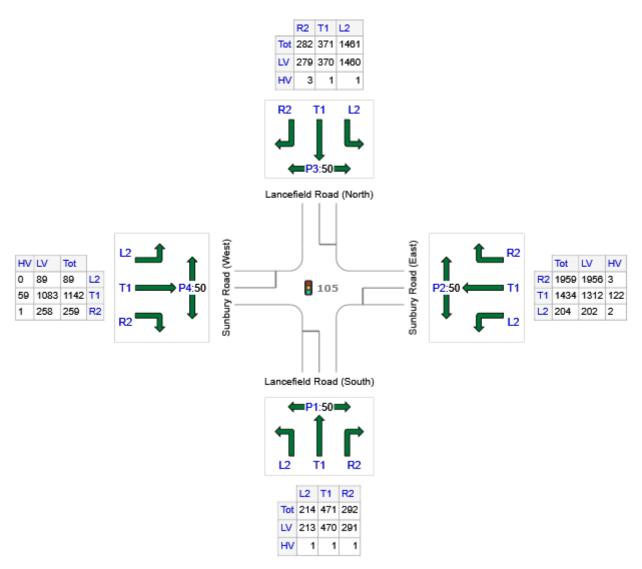
(* Variable Phase)

Site Layout



Input Volumes

Volume Display Method: Separate



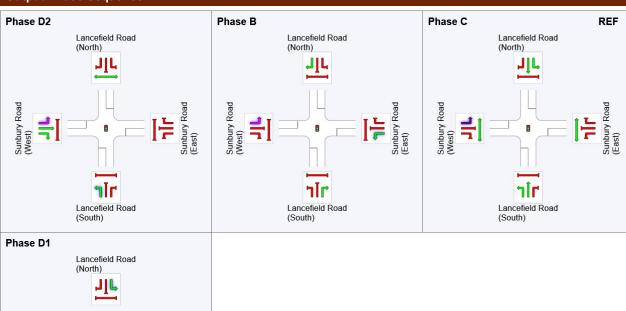
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	977	974	3
E: Sunbury Road (East)	3597	3470	127
N: Lancefield Road (North)	2114	2109	5
W: Sunbury Road (West)	1490	1430	60
Total	8178	7983	195

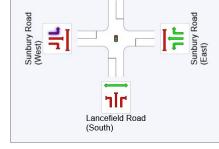
Phase Timing Summary

Phase	D2	В	С	D1
Phase Change Time (sec)	94	123	0	38
Green Time (sec)	23	11	32	50
Phase Time (sec)	29	17	38	56
Phase Split	21%	12%	27%	40%

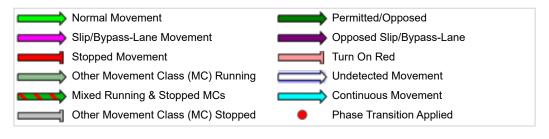
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





REF: Reference Phase VAR: Variable Phase



Lane Use a	and Peri	forma	nce										
	Der	nand		Deg.	Lane	Average	Level of	95% Back o	95% Back of Queue		Lane	Сар.	Prob.
		lows	Сар.	Satn	Util.	Delay	Service	\/ab	Diet	Config	Length	Adj.	Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Lance													
Lane 1	352	0.4	471	0.748	100	54.6	LOS D	19.9	139.7	Short	110	0.0	NA
Lane 2	333	0.2	445	0.748	100	55.3	LOS E	21.5	151.1	Short	180	0.0	NA
Lane 3	146	0.3	146	1.003	100	119.0	LOS F	13.5	94.9	Full	500	0.0	0.0
Lane 4	146	0.3	146	1.003	100	119.0	LOS F	13.5	94.9	Short	180	0.0	NA
Approach	977	0.3		1.003		74.1	LOS E	21.5	151.1				
East: Sunbu	ry Road ((East)											
Lane 1	204	1.0	804	0.254	100	19.4	LOS B	4.9	34.3	Short	100	0.0	NA
Lane 2	426	8.5	557 ¹	0.764	100	41.1	LOS D	24.5	183.9	Short	250	0.0	NA
Lane 3	504	8.5	660	0.764	100	42.5	LOS D	30.3	227.2	Short	300	0.0	NA
Lane 4	504	8.5	660	0.764	100	42.5	LOS D	30.3	227.2	Full	500	0.0	0.0
Lane 5	653	0.2	663	0.986	100	96.1	LOS F	60.9	426.7	Full	500	0.0	0.0
Lane 6	653	0.2	663	0.986	100	96.1	LOS F	60.9	426.7	Full	500	0.0	0.0
Lane 7	653	0.2	663	0.986	100	96.1	LOS F	60.9	426.7	Short	250	0.0	NA
Approach	3597	3.5		0.986		70.2	LOS E	60.9	426.7				
North: Lance	efield Roa	ad (No	rth)										
Lane 1	487	0.1	1167	0.417	100	19.4	LOS B	16.4	114.7	Short	180	0.0	NA
Lane 2	487	0.1	1167	0.417	100	19.4	LOS B	16.4	114.7	Full	500	0.0	0.0
Lane 3	487	0.1	1167	0.417	100	19.4	LOS B	16.4	114.7	Full	500	0.0	0.0
Lane 4	168	0.3	445	0.379	83 ⁶	49.0	LOS D	9.7	68.1	Full	500	0.0	0.0
Lane 5	203	0.3	445	0.455	100	50.1	LOS D	11.9	83.6	Short	200	0.0	NA
Lane 6	141	1.1	145	0.974	100	105.8	LOS F	12.2	86.3	Short	120	0.0	NA
Lane 7	141	1.1	145	0.974	100	105.8	LOS F	12.2	86.3	Short	90	0.0	NA
Approach	2114	0.2		0.974		36.2	LOS D	16.4	114.7				
West: Sunbu	ıry Road	(West	:)										
Lane 1	89	0.0	747	0.119	100	30.3	LOS C	3.6	25.2	Short	100	0.0	NA
Lane 2	286	5.2	310	0.921	100	80.0	LOS E	22.8	166.4	Short	200	0.0	NA
Lane 3	286	5.2	310	0.921	100	80.0	LOS E	22.8	166.4	Full	500	0.0	0.0
Lane 4	286	5.2	310	0.921	100	80.0	LOS E	22.8	166.4	Full	500	0.0	0.0
Lane 5	286	5.2	310	0.921	100	80.0	LOS E	22.8	166.4	Full	500	0.0	0.0
Lane 6	259	0.4	304	0.851	100	75.1	LOS E	18.9	132.8	Short	100	0.0	NA
Approach	1490	4.0		0.921		76.1	LOS E	22.8	166.4				
Intersectio	8178	2.4		1.003		63.0	LOS E	60.9	426.7				
n													

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

- Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
- Lane under-utilisation due to downstream effects

Organisation: GTA CONSULTANTS | Created: Tuesday, 9 February 2021 7:36:23 PM

Project: P:\V19800-19899\V198070 Sunbury Growth Corridor ICP Tran\Modelling\SIDRA\210209-V198070-Sunbury Growth ICP

Modelling_Ultimate Scenario - SS03 - for VPA.sip8

Appendix C – Cost Plans

Jacksons Hill Creek Crossing - South SS-RD-04-01 (Approx. length 1550m, excluding Intersections)

Item		Description	Quantity	Unit		Rate		Amount	Comments
1	WORKS SITEWO	RKS AND EARTHWORKS							
	1.1	Pre-construction							
	1.2	1.1.1 Demolition and site preparation	52,700	m2	\$	5.40	\$	284,580.00	Excluding batters
	1.2	Earthworks 1.2.1 Cut and disposal	43,388	m3	\$	55.00	\$	2,386,312.50	Includes rock excavation and disposal. Additional 10% contingency applied
		1.2.2 Fill 1.2.3 Cut to fill	8,578	m3 m3	\$	37.80 70.00		600,425.00	Additional 10% contingency applied
	1.3	Set-Out 1.3.1 Allow for site set out	1	Item	\$	12,500.00		12,500.00	, , ,
2	ROAD PA	AVEMENT							
	2.1	New Pavement							
		2.1.1 Road pavement - Traffic lanes	17,980	m2	\$	156.60	\$	2,815,668.00	Includes pavement to Traffic lane (3.5m) and parking bay (2.3m) to both sides total width (11.6m)
	2.2	Rehabilitate Existing Pavement 2.2.1 Pavement profiling and reshaping	-	Allow.	\$	-	\$	-	Assume all new works.
3		TE WORKS Kerb and Channel							
	0	3.1.1 Kerb and channel	6,200	LM	\$	48.60	\$	301,320.00	Kerb and channel to both sides of each traffic
	3.2	Pedestrian & Cycle Paths	0,200		*	10.00	•	001,020.00	lane
		3.2.1 Pedestrian footpath	4,650	m2	\$	59.00	\$	274,350.00	Pedestrian path to both sides of proposed ro- each (1.5m) wide. Total span (3.0m) wide
		3.2.2 Cycle pathway	5,270	m2	\$	66.00	\$	347,820.00	Two way Cycle path (1.7m) wide each side o the road. Total span (3.4m) wide
	2.2	3.2.3 Shared pathway	-	m2	\$	66.00	\$	-	Assumed not included in SS-RD4
	3.3	Median strip 3.3.1 Median (Levelled ground)	10,850	m2	\$	32.40	\$	351,540.00	
4	DRAINA	GE .							
	4.1	Drainage - Pipes	4.550	1.84			•		
		4.1.1 Stormwater drainage (300mm DIA) 4.1.1 Stormwater drainage (300mm DIA)	1,550 413	LM LM	\$	216.00	\$ \$	89,280.00	
		4.1.2 Stormwater drainage (450mm DIA)	1,085	LM	\$	260.00	\$	282,100.00	
		4.1.3 Stormwater drainage (525mm DIA) 4.1.4 Drainage, sub grade drain	465 3,100	LM LM	\$	383.50 54.00		178,327.50 167,400.00	
	4.2	Drainage - Pits	3,100	LIVI	φ	34.00	φ	107,400.00	
	4.3	4.2.1 Side entry pits Drainage - WSUD	41 41	No.	\$	2,700.00 1,500.00		111,600.00 62,000.00	Assumed spacing of 75m
	4.3	Drainage - WSOD Drainage - Miscellaneous	-	Allow. No.	\$	-	\$	62,000.00	
5	TRAFFIC								
•	5.1	Traffic Signals							
	5.2	5.1.1 Traffic signals (incl. conduit subset) Traffic Safety	-	LM.	\$	-	\$	-	Includes fixed single-serial control line
		5.2.1 Line marking and Traffic Signage	1,550	LM	\$	32.00	\$	49,600.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSC								
	6.1	Trees 6.1.1 Tree planting (2-2.5m tall)	32	No.	\$	350.00	\$	11 200 00	Allowance only
	6.2	Landscaping	ÜL.	140.	Ψ	000.00	Ψ	11,200.00	7 mowarioc only
		6.2.1 Tube stock plantings	11,900	m2	\$	3.00	\$		Allowance of 2 per m2 to nature strip Topsoiling and seeding of nature strips, vary
		6.2.2 Nature strip	11,900	m2	\$	10.00	\$	119,000.00	in widths
7	STREET 7.1	LIGHTING Street Lighting							
		7.1.1 Street lighting (incl. lighting conduits)	31	No.	\$	12,500.00	\$	387,500.00	Assume install poles 12m high with luminarie placed every 50m (roads) to one side. Rate
									includes for electrical lighting conduits
8		ANEOUS 8.1.1 Speed cameras	-	Item	\$	_	\$	_	Excluded
		8.1.2 Speed bumps	-	No.	\$	-	\$	-	Excluded
	8.2	Retaining walls		LM					
		8.2.1 Retaining wall (0-2m high)	100	LM	\$	1,120.00			Up to 2m high Up to 5m high
		8.2.2 Retaining wall (3-5m high)8.2.3 Retaining wall (6-8m high)	157	LM LM	\$	4,480.00 7,840.00	\$	703,360.00	Up to 8m high
		8.2.4 Retaining wall (9-11m high)	100	LM		11,200.00		1,120,000.00	Up to 11m high
9	SERVICE	S							
	9.1	Services Relocation	-	Allow.	\$	-	\$	-	Excluded
	9.2	Services Protection	-	Allow.	\$	-	\$	-	Excluded
			SUB TOTAL -	WORKS	ì		\$	10,803,583.00	
10	DELIVER								
	10.1	Fees Council Fees	2.259/	ltom			œ	251 116 45	
	10.1 10.2	Council Fees VicRoads Fees	3.25% 1.00%	Item Item			\$ \$	351,116.45 108,035.83	
	10.3	Traffic Management	5.00%	Item			\$	540,179.15	
	10.4	Environmental Management	0.50% 5.00%	Item			\$	54,017.92 540,179.15	
	10.5 10.6	Survey & Design Supervision & Project Management	9.00%	Item Item			\$ \$	972,322.47	
	10.7	Site Establishment	2.50%	Item			\$	270,089.58	
	10.8	Contingency	15.00% SUB-TOTAL DI	Item ELIVERY	•		\$ \$	1,620,537.45 4,456,477.99	
11			TOTAL ESTIMATED PROJECT	COST			\$	15,260,060.99	
			TOTAL ESTIMATED PROJECT	0001			Ψ	10,200,000.33	

SS-RD4-01 3136206 - PMD - Cost Estimate Templates.xlsx

Jacksons Hill Creek Crossing - South SS-RD-04-02 (Long Options, approx. length 621m, excluding Intersections)

Item			Description		Quantity	Unit		Rate	Amount	Comments
	WORKS									
1	SITEWO 1.1	RKS AND EART Pre-construction								
			lition and site preparation		21,114	m2	\$	5.40	\$ 114,015	60
	1.2	Earthworks								
		1.2.1 Cut a 1.2.2 Fill	nd disposal		0.000	m3	\$	55.00 37.80		-
		1.2.3 Cut to	fill		6,986 13,864	m3 m3	\$ \$	70.00		Additional 10% contingency appliedAdditional 10% contingency applied
	1.3	Set-Out 1.3.1 Allow	for site set out		1	Item	\$	12,500.00	\$ 12,500	.00
_										
2	2.1	AVEMENT New Pavement								
		2.1.1 Road	pavement - Traffic lanes		7,204	m2	\$	156.60	\$ 1,128,083	76 Includes pavement to Traffic lane (3.5m) and parking bay (2.3m) to both sides total width (11.6m)
	2.2	Rehabilitate Ex				Allow	¢	_	\$	
			ment profiling and reshaping		-	Allow.	\$	-	3	- Assume all new works.
3	3.1	ETE WORKS Kerb and Chan	nel							
	3.2	3.1.1 Kerb Pedestrian & C			2,484	LM	\$	48.60	\$ 120,722	40 Kerb and channel to both sides of each traffic lane
	5.2									Pedestrian path to both sides of proposed road
		3.2.1 Pede	strian footpath		1,863	m2	\$	59.00	\$ 109,917	each (1.5m) wide. Total span (3.0m) wide
		3.2.2 Cycle	pathway		2,111	m2	\$	66.00	\$ 139,352	Two way Cycle path (1.7m) wide each side of the road. Total span (3.4m) wide
	3.3	3.2.3 Share Median strip	ed pathway		-	m2	\$	66.00	\$	- Assumed not included in SS-RD4
	0.0		an (Levelled ground)		4,347	m2	\$	32.40	\$ 140,842	80
4	DRAINA									
	4.1	Drainage - Pipe 4.1.1 Storm	s water drainage		621	LM				
		4.1.1 Storm	water drainage (300mm DIA)		166	LM	\$	216.00 260.00		
		4.1.3 Storm	water drainage (450mm DIA) water drainage (525mm DIA)		621	LM LM	\$ \$	383.50	\$	-
	4.2	4.1.4 Drain Drainage - Pits	age, sub grade drain		1,242	LM	\$	54.00	\$ 67,068	00
	4.3	4.2.1 Side			17 17	No.	\$	2,700.00 1,500.00		00 Assumed spacing of 75m
	4.4	Drainage - Wisc			-	Allow. No.	\$	-		- Assumed none.
5	TRAFFIC	;								
	5.1	Traffic Signals	c signals (incl. conduit subset)			LM.	\$		\$	
	5.2	Traffic Safety	signals (Incl. conduit subset)		-	LIVI.	φ	-	Ψ	
		5.2.1 Line r	marking and Traffic Signage		621	LM	\$	32.00	\$ 19,872	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSC	APE								
	6.1	Trees	elepting (2.2 Em tell)		14	No.	\$	350.00	¢ 4,000	OO Allowance only
	6.2	Landscaping	planting (2-2.5m tall)							.00 Allowance only
			stock plantings		2,432	m2	\$	3.00		.00 Allowance of 2 per m2 to nature strip Topsoiling and seeding of nature strips, varying in
7	STREET	6.2.2 Natur	e suip		2,432	m2	\$	10.00	\$ 24,320	widths
·	7.1	Street Lighting								
		7.4.4 (1)	s limbation of the lateral managers and the N		40	NI-	•	40 500 00	ê 455.050	Assume install poles 12m high with luminaries
		7.1.1 Stree	t lighting (incl. lighting conduits)		12	No.	\$	12,500.00	\$ 155,250	.00 placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELI 8.1	LANEOUS 8.1.1 Spee	d cameras		_	Item	\$	_	\$	- Excluded
			d bumps		-	No.	\$	-	\$	- Excluded
	8.2	Retaining walls				LM				
			ning wall (0-2m high) ning wall (3-5m high)		100 100	LM LM	\$ \$	1,120.00 4,480.00		.00 Up to 2m high .00 Up to 5m high
		8.2.3 Retai	ning wall (6-8m high) ning wall (9-11m high)		50 -	LM LM	\$	7,840.00 11,200.00	\$ 392,000	.00 Up to 8m high - Up to 11m high
		5.2.7 Netai	gan (0 + mi mgn)		-	-1VI	Ψ	. 1,200.00	¥	Sp. S. i i i i iigii
9	SERVICE 9.1	Services Reloca	ation		=	Allow.	\$	_	\$	- Excluded
	9.1	Services Protec			-	Allow.	\$	-	\$	- Excluded - Excluded
					SUB TOTAL -	WORKS	3		\$ 4,497,464	31
10	DELIVER	RY								
10		Fees								
	10.1 10.2	Council Fees VicRoads Fees			3.25% 1.00%	Item Item			\$ 146,167 \$ 44,974	
	10.3 10.4	Traffic Manager Environmental I			5.00% 0.50%	Item Item			\$ 224,873 \$ 22,487	22
	10.5	Survey & Desig	n		5.00%	Item			\$ 224,873	22
	10.6 10.7	Site Establishm	Project Management ent		9.00% 2.50%	Item Item			\$ 404,771 \$ 112,436	61
	10.8	Contingency		IS.	15.00% UB-TOTAL DE	Item	•		\$ 674,619 \$ 1,855,204	
					. OTAL DE				1,000,204	
11				TOTAL ESTIMATI	ED PROJECT	COST			\$ 6,352,668	34
				. J. AL LUTIMATI	ACCEO	2301			0,002,000	

3136206 - PMD - Cost Estimate Templates.xlsx SS-RD4-02

Jacksons Hill Creek Crossing - South SS-RD-04-03 (Long Options, approx. length 925m, excluding Intersections)

Item			Description	Quantity	Unit		Rate		Amount	Comments
	WORKS									
1	SITEWO		EARTHWORKS							
	1.1	Pre-cons		31,450	m2	\$	5.40	\$	169,830.00	
	1.2	Earthwo	ks							
		1.2.1 1.2.2	Cut and disposal Fill	13,663	m3 m3	\$	55.00 37.80	\$	751,471.67	Additional 10% contingency applied
		1.2.3	Cut to fill	15,888	m3	\$	70.00		1,112,143.55	Additional 10% contingency applied
	1.3	Set-Out 1.3.1	Allow for site set out	1	Item	\$	12,500.00	\$	12,500.00	
				·		-	,	•	12,000.00	
2		AVEMEN								
	2.1	New Pav	ement							Includes pavement to Traffic lane (3.5m) and
		2.1.1	Road pavement - Traffic lanes	10,730	m2	\$	156.60	\$	1,680,318.00	parking bay (2.3m) to both sides total width (11.6m)
	2.2		ate Existing Pavement							
		2.2.1	Pavement profiling and reshaping	-	Allow.	\$	-	\$	-	Assume all new works.
3		TE WOR								
	3.1		l Channel							Kerb and channel to both sides of each traffic
	2.0		Kerb and channel	3,700	LM	\$	48.60	\$	179,820.00	lane
	3.2	Pedestria	an & Cycle Paths							Dedectrion noth to both sides of proposed
		3.2.1	Pedestrian footpath	2,775	m2	\$	59.00	\$	163,725.00	Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3.0m) wide.
		3.2.2	Cycle pathway	3,145	m2	\$	66.00	\$	207,570.00	Two way Cycle path (1.7m) wide each side o
		3.2.3		3,145	m2	\$	66.00		207,570.00	the road. Total span (3.4m) wide Assumed not included in SS-RD4
	3.3	Median s	strip							
		3.3.1	Median (Levelled ground)	6,475	m2	\$	32.40	\$	209,790.00	
4	DRAINA		8:							
	4.1	Drainage 4.1.1	- Pipes Stormwater drainage	925	LM			\$	-	
		4.1.1	Stormwater drainage (300mm DIA)	247	LM	\$	216.00	\$	53,280.00	
			Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)	648 278	LM LM	\$ \$	260.00 383.50	\$ \$	168,350.00 106,421.25	
	4.0	4.1.4	Drainage, sub grade drain	1,850	LM	\$	54.00		99,900.00	
	4.2	Drainage 4.2.1	Side entry pits	25	No.	\$	2,700.00	\$	66,600.00	Assumed spacing of 75m
	4.3	Drainage	- WSUD	25	Allow. No.	\$	1,500.00	\$ \$	37,000.00	
	4.4	Diamage	- Miscellaneous	-	INO.	Ф	-	Ф	-	Assumed none.
5	TRAFFIC 5.1	; Traffic Si	gnals							
	J. I		Traffic signals (incl. conduit subset)	-	LM.	\$	-	\$	-	
	5.2	Traffic S	·							Includes fixed signage, guide posts, line
		5.2.1	Line marking and Traffic Signage	925	LM	\$	32.00	\$	29,600.00	markings, traffic safety
6	LANDSC	APE								
	6.1	Trees	Tree plenting (2.0 5 t-11)		NI.	•	050.00	•	4.000.00	Allowanaa anku
	6.2	6.1.1 Landsca	Tree planting (2-2.5m tall) ping	14	No.	\$	350.00	\$	4,900.00	Allowance only
		6.2.1	Tube stock plantings	3,235	m2	\$	3.00	\$		Allowance of 2 per m2 to nature strip
		6.2.2	Nature strip	3,235	m2	\$	10.00	\$	32,350.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET 7.1	LIGHTIN Street Li								
	7.1	J. OUI LI	······•							Assuma install polos 12m bish with luminosis
		7.1.1	Street lighting (incl. lighting conduits)	19	No.	\$	12,500.00	\$	231,250.00	
										includes for electrical lighting conduits
•	MICCEL	ANTO								
8	8.1	8.1.1	Speed cameras	-	Item	\$	-	\$	-	Excluded
		8.1.2	Speed bumps	-	No.	\$	-	\$	-	Excluded
	8.2	Retaining	g walls	-	LM					
		8.2.1	Retaining wall (0-2m high)	160 200	LM	\$	1,120.00			Up to 2m high
		8.2.2 8.2.3	Retaining wall (3-5m high) Retaining wall (6-8m high)	150	LM LM	\$	4,480.00 7,840.00			Up to 5m high Up to 8m high
		8.2.4	Retaining wall (9-11m high)	50	LM		11,200.00			Up to 11m high
9	SERVICI	ES .								
-	9.1	Services	Relocation	-	Allow.	\$	-	\$	-	Excluded
	9.2	Services	Protection	-	Allow.	\$	-	\$	-	Excluded
				SUB TOTAL	- WORKS			\$	8,137,724.47	
10	DELIVE	27								
10		Fees								
	10.1 10.2	Council I VicRoad		3.25% 1.00%				\$ \$	264,476.05 81,377.24	
	10.2		anagement	5.00%				\$	406,886.22	
	10.4 10.5	Environn Survey 8	nental Management	0.50% 5.00%				\$ \$	40,688.62 406,886.22	
	10.6	Supervis	ion & Project Management	9.00%	Item			\$	732,395.20	
	10.7 10.8	Site Esta	blishment	2.50% 15.00%				\$ \$	203,443.11	
	10.8	Continge	поу	15.00% SUB-TOTAL D				\$	1,220,658.67 3,356,811.34	
11				TOTAL ESTIMATED PROJECT	TOOST			\$	11,494,535.81	
11				TOTAL ESTIMATED PROJEC				Þ	11,454,535.81	

3136206 - PMD - Cost Estimate Templates.xlsx SS-RD4-03

Jacksons Hill Creek Crossing - South

SS-RD-04-04 (Long Options, approx. length 245m, excluding Intersections)

Item		Description	Quanti	ty Unit		Rate		Amount	Comments
	WORKS								
1	SITEWOI	RKS AND EARTHWORKS Pre-construction							
		1.1.1 Demolition and site preparation	8,33	0 m2	\$	5.40	\$	44,982.00	
	1.2	Earthworks 1.2.1 Cut and disposal		m3	\$	55.00	\$	-	
		1.2.2 Fill 1.2.3 Cut to fill	17,63 61		\$ \$	37.80 70.00			Additional 10% contingency applied Additional 10% contingency applied
	1.3	Set-Out						12.500.00	
		1.3.1 Allow for site set out		1 Item	Þ	12,500.00	Ф	12,500.00	
2	2.1	AVEMENT New Pavement							
	2.1	2.1.1 Road pavement - Traffic lanes	2,84	2 m2	\$	156.60	\$	445,057.20	Includes pavement to Traffic lane (3.5m) and parking bay (2.3m) to both sides total width (11.6m)
	2.2	Rehabilitate Existing Pavement 2.2.1 Pavement profiling and reshaping	-	Allow.	\$	-	\$	-	Assume all new works.
3		TE WORKS Kerb and Channel							
		3.1.1 Kerb and channel	98	0 LM	\$	48.60	\$	47,628.00	Kerb and channel to both sides of each traffic lane
	3.2	Pedestrian & Cycle Paths							
		3.2.1 Pedestrian footpath	73		\$	59.00		43,365.00	Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3.0m) wide Two way Cycle path (1.7m) wide each side of
		3.2.2 Cycle pathway	83		\$	66.00		54,978.00	the road. Total span (3.4m) wide Assumed not included in SS-RD4
	3.3	3.2.3 Shared pathway Median strip	-	m2	\$	66.00		-	Assumed not included in 55-KD4
		3.3.1 Median (Levelled ground)	1,71	5 m2	\$	32.40	\$	55,566.00	
4	DRAINA 4.1	GE Drainage - Pipes							
	4.1	4.1.1 Stormwater drainage	24		_	040.00	\$	44400	
		4.1.1 Stormwater drainage (300mm DIA) 4.1.2 Stormwater drainage (450mm DIA)	6 24	5 LM	\$ \$	216.00 260.00	\$	14,112.00 63,700.00	
		4.1.3 Stormwater drainage (525mm DIA)4.1.4 Drainage, sub grade drain	49	LM 0 LM	\$	383.50 54.00		26,460.00	
	4.2	Drainage - Pits 4.2.1 Side entry pits		7 No.	\$	2,700.00			Assumed spacing of 75m
	4.3 4.4	Drainage - WSUD Drainage - Miscellaneous		7 Allow.		1,500.00		9,800.00	Assumed none.
_		•	-	INU.	Þ	-	Ψ	-	A SOCIATION HOUSE.
5	5.1	Traffic Signals							
	5.2	5.1.1 Traffic signals (incl. conduit subset) Traffic Safety	-	LM.	\$	-	\$	-	Includes fixed signage, guide posts, line
		5.2.1 Line marking and Traffic Signage	24	5 LM	\$	32.00	Þ	7,840.00	markings, traffic safety
6	LANDSC 6.1	APE Trees							
		6.1.1 Tree planting (2-2.5m tall)		4 No.	\$	350.00	\$	1,400.00	Allowance only
	6.2	Landscaping 6.2.1 Tube stock plantings	96	7 m2	\$	3.00	\$	2,901.00	Allowance of 2 per m2 to nature strip
		6.2.2 Nature strip	96	7 m2	\$	10.00	\$	9,670.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET 7.1	LIGHTING Street Lighting							
		7.1.1 Street lighting (incl. lighting conduits)		5 No.	\$	12,500.00	\$	61,250.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELL 8.1	ANEOUS 8.1.1 Speed cameras 8.1.2 Speed bumps	-	Item No.	\$	-	\$	-	Excluded Excluded
	8.2	Retaining walls							
		8.2.1 Retaining wall (0-2m high) 8.2.2 Retaining wall (3-5m high)	- 19	LM 0 LM	\$ \$	1,120.00 4,480.00		- 851,200.00	Up to 2m high Up to 5m high
		8.2.3 Retaining wall (6-8m high) 8.2.4 Retaining wall (9-11m high)	-	LM LM	\$	7,840.00 11,200.00	\$	-	Up to 8m high Up to 11m high
			-	LIVI	φ	11,200.00	Ψ	-	op to i initingii
9	SERVICE 9.1	Services Relocation		Allow.	\$	_	\$	_	Excluded
	9.1	Services Protection	- -	Allow.		-	\$ \$	-	Excluded
			SUB TOTA	L - WORK	S		\$	2,479,366.45	
10	DELIVER	NY .							
		Fees		0/ 1+			e	90 570 44	
	10.1 10.2	Council Fees VicRoads Fees	3.25 1.00	% Item			\$ \$	80,579.41 24,793.66	
	10.3 10.4	Traffic Management Environmental Management	5.00 0.50				\$ \$	123,968.32 12,396.83	
	10.5 10.6	Survey & Design Supervision & Project Management	5.00 9.00	% Item			\$	123,968.32 223,142.98	
	10.7	Site Establishment	2.50	% Item			\$	61,984.16 371,904.97	
	10.8	Contingency	15.00 SUB-TOTAL		Y		\$	1,022,738.66	
-									
11			TOTAL ESTIMATED PROJE	ст соѕт			\$	3,502,105.11	

3136206 - PMD - Cost Estimate Templates.xlsx SS-RD4-04

Jacksons Hill Creek Crossing - South
SS-RD-04-05 (Long Options, approx. length 387m, excluding Intersections)

Item		Description	Quantity	Unit		Rate		Amount	Comments
	WORKS								
1		RKS AND EARTHWORKS Pre-construction							
		1.1.1 Demolition and site preparation	13,158	m2	\$	5.40	\$	71,053.20	
	1.2	Earthworks 1.2.1 Cut and disposal	111,651	m3	\$	55.00	\$	6,140,808.09	Additional 10% contingency applied
		1.2.2 Fill 1.2.3 Cut to fill		m3 m3	\$	37.80 70.00		-	Additional 10% contingency applied
	1.3	Set-Out	,					40.500.00	Additional 10% containgency applied
		1.3.1 Allow for site set out	1	Item	\$	12,500.00	\$	12,500.00	
2		AVEMENT							
	2.1	New Pavement 2.1.1 Road pavement - Traffic lanes	4,489	m2	\$	156.60	\$	703,008.72	Includes pavement to Traffic lane (3.5m) and parking bay (2.3m) to both sides total width
	2.2	Rehabilitate Existing Pavement 2.2.1 Pavement profiling and reshaping	-	Allow.	\$	-	\$	-	(11.6m) Assume all new works.
3	CONCRE 3.1	ETE WORKS Kerb and Channel							
		3.1.1 Kerb and channel	1,548	LM	\$	48.60	\$	75,232.80	Kerb and channel to both sides of each traffic lane
	3.2	Pedestrian & Cycle Paths							iaiie
		3.2.1 Pedestrian footpath	1,161	m2	\$	59.00	\$	68,499.00	Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3.0m) wide
		3.2.2 Cycle pathway	1,316	m2	\$	66.00	\$	86,842.80	Two way Cycle path (1.7m) wide each side of the road. Total span (3.4m) wide
	3.3	3.2.3 Shared pathway Median strip	-	m2	\$	66.00	\$	-	Assumed not included in SS-RD4
	ა.ა	3.3.1 Median (Levelled ground)	2,709	m2	\$	32.40	\$	87,771.60	
4	DRAINA								
	4.1	Drainage - Pipes 4.1.1 Stormwater drainage (300mm DIA)	103	LM	\$	216.00	\$	22,291.20	
		4.1.2 Stormwater drainage (450mm DIA) 4.1.3 Stormwater drainage (525mm DIA)	271 116	LM LM	\$	260.00 383.50		70,434.00 44,524.35	
	4.2	4.1.4 Drainage, sub grade drain Drainage - Pits 4.2.1 Side entry pits	774	LM No.	\$	54.00	\$	41,796.00	Assumed spacing of 75m
	4.3	Drainage - WSUD	10	Allow.	\$	1,500.00	\$	15,480.00	Assumed spacing of 75m
	4.4	Drainage - Miscellaneous	-	No.	\$	-	\$	-	
5	5.1	Traffic Signals 5.1.1 Traffic signals (incl. conduit subset)	-	LM.	\$	-	\$	-	
	5.2	Traffic Safety 5.2.1 Line marking and Traffic Signage	387	LM	\$	32.00	\$	12,384.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSC	APE							
	6.1	Trees 6.1.1 Tree planting (2-2.5m tall)	6	No.	\$	- 350.00	•	2 100 00	Allowance only
	6.2	Landscaping			·				·
		6.2.1 Tube stock plantings6.2.2 Nature strip	1,362 1,362	m2 m2	\$ \$	3.00 10.00		13.620.00	Allowance of 2 per m2 to nature strip Topsoiling and seeding of nature strips,
7	STREET 7.1	LIGHTING Street Lighting	,,,		·		·	.,.	varying in widins
		7.1.1 Street lighting (incl. lighting conduits)	8	No.	\$	12,500.00	\$	96,750.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8		LANEOUS							
	8.1	8.1.1 Speed cameras 8.1.2 Speed bumps	-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
	8.2	Retaining walls 8.2.1 Retaining wall (0-2m high)		LM	\$	1,120.00	\$	-	Up to 2m high
		8.2.2 Retaining wall (3-5m high) 8.2.3 Retaining wall (6-8m high)	160	LM LM	\$	4,480.00 7,840.00	\$	1 254 400 00	Up to 5m high Up to 8m high
		8.2.4 Retaining wall (9-11m high)	300	LM	\$	11,200.00			Up to 11m high
9	SERVICE	ES .							
	9.1 9.2	Services Relocation Services Protection	- -	Allow. Allow.	\$ \$	-	\$ \$	-	Excluded Excluded
			SUB TOTAL				\$	12,211,445.76	
40	DELIVER	ov.	CODITORE					. 2,211,440.70	,
10		Fees		t.			•		
		Council Fees VicRoads Fees	3.25% 1.00%	Item Item			\$	396,871.99 122,114.46	
	10.3 10.4	Traffic Management Environmental Management	5.00% 0.50%	Item Item			\$ \$	610,572.29 61,057.23	
	10.5 10.6	Survey & Design Supervision & Project Management	5.00% 9.00%	Item Item			\$	610,572.29 1,099,030.12	
	10.7	Site Establishment	2.50%	Item			\$	305,286.14	
	10.8	Contingency	15.00% SUB-TOTAL D				\$ \$	1,831,716.86 5,037,221.38	
									_
11			TOTAL ESTIMATED PROJECT	гсоѕт			\$	17,248,667.14	

SS-RD4-05 3136206 - PMD - Cost Estimate Templates.xlsx

11

Item			Description	Quantity	Unit		Rate		Amount	Comments
	WORKS	<u>_</u>								
1	SITEWO 1.1	Pre-cons	EARTHWORKS truction							
	1.2	1.1.1 Earthwor	Demolition and site preparation	27,100	m2	\$	5.40	\$	146,340.00	
	1.2	1.2.1	Cut and disposal	8,722	m3	\$	55.00		479,715.50	Additional 10% contingency applied
		1.2.2 1.2.3	Fill Cut to fill	2,826	m3 m3	\$	37.80 70.00		197,834.35	Additional 10% contingency applied
	1.3	Set-Out	Allow for site set out	1	Item	\$	12,500.00	\$	12,500.00	
2		PAVEMEN	Г			•	12,000.00	•	12,000.00	
	2.1	New Pav 2.1.1	Road pavement - Traffic lanes	12,141	m2	\$	156.60	\$	1,901,249.28	Includes pavement to Traffic lane (3.5m) and parking bay (2.1m) to both sides total width (11.2m)
	2.2		ate Existing Pavement Pavement profiling and reshaping		Allow.	\$	-	\$	-	Assume all new works.
3	CONCR	ETE WOR								
	3.1	Kerb and	Channel Kerb and channel	2,168	1.04	\$	48.60	¢.	105,364.80	Kerb and channel to both sides of each traffic
	3.2		an & Cycle Paths	2,100	LM	Ф	46.00	Ф	105,364.60	lane
		3.2.1		3,252	m2	\$	59.00	\$	191,868.00	
		3.2.2	Cycle pathway	3,252	m2	\$	66.00	\$	214,632.00	Two way Cycle path (3m) wide of the road. Total span (3m) wide
		3.2.3	Shared pathway	-	m2	\$	66.00	\$	-	Assumed not included
	3.3	Median s	•		0	•	00.40	•		A
4	DRAINA	AGE	Median (Levelled ground)	-	m2	\$	32.40	\$	-	Assumed not included
	4.1	Drainage 4.1.1	- Pipes Stormwater drainage (300mm DIA)	289	LM	\$	216.00	\$	62,438.40	
			Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)	759 325	LM LM	\$	260.00 383.50		197,288.00 124,714.20	
	12	4.1.4	Drainage, sub grade drain	2,168	LM	\$	54.00			includes subsoil drainage
	4.2	4.2.1	Side entry pits	29	No.	\$	2,700.00			Assumed spacing of approx. 75m
	4.3 4.4	Drainage Drainage	- WSUD - Miscellaneous	29 -	Allow. No.	\$	1,500.00	\$ \$	43,360.00	Assumed none.
5	TRAFFI	С								
	5.1	Traffic Si 5.1.1	gnals Traffic signals (incl. conduit subset)	-	LM.	\$	-	\$	-	
	5.2	Traffic Sa	afety							Includes fixed signage, guide posts, line
		5.2.1	Line marking and Traffic Signage	1,084	LM	\$	32.00	\$	34,688.00	markings, traffic safety
6	LANDS									
	6.1		Tree planting (2-2.5m tall)	20	No.	\$	350.00	\$	7,000.00	Allowance only
	6.2	Landscar 6.2.1	oing Tube stock plantings	8,596	m2	\$	3.00	\$	25,786.80	Allowance of 2 per m2 to nature strip
			Nature strip	8,596	m2	\$	10.00		85,956.00	Topsoiling and seeding of nature strips, varying in widths
7	STREE 1 7.1	T LIGHTING Street Lig								-
		OU SOL EN	······g							Assume install poles 12m high with luminaries
		7.1.1	Street lighting (incl. lighting conduits)	22	No.	\$	12,500.00	\$	271,000.00	placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8		LANEOUS			14	•		•		Fueluded
	8.1	8.1.1 8.1.2	Speed cameras Speed bumps	-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
	8.2	Retaining 8.2.1	g walls Retaining wall Retaining wall (3-5m high)							Allow for retaining wall heights:
9	SERVIC	ES								
	9.1 9.2	Services	Relocation Protection	- -	Allow.		-	\$ \$	-	Excluded Excluded
	J. <u>L</u>	_ 3 1003		· · · · · · · · · · · · · · · · · · ·				_		
				SUB TOTAL -	WORK	5		\$	4,296,855.33	
10	DELIVE	RY Fees								
	10.1	Council F		3.25%	Item			\$	139,647.80	
	10.3		anagement	1.00% 5.00%	Item Item			\$	42,968.55 214,842.77	
	10.4 10.5		nental Management Design	0.50% 5.00%	Item Item			\$ \$	21,484.28 214,842.77	
	10.6 10.7	Supervis	ion & Project Management blishment	9.00% 2.50%	Item Item			\$ \$	386,716.98 107,421.38	
	10.7	Continge		15.00%	Item			\$	644,528.30	
				SUB-TOTAL D	ELIVER	1		\$	1,772,452.82	
				TOTAL COTIMATED DOOLEGE						

3136206 - PMD - Cost Estimate Templates.xlsx SS-RD5

6,069,308.15

TOTAL ESTIMATED PROJECT COST

Fox Hollow Drive

SS-RD-06 Approx. length: 680m (ex.Intersections)

	Item		Description	Quantity	Unit		Rate		Amount	Comments
1 Procession Science Procession of the proposal size 1 1 1 1 1 1 1 1 1										
1.5.1 Bernotine and set perspectation 1.700 ms 5 0.01 1.900 1.	1									
1.2.1 Cut and proposed 1.2.2 Cut and pro			1.1.1 Demolition and site preparation	17,000	m2	\$	5.40	\$	91,800.00	
1.2.2 Out-off		1.2		9,133	m3	\$	55.00	\$	502,297.61	Additional 10% contingency applied
				2 669					- 186 825 01	Additional 10% contingency applied
2.1. Road promeint - Trafficiance 7,616 m2 5 156/00 5 112/26600 Promeint - Trafficiance 7,616 m2 5 156/00 5 112/26600 Promeint - Trafficiance 7,616 m2 5 156/00 5 112/26600 Promeint - Trafficiance 7,616 m2 7 112/26600 Promeint - Trafficiance 7,616		1.3	Set-Out							Additional 10% contangency applied
2.1. Recepanement - Trainite Laime School and Continue School	2	ROAD P		1	Item	\$	12,500.00	\$	12,500.00	
2.1.1 Read parament. Trains latence 7,816 m2 \$ 100,000 \$ 1,102,000.00 parament parament parament parament parameters 1,900 \$ 1,000,000 \$		2.1	New Pavement							
CONCRETE WATER 3.1 Keft and channel 1,360 1/4 5 46,00 5 6,000 1/6 1/			2.1.1 Road pavement - Traffic lanes	7,616	m2	\$	156.60	\$	1,192,665.60	parking bay (2.1m) to both sides total width
3.1 Net sur Charmer 1.260 LM 5 46.0 5 80,09.0 Infet and Charmer 1.260 LM 5 46.0 5 80,09.0 Infet and Charmer 1.260 LM 5 46.0 5 80,09.0 Infet and Charmer 1.260 LM 1 10.0 1 10.0 Infet and Charmer 1.260 LM 1 10.0 1 10.0 Infet and Charmer 1.260 LM 1 10.0 Infet and Charmer 1.260 LM 1 10.0 Infet and Charmer 1.260 Infet and Charmer Infe		2.2		-	Allow.	\$	-	\$	-	Assume all new works.
Substitute	3									
1		3.1		1 360	LM	Φ.	48.60	¢	66 096 00	Kerb and channel to both sides of each traffic
1		3.2		1,300	LIVI	φ	40.00	φ	00,090.00	lane
1				2,040	m2	\$	59.00	\$	120,360.00	
3.3 Modium (Levelled ground) 1.5			3.2.2 Cycle pathway	2,040	m2	\$	66.00	\$	134,640.00	Two way Cycle path (3m) wide of the road. To span (3m) wide
3.3 Modium (Levelled ground) 1.5			3.2.3 Shared pathway		m2	\$	66.00	\$	_	
1		3.3	Median strip							
4.1	4	DRAINA		-	m2	\$	-	\$	-	Assumed not included
Harmonia			Drainage - Pipes	600	I M			¢		
			4.1.1 Stormwater drainage (300mm DIA)	181	LM			\$	39,168.00	
4.3 Since letry pits 18 No. \$ 2,700 0 5 2,700 0 1 2 1 1 1 1 1 1 1 1			4.1.4 Drainage, sub grade drain							
1		4.2		18	No.	\$	2,700.00	\$	48,960.00	Assumed spacing of 75m
TRAFFIC St.1 Traffic signals (incl. conduit subset) St.2 Traffic Safety St.2 Traffic Management St.2 Tra			Drainage - WSUD	18			1,500.00		27,200.00	
State Stat			•	-	INO.	Ф	-	Ф	-	Assumed none.
Social Continue	5		Traffic Signals	-	LM.	\$	-	\$	-	
S.Z. Life marking and Trainic Signage 600 LM S 3.20 \$ 21,700.00 markings, traffic safety		5.2	Traffic Safety							
6.1 Trees 6.1 Trees 6.1.1 Tree planting (2-2.5m tall) 6.2 Landscaping 6.2 Landscaping 6.2 Landscaping 6.2.2 Nature strip 7. STREET LIGHTING 7.1 Street lighting 7.1 Street lighting 7.1.1 Street lighting (incl. lighting conduits) 8. MISCELLANEOUS 8.1 Speed cameras 8.1.2 Speed bumps 8.1.2 Speed bumps 8.2.1 Retaining walls 8.2.1 Retaining wall 8.2.2 Retaining walls 8.2.1 Retaining wall 8.2.2 Retaining wall 8.3.1 Services Relocation 9.2 Services Protection 9.2 Services Protection 9.3 SUB TOTAL + WORKS 8.3 Substitute 9.2 Services Protection 9.4 Allow 9.5 Substitute 9.6 Substitute 9.6 Substitute 9.6 Substitute 9.7 Substitute 9.8 Substitute 9.8 Substitute 9.9 Substitut			5.2.1 Line marking and Traffic Signage	680	LM	\$	32.00	\$	21,760.00	
6.1 Trees 6.1 Trees 6.1.1 Tree planting (2-2.5m tall) 6.2 Landscaping 6.2 Landscaping 6.2 Landscaping 6.2.2 Nature strip 7. STREET LIGHTING 7.1 Street lighting 7.1 Street lighting 7.1.1 Street lighting (incl. lighting conduits) 8. MISCELLANEOUS 8.1 Speed cameras 8.1.2 Speed bumps 8.1.2 Speed bumps 8.2.1 Retaining walls 8.2.1 Retaining wall 8.2.2 Retaining walls 8.2.1 Retaining wall 8.2.2 Retaining wall 8.3.1 Services Relocation 9.2 Services Protection 9.2 Services Protection 9.3 SUB TOTAL + WORKS 8.3 Substitute 9.2 Services Protection 9.4 Allow 9.5 Substitute 9.6 Substitute 9.6 Substitute 9.6 Substitute 9.7 Substitute 9.8 Substitute 9.8 Substitute 9.9 Substitut	6	LANDSC	:APE							
6.2 Landscaping 6.2.1 Tube stock plantings 6.2.1 Tube stock plantings 6.2.2 Nature strip 7. STREET LICHTING 7. STREET LICHTING 7. 1.1 Street lighting 7. 1.1 Street lighting 8. MISCELL ABOUS 8. No. S 12.500.00 \$ 170,000.00 Assume install poles 12m high with luminarie includes for electrical lighting conduits 8. MISCELL ABOUS 8. 1.1 Speed cameras 9. 1 lem S S S Excluded 8. 1.2 Speed bumps 9. 2 Retaining walls 8. 2 Retaining walls 8. 2 Retaining walls 9. 2 Services Relocation 9. 3 Services Relocation 9. 4 No. S S S S Excluded 9. 2 Services Relocation 9. 3 Services Relocation 9. 4 No. 5 S S S Excluded 9. 5 S		6.1		10	No	¢	350.00	¢	4 200 00	Allowance only
STREET LICHTNUM		6.2		12	INO.	Ф	350.00	Þ	4,200.00	Allowance only
Street Lighting										
7.1. Street Lighting 7.1.1 Street lighting (incl. lighting conduits) 14 No. \$ 12,500.00 \$ 170,000.00 placed every 50m (roads) to one side. Rate includes for electrical lighting conduits 8 MISCELLANEOUS 8.1 8.1.1 Speed cameras - Item \$ - \$ - Excluded 8.1.2 Speed bumps - No. \$ - \$ - Excluded 8.2 Retaining walls 8.2.1 Retaining wall - LM \$ - \$ - Assumed none 9 SERVICES 9.1 Services Relocation - Allow. \$ - \$ - Excluded 9.2 Services Protection - Allow. \$ - \$ - Excluded 5 UB TOTAL +WORKS - Excluded 5 Us TOTAL +WORKS - Excluded 5 Us TOTAL +WORKS - Excluded 5 Us TOTAL +WORKS - Excluded 6 Using T - Excluded 7 Using T - Excluded 7 Using T - Excluded 8 Using T - Excluded 9 Using T - Excluded 9 Usin	_		·	5,460	m2	\$	10.00	\$	54,600.00	
T.1.1 Street lighting (incl. lighting conduits)	7									
8.1 8.1.1 Speed cameras - Item \$ - \$ - Excluded			7.1.1 Street lighting (incl. lighting conduits)	14	No.	\$	12,500.00	\$	170,000.00	
8.1 8.1.1 Speed cameras - Item \$ - \$ - Excluded		MISCEL	ANFOLIS							
8.2 Retaining walls	5		8.1.1 Speed cameras	-			-		-	
SERVICES 9.1 Services Relocation - Allow. \$ - \$ - Excluded 9.2 Services Protection - Allow. \$ - \$ - \$ - Excluded 9.2 Services Protection - Allow. \$ - \$ - \$ - Excluded 9.2 SUB TOTAL - WORKS \$ 2,964,886.22 10			8.1.2 Speed bumps	-	No.	\$	-	\$	-	Excluded
9.1 Services Relocation - Allow. \$ - \$ - Excluded 9.2 Services Protection - Allow. \$ - \$ - Excluded SUB TOTAL - WORKS SUB TOTAL - WORKS \$ 2,964,886.22 10.1 Council Fees 10.1 Council Fees		8.2		-	LM	\$	-	\$	-	Assumed none
Sub Total - Works \$ 2,964,886.22	9	SERVICI								
Sub total - Works \$ 2,964,886.22				<u>-</u>			-			
DELIVERY Fees		J.Z	23.1.300 1 101001011	-						
Fees 10.1 Council Fees 10.2 VicRoads Fees 1.00% Item \$ 96,358.80 10.2 VicRoads Fees 1.00% Item \$ 29,648.86 10.3 Traffic Management 5.00% Item \$ 148,244.31 10.4 Environmental Management 0.50% Item \$ 14,824.43 10.5 Survey & Design 5.00% Item \$ 148,244.31 10.6 Supervision & Project Management 9.00% Item \$ 266,839.76 10.7 Site Establishment 2.50% Item \$ 74,122.16 10.8 Contingency 15.00% Item \$ 444,732.93 SUB-TOTAL DELIVERY \$ 1,223,015.57				SUB TOTAL -	WORKS			\$	2,964,886.22	
10.1 Council Fees 3.25% Item \$ 96,358.80 10.2 VicRoads Fees 1.00% Item \$ 29,648.86 10.3 Traffic Management 5.00% Item \$ 148,244.31 10.4 Environmental Management 0.50% Item \$ 148,244.31 10.5 Survey & Design 5.00% Item \$ 148,244.31 10.6 Supervision & Project Management 9.00% Item \$ 266,839.76 10.7 Site Establishment 2.50% Item \$ 74,122.16 10.8 Contingency 15.00% Item \$ 444,732.93 SUB-TOTAL DELIVERY	10	DELIVE								
10.2 VicRoads Fees 1.00% Item \$ 29,648.86 10.3 Traffic Management 5.00% Item \$ 148,244.31 10.4 Environmental Management 0.50% Item \$ 148,244.31 10.5 Survey & Design 5.00% Item \$ 148,244.31 10.6 Supervision & Project Management 9.00% Item \$ 266,839.76 10.7 Site Establishment 2.50% Item \$ 74,122.16 10.8 Contingency 15.00% Item \$ 444,732.93 SUB-TOTAL DELIVERY		10 1		3 25%	Item			\$	96.358.80	
10.4 Environmental Management 0.50% Item \$ 14,824.43 10.5 Survey & Design 5.00% Item \$ 148,244.31 10.6 Supervision & Project Management 9.00% Item \$ 266,839.76 10.7 Site Establishment 2.50% Item \$ 74,122.16 10.8 Contingency 15.00% Item \$ 444,732.93 SUB-TOTAL DELIVERY		10.2	VicRoads Fees	1.00%	Item			\$	29,648.86	
10.5 Survey & Design 5.00% Item \$ 148,244.31 10.6 Supervision & Project Management 9.00% Item \$ 266,839.76 10.7 Site Establishment 2.50% Item \$ 74,122.16 10.8 Contingency 15.00% Item \$ 444,732.93 SUB-TOTAL DELIVERY										
10.7 Site Establishment 2.50% Item \$ 74,122.16 10.8 Contingency 15.00% Item \$ 444,732.93 SUB-TOTAL DELIVERY \$ 1,223,015.57		10.5	Survey & Design	5.00%	Item			\$	148,244.31	
10.8 Contingency 15.00% Item \$ 444,732.93 SUB-TOTAL DELIVERY \$ 1,223,015.57										
11 TOTAL ESTIMATED PROJECT COST \$ 4.187.901.78				SUB-TOTAL D	ELIVERY			\$	1,223,015.57	
11 TOTAL ESTIMATED PROJECT COST \$ 4.187.901.78										
	11			TOTAL ESTIMATED PROJECT	COST			\$	4,187,901,78	

3136206 - PMD - Cost Estimate Templates.xlsx SS-RD6

SS-RD-07 Approx. Length 1938m (ex. Intersections)

Item			Description		Quantity	Unit		Rate		Amount	Comments
	WORKS						-				
1	SITEWO 1.1	Pre-cons	EARTHWORKS struction								
	1.2	1.1.1 Earthwor	Demolition and site preparation		37,210	m2	\$	5.40	\$	200,931.84	
		1.2.1 1.2.2	Cut and disposal		34,098	m3 m3	\$	55.00 37.80		1,875,362.50	Additional 10% contingency applied
	4.0	1.2.3	Cut to fill			m3	\$	70.00		-	Additional 10% contingency applied
			Allow for site set out		1	Item	\$	12,500.00	\$	12,500.00	
2	ROAD P	New Pav									
		2.1.1	Road pavement - Traffic lanes		16,376	m2	\$	156.60	\$	2,564,497.26	Includes pavement to Traffic lane (3m) and parking bay (2.1m) to both sides total width (10.2m)
3	2.2 CONCR 3.1					Allow.	\$	-	\$	-	Assume all new works.
			Kerb and channel		3,876	LM	\$	48.60	\$	188,373.60	Kerb and channel to both sides of each traffic lane
	3.2		an & Cycle Paths Pedestrian footpath		-	m2	\$	59.00	\$	-	Assumed not included
		3.2.2	Cycle pathway		5,814	m2	\$	66.00	\$	383,724.00	Allow Cycle path (3m) wide
								66.00	•		
	3.3	3.2.3 Median s	Shared pathway		-	m2	\$	66.00	\$	-	Assumed not included
4	DRAINA 4.1	3.3.1	Median (Levelled ground)		-	m2	\$	32.40	\$	-	Assumed not included
			Stormwater drainage (300mm DIA) Stormwater drainage (450mm DIA)		517 1,357	LM LM	\$ \$	216.00 260.00		111,628.80 352,716.00	
		4.1.3	Stormwater drainage (525mm DIA) Drainage, sub grade drain		581 3,876	LM LM	\$	383.50 54.00	\$	222,966.90 209,304.00	
	4.2	Drainage	e - Pits								A
	4.3	Drainage			52 52	No. Allow.	\$	2,700.00 1,500.00	\$	139,536.00 77,520.00	Assumed spacing of approx. 75m
	4.4	Drainage	e - Miscellaneous		-	No.	\$	-	\$	-	Assumed none.
5	5.1 5.2	Traffic Si	Traffic signals (incl. conduit subset)		-	LM.	\$	-	\$	-	
	J.Z		Line marking and Traffic Signage		1,938	LM	\$	32.00	\$	62,016.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDS										
	6.1	Trees 6.1.1	Tree planting (2-2.5m tall)		42	No.	\$	350.00	\$	14,700.00	Allowance only
	6.2	Landscap 6.2.1	ping Tube stock plantings		13,200	m2	\$	3.00	\$	39,600.00	Allowance of 2 per m2 to nature strip
		6.2.2	Nature strip		13,200	m2	\$	10.00	\$	132,000.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET 7.1	CLIGHTING Street Lig									, 3
	7.1	7.1.1	Street lighting (incl. lighting conduits)		39	No.	\$	12,500.00	\$	484,500.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCEL 8.1	. LANEOUS 8.1.1	S Speed cameras		_	Item	\$		\$		Excluded
		8.1.2	Speed bumps		-	No.	\$	-	\$	-	Excluded
	8.2	Retaining 8.2.1	g walls Retaining wall		-	LM	\$	-	\$	-	
9	SERVIC		Delegation			A **			•		Foodord
	9.1 9.2		Relocation Protection		-	Allow. Allow.	\$ \$	-	\$ \$	-	Excluded Excluded
					SUB TOTAL -	WORKS	;		\$	7,071,876.90	
10	DELIVE										
	10.1	Fees Council F	ees		3.25%	Item			\$	229,836.00	
		VicRoads Traffic M	s Fees anagement		1.00% 5.00%	Item Item			\$ \$	70,718.77 353,593.85	
	10.4 10.5	Environm	nental Management		0.50% 5.00%	Item Item			\$ \$	35,359.38 353,593.85	
	10.6 10.7	Supervis	ion & Project Management blishment		9.00% 2.50%	Item Item			\$ \$	636,468.92 176,796.92	
	10.7	Continge			15.00%	Item			\$	1,060,781.54	
					SUB-TOTAL D	ELIVERY			\$	2,917,149.22	
11				TOTAL ESTIN	MATED PROJECT	COST			\$	9,989,026.12	

3136206 - PMD - Cost Estimate Templates.xisx SS-RD7

11

Item		Description	Quantity	Unit		Rate	Amount	Comments
	WORKS							
1	SITEWO	RKS AND EARTHWORKS						
	1.1	Pre-construction 1.1.1 Demolition and site preparation	24,450	m2	\$	5.40	\$ 132,030.00	Assumed 15m wide road
	1.2	Earthworks 1.2.1 Cut and disposal	9,770	m3	\$	55.00	\$ 537,339.69	Additional 10% contingency applied
		1.2.2 Fill		m3	\$	37.80	\$ -	U , .,
	1.3	1.2.3 Cut to fill Set-Out	-	m3	\$	70.00	-	
		1.3.1 Allow for site set out	1	Item	\$	12,500.00	\$ 12,500.00	
2		AVEMENT						
	2.1	New Pavement 2.1.1 Road pavement - Traffic lanes	11,410	m2	\$	156.60	\$ 1,786,806.00	Includes pavement to Traffic lane (3.5m) total width
								(7m)
	2.2	Rehabilitate Existing Pavement 2.2.1 Pavement profiling and reshaping		Allow.	\$	-	\$ -	Assume all new works.
3		TE WORKS						
	3.1	Kerb and Channel 3.1.1 Kerb and channel		LM	\$	48.60	\$ -	Assumed not included based on PSP cross section
	3.2	Pedestrian & Cycle Paths			*	10.00	*	7,000,000,000,000,000,000,000,000,000,0
		3.2.1 Pedestrian footpath	-	m2	\$	59.00	\$ -	Excluded
		3.2.2 Cycle pathway	-	m2	\$	66.00	\$ -	Two way Cycle path (3m) wide of the road. Total span (3m) wide
	2.2	3.2.3 Shared pathway	-	m2	\$	66.00	\$ -	Assumed not included
	3.3	Median strip 3.3.1 Median (Levelled ground)	-	m2	\$	32.40	\$ -	Assumed not included
4	DRAINA 4.1	GE Drainage - Pipes						Allow Cycle path (3m) wide
		4.1.1 Stormwater drainage (300mm DIA)		LM	\$	216.00		Assumed not included
		4.1.2 Stormwater drainage (450mm DIA)4.1.3 Stormwater drainage (525mm DIA)		LM LM	\$ \$	260.00 383.50		Assumed not included Assumed not included
	4.2	4.1.4 Drainage, sub grade drain Drainage - Pits		LM	\$	54.00	\$ -	Assumed not included
		4.2.1 Side entry pits		No.	\$	2,700.00		Assumed not included
	4.3 4.4	Drainage - WSUD Drainage - Miscellaneous	1 2	Allow. No.		50,000.00 150,000.00		Allowance only Allowance only - Swale to each side of road way
5	TRAFFIC							
	5.1	Traffic Signals		LM.	\$	_	\$ -	
	5.2	5.1.1 Traffic signals (incl. conduit subset) Traffic Safety	-	LIVI.	Ф	-	-	
		5.2.1 Line marking and Traffic Signage	1,630	LM	\$	32.00	\$ 52,160.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSO	APF						
·	6.1	Trees						
	6.2	6.1.1 Tree planting (2-2.5m tall) Landscaping	28	No.	\$	350.00	\$ 9,800.00	Allowance only
		6.2.1 Tube stock plantings 6.2.2 Nature strip	-	m2 m2	\$	3.00 10.00		
7		LIGHTING		1112	Ψ	10.00	Ψ	
	7.1	Street Lighting						Assume install poles 12m high with luminaries
		7.1.1 Street lighting (incl. lighting conduits)	33	No.	\$	12,500.00	\$ 407,500.00	
								includes for electrical lighting conduits
8	MISCEL 8.1	ANEOUS 8.1.1 Speed cameras	_	Item	\$	_	\$ -	Excluded
	0	8.1.2 Speed bumps	-	No.	\$	-	\$ -	Excluded
	8.2	Retaining walls						
		8.2.1 Retaining wall	-	LM	\$	-	\$ -	
9	SERVIC			Δ11	•		¢	Evaludad
	9.1 9.2	Services Relocation Services Protection	-	Allow. Allow.	\$ \$	-	\$ - \$ -	Excluded Excluded
			SUB TOTAL	WORKS			\$ 3,288,135.69	
			JUB TOTAL	WORKS.			9,200,135.69	
10	DELIVE	<u>Y</u> Fees						
	10.1	Council Fees	3.25%	Item			\$ 106,864.41	
	10.2 10.3	VicRoads Fees Traffic Management	1.00% 5.00%	Item Item			\$ 32,881.36 \$ 164,406.78	
	10.4	Environmental Management	0.50%	Item			\$ 16,440.68	
	10.5 10.6	Survey & Design Supervision & Project Management	5.00% 9.00%	Item Item			\$ 164,406.78 \$ 295,932.21	
	10.7	Site Establishment	2.50%	Item			\$ 82,203.39	
	10.8	Contingency	15.00% SUB-TOTAL D	Item ELIVERY			\$ 493,220.35 \$ 1,356,355.97	
							, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

3136206 - PMD - Cost Estimate Templates.xlsx SS-RD8

4,644,491.66

TOTAL ESTIMATED PROJECT COST

11

Item			Description	Quantity	Unit		Rate		Amount	Comments
	WORKS									
1	SITEWO	RKS AND EARTHWORKS Pre-construction								
		1.1.1 Demolition and site pr	eparation	6,250	m2	\$	5.40	\$	33,750.00	
	1.2	Earthworks 1.2.1 Cut and disposal			m3	\$	55.00	\$	-	
		1.2.2 Fill 1.2.3 Cut to fill		10,256	m3 m3	\$	37.80 70.00		- 717 920 00	Additional 10% contingency applied
	1.3	Set-Out								Additional total contangency applied
2	ROAD PA	1.3.1 Allow for site set out		1	Item	\$	12,500.00	\$	12,500.00	
	2.1	New Pavement								
		2.1.1 Road pavement - Traf	fic lanes	2,800	m2	\$	156.60	\$	438,480.00	Includes pavement to Traffic lane (3.5m) and parking bay (2.1m) to both sides total width (11.2m)
3	CONCRE	Rehabilitate Existing Pavement 2.2.1 Pavement profiling an TE WORKS Kerb and Channel			Allow.	\$	-	\$	-	Assume all new works.
		3.1.1 Kerb and channel		500	LM	\$	48.60	\$	24,300.00	Kerb and channel to both sides of each traffic lane
	3.2	Pedestrian & Cycle Paths								
		3.2.1 Pedestrian footpath		750	m2	\$	59.00	\$	44,250.00	Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3.0m) wide
		3.2.2 Cycle pathway		750	m2	\$	66.00	\$	49,500.00	Two way Cycle path (3m wide) single side of the road. Total span (3m) wide
		3.2.3 Shared pathway		-	m2	\$	66.00	\$	-	Assumed not included
	3.3	Median strip 3.3.1 Median (Levelled grou	und)	_	m2	\$	32.40	\$	_	Assumed not included
4	DRAINA	SE .		-	1112	Ψ	J2.4U	Ψ	-	, assumed not moralded
	4.1	Drainage - Pipes 4.1.1 Stormwater drainage		67	LM	\$	216.00		14,400.00	
		4.1.2 Stormwater drainage4.1.3 Stormwater drainage		250	LM LM	\$	260.00 383.50		65,000.00	Assumed not included
	4.2	4.1.4 Drainage, sub grade of		500	LM	\$	54.00		27,000.00	
		Drainage - Pits 4.2.1 Side entry pits		7	No.	\$	2,700.00			Assumed spacing of approx. 75m
		Drainage - WSUD Drainage - Miscellaneous		7 -	Allow. No.	\$	1,500.00	\$	10,000.00	Assumed none.
-		•			. 10.	Ψ		Ÿ		
5		Traffic Signals 5.1.1 Traffic signals (incl. co	onduit subset)	-	LM.	\$	-	\$	-	
	5.2	Traffic Safety 5.2.1 Line marking and Traf	fic Signage	250	LM	\$	32.00	\$	8,000.00	Includes fixed signage, guide posts, line
										markings, traffic safety
6	LANDSC 6.1	APE Trees								
		6.1.1 Tree planting (2-2.5m Landscaping	tall)	4	No.	\$	350.00	\$	1,400.00	Allowance only
	0.2	6.2.1 Tube stock plantings		2,028	m2	\$	3.00	\$	6,084.00	Allowance of \$2 per m2 to nature strip
		6.2.2 Nature strip		2,028	m2	\$	10.00	\$	20,280.00	Topsoiling and seeding of nature strips, varying in widths
7		LIGHTING Street Lighting								
	1	7.1.1 Street lighting (incl. lig	hting conduits)	5	No.	\$	12,500.00	\$	62,500.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELL	ANEOUS								
		8.1.1 Speed cameras 8.1.2 Speed bumps		-	Item No.	\$	-	\$ \$	-	Excluded Excluded
				-	140.	Ψ	-	Ψ	-	Encode Grant Control of Control o
	8.2	Retaining walls 8.2.1 Retaining wall (3-5m l	nigh)	197	LM	\$	4,480.00	\$	882,560.00	
9	SERVICE	•								
,	9.1	Services Relocation		-	Allow.	\$	-	\$	-	Excluded
	9.2	Services Protection			Allow.	\$	-	\$	<u> </u>	Excluded
				SUB TOTAL	WORKS			\$	2,435,924.00	
10	DELIVER	<u>Y</u>								
		 Fees Council Fees		3.25%	Item			\$	79,167.53	
	10.2	VicRoads Fees		1.00%	Item			\$	24,359.24	
		Traffic Management Environmental Management		5.00% 0.50%	Item Item			\$ \$	121,796.20 12,179.62	
	10.5	Survey & Design		5.00%	Item			\$	121,796.20	
		Supervision & Project Managen Site Establishment	nent	9.00% 2.50%	Item Item			\$	219,233.16 60,898.10	
		Contingency		15.00%	Item			\$	365,388.60	
				SUB-TOTAL D	ELIVERY			\$	1,004,818.65	

3136206 - PMD - Cost Estimate Templates.xlsx SS-RD9

3,440,742.65

TOTAL ESTIMATED PROJECT COST

Intersection on Sunbury Road SS-IN-01 (Cross Intersection - Interim)

			Description	Quantity	Unit		Rate		Amount	Comments
	WORKS									
1	SITEWO	RKS AND	EARTHWORKS							
	1.1	Pre-cons 1.1.1	truction Demolition and site preparation	31,500	m2	\$	5.40	\$	170,100.00	
	1.2	Earthwor		- 1,1-1-1		Ť			,	
		1.2.1	Cut and disposal at specified location	26,775	m3	\$	55.00	\$	1,472,625.00	Assuming pavement composition depth total 650mm deep including fill
		1.2.2	Fill	-	m3	\$	37.80	\$	-	obomin deep moldang iii
	1.3	Set-Out	Allow for site set out	1	Item	4	12,500.00	¢	12,500.00	
2	ROAD P	AVEMEN		· ·	item	φ	12,500.00	φ	12,300.00	
	2.1	New Pav	ement							
		2.1.1	Road pavement - Traffic lanes	14,980	m2	\$	156.60	\$	2,345,868.00	Includes pavement to Traffic lane (3.5m) ar parking bay (2.1m) to both sides total width (11.2m)
	2.2	Pehahilit	ate Existing Pavement							
	2.2	2.2.1	Pavement profiling and reshaping	1	Allow.	\$	149,482.80	\$	149,482.80	Allowance only
3	3.1	ETE WOR Kerb and								
	5.1		Kerb and channel	1,180	LM	\$	48.60	¢	57,348.00	Kerb and channel to both sides of each traf
	3.2		an & Cycle Paths	1,100	LIVI	φ	46.00	φ	37,346.00	lane
	3.2	reuesina	iii a Cycle Fauis							Allow pedestrian path to both sides of
		3.2.1	Pedestrian footpath	780	m2	\$	59.00	\$	46,020.00	proposed road each (1.5m) wide. Total spa (3.0m) wide
		3.2.2	Cycle pathway	780	m2	\$	66.00			Allow Cycle path (3m) wide
	_		Shared pathway	-	m2	\$	66.00	\$	-	
	3.3	Median s	trip Median (Levelled ground)	3,666	m2	\$	32.40	\$	118,778.40	
4	DRAINA	GE		5,000	IIIZ	Ψ	02.40	Ψ	110,770.40	
	4.1	Drainage 4.1.1	- Pipes Stormwater drainage (300mm DIA)	201	LM	\$	216.00	\$	43,372.80	
		4.1.2	Stormwater drainage (450mm DIA)	527	LM	\$	260.00	\$	137,046.00	
			Stormwater drainage (525mm DIA) Drainage, sub grade drain	226 1,506	LM LM	\$	383.50 54.00		86,632.65 81,324.00	
	4.2	Drainage		1,300	LIVI	φ	34.00	φ	01,324.00	
	4.0		Side entry pits	8		\$	2,700.00			Assumed spacing of approx. 100m
	4.3 4.4	Drainage Drainage	- WSUD - Miscellaneous	8 -	Allow. No.	\$	1,500.00	\$	12,000.00	Assumed none.
_										
5	TRAFFIC 5.1	C Traffic Si	gnals							
			Traffic signals (incl. conduit subset)	1	Allow.	\$	540,000.00	\$	540,000.00	Rate includes for signals, conduits, pits,
			,			•	,	·	,	footings etc.
	5.2	Traffic Sa	afety							
		5.2.1	Line marking and Traffic Signage	753	LM	\$	32.00	\$	24,096.00	Includes fixed signage, guide posts, line markings, traffic safety
6	6.1	Trees								
			Tree planting (2-2.5m tall)	14	No.	\$	350.00	\$	4,900.00	Allowance only
	6.2	Landscar 6.2.1	Tube stock plantings	2,259	m2	\$	3.00	\$	6.777.00	Allowance of 2 per m2 to nature strip
			Nature strip	2,259		\$	10.00		22,590.00	Allow for total (3m) wide. Topsoiling and
7	STREET	LIGHTIN								seeding of nature strips, varying in widths
	7.1	Street Lig								
		7.1.1	Street lighting (incl. lighting conduits)	16	No.	\$	12,500.00	\$	200,000.00	Assume install poles 12m high with lumina placed every 50m (roads) to one side. Rat includes for electrical lighting conduits
8		LANEOUS						•		Freshidad
	8.1	8.1.1 8.1.2	Speed cameras Speed bumps	-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
						•		,		
	8.2	Retaining 8.2.1	g walls Retaining wall	_	LM	\$	_	\$	_	Assume no retaining walls
				-	LIVI	Ψ	=	Ψ	=	
9	SERVIC 9.1		Relocation (Electrical Pole Relocation)	1	Allow.	¢	400,000.00			Excluded
	9.1		Protection	1	Allow.	\$	20,000.00			Excluded
10	MAINTE	NANCE								
10		10.1.1	VicRoads maintenance fee	1	No.	¢	81,000.00	¢	81,000.00	Allowance for VicRoads maintenance fee
	10.1	10.1.1			INU.	ψ	01,000.00	Ψ	01,000.00	each intersection, as advised by WSPPB
				SUB TOTAL	- WORKS	;		\$	5,685,540.65	
								<u> </u>	2,200,040.00	
1	DELIVE									
	11.1	Fees Council F	ees	3.25%	Item			\$	184,780.07	
	11.2	VicRoads	s Fees	1.00%	Item			\$	56,855.41	
	11.3		anagement	5.00%	Item			\$ \$	284,277.03	
	11.4 11.5	Environm Survey &	ental Management Design	0.50% 5.00%	Item Item			\$	28,427.70 284,277.03	
	11.6	Supervis	on & Project Management	9.00%	Item			\$	511,698.66	
	11.7 11.8	Site Esta Continge	blishment ncv	2.50% 15.00%	Item Item			\$ \$	142,138.52 852,831.10	
	11.0	Jonange	,	SUB-TOTAL I		,		\$	2,345,285.52	
						_				

SS-IT1 3136206 - PMD - Cost Estimate Templates.xlsx

Intersection on Sunbury Road SS-IN-02 (Cross Intersection - Interim)

tem			Description		Quantity	Unit		Rate		Amount	Comments
	WORKS										
1	SITEWO 1.1	Pre-cons	EARTHWORKS								
		1.1.1	Demolition and site preparation		31,969	m2	\$	5.40	\$	172,632.60	
	1.2	Earthwor									Assuming pavement composition depth total
			Cut and disposal at specified location		25,975	m3	\$	55.00		1,428,614.69	650mm deep including fill
	1.3	1.2.2 Set-Out	Fill		-	m3	\$	37.80	\$	-	
_		1.3.1	Allow for site set out		1	Item	\$	12,500.00	\$	12,500.00	
2		AVEMEN [®] New Pav									
		2.1.1	Road pavement - Traffic lanes		15,039	m2	\$	156.60	\$	2,355,107.40	Includes pavement to Traffic lane (3.5m) ar parking bay (2.1m) to both sides total width (11.2m)
	2.2	Rehabilit	ate Existing Pavement								
3	CONCE	2.2.1 ETE WOR	Pavement profiling and reshaping		1	Allow.	\$	194,767.20	\$	194,767.20	Allowance only
,	3.1	Kerb and									
		3.1.1	Kerb and channel		5,890	LM	\$	48.60	\$	286,254.00	Kerb and channel to both sides of each traf
	3.2	Pedestria	an & Cycle Paths								
		3.2.1	Pedestrian footpath		780	m2	\$	59.00	\$	46,020.00	Allow pedestrian path to both sides of proposed road each (1.5m) wide. Total spa (3.0m) wide
		3.2.2	Cycle pathway		780	m2	\$	66.00	\$	51,480.00	Allow Cycle path (3m) wide
	2.2		Shared pathway		-	m2	\$	66.00	\$	-	
	3.3		strip Median (Levelled ground)		3,606	m2	\$	32.40	\$	116,834.40	
4	DRAINA 4.1										
	7.1	4.1.1	Stormwater drainage (300mm DIA)		204	LM	\$	216.00		44,006.40	
			Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)		535 229	LM LM	\$	260.00 383.50	\$ \$	139,048.00 87,898.20	
		4.1.4	Drainage, sub grade drain		1,528	LM	\$	54.00		82,512.00	
	4.2	Drainage 4.2.1	e - Pits Side entry pits		9	No.	\$	2,700.00	\$	24.300.00	Assumed spacing of approx. 100m
	4.3	Drainage	e - WSUD		9	Allow.	\$	1,500.00	\$	13,500.00	
	4.4	Drainage	e - Miscellaneous		-	No.	\$	-	\$	-	Assumed none.
5	TRAFFIC 5.1	: Traffic Si	gnals								
			Traffic signals (incl. conduit subset)		1	Allow.	\$	540,000.00	\$	540,000.00	Rate includes for signals, conduits, pits, footings etc.
	5 2	Troffic C	nênh.								J
	5.2	Traffic Sa	Line marking and Traffic Signage		835	LM	\$	32.00	\$	26,720.00	Includes fixed signage, guide posts, line
			3 3 3							.,	markings, traffic safety
6	LANDSO										
	6.1	Trees 6.1.1	Tree planting (2-2.5m tall)		16	No.	\$	350.00	\$	5,600.00	Allowance only
	6.2	Landscap	ping Tube stock plantings		666	m2	e	2.00	¢.	1 000 00	Allowance of 2 per m2 to nature strip
			, ,		666 666	m2	\$	3.00 10.00		6,660.00	Allow for total (3m) wide. Topsoiling and
7	STREET	LIGHTIN	Nature strip		000	m2	\$	10.00	φ	0,000.00	seeding of nature strips, varying in widths
•	7.1	Street Lig									
		7.1.1	Street lighting (incl. lighting conduits)		17	No.	\$	12,500.00	\$	212,500.00	Assume install poles 12m high with lumina placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCEL	LANEOUS	3								
		8.1.1	Speed cameras		-	Item	\$	-	\$	-	Excluded
		8.1.2	Speed bumps		-	No.	\$	-	\$	-	Excluded
	8.2	Retaining 8.2.1	g walls Retaining wall		-	LM	\$	-	\$	-	Assume no retaining walls
9	SERVICI										•
3	9.1	Services	Relocation		-	Allow.		400,000.00		-	Excluded
	9.2	Services	Protection		-	Allow.	\$	20,000.00	\$	-	Excluded
10	MAINTE	NANCE									
	10.1	10.1.1	VicRoads maintenance fee		1	No.	\$	81,000.00	\$	81,000.00	Allowance for VicRoads maintenance fee t each intersection, as advised by WSPPB
					SUB TOTAL -	MUDRE			\$	5,929,952.89	, 22 22304 27 1 5
					JOB TOTAL -	MONNO			Ψ	3,323,332.09	
11	DELIVE										
	11.1	Fees Council F	ees		3.25%	Item			\$	192,723.47	
	11.2	VicRoads	s Fees		1.00%	Item			\$	59,299.53	
	11.3 11.4		anagement nental Management		5.00% 0.50%	Item Item			\$ \$	296,497.64 29,649.76	
	11.5	Survey &	Design		5.00%	Item			\$	296,497.64	
	11.6 11.7		ion & Project Management blishment		9.00% 2.50%	Item Item			\$ \$	533,695.76 148,248.82	
	11.8	Continge			15.00%	Item			\$	889,492.93	
				S	UB-TOTAL DI	ELIVERY			\$	2,446,105.57	

SS-IT2 3136206 - PMD - Cost Estimate Templates.xlsx

Sunbury Road/Lancefield Road Intersection SS-IN-03 (Cross Intersection - Interim)

Item			Description	Quantity	Unit		Rate		Amount	Comments
	WORKS									
			EARTHWORKS							
		1.1.1	Demolition and site preparation	29,950	m2	\$	5.40	\$	161,730.00	
	1.2	Earthworl	ss Cut and disposal	18,394	m3	\$	55.00	\$	1,011,660.65	
		1.2.2 1.2.3	Fill Cut to fill	473	m3 m3	\$	37.80 70.00		- 22.075.00	With 10% additional factor
	1.3	Set-Out		4/3	III3					Will 10% additional factor
2	ROAD P	1.3.1 AVEMEN 1	Allow for site set out	1	Item	\$	12,500.00	\$	12,500.00	
	2.1	New Pav								
		2.1.1	Road pavement - Traffic lanes	25,768	m2	\$	156.60	\$	4,035,268.80	Includes pavement to Traffic lane (3.5m) and parking bay (2.1m) to both sides total width (11.2m)
	2.2	Rehabilita	ate Existing Pavement							
3	CONCE		Pavement profiling and reshaping	1	Allow.	\$	306,633.60	\$	306,633.60	Allowance only
,	3.1	Kerb and	Channel							
	3.2		Kerb and channel n & Cycle Paths	1,580	LM	\$	48.60	\$	76,788.00	Kerb and channel as per drawing outlined
				200		e	E0.00	•	22.040.00	Allow pedestrian paths to both sides of
		3.2.1	Pedestrian footpath	390	m2	\$	59.00			proposed road each 1.5m wide. Total span (3.0m) Two 1.5m wide Cycle paths (both sides of the
		3.2.2	Cycle pathway	442	m2	\$	66.00	\$	29,172.00	proposed road). Total span (3.0m)
		3.2.3	Shared pathway	2,943	m2	\$	66.00	\$	194,238.00	Arterial road: Two 3m wide shared paths (both sides of the road). Total span (6.0m) wide
	3.3	Median s	trip							
		3.3.1	Median (Levelled ground - no plants)	3,800	m2	\$	21.60	\$	82,080.00	Assumed levelled soil, future proofed for planting
4	DRAINA 4.1	GE Drainage	- Pines							
	7.1	4.1.1	Stormwater drainage (300mm DIA)	239	LM	\$	216.00		51,609.60	
			Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)	627 269	LM LM	\$	260.00 383.50		163,072.00 103,084.80	
	4.2		Drainage, sub grade drain	1,792	LM	\$	54.00		96,768.00	
	7.2		Side entry pits	18	No.	\$	2,700.00	\$	48,384.00	Assumed spacing of approx. 100m
	4.3	Drainage	- Subsoil Drainage							
		4.3.1	Included above	- 40	LM	\$	1 500 00	\$	26 000 00	Included above
	4.3 4.4	Drainage Drainage	- WSUD - Miscellaneous	18	Allow. No.	\$ \$	1,500.00	\$	26,880.00	Assumed none.
5	TRAFFIC	3								
-		Traffic Si	gnals							Data includes for street and 11111111111111111111111111111111111
		5.1.1	Traffic signals (incl. conduit subset)	1	Allow.	\$	540,000.00	\$	540,000.00	Rate includes for signals, conduits, pits, footings etc.
	5.2	Traffic Sa	fetv							
			Line marking and Traffic Signage	896	LM	\$	32.00	\$	28,672.00	Includes fixed signage, guide posts, line
			_ 0							markings, traffic safety
6	6.1	Trees								
		6.1.1	Tree planting (2-2.5m tall)	19	No.	\$	350.00	\$	6,650.00	Allowance only
	6.2	Landscap 6.2.1	ing Tube stock plantings	978	m2	\$	3.00	\$	2,934.00	Allowance of 2 per m2 to nature strip
			Nature strip	978	m2	\$	10.00	\$	9,780.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7		LIGHTING								
	7.1	Street Lig	nting							Assume install poles 12m high with luminaries
		7.1.1	Street lighting (incl. lighting conduits)	19	No.	\$	12,500.00	\$	237,500.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8		LANEOUS			,,	_		_		Evoluded
	8.1	8.1.1 8.1.2	Speed cameras Speed bumps	-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
	gγ									
	8.2	Retaining 8.2.1	Retaining wall	-	LM	\$	-	\$	-	Assume no retaining walls
9	SERVIC	ES								
	9.1		Relocation	1	Allow.	\$	400,000.00	\$	400,000.00	Allowance only
	9.2		Protection	1			20,000.00			Electrical Pole Relocation Allowance only
10	MAINTE									
			VicRoads maintenance fee	1	No.	\$	81,000.00	\$	81,000.00	Allowance for VicRoads maintenance fee to
										each intersection, as advised by WSPPB
				SUB TOTAL	- WORKS			\$	7,782,490.45	
11	DELIVE	RY								
		Fees	000	0.059/	lkar-			¢	252 020 01	
	11.1 11.2	Council F VicRoads		3.25% 1.00%	Item Item			\$ \$	252,930.94 77,824.90	
	11.3 11.4		anagement ental Management	5.00% 0.50%	Item Item			\$ \$	389,124.52 38,912.45	
	11.5	Survey &	Design	5.00%	Item			\$	389,124.52	
	11.6 11.7	Supervisi Site Estal	on & Project Management olishment	9.00% 2.50%	Item Item			\$	700,424.14 194,562.26	
	11.8	Continger		15.00%	Item			\$	1,167,373.57	
				SUB-TOTAL D	ELIVERY			\$	3,210,277.31	
12				TOTAL ESTIMATED PROJEC	T COST			\$	10,992,767.76	

SS-IT3 3136206 - PMD - Cost Estimate Templates.xlsx

Intersection on Sunbury Road SS-IN-04 (Cross Intersection - Interim)

Item			Description	Quanti	ty	Unit		Rate		Amount	Comments
	WORKS										
1	SITEWO		EARTHWORKS truction								
	1.1	Pre-cons 1.1.1	truction Demolition and site preparation	21	,127	m2	\$	5.40	\$	114,085.80	
	1.2	Earthwor									Assuming pavement composition depth total
		1.2.1	Cut and disposal at specified location	22	,315		\$	55.00		1,227,346.66	650mm deep including fill
	1.3	1.2.2 Set-Out	Fill		-	m3	\$	37.80	\$	-	
,		1.3.1	Allow for site set out		1	Item	\$	12,500.00	\$	12,500.00	
2	2.1	New Pav									
		2.1.1	Road pavement - Traffic lanes	11	,924	m2	\$	156.60	\$	1,867,220.10	Includes pavement to Traffic lane (3.5m) and parking bay (2.1m) to both sides total width (11.2m)
	2.2	Rehahilit	ate Existing Pavement								
		2.2.1	Pavement profiling and reshaping		1	Allow.	\$:	228,171.60	\$	228,171.60	Allowance only
3	CONCRE 3.1	TE WORI Kerb and									
		3.1.1	Kerb and channel	1	,083	LM	\$	48.60	\$	52,633.80	Kerb and channel as per drawing outlined
	3.2	Pedestria	n & Cycle Paths								Allow pedestrian paths to both sides of
		3.2.1	Pedestrian footpath		780	m2	\$	59.00	\$	46,020.00	proposed road each 1.5m wide. Total span (3.0m)
		3.2.2	Cycle pathway		780	m2	\$	66.00	\$	51,480.00	Allow 3m wide Cycle path
	2.0		Shared pathway		-	m2	\$	66.00	\$	-	
	3.3	Median s			,623	m2	\$	21.60	¢	121,456.80	Assumed levelled soil, future proofed for
4	DRAINAG	3.3.1 GF	Median (Levelled ground - no plants)	5	,∪∠3	m2	\$	21.60	φ	121,450.80	planting
_		Drainage									
			Stormwater drainage (300mm DIA) Stormwater drainage (450mm DIA)		228 599	LM LM	\$ \$	216.00 260.00	\$ \$	49,248.00 155,610.00	
		4.1.3	Stormwater drainage (525mm DIA)		257	LM	\$	383.50	\$	98,367.75	
	4.2	4.1.4 Drainage		1	,710	LM	\$	54.00	\$	92,340.00	
		4.2.1	Side entry pits		11 11		\$	2,700.00			Assumed spacing of 50m
	4.3 4.4	Drainage Drainage	- WSUD - Miscellaneous		-		\$ \$	1,500.00	\$	16,500.00	Assumed none.
5	TRAFFIC	;									
·		Traffic Si	gnals								
		5.1.1	Traffic signals (incl. conduit subset)		1	Allow.	\$	540,000.00	\$	540,000.00	Rate includes for signals, conduits, pits, footings etc.
	5.2	Traffic Sa	afety								
			Line marking and Traffic Signage		855	LM	\$	32.00	\$	27,360.00	Includes fixed signage, guide posts, line
											markings, traffic safety
6	6.1	APE Trees									
		6.1.1	Tree planting (2-2.5m tall)		16	No.	\$	350.00	\$	5,600.00	Allowance only
	6.2	Landscap 6.2.1	oing Tube stock plantings	2	,400	m2	\$	3.00	\$	7,200.00	Allowance of 2 per m2 to nature strip
		6.2.2	Nature strip		,400	m2	\$	10.00		24,000.00	Allow for total (3m) wide. Topsoiling and
7	STREET	LIGHTING	3								seeding of nature strips, varying in widths
	7.1	Street Lig	hting								
		7.1.1	Street lighting (incl. lighting conduits)		18	No.	\$	12,500.00	\$	225,000.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELL										
		8.1.1 8.1.2	Speed cameras Speed bumps		-		\$ \$	-	\$ \$	-	Excluded Excluded
							7		+	-	·
	8.2	Retaining 8.2.1	walls Retaining wall		-	LM	\$	-	\$	-	Assume no retaining walls
•	een///		·				-				Ü
9	9.1		Relocation		1	Allow.	¢ .	395,000.00	¢	395,000.00	Allowance only
											Electrical Pole Relocation Allowance only
	9.2	Services	Protection		1	Allow.	\$	20,000.00	\$	20,000.00	Fibre Optic Protection
10	MAINTEN	NANCE									
-		10.1.1	VicRoads maintenance fee		1	No.	\$	81,000.00	\$	81,000.00	Allowance for VicRoads maintenance fee to each intersection, as advised by WSPPB
											each intersection, as advised by WSPPB
				SUB TO	TAL -	WORKS			\$	5,487,840.51	
11	DELIVER	RY									
••		Fees									
		Council F VicRoads		3.25% 1.00%		Item Item			\$ \$	178,354.82 54,878.41	
	11.3	Traffic Ma	anagement	5.00%		Item			\$	274,392.03	
		Environm Survey &	nental Management Design	0.50% 5.00%		Item Item			\$ \$	27,439.20 274,392.03	
	11.6	Supervisi	on & Project Management	9.00%		Item			\$	493,905.65	
	11.7 11.8	Site Esta Continge	blishment ncy	2.50% 15.00%		Item Item			\$ \$	137,196.01 823,176.08	
		J-		SUB-TOT					\$	2,263,734.21	
40				TOTAL FORMATED FOR		COST				7 754 554 5	
12				TOTAL ESTIMATED PRO	JEUT	CO21			\$	7,751,574.72	

SS-IT4 3136206 - PMD - Cost Estimate Templates.xlsx

Vinyard Road/Jacksons Creek Crossing (South) SS-IN-05 (T-intersection - Interim)

12

Simple S	Item		D	escription	Quantity	Unit		Rate		Amount	Comments	
		WORKS										
1.1 Deviction of the presention 1.3 5 70 5 5.0 5 5.0 50 50 50 5	1		AND EARTHWORKS									
1				ation	17 350	m2	\$	5.40	\$	93 690 00		
1.5 1.5				ation	17,000	1112	Ψ	0.40	Ψ	50,000.00		
1.22 File		1.5	2.1 Cut and disposal at specifi	ed location	14,097	m3	\$	55.00	\$	775,328.13		
1.31 Allow for all and only 10 mm 10 m		1.0	2.2 Fill		7,662	m3	\$	37.80	\$	289,616.51	Coordinate of the Coordinate o	
Page					1	ltom	¢	12 500 00	¢	12 500 00		
	2				'	ILCIII	φ	12,300.00	φ	12,300.00		
2.1 Rood powerwint Traffile Interior 1		2.1 New	Pavement								Includes never ent to Troffic lane (2.5m) and	
Parameter Para		2.	1.1 Road pavement - Traffic la	ines	5,773	m2	\$	156.60	\$	904,051.80		
2.2.1 Parenthi profiling and relatinging of the plant profiling and relatinging (200 miles) 1,000 miles 1,		2.2 Pob	philitate Existing Payament								(11.2m)	
1				shaping	1	Allow.	\$	184,550.40	\$	184,550.40	Allowance only	
1.51 Kets and charment a Cycle Protect 1.72 Posterior to Cycle Protect 1.73 Posterior to Cycle Protect 1.74 Posterior to C	3											
					1,391	LM	\$	48.60	\$	67,602.60	Kerb and channel as per drawing outlined	
1		3.2 Pede	estrian & Cycle Paths								Allen	
3.2.3 Shared pathway 6.30 m2 5 600 5 41,580.00		3.2	2.1 Pedestrian footpath		345	m2	\$	59.00	\$	20,355.00		
3.2.3 Shared pathway 6.30 m2 5 600 5 41,580.00		^	2.2 Cycle nethyce:		201	m2	œ.	66.00	¢	25 200 00	,	
3.3 Median Leveled ground - no plants 1,819 n.2 \$ 2,180 \$ 3,970.40 Assumed leveled soil, future proofed for planting 1,814 Surposed resinger (SOOmen DIA) 4,14 Surposed resinger (SOOmen DIA) 5,800 4,14 Surposed resinger (SOOmen DIA) 5,800 4,14 Surposed resinger (SOOmen DIA) 6,800 4,14 Surposed resinger (SOOmen DIA) 6,900		3.2	2.2 Cycle pathway		391	m2	Ф	00.00	Ф	∠5,806.00	Allow Cycle paul (3m) wide	
3.3 Median Leveled ground - no plants 1,819 n.2 \$ 2,180 \$ 3,970.40 Assumed leveled soil, future proofed for planting 1,814 Surposed resinger (SOOmen DIA) 4,14 Surposed resinger (SOOmen DIA) 5,800 4,14 Surposed resinger (SOOmen DIA) 5,800 4,14 Surposed resinger (SOOmen DIA) 6,800 4,14 Surposed resinger (SOOmen DIA) 6,900		3.	2.3 Shared pathway		630	m2	\$	66.00	\$	41,580.00		
1,000 1,00			• •									
Mathematical Content			•	no plants)	1,619	m2	\$	21.60	\$	34,970.40	· · · · · · · · · · · · · · · · · · ·	
	4		-								pianung	
1.12 Somewher drainage (450mm DNA) See LM S 200.00 \$ 150.000.00 1.12 Somewher drainage (250mm DNA) LM S 30.00 \$ 62.040 \$ 1.14 Diamage, subgrade drain 1.16 LM S 5.00 \$ 57.000 \$ 37.000.00 1.14 Allow S 1.500.00 S 27.000.00 \$ 1.15 Somewher drainage (150mm DNA) S 1.500.00 S 27.000.00 1.15 Sea S				mm DIA)	455	1.67	•	040.00	¢.	20.400.00		
1		4.1	1.3 Stormwater drainage (525			LM	\$	383.50	\$	-		
4.3 3.6 methypits 4.6 miles 4.7 miles 4.8 miles 5.7 m					1,160	LIVI	\$	54.00	\$	62,640.00		
7 RAPET Trailing Symath 5 Trailing Symath <th colspan<="" td=""><td></td><td>4.2</td><td>2.1 Side entry pits</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Assumed spacing of approx. 100m</td></th>	<td></td> <td>4.2</td> <td>2.1 Side entry pits</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Assumed spacing of approx. 100m</td>		4.2	2.1 Side entry pits								Assumed spacing of approx. 100m
Transfer					14						Assumed none.	
		5.4	age meesianees				•		•		7 Bourney Hone.	
S.1. Traffic signals (incl. conduit subset) 1 Allow 2 405,000 00 3 405,000 00 Rate includes for signals, conduits, plots, food etc.	5		ic Signals									
				it subset)	1	Allow	\$	405 000 00	\$	405 000 00	Rate includes for signals, conduits, pits, footi	
		J.	1.1 Tranic signais (inci. condu	it subset)	'	Allow.	Ψ	403,000.00	Ψ	403,000.00	etc.	
Substitute Sub		5.2 Traff	ic Safety									
Continue		5.1	2.1 Line marking and Traffic S	ignage	580	LM	\$	32.00	\$	18,560.00		
1 Trees											maninge, name carety	
6.1. Tree planting (2-2.5m tall)	6		26									
		6.	1.1 Tree planting (2-2.5m tall)		10	No.	\$	350.00	\$	3,500.00	Allowance only	
Size Licht Lich					1 360	m2	\$	3.00	\$	4 080 00	Allowance of 2 per m2 to nature strip	
The content of the			· · ·								Allow for total (3m) wide. Topsoiling and seed	
7.1 Street Lighting	7				1,300	1112	φ	10.00	φ	13,000.00	of nature strips, varying in widths	
	•											
8		7.4		1.9.3	40		•	10 500 00	•	450,000,00	Assume install poles 12m high with luminarie	
8		7.1.1	Street lighting (incl. lighting	g conduits)	12	No.	\$	12,500.00	\$	150,000.00		
8.1 8.1.1 Speed cameras 8.1.2 Speed bumps 8.2 Retaining walls 8.2.1 Retaining walls 8.												
8.1.2 Speed bumps - No. \$ - \$ - Excluded	8					Itom	œ		•		Excluded	
Second					-			-		-		
SERVICES SERVICES Services Relocation Services Protection		00 5										
9 SERVICES 9.1 Services Relocation 9.2 Services Protection - Allow. \$ - \$ - Excluded - Allow. \$ - \$ - Excluded 10 MAINTENANCE 10.1 10.1.1 VicRoads maintenance fee 1 No. \$ 81,000.00 \$ 81,000.00 Allowance for VicRoads maintenance fee to each intersection, as advised by WSPPB SUB TOTAL - WORKS SUB TOTAL - WORKS \$ 3,431,438.84 11 DELIVERY Fees					_	LM	\$	-	\$	-	Assume no retaining walls	
9.1 Services Relocation 9.2 Services Protection - Allow. \$ - \$ - \$ Excluded 9.2 Services Protection - Allow. \$ - \$ - \$ Excluded 10 MAINTENANCE 10.1 10.1.1 VicRoads maintenance fee 1 No. \$ 81,000.00 \$ 81,000.00 Allowance for VicRoads maintenance fee to each intersection, as advised by WSPPB 11 DELIVERY Fees	•		-								-	
9.2 Services Protection - Allow. \$ - \$ - \$ Excluded 10 MAINTENANCE 10.1 10.1.1 VicRoads maintenance fee 1 No. \$ 81,000.00	y		ices Relocation		_	Allow.	\$	-	\$	_	Excluded	
1 No. \$ 81,000.00 Allowance for VicRoads maintenance fee to each intersection, as advised by WSPPB					-			-		-		
1 No. \$ 81,000.00 Allowance for VicRoads maintenance fee to each intersection, as advised by WSPPB	10	MAINTENANC	Ε									
SUB TOTAL - WORKS \$ 3,431,438.84				•	1	No.	\$	81,000.00	\$	81,000.00		
The continuation of the											each intersection, as advised by WSPPB	
Tees					SUB TOTAL	WORKS			\$	3,431,438.84		
Tees	44	DEL BASES										
11.1 Council Fees 3.25% Item \$ 111,521.76 11.2 VicRoads Fees 1.00% Item \$ 34,314.39 11.3 Traffic Management 5.00% Item \$ 171,571.94 11.4 Environmental Management 0.50% Item \$ 17,157.19 11.5 Survey & Design 5.00% Item \$ 171,571.94 11.6 Supervision & Project Management 9.00% Item \$ 308,829.50 11.7 Site Establishment 2.50% Item \$ 85,785.97 11.8 Contingency 15.00% Item \$ 514,715.83	11		3									
11.3 Traffic Management 5.00% Item \$ 171,571.94 11.4 Environmental Management 0.50% Item \$ 17,157.19 11.5 Survey & Design 5.00% Item \$ 171,571.94 11.6 Supervision & Project Management 9.00% Item \$ 308,829.50 11.7 Site Establishment 2.50% Item \$ 85,785.97 11.8 Contingency 15.00% Item \$ 514,715.83		11.1 Cou	ncil Fees									
11.4 Environmental Management 0.50% Item \$ 17,157.19 11.5 Survey & Design 5.00% Item \$ 171,571.94 11.6 Supervision & Project Management 9.00% Item \$ 308,829.50 11.7 Site Establishment 2.50% Item \$ 85,785.97 11.8 Contingency 15.00% Item \$ 514,715.83												
11.5 Survey & Design 5.00% Item \$ 171,571.94 11.6 Supervision & Project Management 9.00% Item \$ 308,829.50 11.7 Site Establishment 2.50% Item \$ 85,785.97 11.8 Contingency 15.00% Item \$ 514,715.83												
11.7 Site Establishment 2.50% Item \$ 85,785.97 11.8 Contingency 15.00% Item \$ 514,715.83		11.5 Surv	ey & Design							171,571.94		
11.8 Contingency 15.00% Item \$ 514,715.83												
SUB-TOTAL DELIVERY \$ 1,415,468.52												
					SUB-TOTAL D	ELIVERY			\$	1,415,468.52		

SS-IT5 3136206 - PMD - Cost Estimate Templates.xlsx

4,846,907.36

TOTAL ESTIMATED PROJECT COST

Vineyard Rd / Moore Rd / Old Vineyard Rd Intersection SS-IN-07 (Cross Intersection - Interim)

Item		Description	Quantity	Unit		Rate	Amount	Comments
	WORKS							
1		RKS AND EARTHWORKS						
	1.1	Pre-construction 1.1.1 Demolition and site preparation	14,106	m2	\$	5.40	\$ 76,172.40	
	1.2	Earthworks						Assuming pavement composition depth total
		1.2.1 Cut and disposal at specified location	14,899	m3	\$	55.00		650mm deep including fill
	1.3	1.2.2 Fill Set-Out	-	m3	\$	37.80	\$ -	
		1.3.1 Allow for site set out	1	Item	\$	12,500.00	\$ 12,500.00	
2		AVEMENT New Pavement						
								Includes pavement to Traffic lane (3.5m) and
		2.1.1 Road pavement - Traffic lanes	7,534	m2	\$	156.60	\$ 1,179,824.40	parking bay (2.1m) to both sides total width (11.2m)
								,
	2.2	Rehabilitate Existing Pavement 2.2.1 Pavement profiling and reshaping	1	Allow.	\$	152,344.80	\$ 152,344.80	Allowance only
3		ETE WORKS						•
	3.1	Kerb and Channel 3.1.1 Kerb and channel	2,331	LM	\$	48.60	\$ 113,286.60	Kerb and channel as per drawing outlined
	3.2	Pedestrian & Cycle Paths	, ,				, , , , , , , , , , , , , , , , , , , ,	
		3.2.1 Pedestrian footpath	872	m2	\$	59.00	\$ 51,418.50	Allow pedestrian path to both sides of proposed road each (1.5m) wide
			505		•	00.00		
		3.2.2 Cycle pathway	525	m2	\$	66.00	\$ 34,650.00	Allow Cycle path (3m) wide
		3.2.3 Shared pathway	1,173	LM	\$	66.00	\$ 77,418.00	
	3.3	Median strip						
		3.3.1 Median (Levelled ground - no plants)	943	m2	\$	21.60	\$ 20,368.80	Assumed levelled soil, future proofed for
4	DRAINA							planting
	4.1	Drainage - Pipes	44-	1.84	•	040.00	¢ 21.000.00	
		4.1.1 Stormwater drainage (300mm DIA) 4.1.2 Stormwater drainage (450mm DIA)	145 545	LM LM	\$ \$	216.00 260.00		
		4.1.3 Stormwater drainage (525mm DIA)		LM	\$	383.50	\$ -	
	4.2	4.1.4 Drainage, sub grade drain Drainage - Pits	1,090	LM	\$	54.00	\$ 58,860.00	
		4.2.1 Side entry pits	15	No.	\$	2,700.00		Assumed spacing of 75m
	4.3 4.4	Drainage - WSUD Drainage - Miscellaneous	15	Allow. No.	\$	1,500.00	\$ 22,500.00 \$ -	Assumed none.
		-			•		•	
5	TRAFFI 5.1	Craffic Signals						
	0.1	5.1.1 Traffic signal for major cross intersection (incl. conduit	1	Allow	¢	540,000.00	\$ 540,000.00	Rate includes for signals, conduits, pits,
		subset)	'	Allow.	φ	340,000.00	φ 340,000.00	footings etc.
	5.2	Traffic Safety						
		5.2.1 Line marking and Traffic Signage	545	LM	\$	32.00	\$ 17,440.00	Includes fixed signage, guide posts, line
								markings, traffic safety
6	LANDS							
	6.1	Trees 6.1.1 Tree planting (2-2.5m tall)	10	No.	\$	350.00	\$ 3,500.00	Allowance only
	6.2	Landscaping 6.2.1 Tube stock plantings	2,054	?	e	3.00	¢ 6.162.00	Allowance of 2 per m2 to nature strip
		6.2.1 Tube stock plantings 6.2.2 Nature strip	2,054	m2	\$	10.00		Allow for total (3m) wide. Topsoiling and
7	etbee1	LIGHTING	2,034	m2	φ	10.00	φ 20,340.00	seeding of nature strips, varying in widths
,	7.1	Street Lighting						
								Assume install poles 12m high with luminaries
		7.1.1 Street lighting (incl. lighting conduits)	11	No.	\$	12,500.00	\$ 137,500.00	placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
								<u> </u>
8		LANEOUS			•		•	Control
	8.1	8.1.1 Speed cameras 8.1.2 Speed bumps	-	Item No.	\$ \$	-	\$ - \$ -	Excluded Excluded
	8.2	Retaining walls 8.2.1 Retaining wall	_	LM	\$	_	\$ -	Assume no retaining walls
					-			······g ··-··-
9	SERVIC 9.1	ES Services Relocation	_	Allow.	\$	_	\$ -	Excluded
	9.2	Services Protection	-	Allow.		-	\$ -	Excluded
10	MAINTE	NANCE						
10		10.1.1 VicRoads maintenance fee	1	No	¢	81,000.00	\$ 81,000.00	Allowance for VicRoads maintenance fee to
	10.1	10.1.1 VICIODAUS MAINTENANCE IEE		No.	\$	01,000.00	Ψ 01,000.00	each intersection, as advised by WSPPB
			SUB TOTAL	- WORKS			\$ 3,638,547.94	
							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
11	DELIVE							
	11.1	Fees Council Fees	3.25%	Item			\$ 118,252.81	
	11.2	VicRoads Fees	1.00%	Item			\$ 36,385.48	3
	11.3 11.4	Traffic Management Environmental Management	5.00% 0.50%	Item Item			\$ 181,927.40 \$ 18,192.74	
	11.5	Survey & Design	5.00%	Item			\$ 181,927.40)
	11.6 11.7	Supervision & Project Management Site Establishment	9.00% 2.50%	Item Item			\$ 327,469.31 \$ 90,963.70	
	11.7	Contingency	2.50% 15.00%	Item			\$ 545,782.19	
			SUB-TOTAL D	ELIVERY			\$ 1,500,901.02	
12		TOTAL ESTI	MATED PROJECT	COST			\$ 5,139,448.96	

3136206 - PMD - Cost Estimate Templates.xlsx SS-IN7

Lancefield Rd/Gellies Road Intersection

SS-IN-08 (T-intersection - Interim)

Item	Description	Quantity	Unit		Rate		Amount	Comments
	WORKS							
	SITEWORKS AND EARTHWORKS							
	1.1 Pre-construction 1.1.1 Demolition and site preparation	16,720	m2	\$	5.40	\$	90,288.00	
	1.2 Earthworks							Assuming pavement composition depth total
	1.2.1 Cut and disposal at specified location	9,758	m3	\$	55.00		536,690.00	650mm deep including fill
	1.2.2 Fill 1.3 Set-Out	-	m3	\$	37.80	\$	-	
	1.3.1 Allow for site set out	1	Item	\$	12,500.00	\$	12,500.00	
2	ROAD PAVEMENT 2.1 New Pavement							
	2.1.1 Road pavement - Traffic lanes	12,010	m2	\$	156.60	\$	1,880,766.00	Includes pavement to Traffic lane (3.5m) and parking bay (2.1m) to both sides total width
	O. Dahah Wata Caistina Dayanan							(11.2m)
	2.2 Rehabilitate Existing Pavement 2.2.1 Pavement profiling and reshaping	1	Allow.	\$ 1	148,824.00	\$	148,824.00	Allowance only
3	CONCRETE WORKS 3.1 Kerb and Channel							
	3.1.1 Kerb and channel	845	LM	\$	48.60	\$	41,067.00	Kerb and channel to each side of traffic lane
	3.2 Pedestrian & Cycle Paths							Connector Road: Pedestrian path to both sides
	3.2.1 Pedestrian footpath	462	m2	\$	59.00	\$	27,258.00	of proposed road each (1.5m) wide. Total span (3.0m) wide
	3.2.2 Cycle pathway	462	m2	\$	66.00	\$	30,492.00	Allow Cycle path (3m) wide
	3.2.3 Shared pathway 3.3 Median strip		m2	\$	66.00	\$	-	
	3.3.1 Median (Levelled ground - no plants)	3,205	m2	\$	21.60	\$	69,228.00	Assumed levelled soil, future proofed for planting
4	DRAINAGE							
	4.1 Drainage - Pipes 4.1.1 Stormwater drainage (300mm DIA)	179	LM	\$	216.00		38,592.00	
	4.1.2 Stormwater drainage (450mm DIA) 4.1.3 Stormwater drainage (525mm DIA)	670	LM LM	\$	260.00 383.50		174,200.00	
	4.1.4 Drainage, sub grade drain	1,340	LM	\$	54.00		72,360.00	
	4.2 Drainage - Pits 4.2.1 Side entry pits	9	No.	\$		\$		Assumed spacing of approx. 100m
	4.3 Drainage - WSUD 4.4 Drainage - Miscellaneous	9	Allow. No.	\$	1,500.00		13,500.00	Assumed none.
	•	-	INU.	φ	-	Ф	-	Assulted Hotte.
5	TRAFFIC 5.1 Traffic Signals							
	5.1.1 Traffic signals (incl. conduit subset)	1	Allow.	\$ 4	405,000.00	\$	405,000.00	Rate includes for signals, conduits, pits,
	<u> </u>			,			,	footings etc.
	5.2 Traffic Safety							Includes fixed signage, guide posts, line
	5.2.1 Line marking and Traffic Signage	670	LM	\$	32.00	\$	21,440.00	markings, traffic safety
6	LANDSCAPE							
	6.1 Trees	40	No	¢	350.00	¢	4 200 00	Allowance only
	6.1.1 Tree planting (2-2.5m tall) 6.2 Landscaping	12	No.	\$	350.00			Allowance only
	6.2.1 Tube stock plantings	910	m2	\$	3.00			Allowance of 2 per m2 to nature strip Allow for total (3m) wide. Topsoiling and
	6.2.2 Nature strip	910	m2	\$	10.00	\$	9,101.00	seeding of nature strips, varying in widths
7	STREET LIGHTING 7.1 Street Lighting							
	7.1.1 Street lighting (incl. lighting conduits)	14	No.	\$	12,500.00	\$	175,000.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELLANEOUS 8.1 8.1.1 Speed cameras	-	Item	\$	_	\$	_	Excluded
	8.1.2 Speed carrieras 8.1.2 Speed bumps	-	No.	\$	-	\$	-	Excluded
	8.2 Retaining walls							
	8.2.1 Retaining wall	-	LM	\$	-	\$	-	Assume no retaining walls
9	SERVICES							
	9.1 Services Relocation	1	Allow.	\$ 4	400,000.00	\$	400,000.00	Allowance only Electrical Pole Relocation
	9.2 Services Protection	1	Allow.		20,000.00			Electrical Pole Relocation Allowance only
10	MAINTENANCE							
10	10.1 10.1.1 VicRoads maintenance fee	1	No.	\$	81,000.00	\$	81,000.00	Allowance for VicRoads maintenance fee to
	3440 Maintonanoo 100			•	, .,500.00	*	0.,000.00	each intersection, as advised by WSPPB
		SUB TOTAL -	WORKS			\$	4,278,536.30	
44	DELIVERY							
11	<u>DELIVERY</u> Fees							
	11.1 Council Fees 11.2 VicRoads Fees	3.25% 1.00%	Item Item			\$ \$	139,052.43 42,785.36	
	11.3 Traffic Management	5.00%	Item			\$	213,926.82	
	11.4 Environmental Management	0.50% 5.00%	Item Item			\$	21,392.68	
	11.6 Supervision & Project Management	9.00%	Item			\$ \$	213,926.82 385,068.27	
	11.7 Site Establishment11.8 Contingency	2.50% 15.00%	Item Item			\$	106,963.41 641,780.45	
	11.5 Contangency	SUB-TOTAL D				\$	1,764,896.22	
							, . ,	
12	то	TAL ESTIMATED PROJECT	COST			\$	6,043,432.52	

3136206 - PMD - Cost Estimate Templates.xlsx SS-IN8

Jacksons Creek Crossing (South)/ Buckland Way Intersection SS-IN-09 (ULTIMATE) (Cross Intersection)

Item			Description		Quantity	Unit		Rate		Amount	Comments
	WORKS	3									
1	SITEWO	RKS AND	EARTHWORKS								
	1.1	Pre-const 1.1.1	Tuction Demolition and site preparation		15,114	m2	\$	5.40	\$	81,615.60	
	1.2	Earthwork				r 0	•	EE 00	e		
			Cut and disposal Import fill		3,908	m3 m3	\$	55.00 37.80		147,737.98	
	4.0	1.2.3	Cut to fill		12,768	m3	\$	70.00		893,732.76	
	1.3	Set-Out 1.3.1	Allow for site set out		1	Item	\$	12,500.00	\$	12,500.00	
2	ROAD F 2.1	PAVEMENT New Pave									
			Road pavement - Traffic lanes		8,004	m2	\$	156.60	\$	1,253,426.40	Includes pavement to Traffic lane (3.5m) and parking bay (2.3m) to both sides total width (11.6m)
3		2.2.1 ETE WORK				Allow.	\$	-	\$	-	Assume all new works.
	3.1	Kerb and	Channel Kerb and channel		1,440	LM	\$	48.60	¢	69,984.00	Kerb and channel to both sides of each traffic
	3.2		n & Cycle Paths		1,140	Livi	Ψ	40.00	Ψ	00,004.00	lane
			Pedestrian footpath		1,511	m2	\$	59.00	\$	89,149.00	Allow Cycle path (3m) wide
		3.2.2	Cycle pathway		1,280	m2	\$	66.00	\$	84,480.00	
			Shared pathway		460	m2	\$	66.00	\$	30,360.00	Apparent shared pathway on western side of SS-RD4
	3.3	Median st 3.3.1	rip Median (Levelled ground)		451	m2	\$	32.40	\$	14,612.40	
4	DRAINA 4.1	AGE Drainage	- Pines								
	7.1	4.1.1	Stormwater drainage (300mm DIA)		159	LM	\$	216.00		34,329.60	
		4.1.3	Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)		596	LM LM	\$ \$	260.00 383.50	\$	154,960.00	
	4.2	4.1.4 Drainage	Drainage, sub grade drain - Pits		1,192	LM	\$	54.00	\$	64,368.00	
	4.3	4.2.1	Side entry pits		16 16	No. Allow.	\$	2,700.00 1,500.00		43,200.00 24,000.00	Assumed spacing of 75m
	4.3		- Miscellaneous		-	No.	\$	-	\$	-	Assumed none.
5	TRAFFI	С									
	5.1	Traffic Sig									Rate includes for signals, conduits, pits,
		5.1.1	Traffic signals (incl. conduit subset)		1	Allow.	\$	540,000.00	\$	540,000.00	footings etc.
	5.2	Traffic Sa	fety								
		5.2.1	Line marking and Traffic Signage		596	LM	\$	32.00	\$	19,072.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDS	CAPE									
	6.1	Trees 6.1.1	Tree planting (2-2.5m tall)		12	No.	\$	350.00	\$	4 200 00	Allowance only
	6.2	Landscap	ing								·
			Tube stock plantings Nature strip		3,528 3,528	m2 m2	\$ \$	3.00 10.00		10,584.00 35,280.00	Allowance of 2 per m2 to nature strip Topsoiling and seeding of nature strips,
7	STREE	T LIGHTING	•		3,320	IIIZ	Ψ	10.00	Ψ	33,200.00	varying in widths
	7.1	Street Lig	hting								Assume install poles 12m high with luminaries
		7.1.1	Street lighting (incl. lighting conduits)		12	No.	\$	12,500.00	\$	150,000.00	placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8		LANEOUS				14	•		¢.		Evaludad
	8.1		Speed cameras Speed bumps		-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
	8.2	Retaining									
	J. <u>L</u>		Retaining wall (3-5m high)		562	LM	\$	4,480.00	\$	2,517,760.00	
9	SERVIC										
	9.1 9.2	Services I Services I	Relocation Protection		-	Allow. Allow.	\$ \$	-	\$ \$	-	Excluded Excluded
					NID TOTAL				_	0.075.051.51	
					SUB TOTAL -	WURKS			\$	6,275,351.74	
10	DELIVE	RY Fees									
	11.1	Council F			3.25%	Item			\$	203,948.93	
	11.2 11.3	VicRoads Traffic Ma			1.00% 5.00%	Item Item			\$ \$	62,753.52 313,767.59	
	11.4 11.5	Environm	ental Management		0.50% 5.00%	Item			\$ \$	31,376.76 313,767.59	
	11.6	Supervision	on & Project Management		9.00%	Item Item			\$	564,781.66	
	11.7 11.8	Site Estat Continger			2.50% 15.00%	Item Item			\$ \$	156,883.79 941,302.76	
		J		SI	JB-TOTAL DI				\$	2,588,582.59	
							_				
11				TOTAL ESTIMATI	ED PROJECT	COST			\$	8,863,934.34	

3136206 - PMD - Cost Estimate Templates.xlsx SS-IN9

Jacksons Creek Crossing/Fox Hollow Drive Intersection SS-IN-10 (ULTIMATE) (Cross Intersection)

Item		Description	Quantity	Unit		Rate		Amount	Comments
	WORKS		<u>-</u>	-			•		
1	SITEWORKS	AND EARTHWORKS							
		construction 1.1 Demolition and site preparation	9,605	m2	\$	5.40	\$	51,867.00	
		hworks	·						A
		2.1 Cut and disposal	21,601	m3	\$	55.00		1,188,053.74	Assuming pavement composition depth total 650mm deep including fill
		2.2 Fill 2.3 Cut to fill	2,309	m3 m3	\$	37.80 70.00		161,607.60	
	1.3 Set-	Out							
2	1. ROAD PAVE	3.1 Allow for site set out MENT	1	Item	\$	12,500.00	\$	12,500.00	
	2.1 New	Pavement							
	2.	1.1 Road pavement - Traffic lanes	5,046	m2	\$	156.60	\$	790,203.60	Includes pavement to Traffic lane (3.5m) and parking bay (2.3m) to both sides total width (11.6m)
	2.2 Reh	abilitate Existing Pavement							
•	2.	2.1 Pavement profiling and reshaping	-	Allow.	\$	-	\$	-	Assume all new works.
3	3.1 Kert	and Channel							
	3.	1.1 Kerb and channel	1,395	LM	\$	48.60	\$	67,797.00	Kerb and channel to both sides of each traffic lane
		estrian & Cycle Paths							
	3.	2.1 Pedestrian footpath	992	m2	\$	59.00	\$	58,528.00	Allow Cycle path (3m) wide
	3.	2.2 Cycle pathway	1,082	m2	\$	66.00	\$	71,412.00	
	2	2.3 Shared pathway		m?	•	66.00	e		
		2.3 Shared pathway ian strip	-	m2	\$	66.00	φ	-	
	3.	ian strip 3.1 Median (Levelled ground)	1,417	m2	\$	32.40	\$	45,910.80	
4	DRAINAGE 4.1 Drai	nage - Pipes							
	4.	1.1 Stormwater drainage (300mm DIA)	95		\$	216.00		20,563.20	
		Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)	357	LM LM	\$ \$	260.00 383.50		92,820.00	
	4.	1.4 Drainage, sub grade drain	714		\$	54.00		38,556.00	
		nage - Pits 2.1 Side entry pits	10	No.	\$	2,700.00	\$	27,000.00	Assumed spacing of 75m
	4.3 Drai	nage - WSUD	10		\$	1,500.00	\$	15,000.00	
	4.4 Drai	nage - Miscellaneous	-	No.	\$	-	\$	-	Assumed none.
5	TRAFFIC	ia Cianala							
		fic Signals 1.1 Traffic signals (incl. conduit subset)	1	Allow	æ	432,000.00	¢	432,000.00	Rate includes for signals, conduits, pits,
	J.	1.1 Traine signals (incl. conduit subset)	'	Allow.	φ	432,000.00	φ	432,000.00	footings etc.
	5.2 Traf	fic Safety							
	5.	2.1 Line marking and Traffic Signage	357	LM	\$	32.00	\$	11,424.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE								
•	6.1 Tre								
		1.1 Tree planting (2-2.5m tall) dscaping	6	No.	\$	350.00	\$	2,100.00	Allowance only
		2.1 Tube stock plantings	2,645	m2	\$	3.00	\$	7,935.00	Allowance of 2 per m2 to nature strip
	6.	2.2 Nature strip	2,645	m2	\$	10.00	\$	26,450.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGH								Tarying in Madie
	7.1 Stre	et Lighting							Assume install poles 12m high with luminaries
	7.1.	Street lighting (incl. lighting conduits)	8	No.	\$	12,500.00	\$	100,000.00	placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELLANE								
	8.1 8.1. 8.1.		-	Item No.	\$	-	\$ \$	-	Excluded Excluded
		·			Ť		•		2,5,445
	8.2 Reta 8.2.	iining walls I Retaining wall (3-5m high)	100	LM	\$	4,480.00	\$	448,000.00	
			,,,,					.,	
9	9.1 Services	rices Relocation		Allow.	\$	=	\$	=	Excluded
		rices Protection	-	Allow.		-	\$	-	Excluded
			SUB TOTAL	- WORKS			\$	3,669,727.94	
10	DELIVERY								
	Fee: 11.1 Cou	s ncil Fees	3.25%	Item			\$	119,266.16	
	11.2 VicF	loads Fees	1.00%	Item			\$	36,697.28	
		fic Management ronmental Management	5.00% 0.50%	Item Item			\$ \$	183,486.40 18,348.64	
	11.5 Surv	rey & Design	5.00%	Item			\$	183,486.40	
		ervision & Project Management Establishment	9.00% 2.50%	Item Item			\$ \$	330,275.51 91,743.20	
		tingency	15.00%	Item			\$	550,459.19	
			SUB-TOTAL I	DELIVERY			\$	1,513,762.77	
									1

3136206 - PMD - Cost Estimate Templates.xlsx SS-IN10

5,183,490.71

TOTAL ESTIMATED PROJECT COST

11

Crinnion Road/Bulla-Digger Rest Road Intersection SS-IN-11 (Roundabout)

Item			Description	Quantity	Unit		Rate		Amount	Comments
	WORKS	,								
1			EARTHWORKS							
	1.1	Pre-cons	truction Demolition and site preparation	3,086	6 m2	\$	5.40	e	16,666.84	
	1.2	Earthwor		3,000	1112	φ	3.40	φ	10,000.04	
		1.2.1	Cut and disposal at specified location	2,643	m3	\$	55.00	\$	145,352.55	Assuming pavement composition depth total 685mm deep including fill
		1.2.2	Fill	-	m3	\$	37.80	\$	-	Included above
	1.3	Set-Out	Allow for site set out	1	Itom	¢	12,500.00	¢	12,500.00	
2	ROAD F	PAVEMEN		Į.	Item	\$	12,300.00	φ	12,300.00	
	2.1	New Pav	ement							
		211	Road pavement - Traffic lanes	3,086	5 m2	\$	156.60	s	483 338 23	Includes pavement to Traffic lane (3.5m) and parking bay (2.3m) to both sides total width
		2.1.1	Troda pavernent Traine lanes	0,000	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Ψ	100.00	Ÿ	400,000.20	(11.6m)
	0.0	D - b - b 104	da Faidhan Barranad							
	2.2		ate Existing Pavement Pavement profiling and reshaping	1	Allow.	\$	-	\$	-	Assume all new works.
3		ETE WOR								
	3.1	Kerb and 3.1.1	Kerb and channel	860	LM	\$	48.60	\$	41,796.00	Kerb and channel all sides of intersection
	3.2	Pedestria	an & Cycle Paths							Deduction with the both sides of more advantage
		3.2.1	Pedestrian footpath	-	m2	\$	59.00	\$	-	Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3.0m) wide
		3.2.2	Cycle pathway		m2	\$	66.00	•	_	Allow Cycle path (3m) wide
				-					-	, mon Oyolo paur (OIII) wide
	3.3	3.2.3 Median s	Shared pathway trip	-	m2	\$	66.00	\$	-	
		3.3.1	กาศ Median (Levelled ground)	730	m2	\$	32.40	\$	23,652.00	
4	DRAINA 4.1	\GE Drainage	- Pipes							
	7.1	4.1.1	Stormwater drainage (300mm DIA)	<u>-</u>	LM	\$	216.00		-	
			Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)	400	LM LM	\$ \$	260.00 383.50		104,000.00	
		4.1.4	Drainage, sub grade drain	860		\$	54.00		46,440.00	
	4.2		- Pits Side entry pits	6	No.	\$	2,700.00	\$	16.200.00	Assumed spacing of 75m
	4.3	Drainage	- WSUD	6	Allow.	\$	1,500.00	\$	9,000.00	
	4.4	Drainage	- Miscellaneous	-	No.	\$	-	\$	-	Assumed none.
5	TRAFFI									
	5.1	Traffic Si	•		A.II.	•	400 000 00	•		Rate includes for signals, conduits, pits, footing
		5.1.1	Traffic signals (incl. conduit subset)	-	Allow.	\$	432,000.00	\$	-	etc.
	5.2	Traffic Sa	afety							
		5.2.1	Line marking and Traffic Signage	900	LM	\$	32.00	\$	28,800.00	Includes fixed signage, guide posts, line markings, traffic safety
										manango, namo salety
6	6.1	CAPE Trees								
		6.1.1	Tree planting (2-2.5m tall)	6	No.	\$	350.00	\$	2,100.00	Allowance only
	6.2	Landsca 6.2.1	oing Tube stock plantings	-	m2	\$	3.00	\$	_	Allowance of 2 per m2 to nature strip
		6.2.2		_	m2	\$	10.00		_	Topsoiling and seeding of nature strips, varying
7	STREET	T LIGHTING	·			•		·		in widths
	7.1	Street Lig	ghting							
		7.1.1	Street lighting (incl. lighting conduits)	6	No.	\$	12,500.00	\$	75.000.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate
			3 3 4 3 3 ,				,		.,	includes for electrical lighting conduits
8	MISCEL	LANEOUS	•							
-	8.1	8.1.1	Speed cameras	-	Item	\$	-	\$	-	Excluded
		8.1.2	Speed bumps	-	No.	\$	-	\$	-	Excluded
	8.2	Retaining								
		8.2.1	Retaining wall (3-5m high)	-	LM	\$	4,480.00	\$	-	
9	SERVIC		Delegation					•		Embalad
	9.1 9.2		Relocation Protection	-	Allow. Allow.	\$ \$	-	\$ \$	-	Excluded Excluded
				SUB TOTAL	- WORKS			\$	1,004,845.61	
10	DELIVE	RY								
	11.1	Fees Council F	- pas	3.25%	Item			\$	32,657.48	
	11.2	VicRoads	s Fees	1.00%	Item			\$	10,048.46	
	11.3		anagement nental Management	5.00% 0.50%	Item Item			\$ \$	50,242.28 5,024.23	
	11.4 11.5	Survey &		0.50% 5.00%	Item			\$	5,024.23 50,242.28	
	11.6	Supervis	on & Project Management	9.00%	Item			\$ \$	90,436.11	
	11.7 11.8	Continge	blishment ncy	2.50% 15.00%	Item Item			\$	25,121.14 150,726.84	
				SUB-TOTAL	DELIVERY	•		\$	414,498.82	
						_				
11				TOTAL ESTIMATED PROJEC	T COST			\$	1,419,344.43	
				TOTAL ESTIMATED PROJEC				ů	1,415,344.43	

3136206 - PMD - Cost Estimate Templates.xlsx SS-IN11

Lancefield Road/ Connector Road

SS-IN-12 (Cross Intersection - Interim)

_			Description	Quantity	Unit		Rate		Amount	Comments
	WORKS	<u> </u>								
1			EARTHWORKS							
	1.1	Pre-cons 1.1.1	truction Demolition and site preparation	9,605	m2	\$	5.40	\$	51,867.00	
	1.2	Earthwor		-,		Ť		•		
		1.2.1	Cut and disposal at specified location	8,116	m3	\$	55.00	\$	446,392.38	Assuming pavement composition depth total 650mm deep including fill
		1.2.2	Fill	-	m3	\$	37.80	\$	-	obomin deep mordaing in
	1.3	Set-Out	Allow for site set out	1	Item	•	12 500 00	¢	12,500.00	
2	ROAD P	PAVEMENT		ı	Item	Þ	12,500.00	ð	12,500.00	
	2.1	New Pav	ement							
		2.1.1	Road pavement - Traffic lanes	9,789	m2	\$	156.60	\$	1,532,957.40	Includes pavement to Traffic lane (3.5m) an parking bay (2.1m) to both sides total width (11.2m)
	2.2		ate Existing Pavement	1	Allow.	e	_	\$		Accume all pow works
3	CONCRI 3.1	2.2.1 ETE WOR Kerb and		'	Allow.	φ	-	φ	-	Assume all new works.
	0.1		Kerb and channel	1,361	LM	\$	48.60	\$	66,144.60	Kerb and channel to both sides of each traf
	3.2		in & Cycle Paths	1,001	Livi	Ψ	40.00	Ÿ	00,144.00	lane
	3.2									Connector Road: Pedestrian path to both
		3.2.1	Pedestrian footpath	780	m2	\$	59.00	\$	46,020.00	sides of proposed road each (1.5m) wide. Total span (3.0m) wide
			Cycle pathway	780	m2	\$	66.00		51,480.00	Allow Cycle path (3m) wide
	3.3	3.2.3 Median s	Shared pathway trip		m2	\$	66.00	\$	-	
		3.3.1	Median (Levelled ground)	618	m2	\$	32.40	\$	20,023.20	
4	DRAINA 4.1	GE Drainage	- Pines							
	4.1	4.1.1	Stormwater drainage (300mm DIA)	159	LM	\$	216.00		34,329.60	
			Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)	417 179	LM LM	\$	260.00 383.50		108,472.00 68,569.80	
			Drainage, sub grade drain	1,192	LM	\$	54.00		64,368.00	
	4.2			10	NI-	•	0.700.00	•	42 200 00	Assumed an element 75 m
	4.3	4.2.1 Drainage	Side entry pits - WSUD	16 16	No. Allow.	\$	2,700.00 1,500.00		43,200.00 24,000.00	Assumed spacing of 75m
	4.4		- Miscellaneous	-	No.	\$	-	\$	-	Assumed none.
5	TRAFFIC	c								
•	5.1	Traffic Si	gnals							
		5.1.1	Traffic signals (incl. conduit subset)	1	Allow.	\$	540,000.00	\$	540,000.00	Rate includes for signals, conduits, pits, footings etc.
										lootings etc.
	5.2	Traffic Sa								Includes fixed signage, guide posts, line
		5.2.1	Line marking and Traffic Signage	596	LM	\$	32.00	\$	19,072.00	markings, traffic safety
6	LANDSO									
	6.1	Trees 6.1.1	Tree planting (2-2.5m tall)	12	No.	\$	350.00	\$	4.200.00	Allowance only
	6.2	Landscap			. 10.	Ť			·	•
			Tube stock plantings	1,912	m2	\$	3.00		5,736.00	Allowance of 2 per m2 to nature strip Topsoiling and seeding of nature strips,
			Nature strip	1,912	m2	\$	10.00	\$	19,120.00	varying in widths
7		Ctroot Lie								
	7.1	7.1.1	Street lighting (incl. lighting conduits)	9	No.	\$	12,500.00	\$	112,500.00	Assume install poles 12m high with lumina placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8		LANEOUS			,.	_		_		
	8.1	8.1.1 8.1.2	Speed cameras Speed bumps	-	Item No.	\$	-	\$ \$	-	Excluded Excluded
	8.2	Retaining 8.2.1	ı walls Retaining wall (3-5m high)	-	LM	\$	4,480.00	\$	_	
			J ()			,	,	•		
9	SERVIC									Allowance only
	9.1		Relocation	1	Allow.		400,000.00		400,000.00	Electrical Pole Relocation
	9.2	Services	Protection	1	Allow.	\$	20,000.00	\$	20,000.00	Allowance only
10	MAINTE	NANCE								
	10.1	10.1.1	VicRoads maintenance fee	1	No.	\$	81,000.00	\$	81,000.00	Allowance for VicRoads maintenance fee t each intersection, as advised by WSPPB
				SUB TOTAL	- WORKS			\$	3,771,951.98]
11	DELIVE	RY Fees			· <u>—</u>				· · ·	
	11.1		ees	3.25%	Item			\$	122,588.44	
	11.2	VicRoads	s Fees	1.00%	Item			\$	37,719.52	
	11.3 11.4		anagement ental Management	5.00% 0.50%	Item Item			\$ \$	188,597.60 18,859.76	
	11.4 11.5	Survey &		0.50% 5.00%	Item Item			\$	18,859.76 188,597.60	
	11.6	Supervisi	on & Project Management	9.00%	Item			\$	339,475.68	
		Cita Cata	blishment	2.50%	Item			\$	94,298.80	
	11.7 11.8		ncv	15 00%	ltem			2,	565 792 80	
	11.7 11.8	Continge	ncy	15.00% SUB-TOTAL D	Item ELIVERY			\$ \$	565,792.80 1,555,930.19	
			ncy	15.00% SUB-TOTAL D					565,792.80 1,555,930.19	
			ncy							

3136206 - PMD - Cost Estimate Templates.xlsx SS-IN12

Watsons Road/Fox Hollow Drive Intersection SS-IN-13 (Roundabout)

Item			Description	Quantity	Unit		Rate		Amount	Comments
item			Description	Quantity	Unit		Kate		Amount	Comments
	WORKS									
1		RKS AND EART								
	1.1	Pre-construction 1.1.1 Demo	n Dition and site preparation	2,910	m2	\$	5.40	\$	15,714.00	
	1.2	Earthworks								
		1.2.1 Cut a	nd disposal at specified location	8,712	m3	\$	55.00	\$	479,134.37	Assuming pavement composition depth total 650mm deep including fill
		1.2.2 Fill		-	m3	\$	37.80	\$	-	
	1.3	Set-Out	for site set out	1	Item	•	12,500.00	¢	12,500.00	
2	ROAD P	AVEMENT	ioi site set out		Item	Ψ	12,300.00	Ψ	12,500.00	
	2.1	New Pavement								
		2.1.1 Road	pavement - Traffic lanes	1,510	m2	\$	156.60	¢	236,466.00	Includes pavement to Traffic lane (3.5m) and
		2.1.1 11000	pavement Traine lanes	1,010	2	Ψ	100.00	Ψ	200,400.00	parking bay (2.1m) to one side total width (8.1m
	2.2		isting Pavement ment profiling and reshaping	1	Allow.	\$	_	\$		Assume all new works.
3	CONCRE	ETE WORKS	ment proming and resnaping	ı	Allow.	φ	-	φ	-	Assume all new works.
	3.1	Kerb and Chan	nel							Mark and absorbed to both address of a sale to ff
		3.1.1 Kerb	and channel	379	LM	\$	48.60	\$	18,419.40	Kerb and channel to both sides of each traffic lane
	3.2	Pedestrian & C	ycle Paths							
		3.2.1 Pede	strian footpath	42	m2	\$	59.00	\$	2,492 16	Connector Street: Pedestrian path to both sides of proposed road each (1.5m) wide. Total span
		0.2			2	Ť	00.00	*	2, 102.10	(3.0m) wide
		3.2.2 Cycle	pathway	46	m2	\$	66.00	\$	3 057 12	Allow Cycle path (3m) wide
		J.L.Z Gyold		40	1112	Ÿ	00.00	Ψ	0,007.12	Oyolo paar (om) mao
		3.2.3 Share	ed pathway	378	m2	\$	66.00	\$	24,948.00	
	3.3	Median strip								
	DDAINA		an (Levelled ground)	38	m2	\$	32.40	\$	1,231.20	
4	DRAINA 4.1	GE Drainage - Pipe	es							
		4.1.1 Storn	nwater drainage (300mm DIA)	77	LM	\$	216.00		16,704.00	
			nwater drainage (450mm DIA) nwater drainage (525mm DIA)	290	LM LM	\$	260.00 383.50		75,400.00 -	
		4.1.4 Drain	age, sub grade drain	580	LM	\$	54.00	\$	31,320.00	
	4.2	Drainage - Pits 4.2.1 Side	entry pits	8	No.	\$	2,700.00	\$	21.600.00	Assumed spacing of 75m
	4.3	Drainage - WS	סנ	8	Allow.	\$	1,500.00		12,000.00	
	4.4	Drainage - Misc	cellaneous	-	No.	\$	-	\$	-	Assumed none.
5	TRAFFIC	:								
	5.1	Traffic Safety								Includes fixed signage, guide posts, line
		5.1.1 Line	marking and Traffic Signage	290	LM	\$	32.00	\$	9,280.00	markings, traffic safety
•	LANDSC	ADE								
•	6.1	Trees								
			planting (2-2.5m tall)	6	No.	\$	350.00	\$	2,100.00	Allowance only
	6.2	Landscaping 6.2.1 Tube	stock plantings	573	m2	\$	3.00	\$	1.719.00	Allowance of 2 per m2 to nature strip
			re strip	573	m2	\$	10.00		5,730.00	Topsoiling and seeding of nature strips, varying
7	STREET	LIGHTING	·			·		·	.,	in widths
•	7.1	Street Lighting								
										Assume install poles 12m high with luminaries
		7.1.1 Stree	t lighting (incl. lighting conduits)	6	No.	\$	12,500.00	\$	75,000.00	placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
										ngg conduito
8		LANEOUS								
	8.1		d cameras d bumps	-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
		0.1.2 Spee	u bumps	-	NO.	φ	-	φ	•	Excluded
	8.2	Retaining walls			1 84	•		¢.		
		8.2.1 Retai	ning wall (3-5m high)	-	LM	\$	-	\$	-	
9	SERVICE					_		•		Englished
	9.1 9.2	Services Reloc Services Protect		-	Allow. Allow.	\$ \$	-	\$ \$	-	Excluded Excluded
	V. <u>L</u>				11.	~		*		
				e	1446-1					
				SUB TOTAL	- WORKS			\$	1,044,815.25	
	DELIVER	RY								
10		Fees						_		
10		Council Fees VicRoads Fees		3.25% 1.00%	Item Item			\$ \$	33,956.50 10,448.15	
10	11.1 11.2			5.00%	Item			\$	52,240.76	
10	11.2 11.3	Traffic Manage			16			\$	5,224.08	
10	11.2 11.3 11.4	Traffic Manage Environmental		0.50% 5.00%	Item Item					
10	11.2 11.3	Traffic Manage Environmental Survey & Design		0.50% 5.00% 9.00%	Item Item			\$ \$	52,240.76 94,033.37	
10	11.2 11.3 11.4 11.5 11.6 11.7	Traffic Manage Environmental Survey & Desig Supervision & F Site Establishm	n Project Management	5.00% 9.00% 2.50%	Item Item Item			\$ \$ \$	52,240.76 94,033.37 26,120.38	
10	11.2 11.3 11.4 11.5 11.6	Traffic Manage Environmental Survey & Desig Supervision & F	n Project Management	5.00% 9.00%	Item Item Item Item	,		\$	52,240.76 94,033.37	

3136206 - PMD - Cost Estimate Templates.xlsx SS-IN13

TOTAL ESTIMATED PROJECT COST

1,475,801.54

Buckland Way/Watsons Road Intersection SS-IN-14 (Roundabout)

Item			Description		Quantity	Unit		Rate		Amount	Comments
	WORKS	e									
1	SITEW	ORKS AND	EARTHWORKS								
	1.1	Pre-cons 1.1.1	struction Demolition and site preparation		2,910	m2	\$	5.40	\$	15,714.00	
	1.2	Earthwo								· ·	Accoming necessary comments in denth total
			Cut and disposal at specified location		8,712	m3	\$	55.00	\$	479,134.37	Assuming pavement composition depth total 650mm deep including fill
	1.3	1.2.2 Set-Out	Fill		-	m3	\$	37.80	\$	-	
2			Allow for site set out		1	Item	\$	12,500.00	\$	12,500.00	
	2.1	New Pa									
		2.1.1	Road pavement - Traffic lanes		1,510	m2	\$	156.60	\$	236,466.00	Includes pavement to Traffic lane (3.5m) and parking bay (2.1m) to one side total width (8.1m)
3	2.2 CONCR 3.1	2.2.1 RETE WOR	tate Existing Pavement Pavement profiling and reshaping EKS I Channel		1	Allow.	\$	-	\$	-	Assume all new works.
			Kerb and channel		379	LM	\$	48.60	\$	18,419.40	Kerb and channel to both sides of each traffic lane
	3.2	Pedestri	an & Cycle Paths								
		3.2.1	Pedestrian footpath		42	m2	\$	59.00	\$	2,492.16	Connector Street: Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3.0m) wide
		3.2.2	Cycle pathway		46	m2	\$	66.00	\$	3,057.12	Allow Cycle path (3m) wide
		3.2.3	Shared pathway		378	m2	\$	66.00	\$	24,948.00	
	3.3	Median			38	m2	\$	32.40	\$	1,231.20	
4	DRAINA	AGE	· · · · · · · · · · · · · · · · · · ·		30	ΠZ	Ψ	JZ.4U	Ψ	1,231.20	
	4.1	Drainage 4.1.1	e - Pipes Stormwater drainage (300mm DIA)		77	LM	\$	216.00	\$	16,704.00	
		4.1.2	Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)		290	LM LM	\$	260.00 383.50	\$	75,400.00	
	4.0	4.1.4	Drainage, sub grade drain		580	LM	\$	54.00		31,320.00	
	4.2	4.2.1	Side entry pits		8	No.	\$	2,700.00			Assumed spacing of 75m
	4.3 4.4	-	e - WSUD e - Miscellaneous		8	Allow. No.	\$	1,500.00	\$	12,000.00	Assumed none.
_			······································				•		•		7.004.1104.101.01
5	TRAFFI 5.1	Traffic S	afety								
		5.1.1	Line marking and Traffic Signage		290	LM	\$	32.00	\$	9,280.00	Includes fixed signage, guide posts, line markings, traffic safety
•	LANDO	0485									
6	LANDS 6.1	Trees									
	6.2	6.1.1 Landsca	Tree planting (2-2.5m tall)		6	No.	\$	350.00	\$	2,100.00	Allowance only
			Tube stock plantings		573	m2	\$	3.00	\$	1,719.00	Allowance of 2 per m2 to nature strip
			Nature strip		573	m2	\$	10.00	\$	5,730.00	Topsoiling and seeding of nature strips, varying in widths
7	STREE 7.1	T LIGHTIN Street Li									
		7.1.1	Street lighting (incl. lighting conduits)		6	No.	\$	12,500.00	\$	75,000.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCEL	LLANEOU	S								
	8.1	8.1.1 8.1.2	Speed cameras		-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
	_		Speed bumps		-	INU.	Φ	-	φ	-	LAGIGUEU
_	8.2	Retainin 8.2.1	g walls Retaining wall (3-5m high)		-	LM	\$	-	\$	-	Assumed no walls
9	9.1	Services	Relocation		-	Allow.	\$	-	\$	-	Excluded
	9.2	Services	Protection		-	Allow.	\$	-	\$	-	Excluded
					OUR TOTAL				_	10	
					SUB TOTAL -	WURKS			\$	1,044,815.25	
10	DELIVE										
	11.1				3.25%	Item			\$	33,956.50	
	11.2 11.3		s Fees lanagement		1.00% 5.00%	Item Item			\$ \$	10,448.15 52,240.76	
	11.4	Environr	nental Management		0.50%	Item			\$	5,224.08	
	11.5 11.6	Survey & Supervis	& Design iion & Project Management		5.00% 9.00%	Item Item			\$ \$	52,240.76 94,033.37	
	11.7 11.8		ablishment		2.50% 15.00%	Item Item			\$	26,120.38 156,722.29	
	11.0	Continge		S	SUB-TOTAL DI				\$	430,986.29	
11				TOTAL COTINA	TEN DOO ITOT	COST			\$	1,475,801.54	
11				TOTAL ESTIMAT	IED PROJECT	0031			Þ	1,475,001.54	

3136206 - PMD - Cost Estimate Templates.xlsx SS-IN14

Watsons Road, Crinnion Road Intersection SS-IN-15 (T-intersection - Ultimate)

Item	Description	Quantity	Unit		Rate		Amount	Comments
	Webke	-						
1	WORKS SITEWORKS AND EARTHWORKS							
	1.1 Pre-construction	9,605	m2	\$	5.40	ď	51,867.00	
	1.1.1 Demolition and site preparation 1.2 Earthworks	9,005	IIIZ	Ą	5.40	Ф	51,007.00	
	1.2.1 Cut and disposal at specified location	1,073	m3	\$	55.00	\$	58,987.50	Assuming pavement composition depth total 650mm deep including fill
	1.2.2 Fill	-	m3	\$	37.80	\$	-	coonin deep modaling in
	1.3 Set-Out 1.3.1 Allow for site set out	1	Item	\$	12,500.00	\$	12,500.00	
2	ROAD PAVEMENT				,	·	,	
	2.1 New Pavement							
	2.1.1 Road pavement - Traffic lanes	1,170	m2	\$	156.60	\$	183,222.00	
	2.2 Rehabilitate Existing Pavement 2.2.1 Pavement profiling and reshaping	1	Allow.	e	_	\$		Assume all new works.
3	CONCRETE WORKS		Allow.	Ψ	-	Ψ	_	Assume all new works.
	3.1 Kerb and Channel							Kerb and channel to both sides of each traffic
	3.1.1 Kerb and channel	385	LM	\$	48.60	\$	18,711.00	lane
	3.2 Pedestrian & Cycle Paths 3.2.1 Pedestrian footpath		m2	\$	59.00	\$		
	·							
	3.2.2 Cycle pathway		m2	\$	66.00	\$	-	Allow Cycle path (3m) wide
	3.2.3 Shared pathway	80	m2	\$	66.00	\$	5,280.00	
	3.3 Median strip							
4	3.3.1 Median (Levelled ground) DRAINAGE	150	m2	\$	32.40	\$	4,860.00	
•	4.1 Drainage - Pipes							
	4.1.1 Stormwater drainage (300mm DIA)4.1.2 Stormwater drainage (450mm DIA)	103 385	LM LM	\$	216.00 260.00		22,176.00 100,100.00	
	4.1.3 Stormwater drainage (525mm DIA)		LM	\$	383.50	\$	-	
	4.1.4 Drainage, sub grade drain 4.2 Drainage - Pits	770	LM	\$	54.00	\$	41,580.00	
	4.2.1 Side entry pits	6	No.	\$	2,700.00			Assumed spacing of 75m
	4.3 Drainage - WSUD4.4 Drainage - Miscellaneous	6	Allow. No.	\$ \$	1,500.00	\$	9,000.00	Assumed none.
_	•							
5	TRAFFIC 5.1 Traffic Signals							
	5.1.1 Traffic signals (incl. conduit subset)	-	Allow.	\$!	540,000.00	\$	-	Rate includes for signals, conduits, pits, footings etc.
	5.2 Traffic Safety							Includes fixed signage, guide posts, line
	5.2.1 Line marking and Traffic Signage	100	LM	\$	32.00	\$	3,200.00	markings, traffic safety
6	LANDSCAPE							
	6.1 Trees			•	050.00	^	4 400 00	Allenner
	6.1.1 Tree planting (2-2.5m tall) 6.2 Landscaping	4	No.	\$	350.00	\$	1,400.00	Allowance only
	6.2.1 Tube stock plantings	1,250	m2	\$	3.00	\$	3,750.00	Allowance of 2 per m2 to nature strips
	6.2.2 Nature strip	1,250	m2	\$	10.00	\$	12,500.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING 7.1 Street Lighting							
	Out-out Engineering							Assume install poles 12m high with luminaries
	7.1.1 Street lighting (incl. lighting conduits)	8	No.	\$	12,500.00	\$	100,000.00	
								morades for electrical lighting conduits
8	MISCELLANEOUS		Itom	œ		œ		Excluded
	8.1 8.1.1 Speed cameras 8.1.2 Speed bumps	-	Item No.	\$ \$	-	\$ \$	-	Excluded
	· · · ·							
	8.2 Retaining walls 8.2.1 Retaining wall (3-5m high)		LM	\$	4,480.00	\$	-	Assumed no Retaining Walls
9	SERVICES							
,	9.1 Services Relocation	-	Allow.	\$	-	\$	-	Excluded
	9.2 Services Protection	-	Allow.	\$	-	\$	-	Excluded
		SUB TOTAL -	WORKS			\$	645,333.50	
10	DELIVERY							
	Fees	2.05%	14			٠	00.070.01	
	11.1 Council Fees11.2 VicRoads Fees	3.25% 1.00%	Item Item			\$ \$	20,973.34 6,453.34	
	11.3 Traffic Management	5.00%	Item			\$	32,266.68	
	11.4 Environmental Management11.5 Survey & Design	0.50% 5.00%	Item Item			\$ \$	3,226.67 32,266.68	
	11.6 Supervision & Project Management	9.00%	Item			\$	58,080.02	
	11.7 Site Establishment11.8 Contingency	2.50% 15.00%	Item Item			\$ \$	16,133.34 96,800.03	
		SUB-TOTAL D				\$	266,200.07	
44		STIMATED DDG 1503	COST			¢	044 500 57	
11	IOTALES	STIMATED PROJECT	0001			\$	911,533.57	

3136206 - PMD - Cost Estimate Templates.xlsx SS-IN15

Jacksons Creek Crossing LR-RD2-3A Approx. length: 245m (excl. intersections and bridges)

Item			Description		Quantity	Unit		Rate		Amount	Comments
	WORKS										
1	SITEWO	RKS AND	EARTHWORKS								
	1.1	Pre-cons 1.1.1	truction Demolition and site preparation		8,330	m2	\$	5.40	\$	44,982.00	
	1.2	Earthwor	ks		29,268	m3	\$	55.00			With 10% additional factor
			Cut and disposal Fill		29,200	m3	\$	37.80	\$	1,009,742.90	With 10% additional factor
	1.3	1.2.3 Set-Out	Cut to fill			m3	\$	70.00	\$	-	
			Allow for site set out		1	Item	\$	12,500.00	\$	12,500.00	
2	ROAD P	AVEMEN									
	2.1	New Pav	rement								Includes never ent to Traffic lane (2.5m) and
		2.1.1	Road pavement - Traffic lanes		2,842	m2	\$	156.60	\$	445,057.20	Includes pavement to Traffic lane (3.5m) and parking bay (2.3m) to both sides total width
											(11.6m)
	2.2		ate Existing Pavement								
		2.2.1	Pavement profiling and reshaping		-	Allow.	\$	-	\$	-	Have assumed all new works.
3	CONCRI 3.1	ETE WOR Kerb and									
		3.1.1	Kerb and channel		980	LM	\$	48.60	\$	47,628.00	
	3.2		an & Cycle Paths		000	0	•	50.00	•	57,000,00	Pedestrian path to both sides of proposed road
		3.2.1	Pedestrian footpath		980	m2	\$	59.00	Þ	57,820.00	each (2.0m) wide. Total span (4.0m) wide
		3.2.2	Cycle pathway		833	m2	\$	66.00	\$	54,978.00	Cycle path to both sides of proposed road, each (1.7m wide). Total span (3.4m) wide
		3.2.3	Shared pathway		_	m2	\$	66.00	\$	_	Assumed not included in LR-RD2
	3.3	Median s			-	1114	Ψ	00.00	Ψ	-	, assured not included in LITIDZ
					1,470	m2	\$	32.40	\$	47,628.00	Assume median (6.0m) to be levelled soil - no landscaping assumed
4	DRAINA		5:								aassuping assurited
	4.1	Drainage 4.1.1	e - Pipes Stormwater drainage (300mm DIA)		65	LM	\$	216.00	\$	14,112.00	
		4.1.2	Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)		245	LM LM	\$	260.00 383.50	\$	63,700.00	
		4.1.4	Drainage, sub grade drain		490	LM	\$	54.00		26,460.00	Inclusive of subsoil drainage
	4.2	Drainage 4.2.1	e - Pits Side entry pits		7	No.	\$	2,700.00	\$	17,640.00	Assumed spacing of 75m
	4.3 4.4	Drainage	e - WSUD e - Miscellaneous		7	Allow. No.	\$	1,500.00		9,800.00	Assumed none.
	4.4	Drainage	s - Miscellarieous		-	NO.	Ф	-	Þ	-	Assumed none.
5	TRAFFIC 5.1	C Traffic Si	gnals								
	5.2		Traffic signals (incl. conduit subset)		-	LM.	\$	-	\$	-	Excluded
	5.2		•		245	LM	\$	32.00	\$	7,840.00	Includes fixed signage, guide posts, line
			3 3				·		·	,	markings, traffic safety
6	LANDSO 6.1	CAPE Trees									
		6.1.1	Tree planting (2-2.5m tall)		2	Item	\$	350.00	\$	700.00	Allowance only - Assumed spacing of 100m
	6.2	Landscar 6.2.1	ping Tube stock plantings		2,205	m2	\$	3.00	\$	6,615.00	Allowance of 2 per m2 to nature strip
		6.2.2	Nature strip		2,205	m2	\$	10.00	\$	22,050.00	Topsoiling and seeding of nature strips (4.5m) to both sides. Total (9.0m) wide
7		LIGHTIN									Source and County Made
	7.1	Street Lig	gnting								Assume install pales 12m high with luminaries
		7.1.1	Street lighting (incl. lighting conduits)		5	No.	\$	12,500.00	\$	61,250.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate
											includes for electrical lighting conduits
8	MISCEL	LANEOUS	3		-	LM	\$	-	\$	-	
	8.1	8.1.1 8.1.2	Speed cameras Speed bumps		-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
	8.2	Retaining	g walls		- 0.40			4 400 00		000 000 0	
		8.2.1 8.2.2	Retaining wall (0-2m high) Retaining wall (3-5m high)		240 120	LM LM	\$ \$	1,120.00 4,480.00	\$		Up to 2m high Up to 5m high
		8.2.3 8.2.4	Retaining wall (6-8m high) Retaining wall (9-11m high)		80	LM LM		7,840.00 11,200.00		627,200.00	Up to 8m high Up to 11m high
_	055					-171	Ψ	,_00.00	Ÿ	-	-r · · · · · · · · · · · · · · · · ·
9	SERVIC 9.1		Relocation		-	Allow.	\$	-	\$	-	Excluded
	9.2	Services	Protection		-	Allow.	\$	-	\$	-	Excluded
					SUB TOTAL -	works			\$	3,984,103.16	
10	DELIVE	RY									
.0		Fees	_						_		
	10.1 10.2		s Fees		3.25% 1.00%	Item Item			\$ \$	129,483.35 39,841.03	
	10.3 10.4	Traffic M	anagement nental Management		5.00% 0.50%	Item Item			\$	199,205.16 19,920.52	
	10.5	Survey &	Design		5.00%	Item			\$	199,205.16	
	10.6 10.7		ion & Project Management blishment		9.00% 2.50%	Item Item			\$ \$	358,569.28 99,602.58	
	10.8	Continge			15.00%	Item			\$	597,615.47	
					SUB-TOTAL DE	LIVERY			\$	1,643,442.55	
11				TOTAL ESTI	MATED PROJECT	COST			\$	5,627,545.71	
									_	·	

3136206 - PMD - Cost Estimate Templates.xlsx LR-RD2-03a

Jacksons Creek Crossing
LR-RD-02-03B Approx. length: 191m (excl. intersections and bridges)

Item		Description	Quantity	Unit		Rate		Amount	Comments
	WORKS								
1	SITEWO	RKS AND EARTHWORKS							
	1.1	Pre-construction 1.1.1 Demolition and site preparation	6,494	m2	\$	5.40	\$	35,067.60	
	1.2	Earthworks							With 100/ additional factors
		1.2.1 Cut and disposal 1.2.2 Fill	24,526	m3 m3	\$	55.00 37.80		1,348,911.37	With 10% additional factor
	1 2	1.2.3 Cut to fill		m3	\$	70.00	\$	-	
	1.3	Set-Out 1.3.1 Allow for site set out	1	Item	\$	12,500.00	\$	12,500.00	
2	BOAD B	AVEMENT							
2		New Pavement							
									Includes pavement to Traffic lane (3.5m) and
		2.1.1 Road pavement - Traffic lanes	2,216	m2	\$	156.60	\$	346,962.96	parking bay (2.3m) to both sides total width (11.6m)
	2.2	Rehabilitate Existing Pavement 2.2.1 Pavement profiling and reshaping		Allow.	\$	_	\$		Have assumed all new works.
			-	Allow.	φ	-	φ	-	Trave assumed all flew works.
3	3.1	ETE WORKS Kerb and Channel							
	3.1	3.1.1 Kerb and channel	764	LM	\$	48.60	\$	37,130.40	
	3.2	Pedestrian & Cycle Paths							Pedestrian path to both sides of proposed
		3.2.1 Pedestrian footpath	764	m2	\$	59.00	\$	45,076.00	road each (2.0m) wide. Total span (4.0m) wide
		3.2.2 Cycle pathway	649	m2	\$	66.00	\$	42,860.40	Cycle path to both sides of proposed road,
		•							each (1.7m wide). Total span (3.4m) wide
		3.2.3 Shared pathway	-	m2	\$	66.00	\$	-	Assumed not included in LR-RD2
	3.3	Median strip							Assume median (6.0m) to be levelled soil - no
		3.3.1 Median (Levelled ground)	1,146	m2	\$	32.40	\$	37,130.40	landscaping assumed
4	DRAINA 4.1	GE Drainage - Pipes							
	7.1	4.1.1 Stormwater drainage (300mm DIA)	51	LM	\$	216.00	\$	11,001.60	
		4.1.2 Stormwater drainage (450mm DIA) 4.1.3 Stormwater drainage (525mm DIA)	191	LM LM	\$	260.00 383.50	\$	49,660.00	
		4.1.4 Drainage, sub grade drain	382	LM	\$	54.00		20,628.00	Inclusive of subsoil drainage
	4.2	Drainage - Pits 4.2.1 Side entry pits	5	No.	\$	2,700.00	\$	13,752.00	Assumed spacing of 75m
	4.3	Drainage - WSUD	5	Allow.	\$	1,500.00	\$	7,640.00	
	4.4	Drainage - Miscellaneous	-	No.	\$	-	\$	-	Assumed none.
5	TRAFFIC								
	5.1	Traffic Signals 5.1.1 Traffic signals (incl. conduit subset)	-	LM.	\$	-	\$	_	Excluded
	5.2	Traffic Safety							Includes fixed signers, quide poste line
		5.2.1 Line marking and Traffic Signage	191	LM	\$	32.00	\$	6,112.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSC	ADE							
٠	6.1	Trees							
	6.2	6.1.1 Tree planting (2-2.5m tall) Landscaping	2	Item	\$	350.00	\$	700.00	Allowance only
		6.2.1 Tube stock plantings	1,719	m2	\$	3.00	\$	5,157.00	Allowance of 2 per m2 to nature strip
		6.2.2 Nature strip	1,719	m2	\$	10.00	\$	17,190.00	Topsoiling and seeding of nature strips (4.5m) to both sides. Total (9.0m) wide
7		LIGHTING							,
	7.1	Street Lighting							
		7.1.1 Street lighting (incl. lighting conduits)	4	No.	\$	12,500.00	\$	47.750.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate
									includes for electrical lighting conduits
	MICO-	ANIFOLIO	-	LM	\$	-	\$	-	
8		ANEOUS 8.1.1 Speed cameras	_	Item	\$	_	\$	_	Excluded
		8.1.2 Speed bumps	-	No.	\$	-	\$	-	Excluded
	8.2	Retaining walls 8.2.1 Retaining wall (0-2m high)	120	LM	\$	1,120.00	\$	134,400.00	Up to 2m high
		8.2.2 Retaining wall (3-5m high)	120	LM	\$	4,480.00	\$	537,600.00	Up to 5m high
		8.2.3 Retaining wall (6-8m high) 8.2.4 Retaining wall (9-11m high)	120	LM LM	\$ \$	7,840.00 11,200.00	\$	940,800.00	Up to 8m high Up to 11m high
9	SERVICE								-
9	9.1	Services Relocation	-	Allow.	\$	-	\$	-	Excluded
	9.2	Services Protection	-	Allow.	\$	-	\$	-	Excluded
			SUB TOTAL -	WORKS			\$	3,698,029.73	
								,,.	
10	DELIVER	RY Fees							
	10.1	Council Fees	3.25%	Item			\$	120,185.97	
	10.2 10.3	VicRoads Fees Traffic Management	1.00% 5.00%	Item Item			\$ \$	36,980.30 184,901.49	
	10.4	Environmental Management	0.50%	Item			\$	18,490.15	
	10.5 10.6	Survey & Design Supervision & Project Management	5.00% 9.00%	Item Item			\$ \$	184,901.49 332,822.68	
	10.7	Site Establishment	2.50%	Item			\$	92,450.74	
	10.8	Contingency	15.00%	Item			\$	554,704.46	
			SUB-TOTAL DE	LIVERY			\$	1,525,437.26	
11			TOTAL ESTIMATED PROJECT	COST			\$	5,223,466.99	

3136206 - PMD - Cost Estimate Templates.xlsx LR-RD2-03b

Balbethan Drive

11

LR-RD-03 Approx. Length 470m (ex.intersection and bridges)

Item		Description	Quantity	Unit		Rate	Amount		Comments
	WORKS								
1	SITEWORKS	AND EARTHWORKS							
		-construction .1.1 Demolition and site preparation	15,892	m2	\$	5.40	\$ 85,816	.80	
	1.2 Ear	thworks		0	•	55.00	•		
		.2.1 Cut and disposal .2.2 Fill	1,939	m3 m3	\$	55.00 37.80		.01 With 10%	additional factor
		2.3 Cut to fill	3,202	m3	\$	70.00			additional factor
		-Out .3.1 Allow for site set out	1	Item	\$	12,500.00	\$ 12,500	.00	
2	ROAD PAVE	MENT				,	,		
		v Pavement 1.1.1 Road pavement - Traffic lanes	5,264	m2	\$	156.60	\$ 824,342	.40 parking ba	pavement to Traffic lane (3.5m) and ay (2.1m) to both sides total width
		nabilitate Existing Pavement .2.1 Pavement profiling and reshaping		Allow.	\$	_	\$	(11.2m)	II new works.
3	CONCRETE			7 110 111	•		Ť	, 10041110 4	
		.1.1 Kerb and channel	940	LM	\$	48.60	\$ 45,684		channel to both sides of each traffic
		lestrian & Cycle Paths			Ť		7,	lane	
		.2.1 Pedestrian footpath	1,410	m2	\$	59.00	\$ 83,190		path to both sides of proposed road
	Ī		,,,,		Ť			each (1.5r	n) wide. Total span (3.0m) wide
	3	2.2 Cycle pathway	1,410	m2	\$	66.00	\$ 93,060	.00 Two way 0	Cycle path. Total span (3m) wide
		.2.3 Shared pathway	-	m2	\$	66.00	\$	Assumed	not included in LR-RD3
		dian strip .3.1 Median (Levelled ground)	-	m2	\$	32.40	\$	Assumed	not included in LR-RD3
4	DRAINAGE 4.1 Dra	inage - Pipes							
		1.1.1 Stormwater drainage (300mm DIA)	125	LM	\$	216.00	\$ 27,072	.00	
		.1.2 Stormwater drainage (450mm DIA) .1.3 Stormwater drainage (525mm DIA)	470	LM LM	\$	260.00 383.50		.00	
		1.4 Drainage, sub grade drain	940	LM	\$	54.00			
		inage - Pits	12	No	¢	2 700 00	¢ 22.040	00 Assumed	anacing of approx 75m
		.2.1 Side entry pits inage - WSUD	13 13	No. Allow.	\$ \$	2,700.00 1,500.00			spacing of approx. 75m
	4.4 Dra	inage - Miscellaneous	-	No.	\$	-	\$	Assumed	none.
5	TRAFFIC								
		ffic Signals .1.1 Traffic signals (incl. conduit subset)	_	LM.	\$	_	\$		
	5.2 Tra	ffic Safety		LIVI.	Ψ			Includes fi	xed signage, guide posts, line
	5	.2.1 Line marking and Traffic Signage	470	LM	\$	32.00	\$ 15,040		traffic safety
6	LANDSCAPE								
	6.1 Tre	.1.1 Tree planting (2-2.5m tall)	10	No.	\$	350.00	\$ 3,500	.00 Allowance	only
		dscaping	7,000	···· O	·	3.00	e 00.070	00 Allawanaa	of 2 man ma2 to make me atmin
		2.1 Tube stock plantings	7,990	m2	\$		*	Tonsoiling	of 2 per m2 to nature strip and seeding of nature strips, varying
_		2.2 Nature strip	7,990	m2	\$	10.00	\$ 79,900	in widths	
7	7.1 Stre	eet Lighting							
								Assume in	nstall poles 12m high with luminaries
	7.1.	1 Street lighting (incl. lighting conduits)	9	No.	\$	12,500.00	\$ 117,500	.00 placed eve	ery 50m (roads) to one side. Rate or electrical lighting conduits
								includes it	or electrical lighting conduits
8	MISCELLAN	EOUS							
•	8.1 8.1	1 Speed cameras	-	Item	\$	-	\$	Excluded	
	8.1.	2 Speed bumps	-	No.	\$	-	\$	Excluded	
		aining walls							
	8.2	1 Retaining wall	-	LM	\$	-	\$	- Assume n	o retaining walls to LR-RD3
9	SERVICES								
		vices Relocation vices Protection	-	Allow. Allow.	\$ \$	-	\$ \$	Excluded Excluded	
	J.E 061		-	, alove.	Ψ	_	÷	LAGIGUEU	
			SUB TOTAL -	WORKS			\$ 1,934,600	.55	
10	DELIVERY								
	Fee								
		ıncil Fees Roads Fees	3.25% 1.00%	Item Item			\$ 62,874 \$ 19,346		
		ffic Management	5.00%	Item			\$ 96,730		
	10.4 Env	rironmental Management	0.50%	Item			\$ 9,673	.03	
		vey & Design pervision & Project Management	5.00% 9.00%	Item Item			\$ 96,730 \$ 174,114		
	10.7 Site	Establishment	2.50%	Item			\$ 48,365	.16	
	10.8 Cor	ntingency	15.00% SUB-TOTAL D	Item			\$ 290,190 \$ 798,02 9		
			SUB-TUTAL D	LLIVERY			790,02	.20	

3136206 - PMD - Cost Estimate Templates.xlsx LR-RD3

TOTAL ESTIMATED PROJECT COST

2,732,631.75

Ex Stockwell Drive Upgrade LR-RD-04 Approx. length: 738m

1.2 Earthworks	Item		Description	Quantity	Unit		Rate		Amount	Comments
Pre-state Pre-				-		-		•		•
1.1	1									
1.0			1.1.1 Demolition and site preparation	18,450	m2	\$	5.40	\$	99,630.00	Assuming pavement composition depth total
1.22 File 1.32 1.33 1.00 to facility 1.33 1.00 to facility 1.33 1.00 to facility 1.34 1.00 to facili		1.2								
1				7,077					389,258.10	With 10% additional factor
1.5 Allow fat solve date 1 Nove 1 12,000 1		4.0							-	
2.1 New Parement Traffic larens		1.3		1	Item	\$	12,500.00	\$	12,500.00	
2.1 New Parement Traffic larens	2	ROAD P	AVEMENT							
2.1 Road powerwant Traffic larons										
Concession Con			2.1.1 Road pavement - Traffic lanes	8,266	m2	\$	156.60	\$	1,294,392.96	
CONCRETE WORKET 1		2.2			Allow	•		¢.		Have accumed all pay works
1				-	Allow.	φ	-	φ	-	Trave assumed all flew works.
	3									
		0.0		1,476	LM	\$	48.60	\$	71,733.60	
3.2.2 Cycle pathway 2.214 m2 \$ 6.00 \$ 146,124.00 Cycle path on one add of the road (3m) wide 3.23 Shared pathway 3.31 Median (Levelled ground) 4 Park ANAGE 4 Park ANAGE 4.1 Drainage - Figs 4.1 Stormwater drainage (200mm DIA) 4.2 Drainage - Fits 4.2 Drainage - Fits 4.2 Drainage - Fits 4.2 Drainage - Fits 4.3 Drainage - Fits 4.4 Drainage - Fits 4.4 Drainage - Fits 5 Drainage - Fits 6 Draina		3.2		2 214	m?	œ.	50.00	\$	130 626 00	Pedestrian path to both sides of proposed roa
3.23 Shared pathway - m2 \$ 66.00 \$ - Assumed not included in LRRD2			5.2.1 r cuesulan loopaul	2,214	IIIZ	Φ	39.00	φ	130,020.00	each (1.5m) wide. Total span (3m) wide
Name			3.2.2 Cycle pathway	2,214	m2	\$	66.00	\$	146,124.00	Cycle path on one side of the road (3m) wide
				-	m2	\$	66.00	\$	-	Assumed not included in LR-RD2
		3.3		-	m2	\$	32.40	\$	-	Assumed none
	4		GE							
		4.1		197	LM	\$	216.00	\$	42,508.80	
4.2 1.4 Drainage, sub grade drain 1.6 1.0										
4.2.1 Side antity pites 2.0 Mious 5.00,000										Inclusive of subsoil drainage
A		4.2	•	20	No	•	2 700 00	œ	53 136 00	Assumed spacing of 75m
Traffic Signals Si.1 Si.1 Signals Si.1 S		4.3	Drainage - WSUD			\$		\$		Assumed spacing of 75m
1.1 Traffic Signals (incl. conduit subset) 1.2 1.1 Traffic Signals (incl. conduit subset) 1.2 1.1 Traffic Signals (incl. conduit subset) 1.2 1.1 Traffic Signage (guide posts, line marking and Traffic Signage 738 1.1 \$32.00 \$23.616.00 Includes fixed signage, guide posts, line markings, traffic safety 1.2 1		4.4	Drainage - Miscellaneous	-	No.	\$	-	\$	-	Assumed none.
	5									
1		5.1		_	LM.	\$	_	\$	_	Excluded
Substituting Subs		5.2								Includes fixed signage, guide posts line
Fig. 1			5.2.1 Line marking and Traffic Signage	738	LM	\$	32.00	\$	23,616.00	
Solition Figure	6	LANDS	APE							
Fig.		6.1		14	ltem	2	350.00	¢	4 900 00	Allowance only
STREET LIGHTING Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Topsoling and seeding of nature strips to be sides. Total (7.8m) wide Total (7.8m) w		6.2		14	item	φ	330.00	φ	4,900.00	Allowance only
STREET LIGHTING STREET Lightling S1,756 M2 S 10.00 S 17,594.00 sides. Total (7.8m) wide S7,594.00 sides. Total (7										
7.1 Street Lighting 7.1.1 Street lighting (incl. lighting conduits) 7.1.1 Street lighting (incl. lighting conduits) 7.1.1 Street lighting (incl. lighting conduits) 7.1.1 Street lighting conduits) 7.1.1 Street lighting conduits) 7.1.1 Street lighting conduits) 7.1.1 Street lighting conduits 7.1.1 Street light	_	070557		5,756	m2	\$	10.00	\$	57,564.00	
7.1.1 Street lighting (incl. lighting conduits) 15 No. \$ 12,500.00 \$ 184,500.00 placed every 50m (roads) to one side. Rate includes for electrical lighting conduits 8 MISCELLANEOUS	1									
7.1.1 Street lighting (incl. lighting conduits) 15 No. \$ 12,500.00 \$ 184,500.00 placed every 50m (roads) to one side. Rate includes for electrical lighting conduits 8 MISCELLANEOUS										Assume install poles 12m high with luminarie
8			7.1.1 Street lighting (incl. lighting conduits)	15	No.	\$	12,500.00	\$	184,500.00	placed every 50m (roads) to one side. Rate
8.1 8.1.1 Speed cameras Speed cameras Speed cameras Speed bumps Speed bu				_	LM	\$	_	\$		
8.1.2 Speed bumps - No. - S - Excluded	8									Evaluded
Service Substitute Substi		8.1		-			-			
9 SERVICES 9.1 Services Relocation 9.2 Services Protection - Allow. \$ - \$ - Excluded SUB TOTAL - WORKS 2,856,205.56		8.2	Retaining walls					¢		
9.1 Services Relocation - Allow. \$ - \$ - Excluded 9.2 Services Protection - Allow. \$ - \$ - Excluded SUB TOTAL - WORKS \$ 2,856,205.56			· ·	-	LIVI	Ψ	-	φ	-	
9.2 Services Protection - Allow. \$ - \$ - Excluded SUB TOTAL - WORKS \$ 2,856,205.56	9			_	Allow.	\$	-	\$	_	Excluded
DELIVERY Fees				-			-		-	
DELIVERY Fees				SUB TOTAL	WORKS			\$	2,856.205.56	
Fees									,,_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
10.1 Council Fees 3.25% Item \$ 92,826.68 10.2 VicRoads Fees 1.00% Item \$ 28,562.06 10.3 Traffic Management 5.00% Item \$ 142,810.28 10.4 Environmental Management 0.50% Item \$ 142,810.28 10.5 Survey & Design 5.00% Item \$ 142,810.28 10.6 Supervision & Project Management 9.00% Item \$ 257,058.50 10.7 Site Establishment 2.50% Item \$ 71,405.14 10.8 Contingency 15.00% Item \$ 428,430.83	10	DELIVE			-					
10.3 Traffic Management 5.00% Item \$ 142,810.28 10.4 Environmental Management 0.50% Item \$ 14,281.03 10.5 Survey & Design 5.00% Item \$ 142,810.28 10.6 Supervision & Project Management 9.00% Item \$ 257,058.50 10.7 Site Establishment 2.50% Item \$ 71,405.14 10.8 Contingency 15.00% Item \$ 428,430.83			Council Fees							
10.4 Environmental Management 0.50% Item \$ 14,281.03 10.5 Survey & Design 5.00% Item \$ 142,810.28 10.6 Supervision & Project Management 9.00% Item \$ 257,058.50 10.7 Site Establishment 2.50% Item \$ 71,405.14 10.8 Contingency 15.00% Item \$ 428,430.83										
10.6 Supervision & Project Management 9.00% Item \$ 257,058.50 10.7 Site Establishment 2.50% Item \$ 71,405.14 10.8 Contingency 15.00% Item \$ 428,430.83		10.4	Environmental Management	0.50%	Item			\$	14,281.03	
10.7 Site Establishment 2.50% Item \$ 71,405.14 10.8 Contingency 15.00% Item \$ 428,430.83										
		10.7	Site Establishment	2.50%	Item			\$	71,405.14	
SUB-IUIAL DELIVERT \$ 1,1/8,184./9		10.8	Contingency					Ť		
				POR-IOIAL D	ELIVERY			Þ	1,178,184.79	

3136206 - PMD - Cost Estimate Templates.xlsx LR-RD4

TOTAL ESTIMATED PROJECT COST

4,034,390.35

Lancefield Road/Sunningdale Road Intersection LR-IN-01 (Cross Intersection - Interim)

Item			Description	Quan	ntity	Unit		Rate		Amount	Comments
	WORKS						_				
1		RKS AND Pre-cons	EARTHWORKS								
		1.1.1	Demolition and site preparation	1	19,220	m2	\$	5.40	\$	103,788.00	
	1.2	Earthwor	cut and disposal at specified location	1	12,699	m3	\$	55.00	¢	698,465.63	Assuming pavement composition depth total
		1.2.1	Fill		-	m3	\$	37.80		090,400.03	650mm deep including fill
	1.3	Set-Out								10 500 00	
2	ROAD PA	AVEMEN			1	Item	\$	12,500.00	\$	12,500.00	
	2.1	New Pav	rement								
		2.1.1	Road pavement - Traffic lanes	1	15,630	m2	\$	156.60	\$	2,447,658.00	Quantity adopted from SMEC detailed design
	2.2		ate Existing Pavement			A.II	•	105 100 00	•	105 100 00	A11
3	CONCRE		Pavement profiling and reshaping		1	Allow.	Þ	195,436.80	Þ	195,436.80	Allowance only
	3.1		l Channel Kerb and channel		1,450	LM	\$	48.60	\$	70 470 00	Quantity adopted from SMEC detalled design
	3.2	Pedestri	an & Cycle Paths								
		3.2.1	Pedestrian footpath		980	m2	\$	59.00	\$	57,820.00	Quantity adopted from SMEC detailed design
		3.2.2	Cycle pathway		995	m2	\$	66.00	\$	65,670.00	Quantity adopted from SMEC detailed design
		3.2.3	Shared pathway			m2	\$	66.00	\$	-	Arterial road: Two 3m wide shared paths (both
	3.3	Median									sides of the road). Total span (6.0m) wide
		3.3.1	Median (Levelled ground - no plants)		4,056	m2	\$	21.60	\$	87,609.60	Assumed levelled soil, future proofed for planting
4	DRAINA		Pinos								
	4.1		Stormwater drainage (300mm DIA)		225	LM	\$	216.00		48,614.40	
			Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)		591 253	LM LM	\$	260.00 383.50		153,608.00 97,102.20	
	4.2	4.1.4	Drainage, sub grade drain		1,688	LM	\$	54.00		91,152.00	
	4.2	Drainage 4.2.1	Side entry pits		12	No.	\$	2,700.00	\$	32,400.00	Assumed spacing of approx. 100m
			e - WSUD e - Miscellaneous		12	Allow.	\$	1,500.00	\$	18,000.00	
			4 No 900x300 Box Culvert		120	m	\$	1,500.00	\$	180,000.00	
5	TRAFFIC	:									
		Traffic S									Rate includes for signals, conduits, pits,
		5.1.1	Traffic signals (incl. conduit subset)		1	Allow.	\$	540,000.00	\$	540,000.00	footings etc.
	5.2	Traffic S	afety								
			Line marking and Traffic Signage		844	LM	\$	32.00	\$	27,008.00	Includes fixed signage, guide posts, line markings, traffic safety
	LANGE	AD=									
6	6.1	APE Trees									
		6.1.1 Landsca	Tree planting (2-2.5m tall)		16	No.	\$	350.00	\$	5,600.00	Allowance only
	0.2		Tube stock plantings		1,615	m2	\$	3.00	\$	4,845.00	Allowance of 2 per m2 to nature strip
		6.2.2	Nature strip		1,615	m2	\$	10.00	\$	16,150.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET 7.1										3 1, , , 3
	7.1	Street Li	yriung								Assume install poles 12m high with luminaries
		7.1.1	Street lighting (incl. lighting conduits)		17	No.	\$	12,500.00	\$	212,500.00	placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELL 8.1	.ANEOU: 8.1.1	Speed cameras		_	Item	\$	_	\$	_	Excluded
		8.1.2	Speed bumps		-	No.	\$	-	\$	-	Excluded
		Retainin									
		8.2.1	Retaining wall		-	LM	\$	702.00	\$	-	Assume no retaining walls
9	SERVICE		Delegation			A.I.	_	100 000 00	^	400.000.00	Allerman for all
			Relocation Protection		1 1	Allow. Allow.	\$ \$	400,000.00 20,000.00			Allowance for elec and comms relocations Allowance only
40											
10	MAINTEN 10.1		VicRoads maintenance fee		1	No.	\$	81,000.00	\$	81,000.00	Allowance for VicRoads maintenance fee to
	70.1	1	todao mamtoriano 100			.10.	¥	0.,000.00	Ψ	31,000.00	each intersection, as advised by WSPPB
				SUB T	OTAL -	WORKS			\$	5,667,397.63	
11	DELIVER	PY									
••		Fees	_		.01				_	د د مړ	
		Council I VicRoad		3.25 1.00		Item Item			\$ \$	184,190.42 56,673.98	
	11.3	Traffic M	anagement	5.00	1%	Item			\$	283,369.88	
		Survey 8	nental Management & Design	0.50 5.00		Item Item			\$ \$	28,336.99 283,369.88	
	11.6	Supervis	ion & Project Management	9.00 2.50		Item Item			\$ \$	510,065.79 141,684.94	
		Continge		15.00		Item			\$	850,109.64	
				SUB-TO	TAL DE	ELIVERY			\$	2,337,801.52	
12				TOTAL ESTIMATED PR	OJECT	COST			\$	8,005,199.15	

LR-IN1 3136206 - PMD - Cost Estimate Templates.xlsx

Lancefield Road/Rolling Meadows Drive Intersection LR-IN-02 (Cross Intersection - Interim)

Item		Description	Quantity	Unit		Rate	Amount	Comments
1		ID EARTHWORKS						
		nstruction Demolition and site preparation	16,600	m2	\$	5.40	\$ 89,640.	00
	1.2 Earthw	orks						Assuming pavement composition depth total
	1.2.1	· · ·	10,430	m3	\$	55.00		650mm deep including fill
	1.2.2 1.3 Set-Ou		-	m3	\$	37.80	\$	
	1.3.1	Allow for site set out	1	Item	\$	12,500.00	\$ 12,500.	00
2	2.1 New P	NT avement						
		Road pavement - Traffic lanes	12,837	m2	\$	156.60	\$ 2,010,195.	Includes pavement to Traffic lane (3.5m) and parking bay (2.1m) to both sides total width (11.2m)
	2.2 Rehab	litate Existing Pavement						
3	2.2.1	Pavement profiling and reshaping	1	Allow.	\$	201,258.00	\$ 201,258.	00 Allowance only
	3.1 Kerb a	nd Channel						
		Kerb and channel rian & Cycle Paths	2,385	LM	\$	48.60	\$ 115,911.	OO Quantity adopted from SMEC detailed design
	3.2.1	Pedestrian footpath	980	m2	\$	59.00		Ou Quantity adopted from SMEC detailed design
		Cycle pathway Shared pathway	980	m2 m2	\$	66.00 66.00		OO Quantity adopted from SMEC detailed design
	3.3 Mediar							Assumed levelled soil future proofed for
		Median (Levelled ground - no plants)	2,847	m2	\$	21.60	\$ 61,495.	Assumed levelled soil, future proofed for planting
4	DRAINAGE 4.1 Draina	ge - Pipes						
	4.1.1	Stormwater drainage (300mm DIA)	163	LM	\$	216.00		Quantity adopted from SMEC detalled design
		Stormwater drainage (450mm DIA) Stormwater drainage (525mm DIA)	207 118	LM LM	\$	260.00 383.50		O Quantity adopted from SMEC detailed design Quantity adopted from SMEC detailed design
	4.1.4	Stormwater drainage (600mm DIA)	339	LM	\$	480.00	\$ 162,720.	O Quantity adopted from SMEC detailed design
		Stormwater drainage (675mm DIA) Stormwater drainage (1050mm DIA)	74 80	LM LM	\$	550.00 650.00		O Quantity adopted from SMEC detailed design Quantity adopted from SMEC detailed design
	4.1.7	Drainage, sub grade drain	1,540	LM	\$	54.00		
		ge - Pits Side entry pits	11	No.	\$	2,700.00	\$ 29.700.	00 Assumed spacing of approx. 100m
	4.3 Draina	ge - WSUD	11	Allow.	\$	1,500.00	\$ 16,500.	00
	4.4 Draina	ge - Miscellaneous	-	No.	\$	-	\$	Assumed none.
5	TRAFFIC	Ciana da						
		Signals Traffic signals (incl. conduit subset)	4	Allow	¢	E40 000 00	¢ 540,000	Rate includes for signals, conduits, pits,
	5.1.1	Traffic signals (incl. conduit subset)	1	Allow.	Ф	540,000.00	\$ 540,000.	footings etc.
	5.2 Traffic	Safety						
	5.2.1	Line marking and Traffic Signage	770	LM	\$	32.00	\$ 24,640	lncludes fixed signage, guide posts, line markings, traffic safety
_								,
6	6.1 Trees				\$	-		
	6.1.1		14	No.	\$	350.00	\$ 4,900.	O0 Allowance only
	6.2 Landso 6.2.1	Tube stock plantings	1,801	m2	\$	3.00	\$ 5,403.	00 Allowance of 2 per m2 to nature strip
	6.2.2	Nature strip	1,801	m2	\$	10.00	\$ 18,010.	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHT							cooding of materio curpe, varying in materio
	7.1 Street	Lighting						Assume install poles 12m high with luminaries
	7.1.1	Street lighting (incl. lighting conduits)	16	No.	\$	12,500.00	\$ 200,000	00 placed every 50m (roads) to one side. Rate
								includes for electrical lighting conduits
8	MISCELLANEO	US Speed cameras		Item	\$		\$ -	Excluded
	8.1.2	Speed carrieras Speed bumps	-	No.	\$	-	\$	Excluded
	8.2 Retaini 8.2.1	ng walls Retaining wall	-	LM	\$	702.00	\$ -	Assume no retaining walls
		retaining train			•	702.00	•	, localite no rotaliting Maile
9	9.1 Service	es Relocation	1	Allow.	\$	400,000.00	\$ 400,000	00 Allowance for elec and comms relocations
		es Protection	1	Allow.		20,000.00		00 Allowance only
10	MAINTENANCE							
	10.1 10.1.1	VicRoads maintenance fee	1	No.	\$	81,000.00	\$ 81,000	Allowance for VicRoads maintenance fee to each intersection, as advised by WSPPB
								·
			SUB TOTAL	- WORKS			\$ 5,000,164.	10
11	DELIVERY							
	Fees	LEggs	2.059/	ltor			¢ 400.505	22
	11.1 Counci	l Fees ids Fees	3.25% 1.00%	Item Item			\$ 162,505. \$ 50,001.	
	11.3 Traffic	Management	5.00%	Item			\$ 250,008.	21
		nmental Management & Design	0.50% 5.00%	Item Item			\$ 25,000. \$ 250,008.	
	11.6 Superv	ision & Project Management	9.00%	Item			\$ 450,014.	77
	11.7 Site Es	tablishment gency	2.50% 15.00%	Item Item			\$ 125,004. \$ 750,024.	
	Condit		SUB-TOTAL D				\$ 2,062,567.	
12			TOTAL ESTIMATED PROJEC	TCOST			\$ 7,062,731.	79

LR-IT2 3136206 - PMD - Cost Estimate Templates.xlsx

Lancefield Road/Balbethan Drive Intersection

LR-IN-03 (Cross Intersection - Interim)

Item		Description	Quantity	Unit		Rate		Amount	Comments
	WORKS								
1	SITEWO 1.1	RKS AND EARTHWORKS Pre-construction							
		1.1.1 Demolition and site preparation	18,123	m2	\$	5.40	\$	97,864.20	
	1.2	Earthworks	40.005	0	•	55.00	•	FOF 07F 00	Assuming pavement composition depth total
		1.2.1 Cut and disposal at specified location1.2.2 Fill	10,825	m3 m3	\$	55.00 37.80		595,375.00	650mm deep including fill
	1.3	Set-Out	-	IIIO	φ	37.00	φ		
2	ROAD P	1.3.1 Allow for site set out AVEMENT	1	Item	\$	12,500.00	\$	12,500.00	
_		New Pavement							
		2.1.1 Road pavement - Traffic lanes	13,321	m2	\$	156.60	\$	2,086,068.60	Includes pavement to Traffic lane (3.5m) and parking bay (2.1m) to both sides total width (11.2m)
	2.2	Rehabilitate Existing Pavement							
		2.2.1 Pavement profiling and reshaping	1	Allow.	\$	183,016.80	\$	183,016.80	Allowance only
3		ETE WORKS Kerb and Channel							
		3.1.1 Kerb and channel	1,040	LM	\$	48.60	\$	50,544.00	Kerb and channel as per drawing outlined
	3.2	Pedestrian & Cycle Paths							Connector Road: Pedestrian path to both
		3.2.1 Pedestrian footpath	780	m2	\$	59.00	\$	46,020.00	sides of proposed road each (1.5m) wide. Total span (3.0m) wide
		3.2.2 Cycle pathway	780	m2	\$	66.00	\$	51,480.00	Allow Cycle path (3m) wide
		3.2.3 Shared pathway		m2	\$	66.00	\$	-	
	3.3	Median strip							
4	DRAINA	3.3.1 Median (Levelled ground - no plants)	-	m2	\$	21.60	\$	-	
4	4.1	Drainage - Pipes							
		4.1.1 Stormwater drainage 4.1.1 Stormwater drainage (300mm DIA)	930 248		\$	216.00	\$	- 53,568.00	
		4.1.2 Stormwater drainage (450mm DIA)	651	LM	\$	260.00	\$	169,260.00	
		4.1.3 Stormwater drainage (525mm DIA) 4.1.4 Drainage, sub grade drain	279 1,860		\$	383.50 54.00	\$ \$	106,996.50 100,440.00	
	4.2	Drainage - Pits							A d
	4.3	4.2.1 Side entry pits Drainage - WSUD	11 11		\$ \$	2,700.00 1,500.00		16,500.00	Assumed spacing of approx. 100m
	4.4	Drainage - Miscellaneous	-	No.	\$	-	\$	-	Assumed none.
5	TRAFFIC								
	5.1	Traffic Signals							Rate includes for signals, conduits, pits,
		5.1.1 Traffic signals (incl. conduit subset)	1	Allow.	\$	540,000.00	\$	540,000.00	footings etc.
	5.2	Traffic Safety							
		5.2.1 Line marking and Traffic Signage	1,395	LM	\$	32.00	\$	44,640.00	Includes fixed signage, guide posts, line
									markings, traffic safety
6	6.1	CAPE Trees							
	0.1	6.1.1 Tree planting (2-2.5m tall)	30	No.	\$	350.00	\$	10,500.00	Allowance only
	6.2	Landscaping 6.2.1 Tube stock plantings	3,242	. m2	\$	3.00	\$	9 726 00	Allowance of 2 per m2 to nature strip
		6.2.2 Nature strip	3,242		\$	10.00			Allow for total (3m) wide. Topsoiling and
7	STREET	LIGHTING							seeding of nature strips, varying in widths
	7.1	Street Lighting							Assume install poles 12m high with luminarie
		7.1.1 Street lighting (incl. lighting conduits)	29	No.	\$	12,500.00	\$	362,500.00	
8		LANEOUS		14	•		•		Evoluded
	8.1	8.1.1 Speed cameras 8.1.2 Speed bumps	-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
	8.2	·							
	0.2	Retaining walls 8.2.1 Retaining wall	-	LM	\$	702.00	\$	-	Assume no retaining walls
9	SERVICE	FS							
,	9.1	Services Relocation	1	Allow.	\$	400,000.00	\$	400,000.00	Allowance only
	9.2	Services Protection	1	Allow.		20,000.00			Electrical Pole Relocation Allowance only
40									
10	MAINTEI	10.1.1 VicRoads maintenance fee	1	No.	¢	81,000.00	\$	81,000.00	Allowance for VicRoads maintenance fee to
	10.1	Viol todds maintenance ice		INO.	φ	01,000.00	Ψ	01,000.00	each intersection, as advised by WSPPB
			SUB TOTAL	- WORKS	1		\$	5,100,119.10	
4.	DELET								
11	DELIVER	RY Fees							
	11.1 11.2	Council Fees VicRoads Fees	3.25% 1.00%	Item Item			\$	165,753.87	
	11.2	Traffic Management	1.00% 5.00%	Item			\$	51,001.19 255,005.96	
	11.4	Environmental Management	0.50%	Item			\$	25,500.60	
	11.5 11.6	Survey & Design Supervision & Project Management	5.00% 9.00%	Item Item			\$ \$	255,005.96 459,010.72	
	11.7	Site Establishment	2.50%	Item			\$	127,502.98	
	11.8	Contingency	15.00%	Item	,		\$	765,017.87	
			SUB-TOTAL	DELIVERY			Þ	2,103,799.13	
12			TOTAL ESTIMATED PROJEC	т cost			\$	7,203,918.23	

3136206 - PMD - Cost Estimate Templates.xlsx LR-IT3

Lancefield Road/Jacksons Creek Crossing (North) Intersection LR-IN-04 (Cross Intersection-Interim)

Item		Description	Quantity	Unit		Rate		Amount	Comments
	WORKS								
1	WORKS SITEWOR	KS AND EARTHWORKS							
	1.1 F	Pre-construction 1.1.1 Demolition and site preparation	16,250	m2	\$	5.40	2	87,750.00	
	1.2 E	Earthworks	10,200	1112	Ψ	0.40	Ψ	07,700.00	
		1.2.1 Cut and disposal at specified location	10,482	m3	\$	55.00	\$	576,510.00	Assuming pavement composition depth total 650mm deep including fill
		1.2.2 Fill	-	m3	\$	37.80	\$	-	
	1.3	Set-Out 1.3.1 Allow for site set out	1	Item	\$	12,500.00	\$	12,500.00	
2	ROAD PA								
	2.1	New Pavement							Includes pavement to Traffic lane (3.5m) and
		2.1.1 Road pavement - Traffic lanes	12,900	m2	\$	156.60	\$	2,020,140.00	parking bay (2.1m) to both sides total width (11.2m)
	2.2 F	Rehabilitate Existing Pavement							
		2.2.1 Pavement profiling and reshaping	1	Allow.	\$	181,494.00	\$	181,494.00	Allowance only
3		TE WORKS Kerb and Channel							
	20 1	3.1.1 Kerb and channel	1,400	LM	\$	48.60	\$	68,040.00	Kerb and channel as per drawing outlined
	3.2 F	Pedestrian & Cycle Paths 3.2.1 Pedestrian footpath	660	m2	\$	59.00	\$	38,940.00	Allow Cycle path (3m) wide
		2.2.2. Cycle pethycey	660	O	¢	66.00	æ	42 560 00	
		3.2.2 Cycle pathway	660	m2	\$	66.00	Ф	43,560.00	
		3.2.3 Shared pathway		m2	\$	66.00	\$	-	Arterial road: Two 3m wide shared paths (both sides of the road). Total span (6.0m) wide
	3.3	Median strip 3.3.1 Median (Levelled ground - no plants)	722	m2	\$	21.60	¢	15.595.20	
4	DRAINAG	E	122	IIIZ	φ	21.00	φ	10,080.20	
	4.1	Orainage - Pipes 4.1.1 Stormwater drainage (300mm DIA)	279	LM	\$	216.00	\$	60,307.20	
		4.1.2 Stormwater drainage (450mm DIA)	733	LM	\$	260.00	\$	190,554.00	
		4.1.3 Stormwater drainage (525mm DIA)4.1.4 Drainage, sub grade drain	314 2,094	LM LM	\$	383.50 54.00	\$ \$	120,457.35 113,076.00	
	4.2	Orainage - Pits	·						
	4.3	4.2.1 Side entry pits Drainage - WSUD	21 21	No. Allow.	\$	2,700.00 1,500.00		56,700.00 31,500.00	Assumed spacing of approx. 100m
		Orainage - Miscellaneous	-	No.	\$	-	\$	-	Assumed none.
5	TRAFFIC								
		Fraffic Signals							Pate includes for signals, conduits, site
		5.1.1 Traffic signals (incl. conduit subset)	1	Allow.	\$	540,000.00	\$	540,000.00	Rate includes for signals, conduits, pits, footings etc.
	5.2	Fraffic Safety							
	0.2	5.2.1 Line marking and Traffic Signage	1,047	LM	\$	32.00	\$	33,504.00	Includes fixed signage, guide posts, line
									markings, traffic safety
6	LANDSCA 6.1	NPE Trees							
		6.1.1 Tree planting (2-2.5m tall)	21	No.	\$	350.00	\$	7,350.00	Allowance only
	6.2 l	.andscaping 6.2.1 Tube stock plantings	1,308	m2	\$	3.00	\$	3.924.00	Allowance of 2 per m2 to nature strip
		6.2.2 Nature strip	1,308	m2	\$	10.00		13,080.00	Allow for total (3m) wide. Topsoiling and
7	STREET L								seeding of nature strips, varying in widths
	7.1	Street Lighting							Assume install pales 12m high with luminaries
	7	7.1.1 Street lighting (incl. lighting conduits)	21	No.	\$	12,500.00	\$	262,500.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate
									includes for electrical lighting conduits
8	MISCELL								
		3.1.1 Speed cameras 3.1.2 Speed bumps	-	Item No.	\$	-	\$ \$	-	Excluded Excluded
					~		-		
		Retaining walls 3.2.1 Retaining wall	-	LM	\$	702.00	\$	-	Assume no retaining walls
•		-					•		Ç
9	9.1	Services Relocation (Electrical Pole Relocation)	1	Allow.	\$	400,000.00	\$	400,000.00	Allowance only
		Services Protection ,	1	Allow.		20,000.00			Allowance
10	MAINTEN	ANCE							
	10.1	10.1.1 VicRoads maintenance fee	1	No.	\$	81,000.00	\$	81,000.00	Allowance for VicRoads maintenance fee to each intersection, as advised by WSPPB
									7
			SUB TOTAL	- WORKS			\$	4,978,481.75	
11	DELIVER	<u></u>							
		Fees Council Fees	3.25%	Item			\$	161,800.66	
	11.2	/icRoads Fees	1.00%	Item			\$	49,784.82	
		Гraffic Management Environmental Management	5.00% 0.50%	Item Item			\$ \$	248,924.09 24,892.41	
	11.5	Survey & Design	5.00%	Item			\$	248,924.09	
		Supervision & Project Management Site Establishment	9.00% 2.50%	Item Item			\$ \$	448,063.36 124,462.04	
		Contingency	15.00%	Item			\$	746,772.26	
			SUB-TOTAL D	ELIVERY			\$	2,053,623.72	
12			TOTAL ESTIMATED PROJECT	гсоѕт			\$	7,032,105.47	

3136206 - PMD - Cost Estimate Templates.xlsx LR-IT4

Stockwell Drive / Balethan Drive to 3 way roundabout LR-IN6 (Roundabout)

Item			Description	Quantity	Unit		Rate		Amount	Comments
	WORKS									
1	SITEWO	RKS AND EARTHWORKS								
	1.1	Pre-construction 1.1.1 Demolition and site p	preparation	1,862.00	m2	\$	5.40	\$	10,054.80	
	1.2	Earthworks								Assuming payament composition don't total
		1.2.1 Cut and disposal at	specified location	612.00	m3	\$	55.00	\$	33,660.00	Assuming pavement composition depth total 650mm deep including fill
	1.3	1.2.2 Fill Set-Out		-	m3	\$	37.80	\$	-	
		1.3.1 Allow for site set out		1	Item	\$	12,500.00	\$	12,500.00	
2	2.1	AVEMENT New Pavement								
	2.1	2.1.1 Road pavement - Tra	affic lanes	942.00	m2	\$	156.60	\$	147,517.20	Includes pavement to Traffic lane (3.5m) and parking bay (2.3m) to both sides total width (11.6m)
3	2.2 CONCRI 3.1	Rehabilitate Existing Pavemer 2.2.1 Pavement profiling a ETE WORKS Kerb and Channel			Allow.	\$	-	\$	-	Assume all new works.
		3.1.1 Kerb and channel		264.00	LM	\$	48.60	\$	12,830.40	Kerb and channel to both sides of each traffic
	3.2	Pedestrian & Cycle Paths				·			,	lane
		3.2.1 Pedestrian footpath		180.00	m2	\$	59.00	\$	10,620.00	Allow Cycle path (3m) wide
		3.2.2 Cycle pathway		140.00	m2	\$	66.00	\$	9,240.00	
		3.2.3 Shared pathway		95.00	m2	\$	66.00	\$	6,270.00	Connecting shared path on eastern side of intersection
	3.3	Median strip								
		3.3.1 Median (Levelled gro	ound)	227.00	m2	\$	32.40	\$	7,354.80	Assume median (6.0m) to be levelled soil - no landscaping assumed
4	DRAINA 4.1									
	4.1	Drainage - Pipes 4.1.1 Stormwater drainage	e (300mm DIA)	32.00	LM	\$	216.00	\$	6,912.00	
		4.1.2 Stormwater drainage 4.1.3 Stormwater drainage		120.00	LM LM	\$ \$	260.00 383.50		31,200.00	
		4.1.4 Drainage, sub grade		240.00	LM	\$	54.00		12,960.00	
	4.2	Drainage - Pits 4.2.1 Side entry pits		4	No.	\$	2,700.00	\$	10 800 00	Assumed spacing of approx. 100m
	4.3	Drainage - WSUD		4.00	Allow.	\$	1,500.00	\$	6,000.00	
	4.4	Drainage - Miscellaneous		-	No.	\$	-	\$	-	Assumed none.
5	TRAFFIC									
	5.1	Traffic Safety								Includes fixed signage, guide posts, line
		5.1.1 Line marking and Tra	affic Signage	120.00	LM	\$	32.00	\$	3,840.00	markings, traffic safety
6	LANDS	CAPE								
	6.1	Trees	m tall\	2	Na	¢.	250.00	æ	700.00	Allewanee only
	6.2	6.1.1 Tree planting (2-2.5r Landscaping	n tail)	2	No.	\$	350.00	ф	700.00	Allowance only
		6.2.1 Tube stock plantings	•	548.00	m2	\$	3.00	\$	1,644.00	Allowance of \$2 per m2 to nature strip Topsoiling and seeding of nature strips (4.5m)
		6.2.2 Nature strip		548.00	m2	\$	10.00	\$	5,480.00	to both sides. Total (9.0m) wide
7	STREET 7.1	LIGHTING Street Lighting								
	7.1	7.1.1 Street lighting (incl. I	ighting conduits)	3	No.	\$	12,500.00	\$	37,500.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCEL	LANEOUS								
	8.1	8.1.1 Speed cameras 8.1.2 Speed bumps		-	Item No.	\$ \$	-	\$ \$	-	Excluded Excluded
		6.1.2 Speed bumps		-	NO.	Ψ	-	φ	-	LACIdaed
	8.2	Retaining walls 8.2.1 Retaining wall		-	LM	\$	702.00	\$	-	Assume no retaining walls to LR-RD2
9	SERVIC	ES								
	9.1 9.2	Services Relocation Services Protection		-	Allow. Allow.	\$ \$	-	\$ \$	-	Excluded Excluded
				SUB TOTAL -	WORKS			\$	367,083.20	
11	DELIVE									
	11.1	Fees Council Fees		3.25%	Item			\$	11,930.20	
	11.2	VicRoads Fees		1.00%	Item			\$	3,670.83	
	11.3 11.4	Traffic Management Environmental Management		5.00% 0.50%	Item Item			\$ \$	18,354.16 1,835.42	
	11.4	Survey & Design		5.00%	Item			\$	18,354.16	
	11.6 11.7	Supervision & Project Manage Site Establishment	ment	9.00% 2.50%	Item Item			\$ \$	33,037.49 9,177.08	
	11.7	Contingency		2.50% 15.00%	Item Item			\$ \$	9,177.08 55,062.48	
				SUB-TOTAL DE				\$	151,421.82	
12			TOTAL ES	STIMATED PROJECT	COST			\$	518,505.02	

LR-IN6 3136206 - PMD - Cost Estimate Templates.xlsx

Approx. length 280m - Concrete Super T

Descrip	ition	Quantity	Unit		Rate	Amount	Comments
WORKS							
	PKS AND EARTHWORKS Pre-construction						
	1.1.1 Site preparation	2	Item	\$	5,500.00		
	1.1.2 Strip Site Locally Earthworks		sq.m	\$	2.75	\$ -	
	1.2.1 Bulk excavation and fill	6,922	cu.m	\$	70.00		
	1.2.3 Fill only Set-Out		cu.m	\$	37.80	ş -	
	1.3.1 Allow for site setout and marking	1	Item	\$		\$ 12,500.00	
STRUCTI 2.1	URE Slab & Foundations/Piers/Beams						
							Allow for reinforced single span concrete b
	2.1.1 Bridge structure	4,200	sq.m	\$	2,450.00	\$ 10,290,000.00	(Total width 13.5m approx.) 200mm thick deck slab on top of super 180
	2.1.2 Elastomeric Bearings		Item	\$	1,650.00	c	deep T-Beams
	2.1.2 Cast in-situ concrete base slab with footings		sq.m	\$	550.00		
	2.1.4 Bridge Columns	2,818	cu.m	\$	1,100.00		Driven piles
	2.1.5 Piles	70	Item	\$	3,584.70		Approx. 10 per pier
	2.1.6 Pile Cap 2.1.7 Retaining Walls - Wing & Keeper Walls	7	Item sq.m	\$ \$	31,950.00 1,100.00		
	2.1.8 Retaining Walls - Fender Wall		Item	\$	16,500.00	\$ -	
	2.1.9 Retaining Wall 2.1.10 Bridge Deck		sq.m sq.m	\$	1,120.00 480.00	ć	
	2.1.11 Constructability	1	Item	,	400.00	\$ 2,203,812.21	Allowance for temporary works due to site
	Abutments					, -,,	conditions
	2.2.1 RC Abutment / Crosshead Beam	130	cu.m	\$	2,500.00		
	2.2.2 Anti Sliding Blocks 2.2.3 Abutment Walls and Bearings	10 1	Item Item	\$	2,500.00 400,000.00		
	2.2.4 Bored piles	8	Item	\$	9,712.80		Bored piles behind RC retaining wall
	Bridge Containment Barriers 2.3.1 Bridge containment barriers	580	LM	\$	2,850.00	\$ 1,653,000.00	
	2.3.2 Barriers - Medium Containment	-	LM	\$	1,750.00	\$ -	
	2.3.3 Barriers - Armco (off structure) Other		LM	\$	110.00	\$ -	
	DGE WORKS Ashphalt Wearing Course Over Slab						
	3.1.1 Asphalt pavement	1,960	sq.m	\$	110.00	\$ 215,600.00	Road pavement - Traffic lane
	3.1.2 Road pavement under bridge	-,	sq.m	\$	250.00		Allow Traffic lane (7m) wide
	3.1.3 Cycle track		sq.m	\$	1,200.00		
	Kerb and Channel 3.2.1 Kerb and channel	560	LM	\$	75.00	\$ 42,000.00	
3.3	Footpath						
	3.3.1 Bridge walkway 3.3.2 Pedestrian footpath		sq.m sq.m	\$	1,500.00 155.00		
	3.3.3 Shared path	1,400	sq.m	\$	132.00		Shared path overlay total
	Lighting On-Bridge 3.4.1 Lighting	10	Item	\$	17,500.00	\$ 175,000.00	Assumed poles 12m high with luminaries
	3.4.2 Allowance for Conduits		LM	\$	16.50		·
3.5	Other						
	DGE WORKS						
	Approach Slabs 4.1.1 Reinforced concrete slabs (approach slabs)	108	sq.m	\$	500.00	\$ 54,000.00	Assumed 200mm thick
	Safety Gurad Rail/Barrier 4.2.1 Handrails		Item	\$	5,000.00	٠ .	
	4.2.2 Guard rails	200	LM	\$	1,500.00	\$ 300,000.00	Vehicle approach barriers
	4.2.3 Safety rails Drainage		Item	\$	20,000.00	\$ -	
	4.3.1 Drainage to bridge	2	Item	\$	150,000.00		Works to approach slabs
	4.3.2 Drainage to lowered road under 4.3.3 Rock Beaching	560	Item cu.m	\$ \$	100,000.00 100.00		300mm thick
4.4	Scour Protection						
4.5	Other						
MISCELL 5.1	Architectural screens / cladding to Piers / Deck	560	LM	\$	2,000.00	\$ 1,120,000.00	
5.2	Anti Throw screens	560	LM	\$	1,650.00	\$ 924,000.00	
	Dewatering works Melbourne Water Temp Diversion	- 1	Item sq.m	\$	250,000.00		Allowance for dewatering works
5.5	Linemarking	280	LM	\$	32.00	\$ 8,960.00	
	Signage Occupation costs		Item Item	\$	25,000.00 20,000.00		
5.8	Construction occupation	-	Item	\$	1,035,000.00	\$ -	E.C. of Constitution
	Habitat compenstaion fee LATED ITEMS	1	Item	\$	88,000.88	\$ 88,000.88	Estimate from DELWP
6.1	Occupation costs (minor)	-	Item	\$	20,000.00		
	Construction occupation Signalling Adjustments		Item Item	\$ \$	1,035,000.00 750,000.00		
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	-	Note				
	Rail Occupation Costs (Major) - Vline Track & Ballast		Wkend Item	\$ \$	100,000.00 1,650.00		
6.7	OHLE (Assume + 100m each way)		TM	\$	550.00		
7.1	ES APA Gas		Item	\$	4,400,000.00	\$ -	
7.2	Telstra NBN	-	Item	\$	400,000.00	\$ -	
	Western Water Sewer		Item	\$	300,000.00		Allowances for service relocation surroundi
	Services relocation	1	Item	\$	150,000.00		approach slabs
7.5	Increase in Head Contractor Preliminaries (22% to 25%)	3	%	\$	22,925,259.49	\$ 687,757.78	Allowance for scale of project
			SUB TOTAL	- WORKS		\$ 23,613,017.27	
			JJD TOTAL	CANOVA		,,-	4
DELIVER							
8.1	Council Fees VicRoads Fees	3% 0%	Item Item			\$ 767,423.06 \$	
	Traffic Management	5%	Item			\$ 1,180,650.86	
8.2 8.3	Environmental Management	1% 5%	Item Item			\$ 118,065.09 \$ 1,180,650.86	
8.2 8.3 8.4	Survey & Design	12%	Item			\$ 2,833,562.07	Increase due to scale of project
8.2 8.3 8.4 8.5	Supervision & Project Management		Item			\$ 590,325.43	
8.2 8.3 8.4 8.5 8.6 8.7	Site Establishment	3%					
8.2 8.3 8.4 8.5 8.6 8.7		3% 20%	Item			\$ 4,722,603.45	
8.2 8.3 8.4 8.5 8.6 8.7	Site Establishment	20%	Item	- DEUVENY			-
8.2 8.3 8.4 8.5 8.6 8.7	Site Establishment	20%	Item	DELIVERY		\$ 4,722,603.45 \$ 11,393,280.84	-

Bridge Cost Estimate Template (Autosaved).xlsx

Bridges - SS-BD1 Shortened

em	Description		Quantity	Unit		Rate	Amount	Comments	
	WORKS SITEWORKS AND EARTHWORKS								
1		Pre-con	struction	2	14		F F00 00	ć 11 000 00	
		1.1.2	Site preparation Strip Site Locally	-	Item sq.m	\$ \$	5,500.00 2.75		
	1.2		Bulk excavation and fill	6,922	cu.m	\$	70.00		1
	1.3	1.2.3 Set-Out		-	cu.m	\$	37.80		
2	STRUCT		Allow for site setout and marking	1	Item	\$	•	\$ 12,500.00	
	2.1		Foundations/Piers/Beams Bridge structure	3,300	sq.m	\$	2,450.00	\$ 8,085,000.00	Allow for reinforced single span concrete bri (Total width 13.5m approx.) 200mm thick deck slab on top of super 1800 deep T-Beams
				900	sq.m	\$	4,450.00	\$ 4,005,000.00	Conc slab (200mm thk) including 3000mm
		2.1.2 2.1.3	Elastomeric Bearings Cast in-situ concrete base slab with footings		Item sq.m	\$	1,650.00 550.00		
		2.1.4	Bridge Columns	2,153	cu.m	\$	1,100.00		
		2.1.5		60	Item	\$	3,584.70		Approx. 10 per pier
		2.1.6	Pile Cap Retaining Walls - Wing & Keeper Walls	- 6	Item sq.m	\$	31,950.00 1,100.00		
			Retaining Walls - Fender Wall Retaining Wall	-	Item sq.m	\$	16,500.00 1,120.00		
			Bridge Deck	-	sq.m	\$	480.00		Allowance for tomporant works due to site
			Constructability	1	Item			\$ 2,353,917.66	Allowance for temporary works due to site conditions
	2.2	Abutme 2.2.1	ents RC Abutment / Crosshead Beam	130	cu.m	\$	2,500.00		
			Anti Sliding Blocks Abutment Walls and Bearings	10 1	Item Item	\$ \$	2,500.00 400,000.00		
	2.3	2.2.4	Bored piles Containment Barriers	8	Item	\$	9,712.80		Bored piles behind RC retaining wall
	2.3	2.3.1	Bridge containment barriers	580	LM	\$	2,850.00		1
		2.3.2	Barriers - Medium Containment Barriers - Armco (off structure)		LM LM	\$ \$	1,750.00 110.00		
	2.4	Other							
3		DGE WO	RKS It Wearing Course Over Slab						
	3.1		Asphalt pavement	1,960	sq.m	\$	110.00	\$ 215,600.00	Road pavement - Traffic lane
		3.1.2	Road pavement under bridge	-	sq.m	\$	250.00	\$ -	Allow Traffic lane (7m) wide
	3.2		Cycle track d Channel	-	sq.m	\$	1,200.00		
	3.3	3.2.1 Footpa	Kerb and channel	560	LM	\$	75.00	\$ 42,000.00	
			Bridge walkway	-	sq.m	\$	1,500.00		
		3.3.3	Pedestrian footpath Shared path	1,400	sq.m sq.m	\$ \$	155.00 132.00		Shared path overlay total
	3.4	3.4.1	g On-Bridge Lighting	10	Item	\$	17,500.00		Assumed poles 12m high with luminaries
	3.5	3.4.2 Other	Allowance for Conduits	-	LM	\$	16.50	\$ -	
1	OFF-BR	IDGE WO	DRKS						
	4.1	Approa 4.1.1	ch Slabs Reinforced concrete slabs (approach slabs)	108	sq.m	\$	500.00	\$ 54,000.00	Assumed 200mm thick
	4.2	Safety (Gurad Rail/Barrier Handrails	-	Item	\$	5,000.00	\$ -	
		4.2.2	Guard rails Safety rails	200	LM	\$	1,500.00 20,000.00	\$ 300,000.00	Vehicle approach barriers
	4.3	Drainag	ge						Works to approach slabs
		4.3.2	Drainage to bridge Drainage to lowered road under	- 2	Item Item	\$	150,000.00 100,000.00	\$ -	
	4.4		Rock Beaching rotection	560	cu.m	\$	100.00	\$ 56,000.00	300mm thick
	4.5	Other							
5	MISCEL	LANEOU	S						
	5.1	Archite	ctural screens / cladding to Piers / Deck	560 560	LM LM	\$	2,000.00 1,650.00		
	5.3	Dewate	row screens ring works	1	Item	\$	250,000.00	\$ 250,000.00	Allowance for dewatering works
	5.5	Linema		280	sq.m LM	\$	32.00	\$ 8,960.00	
	5.7		tion costs		Item Item	\$ \$	25,000.00 20,000.00	\$ -	
			iction occupation compenstaion fee	. 1	Item Item	\$ \$	1,035,000.00 88,000.88		Estimate from DELWP
5	RAIL RE	LATED I			Item	\$	20,000.00		
	6.2	Constru	action occupation		Item	\$	1,035,000.00	\$ -	
	6.4	Rail Occ	ng Adjustments :upation Costs (Power Off) - N/A Vline Only		Item Note	\$	750,000.00		
	6.6	Track &			Wkend Item	\$ \$	100,000.00 1,650.00	\$ -	
,	6.7 SERVICE		Assume + 100m each way)	-	TM	\$	550.00	\$ -	
	7.1	APA Ga Telstra			Item Item	\$	4,400,000.00 400,000.00		
	7.3	Wester	n Water Sewer	-	Item	\$	300,000.00	\$ -	Allowances for service relocation surrounding
			s relocation	1	Item	\$	150,000.00		approach slabs
	7.5	ıncreası	e in Head Contractor Preliminaries (22% to 25%)	3	%	\$	24,076,067.94	⇒ 722,282.04	Allowance for scale of project
					SUB TOTAL	- WORKS		\$ 24,798,349.98	1
	DELIVE	RY							
3		Council		3% 0%	Item Item			\$ 805,946.37 \$ -	•
В	8.1		is rees Management	5%	Item			\$ 1,239,917.50	
В	8.1 8.2 8.3	Traffic I			Item			\$ 123,991.75	
В	8.1 8.2 8.3 8.4 8.5	Traffic I Environ Survey	mental Management & Design	1% 5%	Item			\$ 1,239,917.50	
В	8.1 8.2 8.3 8.4 8.5 8.6	Traffic I Environ Survey Supervi	mental Management					\$ 2,975,802.00 \$ 619,958.75	Increase due to scale of project
3	8.1 8.2 8.3 8.4 8.5 8.6 8.7	Traffic I Environ Survey Supervi	mental Management & Design sion & Project Management ablishment	5% 12%	Item Item			\$ 2,975,802.00	Increase due to scale of project
3	8.1 8.2 8.3 8.4 8.5 8.6 8.7	Traffic I Environ Survey Supervi Site Est	mental Management & Design sion & Project Management ablishment	5% 12% 3%	Item Item Item Item	- DELIVERY		\$ 2,975,802.00 \$ 619,958.75	Increase due to scale of project
3	8.1 8.2 8.3 8.4 8.5 8.6 8.7	Traffic I Environ Survey Supervi Site Est	mental Management & Design sion & Project Management ablishment	5% 12% 3%	Item Item Item	- DELIVERY		\$ 2,975,802.00 \$ 619,958.75 \$ 4,959,670.00	Increase due to scale of project

Bridge Cost Estimate Template (Autosaved).xlsx

Bridges - SS-BD1 Conc + Steel

Approx. length 22m

Item	Description	Quantity	Unit	Rate	Amount	Comments
1	WORKS SITEWORKS AND EARTHWORKS 1.1 Pre-construction					
	1.1.1 Site preparation 1.1.2 Strip Site Locally	1 368	Item sq.m	\$ 5,500.00 \$ 2.75		
	1.2 Earthworks 1.2.1 Earthworks 1.2.1 Fill only	- 500		\$ 70.00 \$ 38.50		Imported fill
	1.3 Set-Out 1.3.1 Allow for site setout and marking	1		\$ 5,500.00		
2	STRUCTURE 2.1 Slab & Foundations/Piers/Beams					
	2.1.1 Bridge structure	330		\$ 2,450.00		Single span precast 1200 mm deep Super T-beam arrangement with in-situ deck overlay.
	2.1.2 Elastomeric Bearings 2.1.3 Cast in-situ concrete base slab with footings 2.1.4 Bridge Columns	-	sq.m	\$ 1,650.00 \$ 550.00 \$ 3,500.00	\$ -	
	2.1.5 Piles 2.1.6 Pile Cap	-	Item	\$ 3,584.70 \$ 31,950.00	\$ -	
	Retaining Walls - Wing & Keeper Walls Retaining Walls - Fender Wall	160 2	sq.m	\$ 1,100.00 \$ 16,500.00	\$ 176,000.00	
	2.1.9 Retaining Wall 2.1.10 Bridge Deck	-	sq.m sq.m	\$ 1,120.00 \$ 480.00		
	2.1.11 Constructability 2.2 Abutments	-	Item	ć 2447.00	¢ 04.050.00	
	2.2.1 RC Abutment / Crosshead Beam 2.2.2 Anti Sliding Blocks 2.2.3 Abutment Walls and Bearings	27 - 1	Item	\$ 3,147.00 \$ 2,500.00 \$ 400,000.00	\$ -	
	2.2.4 Bored piles 2.3 Bridge Containment Barriers	-		\$ 9,712.80		
	2.3.1 Bridge containment barriers 2.3.2 Barriers - Medium Containment	- 40		\$ 2,850.00 \$ 1,750.00		
	2.3.3 Barriers - Armco (off structure) 2.4 Other	160	LM	\$ 110.00	\$ 17,600.00	
3	ON-BRIDGE WORKS					
	3.1 Ashphalt Wearing Course Over Slab 3.1.1 Asphalt pavement 3.1.2 Road pavement under bridge	154	sq.m sq.m	\$ 110.00 \$ 250.00		
	3.1.2 Koad pavement under prioge 3.1.3 Cycle track 3.2 Kerb and Channel		sq.m sq.m	\$ 250.00		
	3.2.1 Kerb and channel 3.3 Footpath	60	LM	\$ 75.00	\$ 4,500.00	
	3.3.1 Bridge walkway 3.3.2 Pedestrian footpath	- 33	sq.m	\$ 1,500.00 \$ 155.00	\$ 5,115.00	
	3.3.3 Shared path 3.4 Lighting On-Bridge	66	sq.m	\$ 155.00		
	3.4.1 Lighting 3.4.2 Allowance for Conduits 3.5 Other	178	Item LM	\$ 17,500.00 \$ 16.50		
4	OFF-BRIDGE WORKS					
	4.1 Approach Slabs 4.1.1 Reinforced concrete slabs (approach slabs)	108	sq.m	\$ 500.00	\$ 54,000.00	Assumed 200mm thick
	4.2 Safety Gurad Rail/Barrier 4.2.1 Handrails 4.2.2 Guard rails	-	ltem Item	\$ 5,000.00 \$ 5,000.00		
	4.2.2 Guard rails 4.2.3 Safety rails 4.3 Drainage	-		\$ 20,000.00		
	4.3.1 Drainage to bridge 4.3.2 Drainage to lowered road under	- 1	Item Item	\$ 22,000.00 \$ 100,000.00		
	4.3.3 Rock Beaching 4.4 Scour Protection	30	cu.m	\$ 176.00	\$ 5,280.00	300mm thick
	4.5 Other					
5	MISCELLANEOUS 5.1 Architectural screens / cladding to Piers / Deck	-	LM	\$ 2,000.00	\$ -	
	5.2 Anti Throw screens 5.3 Dewatering works	-		\$ 1,650.00 \$ 250,000.00	\$ -	
	5.4 Melbourne Water Temp Diversion 5.5 Linemarking	250 1	sq.m Item	\$ 1,000.00 \$ 1,200.00	\$ 1,200.00	
	5.6 Signage 5.7 Occupation costs	- 1	Item	\$ 25,000.00 \$ 20,000.00	\$ -	
6	5.8 Construction occupation 5.9 Habitat Compensation Fee (Estimate) RAIL RELATED ITEMS	-		\$ 1,035,000.00 \$ -		
	6.1 Occupation costs (minor) 6.2 Construction occupation	-		\$ 20,000.00 \$ 1,035,000.00		
	6.3 Signalling Adjustments 6.4 Rail Occupation Costs (Power Off) - N/A Vline Only	-	Item Note	\$ 750,000.00	\$ -	
	6.5 Rail Occupation Costs (Major) - Vline 6.6 Track & Ballast	-	Wkend Item	\$ 100,000.00 \$ 1,650.00	\$ -	
7	6.7 OHLE (Assume + 100m each way) SERVICES 7.1 APA Gas		TM Item	\$ 550.00 \$ 4,400,000.00		
	7.2 Telstra NBN 7.3 Western Water Sewer	-	Item Item	\$ 4,400,000.00 \$ 400,000.00 \$ 300,000.00	\$ -	
	7.4 Services relocation 7.5 Increase in Head Contractor Preliminaries (22% to 25%)	-	Item %	\$ 150,000.00 \$ 2,053,540.92	\$ -	
			SUB TOTAL - WORKS		\$ 2,053,540.92	
8	DELIVERY 8.1 Council Fees	3%	Item		\$ 66,740.08	
	8.2 VicRoads Fees 8.3 Traffic Management	0% 5%	Item Item		\$ - \$ 102,677.05	
	8.4 Environmental Management 8.5 Survey & Design	1% 5%	Item Item		\$ 10,267.70 \$ 102,677.05	
	8.6 Supervision & Project Management 8.7 Site Establishment	9% 3%	ltem Item		\$ 184,818.68 \$ 51,338.52	
	8.8 Contingency	20%	Item SUB TOTAL - DELIVERY		\$ 410,708.18 \$ 929,227.27	
			SOB TOTAL - DELIVERY		7 723,221.21	
			TOTAL		\$ 2,982,768.19	

Bridge Cost Estimate Template (Autosaved).xisx

Bridges - SS-BD2

SS-BR-03 - Bridge Approx. length 16m

Item	Description	on	Quantity	Unit		Rate	Amount	Comments
	WORKS				•			
1		(S AND EARTHWORKS Pre-construction						
		1.1.1 Site preparation 1.1.2 Strip Site Locally	1 368	Item sq.m	\$	5,500.00 2.75		At Approach Ramps / RE Walls
	1.2	Earthworks 1.2.1 Bulk excavation and fill	640	cu.m	\$	70.00		
	1.3	1.2.2 Fill only Set-Out	-	cu.m	\$	38.50		
2	STRUCTU		1	Item	\$	5,500.00	\$ 5,500.00	
	2.1	Slab & Foundations/Piers/Beams						Single span precast 1200 mm deep
		2.1.1 Bridge Structure	240	sq.m	\$	3,200.00		Super T-beam arrangement with in-situ deck overlay.
		2.1.2 Elastomeric Bearings 2.1.3 Cast in-situ concrete base slab with footings		Item sq.m	\$	1,650.00 550.00	\$ -	
		2.1.4 Bridge Columns 2.1.5 Piles Pile Cap		sq.m Item Item	\$	3,500.00 3,584.70 31,950.00	\$ -	
		2.1.6 Pile Lap 2.1.7 Retaining Walls - Wing & Keeper Walls 2.1.8 Retaining Walls - Fender Wall	160 2	sq.m Item	\$ \$ \$	1,100.00 16,500.00	\$ 176,000.00	
		2.1.9 Retaining Walls Ferruer Wall 2.1.10 Bridge Deck	-	sq.m sq.m	\$	1,120.00 480.00	\$ -	
	2.2	2.1.11 Constructability Abutments		Item	,	480.00	, -	
		2.2.1 RC Abutment / Crosshead Beam 2.2.2 Anti Sliding Blocks	27	LM Item	\$	3,147.00 2,500.00		
		2.2.3 Abutment Walls and Bearings 2.2.4 Bored piles	1	ltem Item	\$	400,000.00 9,712.80	\$ 400,000.00	
	2.3	Bridge Containment Barriers 2.3.1 Bridge containment barriers		LM	\$	2,850.00		
		2.3.2 Barriers - Medium Containment 2.3.3 Barriers - Armco (off structure)	40 160	LM LM	\$	1,750.00 110.00	\$ 70,000.00	
	2.4	Other						
3	ON-BRIDG 3.1	iE WORKS Ashphalt Wearing Course Over Slab						
		3.1.1 Asphalt pavement	128	sq.m	\$	110.00	\$ 14,080.00	195mm thick asphalt pavement in 3 layers
		3.1.2 Road pavement under bridge 3.1.3 Cycle track		sq.m sq.m	\$	250.00 1,200.00		
	3.2	Kerb and Channel 3.2.1 Kerb and channel	60	LM	\$	75.00	\$ 4,500.00	
	3.3	Footpath 3.3.1 Bridge walkway	-	sq.m	\$	1,500.00		
		3.3.2 Pedestrian footpath 3.3.3 Shared path	32 56	sq.m sq.m	\$	155.00 155.00		
	3.4	Lighting On-Bridge 3.4.1 Lighting	1	Item	\$	12,500.00		
	3.5	3.4.2 Allowance for Conduits Other	-	LM	\$	16.50	\$ -	
4		SE WORKS						
	4.1	Approach Slabs 4.1.1 Reinforced concrete slabs (approach slabs) Safety Gurad Rail/Barrier	108	sq.m	\$	500.00	\$ 54,000.00	Assumed 200mm thick
		4.2.1 Handrails 4.2.2 Guard rails	- :	Item Item	\$	5,000.00 5,000.00		
	4.3	A.2.3 Safety rails Drainage		Item	\$	20,000.00		
		4.3.1 Drainage to bridge 4.3.2 Drainage to lowered road under	-	Item Item	\$	22,000.00 100,000.00		
	4.4	4.3.3 Rock Beaching Scour Protection	30	cu.m	\$	176.00		300mm thick
	4.5	Other						
5	MISCELLA 5.1	NEOUS Architectural screens / cladding to Piers / Deck	-	LM	\$	2,000.00		
	5.2 5.3	Anti Throw screens Dewatering works		LM Item	\$	1,650.00 250,000.00	\$ -	
	5.4 5.5	Melbourne Water Temp Diversion Linemarking	1	sq.m Item	\$	1,000.00 1,200.00	\$ 1,200.00	
	5.7	Signage Occupation costs		Item Item	\$	25,000.00 20,000.00	\$ -	
	5.8 5.9	Construction occupation Habitat Compensation Fee (Estimate)		ltem Item	\$	1,035,000.00	\$ - \$ -	
6	6.1	TED ITEMS Occupation costs (minor) Construction occupation	•	ltem ltem	\$	20,000.00		
	6.2 6.3 6.4	Construction occupation Signalling Adjustments Rail Occupation Costs (Power Off) - N/A Vline Only		Item Item Note	\$	1,035,000.00 750,000.00		
	6.5 6.6	Rail Occupation Costs (Power Orr) - N/A Vilne Only Rail Occupation Costs (Major) - Vilne Track & Ballast		Wkend Item	\$	100,000.00 1,650.00		
7	6.7 SERVICES	OHLE (Assume + 100m each way)		TM	\$	550.00		
	7.1 7.2	APA Gas Telstra NBN		ltem Item	\$	4,400,000.00 400,000.00		
	7.3 7.4	Western Water Sewer Services relocation	:	ltem Item	\$	300,000.00 150,000.00	\$ -	
	7.5	Increase in Head Contractor Preliminaries (22% to 25%)		%		1,711,581.00		
				SUB TOTAL - WORKS			\$ 1,711,581.00	
8	DELIVERY							
	8.1 8.2	Council Fees VicRoads Fees	3% 0%	ltem ltem			\$ 55,626.38 \$ -	
	8.3 8.4	Traffic Management Environmental Management	5% 1%	ltem ltem			\$ 85,579.05 \$ 8,557.91	
	8.5 8.6	Survey & Design Supervision & Project Management	5% 9%	ltem Item			\$ 85,579.05 \$ 154,042.29	
	8.7 8.8	Site Establishment Contingency	3% 20%	ltem Item			\$ 42,789.53 \$ 342,316.20	_
				SUB TOTAL - DELIVER	RY		\$ 774,490.40	
				тот	AL		\$ 2,486,071.40	

Bridge Cost Estimate Template (Autosaved).xlsx Bridges - SS-BD3

SS-BR-04 - Bridge Approx. length 12m (road under rail)

WORKS	tion	Quantity	Unit		Rate	Amount	Comments
	RKS AND EARTHWORKS						
	Pre-construction 1.1.1 Site preparation	1	Item	\$	5,500.00	\$ 5,500.00	
	1.1.2 Strip Site Locally Earthworks	-	sq.m	\$	2.75	\$ -	
:	1.2.1 Bulk excavation and fill	1,040	cu.m	\$	70.00		Site excavation, compaction and rock beaching
	1.2.3 Fill only Set-Out	-	cu.m	\$	37.80	\$ -	
:	1.3.1 Allow for site setout and marking		Item				Incl
STRUCTU 2.1	JRE Slab & Foundations/Piers/Beams						
	, , , , , , , , , , , , , , , , , , , ,						Single span precast prestressed 1200 mm deep Sup
:	2.1.1 Bridge structure	194	sq.m	\$	1,900.00	\$ 368,600.00	beam (4no.) arrangement with in-situ deck slab over on top of reinforced abutment cross head.
	2.1.2 Elastomeric Bearings		Item	\$	1,650.00	ć	
	2.1.2 Elastomeric Bearings 2.1.3 Cast in-situ concrete base slab with footings		sq.m	\$	550.00		
:	2.1.4 Bridge Columns	-	sq.m	\$	3,500.00	\$ -	Including pile caps, pile set up, drilling, concrete, ar
	2.1.5 Piles	8	Item	\$	15,000.00	\$ 120,000.00	reinforcement.
	2.1.6 Pile Cap 2.1.7 Retaining Walls - Wing & Keeper Walls	-	Item sq.m	\$	1,100.00	ė .	
	2.1.8 Retaining Walls - Fender Wall		Item	\$	16,500.00		
:	2.1.9 Retaining wall	300	sq.m	\$	1,120.00	\$ 336,000.00	Assume rock bolts at 1.5mx1.5m grid with 75mm th steel fibre shotcrete wall
	2.1.10 Bridge Deck	-	sq.m	\$	480.00	\$ -	Steel libre shotelete wan
	2.1.11 Constructability Abutments	-	Item				
	2.2.1 RC Abutment / Crosshead Beam	30	LM	\$	3,147.00		
	2.2.2 Anti Sliding Blocks 2.2.3 Abutment Walls and Bearings		Item Item	\$ \$	2,500.00 400,000.00		
	2.2.4 Bored piles	-	Item	\$	9,712.80		
	Bridge Containment Barriers 2.3.1 Bridge containment barriers		LM	\$	2,850.00	\$ -	
	2.3.2 Barriers - Medium Containment		LM	\$	1,750.00	\$ -	
	2.3.3 Barriers - Armco (off structure) Other	-	LM	\$	110.00	\$ -	
	OGE WORKS Ashphalt Wearing Course Over Slab						
3	3.1.1 Asphalt pavement	-	sq.m	\$	110.00		
	3.1.2 Road pavement under bridge 3.1.3 Cycle track	194 58	sq.m sq.m	\$ \$	250.00 1,200.00		(160mm thk deck slab onto of1No. Super T grider
	Kerb and Channel	20		ć	75.00	¢ 2.250.00	
	3.2.1 Kerb and channel Footpath	30	LM	\$	75.00	\$ 2,250.00	
3	3.3.1 Bridge walkway	-	sq.m	\$	1,500.00		
	3.3.2 Pedestrian footpath 3.3.3 Shared path		sq.m sq.m	\$ \$	155.00 155.00		
3.4 I	Lighting On-Bridge						Mounted to underside of bridge
	3.4.1 Lighting 3.4.2 Allowance for Conduits	- 4	Item LM	\$ \$	2,500.00 16.50		Mounted to underside of bridge
3.5	Other						
	DGE WORKS						
	Approach Slabs						Assume 4m long approach RC slab at each abutmer
	4.1.1 Reinforced concrete slabs (approach slabs) Safety Gurad Rail/Barrier	115	sq.m	\$	500.00	\$ 57,600.00	(assumed also 200mm thick)
	4.2.1 Handrails	1	Item	\$	5,000.00		Allowance only, Pedestrain barriers to bridge over
	4.2.2 Guard rails 4.2.3 Safety rails	1	Item Item	\$ \$	5,000.00 20,000.00		Allowance only, vehicle approach barriers Allowance only, Rail safety barriers for bridge over
4.3 I	Drainage						Janes Janes Daniels for Dridge over
	4.3.1 Drainage to bridge 4.3.2 Drainage to lowered road under	1 1	Item Item	\$ \$	22,000.00 100,000.00		
4	4.3.3 Rock Beaching	- 1	cu.m	\$	100,000.00		
4.4	Scour Protection						
4.5	Other						
MISCELL	ANEOUS						
5.1	Architectural screens / cladding to Piers / Deck	2	Item	\$	44,000.00		
	Anti Throw screens Dewatering works		LM Item	\$ \$	1,650.00 250,000.00		
5.4 I	Melbourne Water Temp Diversion		sq.m	\$	1,000.00	\$ -	
	Linemarking Signage	1	Item Item	\$ \$	1,200.00 25,000.00		
5.7 (Occupation costs	3	Item	\$	20,000.00	\$ 60,000.00	
	Construction occupation Habitat Compensation Fee (Estimate)	2	Item Item	\$	1,035,000.00	\$ 2,070,000.00 \$ -	
RAIL REL	ATED ITEMS						
	Occupation costs (minor) Construction occupation		Item Item	\$	20,000.00 1,035,000.00		
6.3	Signalling Adjustments	1	Item	\$	750,000.00		
	Rail Occupation Costs (Power Off) - N/A Vline Only Rail Occupation Costs (Major) - Vline		Note Wkend	\$	100,000.00	s	
6.6	Track & Ballast	444	TM	\$	1,650.00	\$ 732,600.00	Assume + 100m each way
6.7 (OHLE (Assume + 100m each way) S	444	TM	\$	550.00	\$ 244,200.00	
7.1	APA Gas	1	Item	\$	4,400,000.00		Figure provided by APA
	Telstra NBN Western Water Sewer	1	Item Item	\$ \$	400,000.00 300,000.00		
	Services relocation	-	Item	\$	150,000.00	\$ -	
	Increase in Head Contractor Preliminaries (22% to 25%)	3	%	\$	10,383,500.00	\$ 311,505.00	Increase due to project complexity
			CUR TO	Mesica			
			SUB TOTAL	- WORKS		\$ 10,695,005.00	
						6 20	
7.5 I			Item Item			\$ 347,587.66 \$ -	
7.5 I	Y Council Fees VicRoads Fees	3% 0%	itteiii			\$ 534,750.25	
7.5 I	Council Fees VicRoads Fees Traffic Management	0% 5%	Item				
7.5 I	Council Fees VicRoads Fees Traffic Management Environmental Management	0% 5% 1%	Item Item			\$ 53,475.03 \$ 534,750.25	
7.5 I	Council Fees VicRoads Fees Traffic Management Environmental Management Survey & Design Supervision & Project Management	0% 5% 1% 5% 25%	Item			\$ 534,750.25 \$ 2,673,751.25	Includes LXRA Fee
7.5 I DELIVER' 8.1 (8.2) 8.3 7 8.4 I 8.5 3 8.6 3 8.7 3	Council Fees VicRoads Fees Traffic Management Environmental Management Survey & Design Supervision & Project Management Site Establishment	0% 5% 1% 5% 25% 3%	Item Item Item Item			\$ 534,750.25 \$ 2,673,751.25 \$ 267,375.13	Includes LXRA Fee
7.5 I	Council Fees VicRoads Fees Traffic Management Environmental Management Survey & Design Supervision & Project Management	0% 5% 1% 5% 25% 3% 20%	Item Item Item Item Item Item			\$ 534,750.25 \$ 2,673,751.25 \$ 267,375.13 \$ 2,139,001.00	Includes LXRA Fee
7.5 I	Council Fees VicRoads Fees Traffic Management Environmental Management Survey & Design Supervision & Project Management Site Establishment	0% 5% 1% 5% 25% 3%	Item Item Item Item Item Item			\$ 534,750.25 \$ 2,673,751.25 \$ 267,375.13	Includes LXRA Fee

Bridge Cost Estimate Template (Autosaved).xlsx Bridges - SS-BR4

Approx. Length 11m (road under rail)

Item De	escriptio	n	Quantity	Unit		Rate	Α.	Amount	Comments
			Qualitity	Oint		nace		anount	comments
	VORKS ITEWORK	S AND EARTHWORKS							
		Pre-construction 1.1.1 Site preparation	1	Item	\$	5,500.00	ć	5,500.00	
		1.1.1 Site preparation 1.1.2 Strip Site Locally	. 1	sq.m	\$	2.75		- 5,500.00	
	1.2	Earthworks 1.2.1 Bulk excavation and fill	1 120		ć	70.00	ć	70 100 00	
		1.2.1 Bulk excavation and fill 1.2.3 Fill only	1,130	cu.m cu.m	\$	70.00 37.80		79,100.00	
		Set-Out			*	F 000 00	ć	F 000 00	
2 ST	TRUCTUR	1.3.1 Allow for site setout and marking E	1	Item	\$	5,000.00	\$	5,000.00	
		Slab & Foundations/Piers/Beams							
		2.1.1 Bridge structure	250	sq.m	\$	1,900.00	\$		Single span precast prestressed 1200 mm deep Super T-beam (5no arrangement with in-situ deck slab overlay on top of reinforced
									abutment cross head
		2.1.2 Elastomeric Bearings 2.1.3 Cast in-situ concrete base slab with footings		Item sq.m	\$	1,650.00 550.00		-	
		2.1.4 Bridge Columns	-	sq.m	\$	3,500.00		-	Billion to the delivery of the second
		2.1.5 Piles 2.1.6 Pile Cap	8	Item	\$	15,000.00	\$	120,000.00	Pile set up, drilling, concrete, and reinforcement.
		2.1.7 Retaining Walls - Wing & Keeper Walls	-	sq.m	\$	1,100.00		-	
		2.1.8 Retaining Walls - Fender Wall	-	Item	\$	16,500.00		-	Assume rock bolts at 1.5mx1.5m grid with 75mm thick steel fibre
		2.1.9 Retaining wall	300	sq.m	\$	1,120.00		336,000.00	shotcrete wall
		2.1.10 Bridge Deck 2.1.11 Constructability	-	sq.m Item	\$	480.00	\$	-	
	2.2	Abutments							
		2.2.1 RC Abutment / Crosshead Beam 2.2.2 Anti Sliding Blocks	30	LM Item	\$	3,140.00 2,500.00		94,200.00	
		2.2.3 Abutment Walls and Bearings	-	Item	\$	400,000.00	\$	-	
	2.3	2.2.4 Bored piles Bridge Containment Barriers	-	Item	\$	9,712.80	\$	-	
		2.3.1 Bridge containment barriers	-	LM	\$	2,850.00		-	
		2.3.2 Barriers - Medium Containment 2.3.3 Barriers - Armco (off structure)		LM LM	\$	1,750.00 110.00		-	
	2.4	Other		LIVI	Ÿ	110.00	Ų		
3 01	N-BRIDGI	WORKS							
3 UI		Ashphalt Wearing Course Over Slab							
		3.1.1 Asphalt pavement 3.1.2 Road pavement under bridge	154	sq.m	\$ \$	110.00 250.00		16,940.00	
		3.1.3 Cycle track		sq.m sq.m	\$	1,200.00		-	
		Kerb and Channel 3.2.1 Kerb and channel	30	LM	ć	75.00	ć	2,250.00	
		Footpath	30	LIVI	\$	75.00	Ş	2,250.00	
		3.3.1 Bridge walkway	25	sq.m	\$	1,500.00			Steel mesh atop steel frame attached to side of rail bridge
		3.3.2 Pedestrian footpath 3.3.3 Shared path	33 66	sq.m sq.m	\$	155.00 155.00		5,115.00 10,230.00	
		Lighting On-Bridge							
		3.4.1 Lighting 3.4.2 Allowance for Conduits	- 4	Item LM	\$	2,500.00 16.50		10,000.00	To underside of bridge
	3.5	Other							
4 01	FF-BRIDG	E WORKS							
		Approach Slabs							
		4.1.1 Reinforced concrete slabs (approach slabs)	115	sq.m	\$	500.00	\$	57,500.00	Assume 4m long approach RC slab at each abutment (200mm thick
	4.2	Safety Gurad Rail/Barrier							
		4.2.1 Handrails 4.2.2 Guard rails	1	Item Item	\$	5,000.00 5,000.00			Allowance only, Pedestrain barriers to bridge over Allowance only, vehicle approach barriers
		4.2.3 Safety rails	1	Item	\$	20,000.00			Allowance only, Rail safety barriers for bridge over
	4.3	Drainage 4.3.1 Drainage to bridge	1	Item	\$	22,000.00	Ś	22,000.00	
		4.3.2 Drainage to lowered road under	1	Item	\$	100,000.00	\$	100,000.00	
	4.4	4.3.3 Rock Beaching Scour Protection	-	cu.m	\$	100.00	\$	-	
	4.5	Other							
5 M	IISCELLAN								
		Architectural screens / cladding to Piers / Deck Anti Throw screens	2	Item LM	\$ \$	44,000.00 1,650.00		88,000.00	
		Dewatering works		Item	\$	250,000.00			
		Melbourne Water Temp Diversion		sq.m	\$	1,000.00		1 200 00	
		Linemarking Signage	- 1	Item Item	\$	1,200.00 25,000.00		1,200.00	
	5.7	Occupation costs	-	Item	\$	20,000.00	\$	-	
		Construction occupation Habitat Compensation Fee (Estimate)	-	Item Item	\$	1,035,000.00	\$	-	
6 RA	AIL RELAT	TED ITEMS				22.25		60.000	All (-2 ALDE Q
		Occupation costs (minor)	3	Item	\$	20,000.00			Allowance for 3 ALBF Occupations for OHL works Allowance fo 2 weekend occupations for construction works (Metr
		Construction occupation	2	Item	\$	1,035,000.00		,070,000.00	and V-Line)
	6.3 6.4	Signalling Adjustments Rail Occupation Costs (Power Off) - N/A Vline Only	. 1	Item Note	\$	750,000.00	\$	750,000.00	
	6.5	Rail Occupation Costs (Major) - Vline	2	Wkend	\$	100,000.00		200,000.00	
		Track & Ballast OHLE (Assume + 100m each way)	210	Item TM	\$ \$	1,650.00 550.00		346,500.00	Lowering of Track & Ballast asusme 100m each direction
7 SE	ERVICES								
		APA Gas Telstra NBN	-	Item	\$	4,400,000.00 400,000.00		-	
		Western Water Sewer		Item Item	\$ \$	300,000.00			
	7.4	Services relocation	-	Item	\$	150,000.00	\$	147.001.05	
	7.5	Increase in Head Contractor Preliminaries (22% to 25%)	3	%	\$	4,922,035.00	Ş	147,661.05	
				SUB TOTAL	- WORKS		\$ 5,	,069,696.05	
8 DE	ELIVERY								
2	8.1	Council Fees	3%	Item				164,765.12	
		VicRoads Fees Traffic Management	0% 5%	Item Item			\$	253,484.80	
	8.4	Environmental Management	1%	Item			\$	25,348.48	
	8.5	Survey & Design	5% 25%	Item				253,484.80	Includes LYPA Fees
		Supervision & Project Management Site Establishment	25% 3%	Item Item			\$	126,742.40	Includes LXRA Fees
		Contingency	20%	Item				,013,939.21	
			SUB TOTAL	- DELIVERY			\$ 3.	,105,188.83	
				TOTAL			ġ o	,174,884.88	
				IOIAL			ره ب	,_, -,,00+.00	

Bridge Cost Estimate Template (Autosaved).xisx

Bridges - LR-BD2

LR-BR-03

Approx. Length 29m (road over rail)

Item	Descripti	20	Quantity	Unit		Rate	Amount	Comments
		"		\$ 1.114				
1	WORKS SITEWORK	S AND EARTHWORKS						
		Pre-construction						
		1.1.1 Site preparation 1.1.2 Strip Site Locally	- 1		\$	5,500.00 2.75		
	1.2	Earthworks						
		1.2.1 Bulk excavation and fill 1.2.3 Fill only	3,000 500		\$ \$	70.00 37.80		Fill to approach
	1.3	Set-Out Set-Out						*****
2	STRUCTUE	1.3.1 Allow for site setout and marking	1	Item	\$	5,000.00	\$ 5,000.00	
		Slab & Foundations/Piers/Beams						
		2.1.1 Bridge structure	223	sq.m	\$	1,900.00	\$ 423,890.00	Single span precast prestressed 1200 mm deep Super T- beam arrangement with in-situ deck slab overlay. Cast in-situ deck slab min thickness 200mm across
		2.1.2 Elastomeric Bearings	8	Item	\$	1,650.00	\$ 13,200.00	bridge
		Elastomeric Bearings Cast in-situ concrete base slab with footings	-	sq.m	\$	550.00		
		2.1.4 Bridge Columns	-	sq.m	\$	3,500.00	\$ -	1200 diameter :: 10000 lane 50 May Conside Based
		2.1.5 Piles	8	Item	\$	15,000.00	\$ 120,000.00	1200 diameter x 10000 long 50 Mpa Concrete Bored Piles including Reo Rate say 200kg/m3
		2.1.6 Pile Cap	-	Item		4 400 00		
		Retaining Walls - Wing & Keeper Walls Retaining Walls - Fender Wall	-		\$ \$	1,100.00 16,500.00		
		2.1.9 Retaining Wall	150	sq.m	\$	1,120.00		Assume rock bolts at 1.5mx1.5m grid with 75mm thick
		2.1.10 Bridge Deck		sq.m	\$	480.00		steel fibre shotcrete wall (
		2.1.11 Constructability	-	Item				
	2.2	Abutments 2.2.1 RC Abutment / Crosshead Beam	30	LM	\$	3,140.00	\$ 94,200.00	
		2.2.2 Anti Sliding Blocks	-	Item	\$	2,500.00	\$ -	
		2.2.3 Abutment Walls and Bearings	-		\$	400,000.00		Reinforced concrete bored piles (supporting abutment
		2.2.4 Bored piles	8	sq.m	\$	15,000.00	\$ 120,000.00	crossheads)
	2.3	Bridge Containment Barriers 2.3.1 Bridge containment barriers		LM	\$	2,850.00	<	
		2.3.1 Bridge containment barriers 2.3.2 Barriers - Medium Containment	- 56		\$	1,750.00	\$ 97,370.00	
		2.3.3 Barriers - Armco (off structure)	80		\$	110.00		
	2.4	Other						
3	ON-BRIDG							
	3.1	Ashphalt Wearing Course Over Slab 3.1.1 Asphalt pavement	160	sq.m	\$	110.00	\$ 17.600.00	Including shared path
		3.1.2 Road pavement under bridge	-	sq.m	\$	250.00	\$ -	
	3.2	3.1.3 Cycle track Kerb and Channel	-	sq.m	\$	1,200.00	\$ -	
	J.E	3.2.1 Kerb and channel	45	LM	\$	75.00	\$ 3,375.00	
	3.3	Footpath 3.3.1 Bridge walkway	-	sq.m	\$	1,500.00	¢	
		3.3.2 Pedestrian footpath	60		\$	155.00	\$ 9,300.00	
	2.4	3.3.3 Shared path	-	sq.m	\$	155.00	\$ -	
	3.4	Lighting On-Bridge 3.4.1 Lighting	2	Item	\$	17,500.00	\$ 35,000.00	
		3.4.2 Allowance for Conduits	-	LM	\$	16.50	\$ -	
	3.5	Other						
4	OFF-BRIDG							
	4.1	Approach Slabs 4.1.1 Reinforced concrete slabs (approach slabs)	92	sq.m	\$	500.00	\$ 46,000.00	
	4.2	Safety Gurad Rail/Barrier						
		4.2.1 Handrails 4.2.2 Guard rails	-		\$	5,000.00 5,000.00		
		4.2.3 Safety rails	-		\$	1,700.00	\$ -	
	4.3	Drainage 4.3.1 Drainage to bridge	1	Item	\$	22,000.00	\$ 22,000.00	
		4.3.2 Drainage to lowered road under	-		\$	100,000.00		
	4.4	4.3.3 Rock Beaching Scour Protection	-	cu.m	\$	100.00	\$ -	
	4.5	Other						
5	MISCELLA							
		Architectural screens / cladding to Piers / Deck Anti Throw screens	2	Item LM	\$ \$	44,000.00 1,650.00		
	5.3	Dewatering works	-	Item	\$	250,000.00	\$ -	
	5.4 5.5	Melbourne Water Temp Diversion Linemarking	1		\$ \$	1,000.00 1,200.00		
	5.6	Signage	-	Item	\$	25,000.00	\$ -	
	5.7 5.8	Occupation costs Construction occupation	-		\$ \$ 1	20,000.00 1,035,000.00		
	5.9	Habitat Compensation Fee (Estimate)	-		\$ 1	-		
6	RAIL RELA		3		\$	20,000.00	\$ 60,000,00	Allowance for 3 ALBF Occupations for OHL works
	6.2		2	Item		1,035,000.00		Allowance fo 2 weekend occupations for construction
		Construction occupation			\$ 1	500,000.00		works (Metro and V-Line)
	6.3 6.4	Signalling Adjustments Rail Occupation Costs (Power Off) - N/A Vline Only	- 1	Item Note	ې	300,000.00	\$ 500,000.00	
	6.5	Rail Occupation Costs (Major) - Vline	2		\$	100,000.00	\$ 200,000.00	
	6.6	Track & Ballast	210	Item	\$	1,650.00	\$ 346,500.00	Lowering of Track & Ballast asusme 100m each direction
		OHLE (Assume + 100m each way)	-	TM	\$	550.00	\$ -	
7	7.1	APA Gas	-	Item	\$ 4	4,400,000.00	\$ -	
	7.2	Telstra NBN	-	Item	\$	400,000.00	\$ -	
	7.3 7.4	Western Water Sewer Services relocation	-		\$ \$	300,000.00 150,000.00		
	7.5	Increase in Head Contractor Preliminaries (22% to 25%)	3			4,683,835.00		
				SUB TOTAL - WORKS		Г	\$ 4,824,350.05	
	DELINES							
8	DELIVERY 8.1	Council Fees	3%	Item			\$ 156,791.38	
	8.2	VicRoads Fees	0%	Item			\$ -	
	8.3 8.4	Traffic Management Environmental Management	5% 1%	Item Item			\$ 241,217.50 \$ 24,121.75	
	8.5	Survey & Design	5%	Item			\$ 241,217.50	tool documents
	8.6 8.7	Supervision & Project Management Site Establishment	25% 3%	Item Item			\$ 1,206,087.51 \$ 120,608.75	Includes LXRA Fees
	8.8	Contingency	20%	Item			\$ 964,870.01	
				SUB TOTAL - DELIVERY		Г	\$ 2,954,914.41	
				S TO THE - DELIVER!				
				TOTAL			\$ 7,779,264.46	
				IOIAL			- 7,77,204.40	

Bridge Cost Estimate Template (Autosaved).xisx

Bridges - LR-BD3

GHD

Level 9 180 Lonsdale Street Melbourne VIC 3000

T: 61 3 8687 8000 F: 61 3 8732 7046 E: melmail@ghd.com

© GHD 2021

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.

https://projects.ghd.com/oc/Victoria1/sunburysthlancefield/Delivery/Documents/36206-REP_Sunbury Sth Lancefield Road Costings Report Post Conclave.docx

Document Status

Revision	Author	Reviewer		Approved for Issue					
		Name	Signature	Name	Signature	Date			
Α	L.Morrison	M.Whalen	*M Whalen	M.Whalen	*M Whalen	18/03/2021			

www.ghd.com

