



APPENDIX D

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

Lancefield Road Bridge 01 (LR-BR-01)

Item	Description	Quantity	Unit	Rate	Amount	Comments	Quantity	Unit	Rate	Amount	Comments	
WORKS												
1	SITEWORKS AND EARTHWORKS											
1.1	Pre-construction											
1.1.1	Site preparation	2	Item	5,500.00	\$	11,000		2	Item	5,500.00	\$	11,000
1.1.2	Strip Site Locally	0	sq.m	2.75				0	sq.m	2.75	\$	-
1.2	Earthworks											
1.2.1	Bulk excavation and fill	10,000	cu.m	43.2	\$	432,000		81,100	cu.m	43.2	\$	3,503,520
1.2.2	EO Allowance for rock excavation works	5,000	cu.m	96.8	\$	484,000	EO allowance of encountering rock to 50% of excavation area		cu.m	96.8	\$	-
1.2.3	Fill only	0	cu.m	37.8				9500	cu.m	37.8	\$	522,500
1.3	Set-Out											
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 pavement, retaining walls etc)												
10.1	150mm Shotcrete retaining wall with soil nails											
10.1.1	Shotcrete and mesh							6180	sq.m	300.00	\$	1,854,000
10.1.2	Soil nails							3461	Item	1,000.00	\$	3,460,800
10.2	SSP Type Retaining wall							0	sq.m	1,500.00	\$	-
10.3	Guard Rail							0	LM	100.00	\$	-
10.4	Safety Fencing at top of Cutting							500	LM	250.00	\$	125,000
10.5	Additional Length Roadway (ICP adopted Bridge length minus Proposed structure length)							245	LM	5,000.00	\$	1,225,000
2	STRUCTURE											
2.1	Slab & Foundations/Piers/Beams											
2.1.1	Bridge Structure											
2.1.2	Elastomeric Bearings	0	Item	1,650.00				0				
2.1.3	Cast in-situ concrete base slab with footings	0	sq.m	550				0	Item	1650		
2.1.4	Bridge Columns	8,970	cu.m	1,100.00	\$	9,867,000	Pier concrete Column 12,000wx250d 40Mpa	1,327	cu.m	1,800.00	\$	2,387,880
2.1.5	Pile	2,600	Lm	1,800.00	\$	4,680,000	Foundation Concrete bored Piles 900dx2000 50 Mpa Concrete pier Pile Cap	70	Item	5400	\$	378,000
2.1.6	Pile Cap	624	cu.m	650	\$	405,600	16,00Lx2500wx1200d 40Mpa	384	Item	950.00	\$	364,800
2.1.7	Retaining Walls - Wing & Keeper Walls	0	sq.m	1,100.00				0	sq.m	1,100.00	\$	-
2.1.8	Retaining Walls - Fender Wall	0	Item	16,500.00				0	Item	16,500.00	\$	-
2.1.9	Retaining Wall	0	sq.m	1,120.00				0	sq.m	1120		-
2.1.10	Bridge deck	0	sq.m	480.00				0	sq.m	480.00	\$	-
2.1.11	Constructability	1	Item	7,624,177.50	\$	7,624,178	Includes site reinstatement, temporary works, staging etc.	1	Item	4,750,000.00	\$	4,750,000
2.2	Abutments											
2.2.1	RC Abutment / Crosshead Beam	1,208	cu.m	2,500.00	\$	3,020,900	1200w x 1000d 40Mpa	162	cu.m	2,500.00	\$	405,000
2.2.2	Anti Sliding Blocks	0	Item	2,500.00				8	Item	2,500.00	\$	20,000
2.2.3	Abutment Walls and Bearings	0	Item	400,000.00				85.725	cu.m	1,800	\$	154,305
2.2.4	Bored piles	0	Item	9,712.80				8	Item	12,000.00	\$	96,000
2.3	Bridge Containment Barriers											
2.3.1	Bridge containment barriers	1,000	LM	2,850.00	\$	2,850,000		490	LM	2850	\$	1,396,500
2.3.2	Barriers - Medium Containment	0	LM	1,750.00				0	LM	1750		-
2.3.3	Barriers - Armco (off structure)	0	LM	110				0	LM	110		-
2.4	Other											
3	ON-BRIDGE WORKS											
3.1	Asphalt Wearing Course Over Slab											
3.1.1	Asphalt pavement	4,410	sq.m	110	\$	485,100		1715	sq.m	110.00	\$	188,650
3.1.2	Road pavement under bridge	0	sq.m	250				0	sq.m	250		-
3.1.3	Cycle track	0	sq.m	1,200.00				0	sq.m	1200		-
3.2	Kerb and Channel											
3.2.1	Kerb and channel	1,000	Lm	75	\$	75,000		490	LM	75	\$	36,750
3.3	Footpath											
3.3.1	Footpath	1,500	sq.m	66	\$	99,000		1225	sq.m	85.00	\$	104,125
3.3	Footpath											
3.3.1	Bridge walkway	0	sq.m	1,500.00				0	sq.m	155	\$	-
3.3.2	Pedestrian footpath	0	sq.m	155				0	sq.m	155	\$	-
3.3.3	Shared path	0	sq.m	155				0				-
3.4	Lighting On-Bridge											
3.4.1	Lighting	34	Item	17,500.00	\$	595,000	Includes Poles	9	Item	17,500.00	\$	157,500
3.4.2	Allowance for Conduits	0	LM	16.5				0	LM	16.5		-
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.m	500	\$	25,000
4.2	Safety Guard Rail/Barrier											
4.2.1	Handrails	0	Item	5,000.00				0	Item	5,000.00	\$	-
4.2.2	Guard rails	200	LM	1,500.00	\$	300,000	Vehicle approach barriers	200	LM	1,500.00	\$	300,000
4.2.3	Safety rails	0	Item	1,700.00				0	Item	20,000.00	\$	-
4.3	Drainage											
4.3.1	Drainage to bridge	0	Item	22,000.00				0	Item	150,000.00	\$	-
4.3.2	Drainage to lowered road under	0	Item	100,000.00				0	Item	100,000.00	\$	-
4.3.3	Rock Beaching	0	cu.m	100				0	cu.m	100	\$	-
4.4	Scour Protection											
4.5	Other											
5	MISCELLANEOUS											
5.1	Architectural screens / cladding to Piers / Deck	1,000	LM	1,200.00	\$	1,200,000		490	LM	2,000.00	\$	980,000
5.2	Anti Throw screens	979.94	LM	1,650.00	\$	1,616,901		490	LM	1,650.00	\$	808,500
5.3	Dewatering works	0	Item	250,000.00				0	Item	250,000.00	\$	-
5.4	Melbourne Water Temp Diversion	0	sq.m	1,000.00				0	sq.m	0.00	\$	-
5.5	Line marking	490	Item	32	\$	15,680		245	LM	32	\$	7,840
5.6	Signage	0	Item	25,000.00				0	Item	25,000.00	\$	-
5.7	Occupation costs	0	Item	20,000.00				0	Item	20,000.00	\$	-
5.8	Construction occupation	0	Item	1,035,000.00				0	Item	1,035,000.00	\$	-
5.9	Habitat Compensation Fee (Estimate)	1	Item	19,497.12	\$	19,497	Estimate from DELWP	0	Item	19,497.00	\$	-
6	RAIL RELATED ITEMS											
6.1	Occupation costs (minor)	0	Item	20,000.00				0	Item	20,000.00	\$	-
6.2	Construction occupation	0	Item	1,035,000.00				0	Item	1,035,000.00	\$	-
6.3	Signalling Adjustments	0	Item	750,000.00				0	Item	750,000.00	\$	-
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	0	Note					0	Note	0	\$	-
6.5	Rail Occupation Costs (Major) - Vline	0	Weekend	100,000.00				0	Wkend	100,000.00	\$	-
6.6	Track & Ballast	0	Item	1,650.00				0	Item	1,650.00	\$	-
6.7	OHLE (Assume + 100m each way)	0	TM	550				0	TM	550	\$	-
7	SERVICES											
7.1	APA Gas	0	Item	4,400,000.00				0	Item	4,400,000.00	\$	-
7.2	Telstra NBN	0	Item	400,000.00				0	Item	400,000.00	\$	-
7.3	Western Water Sewer	0	Item	300,000.00				0	Item	300,000.00	\$	-
7.4	Services relocation	0	Item	150,000.00				0	Item	150,000.00	\$	-
7.5	Increase in Head Contractor Preliminaries (22% to 25%)	3%	%	66,672,705.62	\$	2,000,181		3%	%		\$	941,356.35
												\$ 32,319,901
8	DELIVERY											
8.1	Council Fees	3%	Item			2,231,869		3%	Item			1,050,396.79
8.2	VicRoads Fees	0%	Item					0%	Item			-
8.3	Traffic Management	5%	Item			3,433,644		5%	Item			1,615,995.07
8.4	Environmental Management	1%	Item			343,364		1%	Item			161,599.51
8.5	Survey & Design	5%	Item			3,433,644		5%	Item			1,615,995.07
8.6	Supervision & Project Management	15%	Item			10,300,933		12%	Item			3,878,388
8.7	Site Establishment	3%	Item			1,716,822		3%	Item			807,998
8.8	Contingency	20%	Item			13,734,577		20%	Item			6,463,980
												\$ 15,594,312
												\$ 47,934,254

Lancefield Road Bridge 01 (LR-BR-01)

LR-BR-01 - Bridge Steel Girder ICP Adopted						LR-BR-01 Hatch/Spire Option B					
Approx. length 490m						Approx length 90m (3 Super T spans @ 30Lm each)					
Item	Description	Quantity	Unit	Rate	Amount	Comments	Quantity	Unit	Rate	Amount	Comments
WORKS											
1	SITEWORKS AND EARTHWORKS										
1.1	Pre-construction										
1.1.1	Site preparation	2	Item	5,500.00	\$	11,000	2	Item	5,500.00	\$	11,000
1.1.2	Strip Site Locally	0	sq.m	2.75				sq.m	2.75	\$	-
1.2	Earthworks										
1.2.1	Bulk excavation and fill	10,000	cu.m	43.2	\$	432,000	65,000	cu.m	43.2	\$	2,808,000
1.2.2	EO Allowance for rock excavation works	5,000	cu.m	96.8	\$	484,000		cu.m	96.8	\$	-
1.2.3	Fill only	0	cu.m	37.8			9500	cu.m	55	\$	522,500
1.3	Set-Out										
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 pavement, retaining walls etc)										
10.1	150mm Shotcrete retaining wall with soil nails										
10.1.1	Shotcrete and mesh						4480	Item	300.00	\$	1,344,000
10.1.2	Soil nails						2509	sq.m	1,000.00	\$	2,508,800
10.2	SSP Type Retaining wall						0	sq.m	1,500.00	\$	-
10.3	Guard Rail						330	LM	100.00	\$	33,000
10.4	Safety Fencing at top of Cutting						660	LM	250.00	\$	165,000
10.5	Additional Length Roadway (ICP adopted Bridge length minus Proposed structure length)						1100	LM	5,000.00	\$	5,500,000
2	STRUCTURE										
2.1	Slab & Foundations/Piers/Beams										
2.1.1	Bridge Structure	7,383	sq.m	4,450.00	\$	32,854,350	1,215	sq.m	2,450.00	\$	2,976,750
2.1.2	Elastomeric Bearings	0	Item	1,650.00			0				
2.1.3	Cast in-situ concrete base slab with footings	0	sq.m	550			0	Item	1650	\$	-
2.1.4	Bridge Columns	8,970	cu.m	1,100.00	\$	9,867,000	185	cu.m	1,800.00	\$	333,720
2.1.5	Pile	2,600	Lm	1,800.00	\$	4,680,000	20	Item	5400	\$	108,000
2.1.6	Pile Cap	624	cu.m	650	\$	405,600	96	Item	950.00	\$	91,200
2.1.7	Retaining Walls - Wing & Keeper Walls	0	sq.m	1,100.00			0	sq.m	1,100.00	\$	-
2.1.8	Retaining Walls - Fender Wall	0	Item	16,500.00			0	Item	16,500.00	\$	-
2.1.9	Retaining Wall	0	sq.m	1,120.00			0	sq.m	1120	\$	-
2.1.10	Bridge deck	0	sq.m	480			0	sq.m	480.00	\$	-
2.1.11	Constructability	1	Item	7,624,177.50	\$	7,624,178	1	Item	1,500,000	\$	1,500,000
2.2	Abutments										
2.2.1	RC Abutment / Crosshead Beam	1,208	cu.m	2,500.00	\$	3,020,900	64.8	cu.m	2,500.00	\$	162,000
2.2.2	Anti Sliding Blocks	0	Item	2,500.00			4	Item	2,500.00	\$	10,000
2.2.3	Abutment Walls and Bearings	0	Item	400,000.00			37.8	cu.m	1800	\$	68,040
2.2.4	Bored piles	0	Item	9,712.80			8	Item	12,000.00	\$	96,000
2.3	Bridge Containment Barriers										
2.3.1	Bridge containment barriers	1,000	Lm	2,850.00	\$	2,850,000	180	LM	2850	\$	513,000
2.3.2	Barriers - Medium Containment	0	LM	1,750.00			0	LM	1750	\$	-
2.3.3	Barriers - Armco (off structure)	0	LM	110			0	LM	110	\$	-
2.4	Other										
3	ON-BRIDGE WORKS										
3.1	Asphalt Wearing Course Over Slab										
3.1.1	Asphalt pavement	4,410	sq.m	110	\$	485,100	630	sq.m	110.00	\$	69,300
3.1.2	Road pavement under bridge	0	sq.m	250			0	sq.m	250	\$	-
3.1.3	Cycle track	0	sq.m	1,200.00			0	sq.m	1200	\$	-
3.2	Kerb and Channel										
3.2.1	Kerb and channel	1,000	Lm	75	\$	75,000	180	LM	75	\$	13,500
3.3	Footpath										
3.3.1	Footpath	1,500	sq.m	66	\$	99,000	450	sq.m	85.00	\$	38,250
3.3	Footpath										
3.3.1	Bridge walkway	0	sq.m	1,500.00			0	sq.m	155	\$	-
3.3.2	Pedestrian footpath	0	sq.m	155			0		155	\$	-
3.3.3	Shared path	0	sq.m	155			0				
3.4	Lighting On-Bridge										
3.4.1	Lighting	34	Item	17,500.00	\$	595,000	7	Item	17,500.00	\$	122,500
3.4.2	Allowance for Conduits	0	LM	16.5			0	LM	16.5	\$	-
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.m	500	\$	25,000
4.2	Safety Guard Rail/Barrier										
4.2.1	Handrails	0	Item	5,000.00			0	Item	5,000.00	\$	-
4.2.2	Guard rails	200	LM	1,500.00	\$	300,000	200	LM	1,500.00	\$	300,000
4.2.3	Safety rails	0	Item	1,700.00			0	Item	20,000.00	\$	-
4.3	Drainage										
4.3.1	Drainage to bridge	0	Item	22,000.00			0	Item	150,000.00	\$	-
4.3.2	Drainage to lowered road under	0	Item	100,000.00			0	Item	100,000.00	\$	-
4.3.3	Rock Beaching	0	cu.m	100			0	cu.m	100	\$	-
4.4	Scour Protection										
4.5	Other										
5	MISCELLANEOUS										
5.1	Architectural screens / cladding to Piers / Deck	1,000	LM	1,200.00	\$	1,200,000	180	LM	2,000.00	\$	360,000
5.2	Anti Throw screens	979.94	LM	1,650.00	\$	1,616,901	180	LM	1,650.00	\$	297,000
5.3	Dewatering works	0	Item	250,000.00			0	Item	250,000.00	\$	-
5.4	Melbourne Water Temp Diversion	0	sq.m	1,000.00			0	sq.m	0.00	\$	-
5.5	Linemarking	490	Item	32	\$	15,680	90	LM	32	\$	2,880
5.6	Signage	0	Item	25,000.00			0	Item	25,000.00	\$	-
5.7	Occupation costs	0	Item	20,000.00			0	Item	20,000.00	\$	-
5.8	Construction occupation	0	Item	1,035,000.00			0	Item	1,035,000.00	\$	-
5.9	Habitat Compensation Fee (Estimate)	1	Item	19,497.12	\$	19,497	0	Item	19,497.00	\$	-
6	RAIL RELATED ITEMS										
6.1	Occupation costs (minor)	0	Item	20,000.00			0	Item	20,000.00	\$	-
6.2	Construction occupation	0	Item	1,035,000.00			0	Item	1,035,000.00	\$	-
6.3	Signalling Adjustments	0	Item	750,000.00			0	Item	750,000.00	\$	-
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	0	Note				0	Note	0	\$	-
6.5	Rail Occupation Costs (Major) - Vline	0	Weekend	100,000.00			0	Wkend	100,000.00	\$	-
6.6	Track & Ballast	0	Item	1,650.00			0	Item	1,650.00	\$	-
6.7	OHLE (Assume + 100m each way)	0	TM	550			0	TM	550	\$	-
7	SERVICES										
7.1	APA Gas	0	Item	4,400,000.00			0	Item	4,400,000.00	\$	-
7.2	Telstra NBN	0	Item	400,000.00			0	Item	400,000.00	\$	-
7.3	Western Water Sewer	0	Item	300,000.00			0	Item	300,000.00	\$	-
7.4	Services relocation	0	Item	150,000.00			0	Item	150,000.00	\$	-
7.5	Increase in Head Contractor Preliminaries (22% to 25%)	3%	%	66,672,705.62	\$	2,000,181	3%	%		\$	599,758.20
					SUB TOTAL WORKS	\$ 68,672,887					
8	DELIVERY										
8.1	Council Fees	3%	Item	\$	2,231,869		3%	Item	\$	669,230.19	
8.2	VicRoads Fees	0%	Item				0%	Item			
8.3	Traffic Management	5%	Item	\$	3,433,644		5%	Item	\$	1,029,584.91	
8.4	Environmental Management	1%	Item	\$	343,364		1%	Item	\$	102,958.49	
8.5	Survey & Design	5%	Item	\$	3,433,644		5%	Item	\$	1,029,584.91	
8.6	Supervision & Project Management	15%	Item	\$	10,300,933		12%	Item	\$	2,471,004	
8.7	Site Establishment	3%	Item	\$	1,716,822		3%	Item	\$	514,792	
8.8	Contingency	20%	Item	\$	13,734,577		20%	Item	\$	4,118,340	
					SUB TOTAL - DELIVERY	\$ 35,194,854					
					TOTAL	\$ 103,867,741					
						\$ 30,527,193					



APPENDIX E


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

Item Description	Item ID	Item Type	Item Status
Item 1 Description	101	Item 1 Type	Item 1 Status
Item 2 Description	102	Item 2 Type	Item 2 Status
Item 3 Description	103	Item 3 Type	Item 3 Status
Item 4 Description	104	Item 4 Type	Item 4 Status
Item 5 Description	105	Item 5 Type	Item 5 Status
Item 6 Description	106	Item 6 Type	Item 6 Status
Item 7 Description	107	Item 7 Type	Item 7 Status
Item 8 Description	108	Item 8 Type	Item 8 Status
Item 9 Description	109	Item 9 Type	Item 9 Status
Item 10 Description	110	Item 10 Type	Item 10 Status
Item 11 Description	111	Item 11 Type	Item 11 Status
Item 12 Description	112	Item 12 Type	Item 12 Status
Item 13 Description	113	Item 13 Type	Item 13 Status
Item 14 Description	114	Item 14 Type	Item 14 Status
Item 15 Description	115	Item 15 Type	Item 15 Status
Item 16 Description	116	Item 16 Type	Item 16 Status
Item 17 Description	117	Item 17 Type	Item 17 Status
Item 18 Description	118	Item 18 Type	Item 18 Status
Item 19 Description	119	Item 19 Type	Item 19 Status
Item 20 Description	120	Item 20 Type	Item 20 Status
Item 21 Description	121	Item 21 Type	Item 21 Status
Item 22 Description	122	Item 22 Type	Item 22 Status
Item 23 Description	123	Item 23 Type	Item 23 Status
Item 24 Description	124	Item 24 Type	Item 24 Status
Item 25 Description	125	Item 25 Type	Item 25 Status
Item 26 Description	126	Item 26 Type	Item 26 Status
Item 27 Description	127	Item 27 Type	Item 27 Status
Item 28 Description	128	Item 28 Type	Item 28 Status
Item 29 Description	129	Item 29 Type	Item 29 Status
Item 30 Description	130	Item 30 Type	Item 30 Status
Item 31 Description	131	Item 31 Type	Item 31 Status
Item 32 Description	132	Item 32 Type	Item 32 Status
Item 33 Description	133	Item 33 Type	Item 33 Status
Item 34 Description	134	Item 34 Type	Item 34 Status
Item 35 Description	135	Item 35 Type	Item 35 Status
Item 36 Description	136	Item 36 Type	Item 36 Status
Item 37 Description	137	Item 37 Type	Item 37 Status
Item 38 Description	138	Item 38 Type	Item 38 Status
Item 39 Description	139	Item 39 Type	Item 39 Status
Item 40 Description	140	Item 40 Type	Item 40 Status
Item 41 Description	141	Item 41 Type	Item 41 Status
Item 42 Description	142	Item 42 Type	Item 42 Status
Item 43 Description	143	Item 43 Type	Item 43 Status
Item 44 Description	144	Item 44 Type	Item 44 Status
Item 45 Description	145	Item 45 Type	Item 45 Status
Item 46 Description	146	Item 46 Type	Item 46 Status
Item 47 Description	147	Item 47 Type	Item 47 Status
Item 48 Description	148	Item 48 Type	Item 48 Status
Item 49 Description	149	Item 49 Type	Item 49 Status
Item 50 Description	150	Item 50 Type	Item 50 Status
Item 51 Description	151	Item 51 Type	Item 51 Status
Item 52 Description	152	Item 52 Type	Item 52 Status
Item 53 Description	153	Item 53 Type	Item 53 Status
Item 54 Description	154	Item 54 Type	Item 54 Status
Item 55 Description	155	Item 55 Type	Item 55 Status
Item 56 Description	156	Item 56 Type	Item 56 Status
Item 57 Description	157	Item 57 Type	Item 57 Status
Item 58 Description	158	Item 58 Type	Item 58 Status
Item 59 Description	159	Item 59 Type	Item 59 Status
Item 60 Description	160	Item 60 Type	Item 60 Status
Item 61 Description	161	Item 61 Type	Item 61 Status
Item 62 Description	162	Item 62 Type	Item 62 Status
Item 63 Description	163	Item 63 Type	Item 63 Status
Item 64 Description	164	Item 64 Type	Item 64 Status
Item 65 Description	165	Item 65 Type	Item 65 Status
Item 66 Description	166	Item 66 Type	Item 66 Status
Item 67 Description	167	Item 67 Type	Item 67 Status
Item 68 Description	168	Item 68 Type	Item 68 Status
Item 69 Description	169	Item 69 Type	Item 69 Status
Item 70 Description	170	Item 70 Type	Item 70 Status
Item 71 Description	171	Item 71 Type	Item 71 Status
Item 72 Description	172	Item 72 Type	Item 72 Status
Item 73 Description	173	Item 73 Type	Item 73 Status
Item 74 Description	174	Item 74 Type	Item 74 Status
Item 75 Description	175	Item 75 Type	Item 75 Status
Item 76 Description	176	Item 76 Type	Item 76 Status
Item 77 Description	177	Item 77 Type	Item 77 Status
Item 78 Description	178	Item 78 Type	Item 78 Status
Item 79 Description	179	Item 79 Type	Item 79 Status
Item 80 Description	180	Item 80 Type	Item 80 Status
Item 81 Description	181	Item 81 Type	Item 81 Status
Item 82 Description	182	Item 82 Type	Item 82 Status
Item 83 Description	183	Item 83 Type	Item 83 Status

Lunbury South Bridge 1 (SS-BR-01)		SS-BR-01 (Long Option) - ICP adopted				SS-BR-01 Hatch/Spire Option A								
Item Description		Approx. length 315m				Approximate length 240m (4 Steel Box Girders spans @60lm each)								
		Quantity	Unit	Rate	Amount	Comments	Quantity	Unit	Rate	Amount	Comments			
WORKS														
1 SITEWORKS AND EARTHWORKS														
1.1 Pre-construction														
1.1.1	Site preparation	2	Item	\$	5,500.00	\$	11,000							
1.1.2	Strip Site Locally	0	sq.m	\$	2.75			2	Item	\$	5,500.00	\$	11,000	
1.2 Earthworks														
1.2.1	Bulk excavation and fill	6,922	cu.m	\$	43.20	\$	299,009	20,100	cu.m	\$	43.20	\$	868,320	
1.2.2	EO Allowance for rock excavation works	3,461	cu.m	\$	96.80	\$	335,001		cu.m	\$	96.80	\$	-	
1.2.3	Fill only	0	cu.m	\$	37.80			100	cu.m	\$	55.00	\$	5,500	
1.3 Set-Out														
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 pavement, retaining walls etc)														
10.1 150mm Shotcrete retaining wall with soil nails														
10.1.1 Shotcrete and mesh														
10.1.2 Soil nails														
10.2 SSP Type Retaining wall														
10.3 Guard Rail														
10.4 Safety Fencing at top of Cutting														
10.5 Additional Length Roadway (ICP adopted Bridge length minus Proposed structure length)														
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 Beams														
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	
2.1.2	Elastomeric Bearings	0	Item	\$	1,650.00			0	Item	\$	1,650.00	\$	-	
2.1.3	Cast in-situ concrete base slab with footings	0	sq.m	\$	550.00			0	sq.m	\$	550.00	\$	-	
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	\$	286,776	40	Item	\$	6,500.00	\$	260,000	
2.1.6	Pile Cap	8	Item	\$	31,950.00	\$	255,600	3	Item	\$	31,950.00	\$	95,850	
2.1.7	Retaining Walls - Wing & Keeper Walls	0	sq.m	\$	1,100.00			0	sq.m	\$	1,100.00	\$	-	
2.1.8	Retaining Walls - Fender Wall	0	Item	\$	16,500.00			0	Item	\$	16,500.00	\$	-	
2.1.9	Retaining Wall	0	sq.m	\$	1,120.00			0	sq.m	\$	1,120.00	\$	-	
2.1.10	Bridge Deck	0	sq.m	\$	480.00			0	sq.m	\$	480.00	\$	-	
Allowance for temporary works due to site conditions														
2.1.11	Constructability	1	Item	\$	2,691,649.26	\$	2,691,649	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	\$	325,000	81	cu.m	\$	2,500.00	\$	202,500	
2.2.2	Anti Sliding Blocks	10	Item	\$	2,500.00	\$	25,000	0	Item	\$	2,500.00	\$	-	
2.2.3	Abutment Walls and Bearings	1	Item	\$	400,000.00	\$	400,000	1	Item	\$	400,000.00	\$	400,000	
Bored piles behind RC retaining wall														
2.2.4	Bored piles	8	Item	\$	9,712.80	\$	77,702	8	Item	\$	12,000.00	\$	96,000	
2.3 Bridge Containment Barriers														
2.3.1	Bridge containment barriers	646	LM	\$	2,850.00	\$	1,841,100	480	LM	\$	2,850.00	\$	1,368,000	
2.3.2	Barriers - Medium Containment	0	LM	\$	1,750.00				LM	\$	1,750.00	\$	-	
2.3.3	Barriers - Armco (off structure)	0	LM	\$	110.00				LM	\$	110.00	\$	-	
2.4 Other														
3 ON-BRIDGE WORKS														
3.1 Asphalt Wearing Course Over Slab														
Road pavement - Traffic lane.														
3.1.1	Asphalt pavement	2,205	sq.m	\$	110.00	\$	242,550	1,680	sq.m	\$	110.00	\$	184,800	
3.1.2	Road pavement under bridge	0	sq.m	\$	250.00			0	sq.m	\$	250.00	\$	-	
3.1.3	Cycle track	0	sq.m	\$	1,200.00			0	sq.m	\$	1,200.00	\$	-	
3.2 Kerb and Channel														
3.2.1	Kerb and channel	630	LM	\$	75.00	\$	47,250	480	LM	\$	75.00	\$	36,000	
3.3 Footpath														
3.3.1	Bridge walkway	0	sq.m	\$	1,500.00				sq.m	\$	1,500.00	\$	-	
3.3.2	Pedestrian footpath	0	sq.m	\$	155.00				sq.m	\$	155.00	\$	-	
3.3.3	Shared path	1,575	sq.m	\$	132.00	\$	207,900	1,200	sq.m	\$	132.00	\$	158,400	
3.4 Lighting On-Bridge														
Assumed poles 12m high with luminaries														
3.4.1	Lighting	11	Item	\$	17,500.00	\$	192,500	9	Item	\$	17,500.00	\$	157,500	
3.4.2	Allowance for Conduits	0	LM	\$	16.50				LM	\$	16.50	\$	-	
3.5 Other														
4 OFF-BRIDGE WORKS														
4.1 Approach Slabs														
4.1.1	Reinforced concrete slabs (approach slabs)	108	sq.m	\$	500.00	\$	54,000	108	sq.m	\$	500.00	\$	54,000	
4.2 Safety Guard Rail/Barrier														
4.2.1	Handrails	0	Item	\$	5,000.00				Item	\$	5,000.00	\$	-	
4.2.2	Guard rails	200	LM	\$	1,500.00	\$	300,000	200	LM	\$	1,500.00	\$	300,000	
4.2.3	Safety rails	0	Item	\$	20,000.00				Item	\$	20,000.00	\$	-	
4.3 Drainage														
4.3.1	Drainage to bridge	2	Item	\$	150,000.00	\$	300,000	2	Item	\$	150,000.00	\$	300,000	
4.3.2	Draining to lowered road under	0	Item	\$	100,000.00				Item	\$	100,000.00	\$	-	
4.3.3	Rock Beaching	560	cu.m	\$	100.00	\$	56,000	560	cu.m	\$	100.00	\$	56,000	
4.4 Scour Protection														
4.5 Other														
5 MISCELLANEOUS														
5.1	Architectural screens / cladding to Piers / Deck	630	LM	\$	2,000.00	\$	1,260,000	480	LM	\$	2,000.00	\$	960,000	
5.2	Anti Throw screens	630	LM	\$	1,650.00	\$	1,039,500	480	LM	\$	1,650.00	\$	792,000	
Allowance for dewatering works														
5.3	Dewatering works	1	Item	\$	250,000.00	\$	250,000	1	Item	\$	250,000.00	\$	250,000	
5.4	Melbourne Water Temp Diversion	0	sq.m	\$	-				sq.m	\$	-	\$	-	
5.5	Linemarking	315	LM	\$	32.00	\$	10,080	240	LM	\$	32.00	\$	7,680	
5.6	Signage	0	Item	\$	25,000.00				Item	\$	25,000.00	\$	-	
5.7	Occupation costs	0	Item	\$	20,000.00				Item	\$	20,000.00	\$	-	
5.8	Construction occupation	0	Item	\$	1,035,000.00				Item	\$	1,035,000.00	\$	-	
5.9	Habitat compensation fee	1	Item	\$	88,000.88	\$	88,001	0	Item	\$	88,000.88	\$	-	
6 RAIL RELATED ITEMS														
6.1	Occupation costs (minor)	0	Item	\$	20,000.00				Item	\$	20,000.00	\$	-	
6.2	Construction occupation	0	Item	\$	1,035,000.00				Item	\$	1,035,000.00	\$	-	
6.3	Signalling Adjustments	0	Item	\$	750,000.00				Item	\$	750,000.00	\$	-	
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	0	Note						Note		-	\$	-	
6.5	Rail Occupation Costs (Major) - Vline	0	Wkend	\$	100,000.00				Wkend	\$	100,000.00	\$	-	
6.6	Track & Ballast	0	Item	\$	1,650.00				Item	\$	1,650.00	\$	-	
6.7	OHLE (Assume +100m each way)	0	TM	\$	550.00				TM	\$	550.00	\$	-	
7 SERVICES														
7.1	APA Gas	0	Item	\$	4,400,000.00				Item	\$	4,400,000.00	\$	-	
7.2	Telstra NBN	0	Item	\$	400,000.00				Item	\$	400,000.00	\$	-	
7.3	Western Water Sewer	0	Item	\$	300,000.00				Item	\$	300,000.00	\$	-	
Allowances for service relocation surrounding approach slabs														
7.4	Services relocation	1	Item	\$	150,000.00	\$	150,000	1	Item	\$	150,000.00	\$	150,000	
7.5 Increase in Head Contractor Preliminaries (22% to 25%)														
		3%	%	\$	27,332,367.94	\$	819,971			\$		\$	855,679.50	
		SUB TOTAL - WORKS				\$	26,152,339			\$			29,378,330	
8 DELIVERY														
8.1	Council Fees	3.25%	Item	\$	914,951			3.25%	Item	\$		\$	954,796	
8.2	VicRoads Fees	0%	Item	\$				0%	Item	\$		\$	-	
8.3	Traffic Management	5%	Item	\$	1,407,617			5%	Item	\$		\$	1,468,916	
8.4	Environmental Management	0.5%	Item	\$	140,762			0.5%	Item	\$		\$	146,892	
8.5	Survey & Design	5%	Item	\$	1,407,617			5%	Item	\$		\$	1,468,916	
Increase due to scale of project														
8.6	Supervision & Project Management	12%	Item	\$	3,378,281			12%	Item	\$		\$	3,525,400	
8.7	Site Establishment	2.5%	Item	\$	703,808			2.5%	Item	\$		\$	734,458	
8.8	Contingency	20%	Item	\$	5,630,468			20%	Item	\$		\$	5,875,666	
		SUB TOTAL - DELIVERY				\$	13,583,504			\$			14,175,044	
		TOTAL				\$	41,735,843			\$			43,553,373	

SS-BR-01 Hatch/Spire Option B
Approx length 240m (1 Steel Box Girder @60Lm and 6 Super T spans @30Lm each)

USER REPORT FOR SITE

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

Template: GTA Appendix Site

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

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

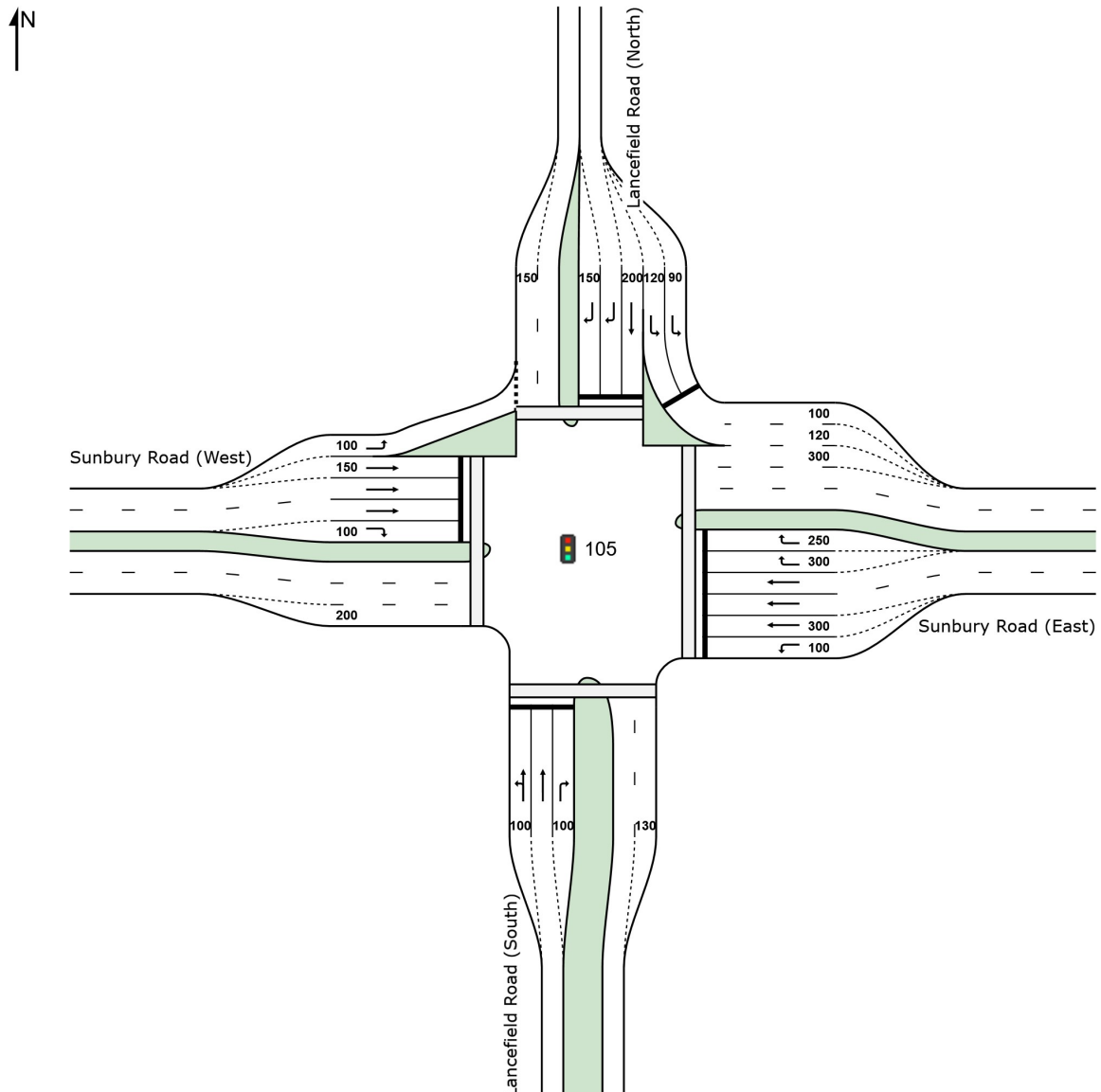
Reference Phase: Phase C

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

Output Phase Sequence: D2, B, C, D1

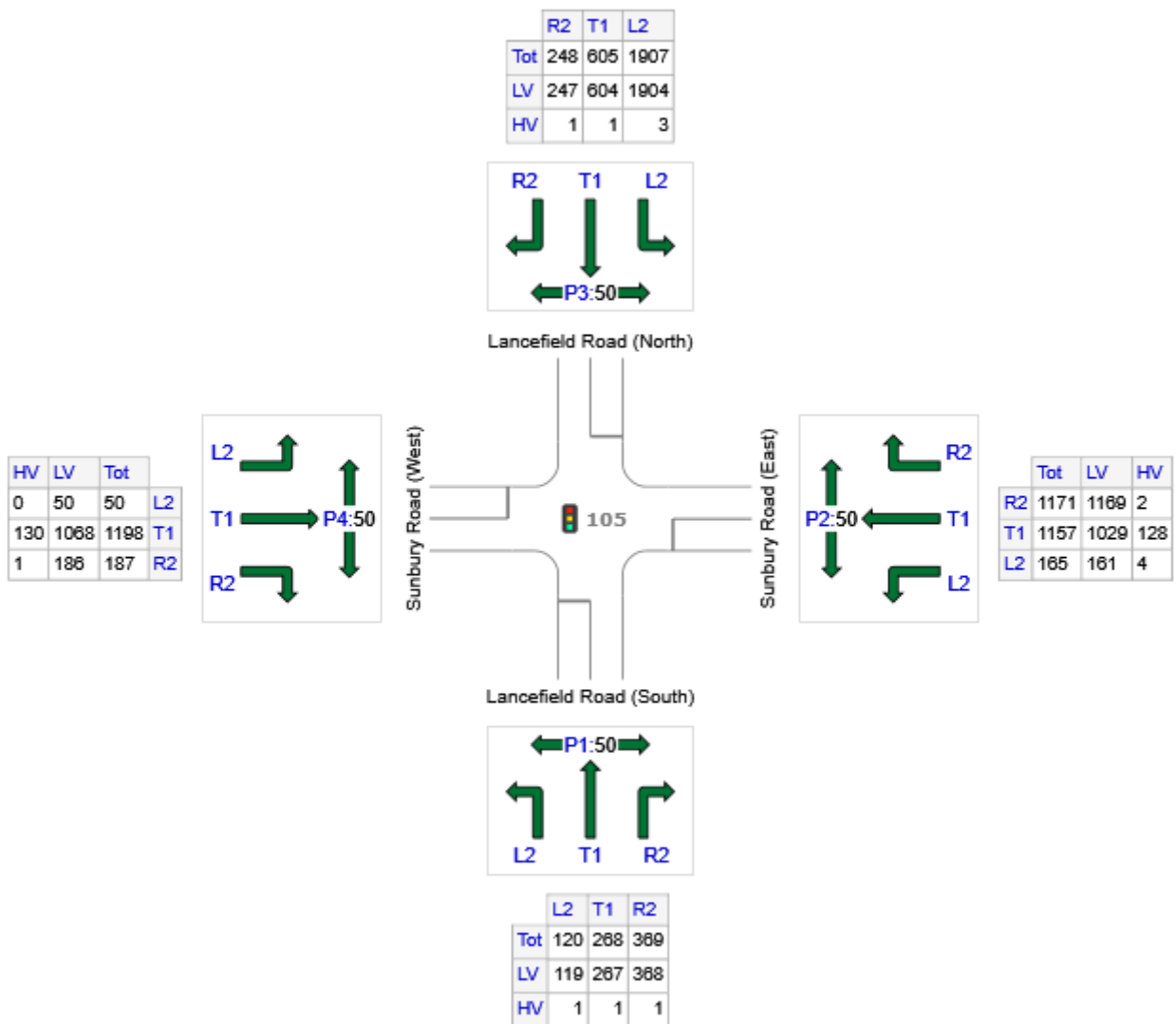
(* Variable Phase)

Site Layout



Input Volumes

Volume Display Method: Separate



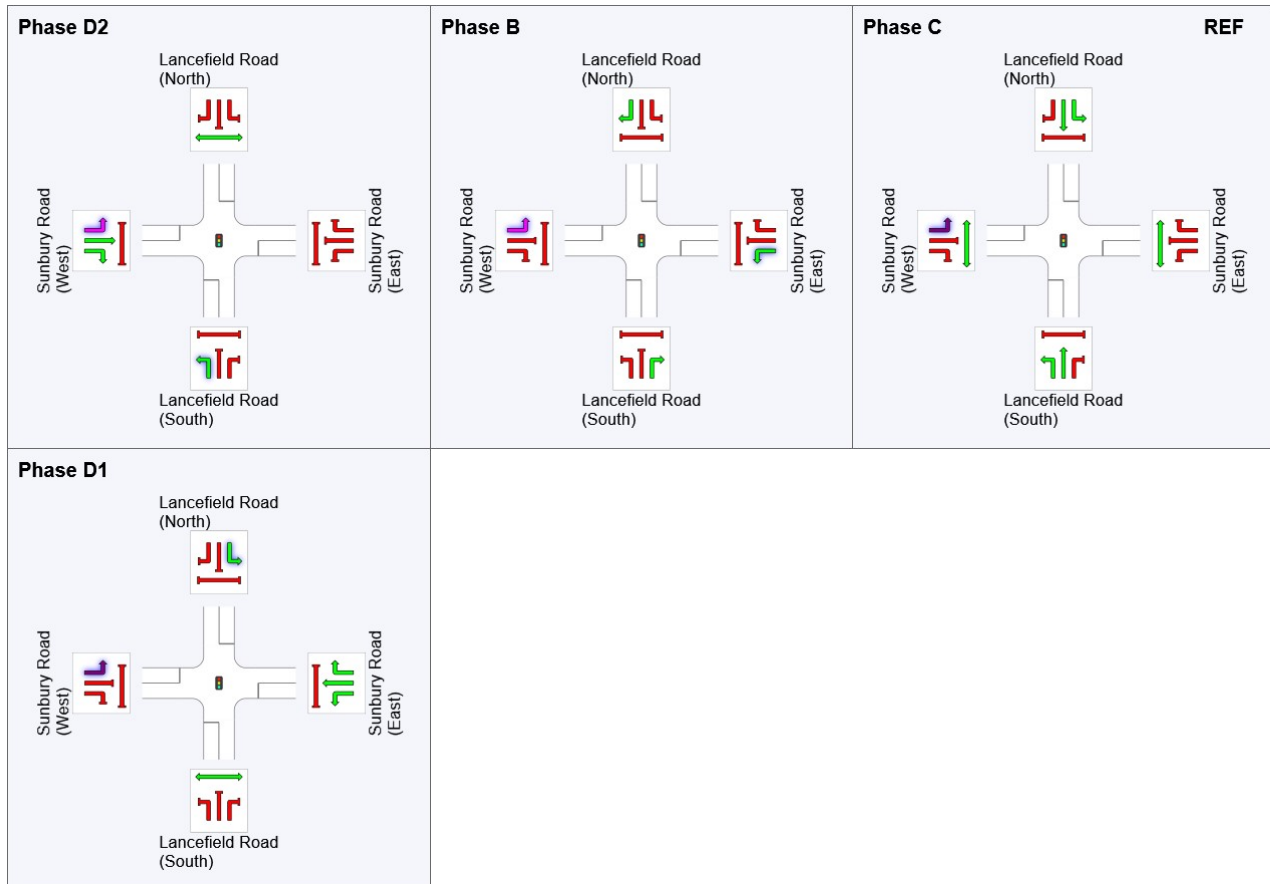
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	757	754	3
E: Sunbury Road (East)	2493	2359	134
N: Lancefield Road (North)	2760	2755	5
W: Sunbury Road (West)	1435	1304	131
Total	7445	7172	273

Phase Timing Summary

Phase	D2	B	C	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%

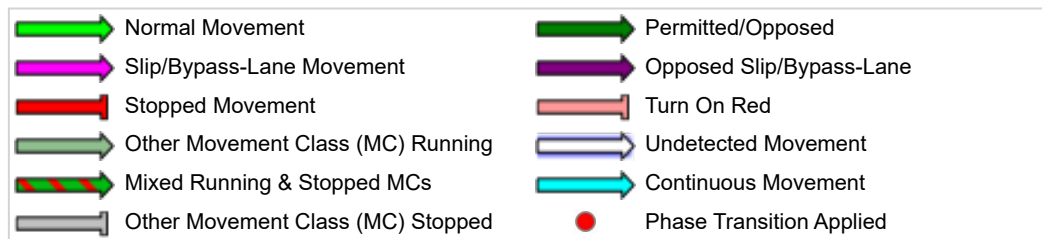
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



Lane Use and Performance													
	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV						Veh	Dist				
	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: Lancefield Road (South)													
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: Sunbury 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: Lancefield Road (North)													
Lane 1	800	0.2	652 ¹	1.228	86 ⁶	277.2	LOS F	132.3	927.2	Short	90	0.0	NA
Lane 2	1107	0.2	774 ¹	1.430	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: Sunbury Road (West)													
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	19.9
Lane 4	399	10.9	286	1.395	100	418.8	LOS F	77.1	589.6	Full	500	0.0	19.9
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				
Intersection	7445	3.7		1.430		271.8	LOS F	230.3	1614.4				

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

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]

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

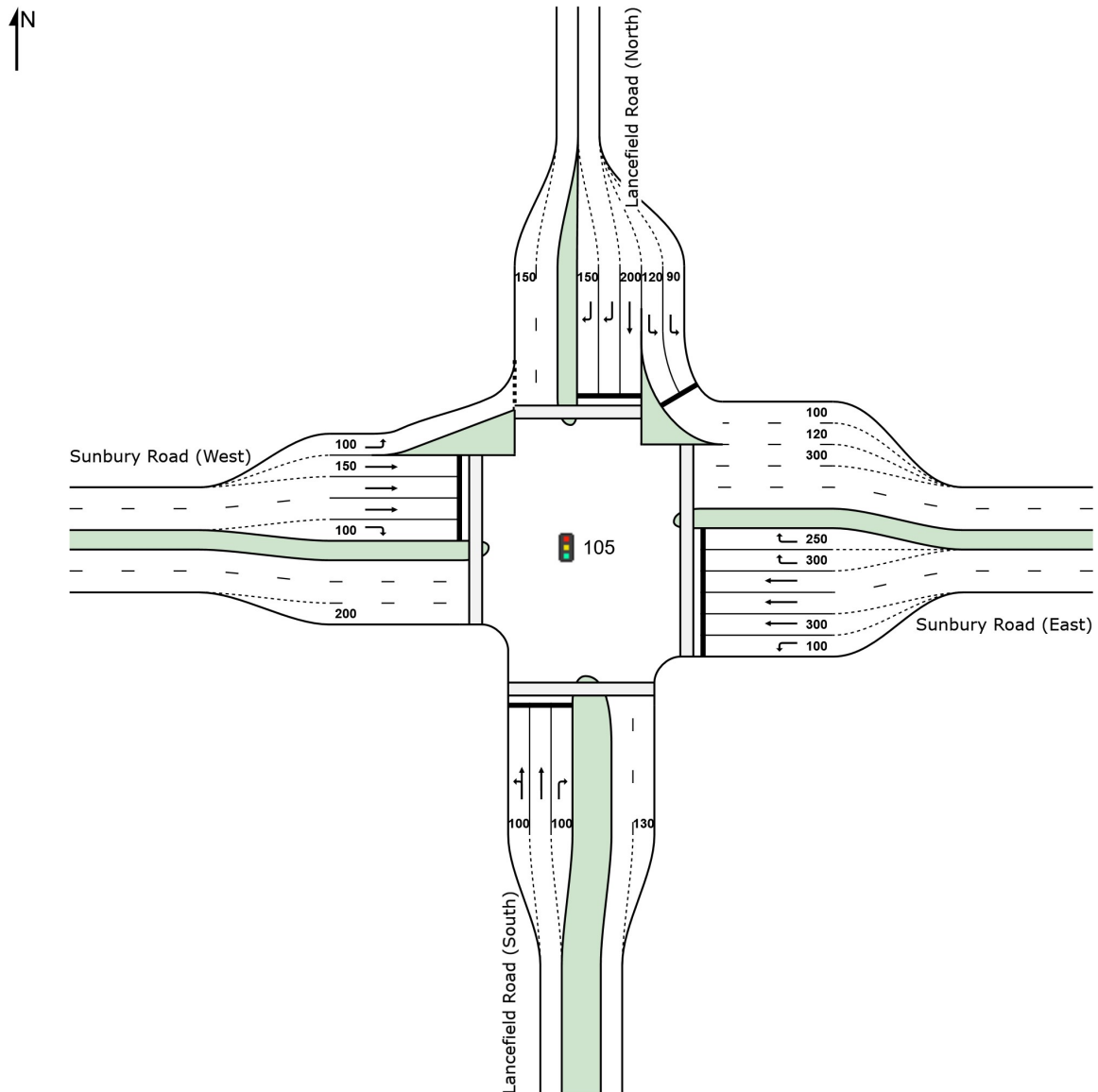
Reference Phase: Phase C

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

Output Phase Sequence: D2, B, C, D1

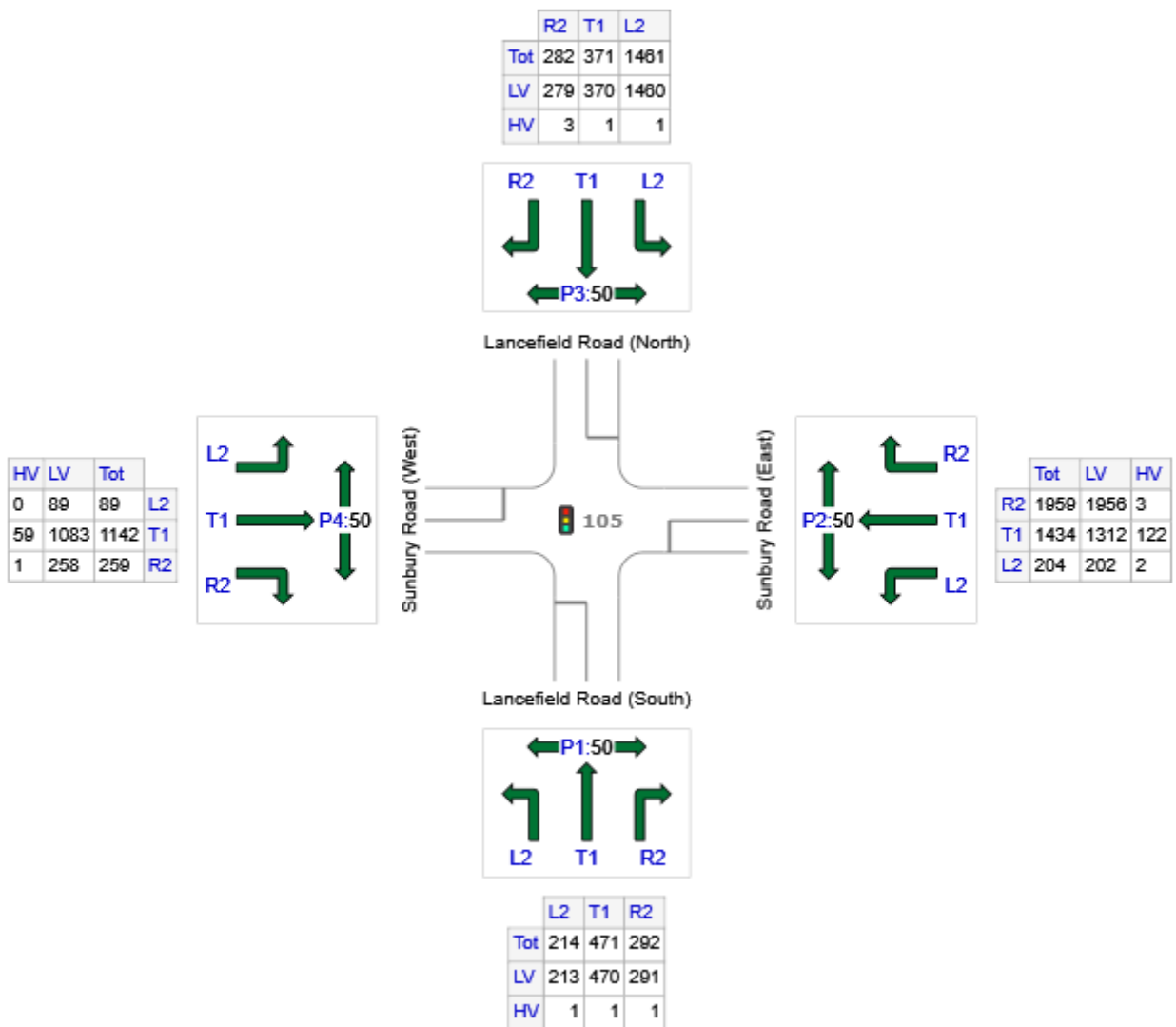
(* Variable Phase)

Site Layout



Input Volumes

Volume Display Method: Separate



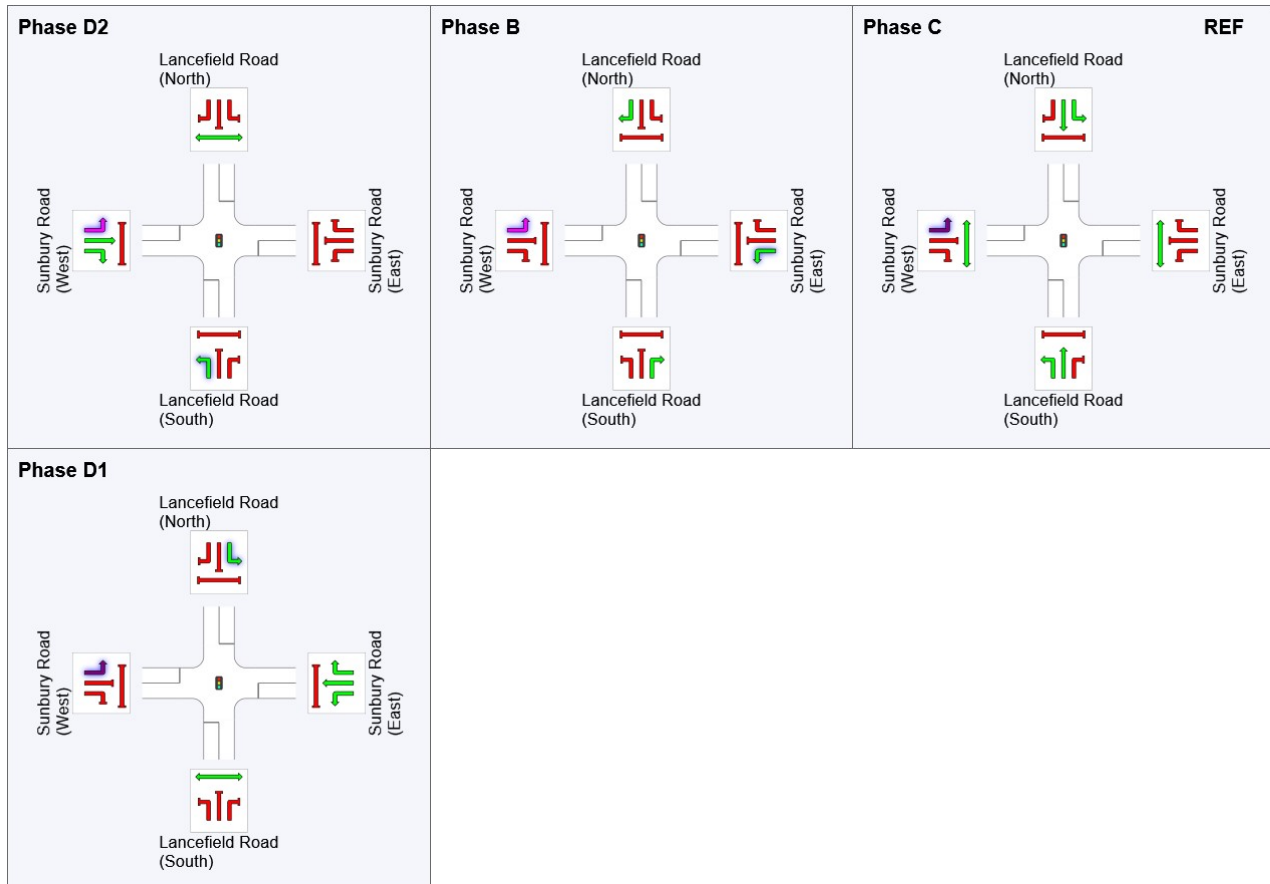
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	977	974	3
E: Sunbury Road (East)	3597	3470	127
N: Lancefield Road (North)	2114	2109	5
W: Sunbury Road (West)	1490	1430	60
Total	8178	7983	195

Phase Timing Summary

Phase	D2	B	C	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%

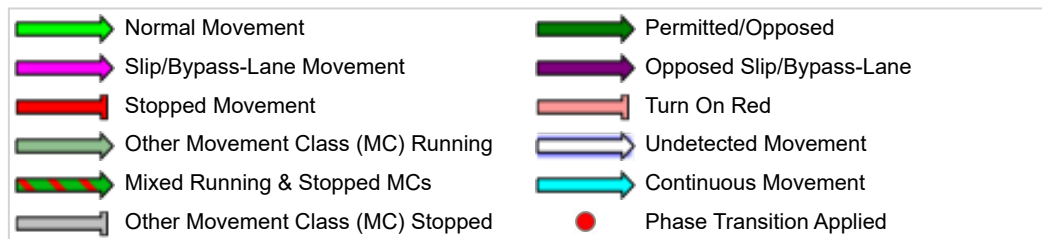
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



Lane Use and Performance													
	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Lancefield Road (South)													
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: Sunbury 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: Lancefield Road (North)													
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: Sunbury 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	25.0 ⁸
Lane 4	381	5.2	243	1.569	100	569.7	LOS F	85.2	623.1	Full	500	0.0	25.0
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				
Intersection	8178	2.4		1.576		238.1	LOS F	223.8	1568.9				

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

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

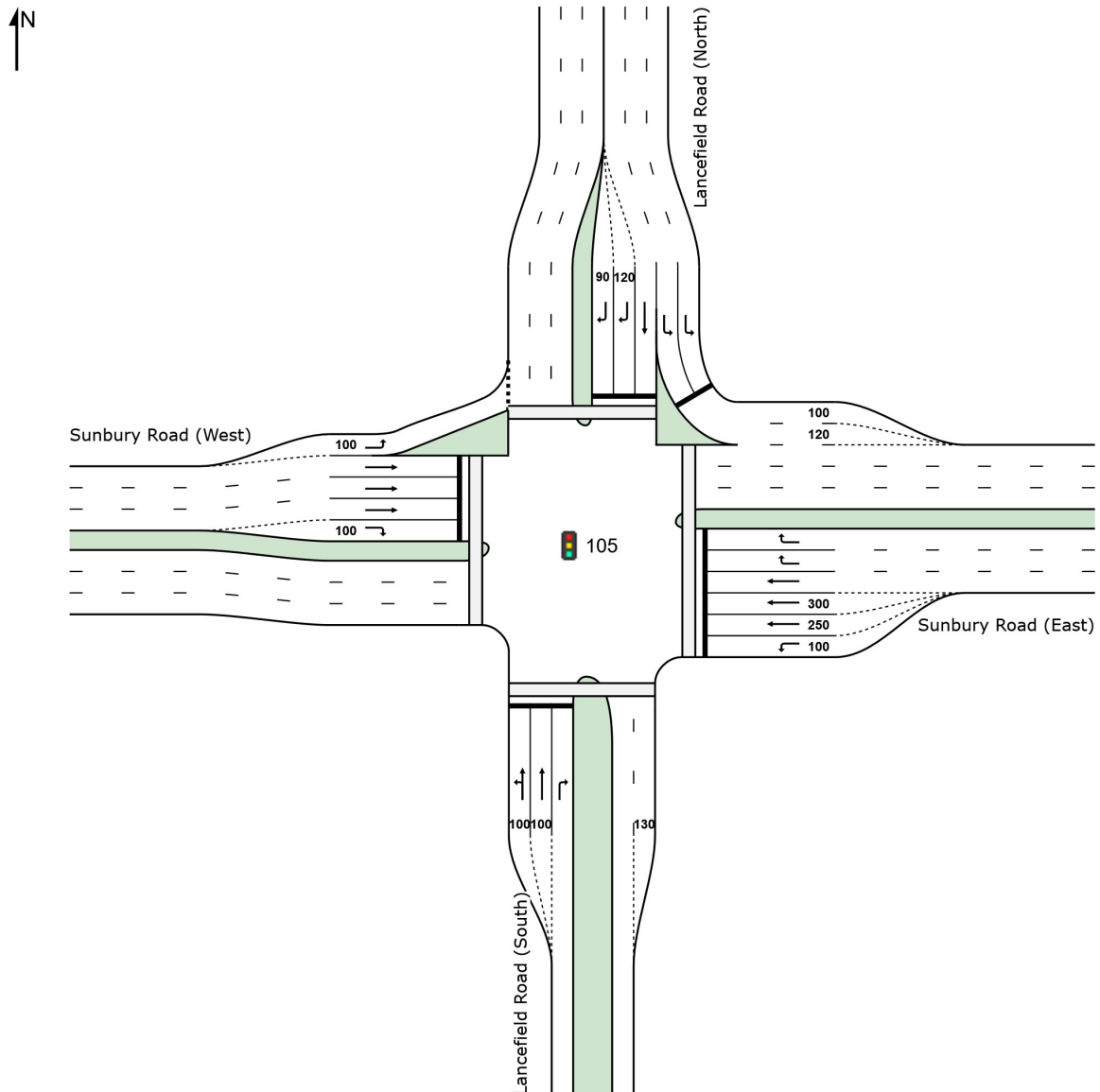
Reference Phase: Phase C

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

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

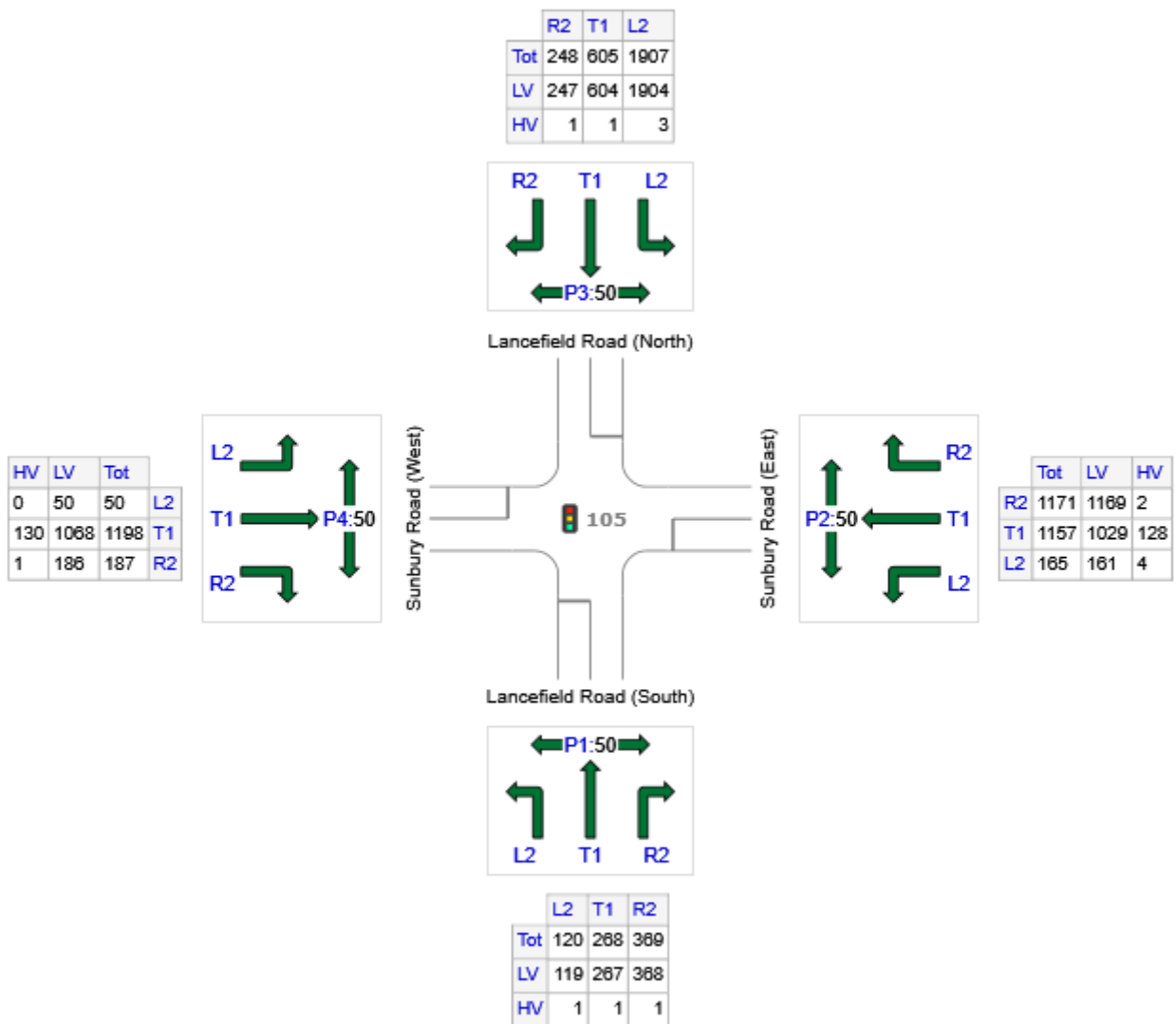
(* Variable Phase)

Site Layout



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

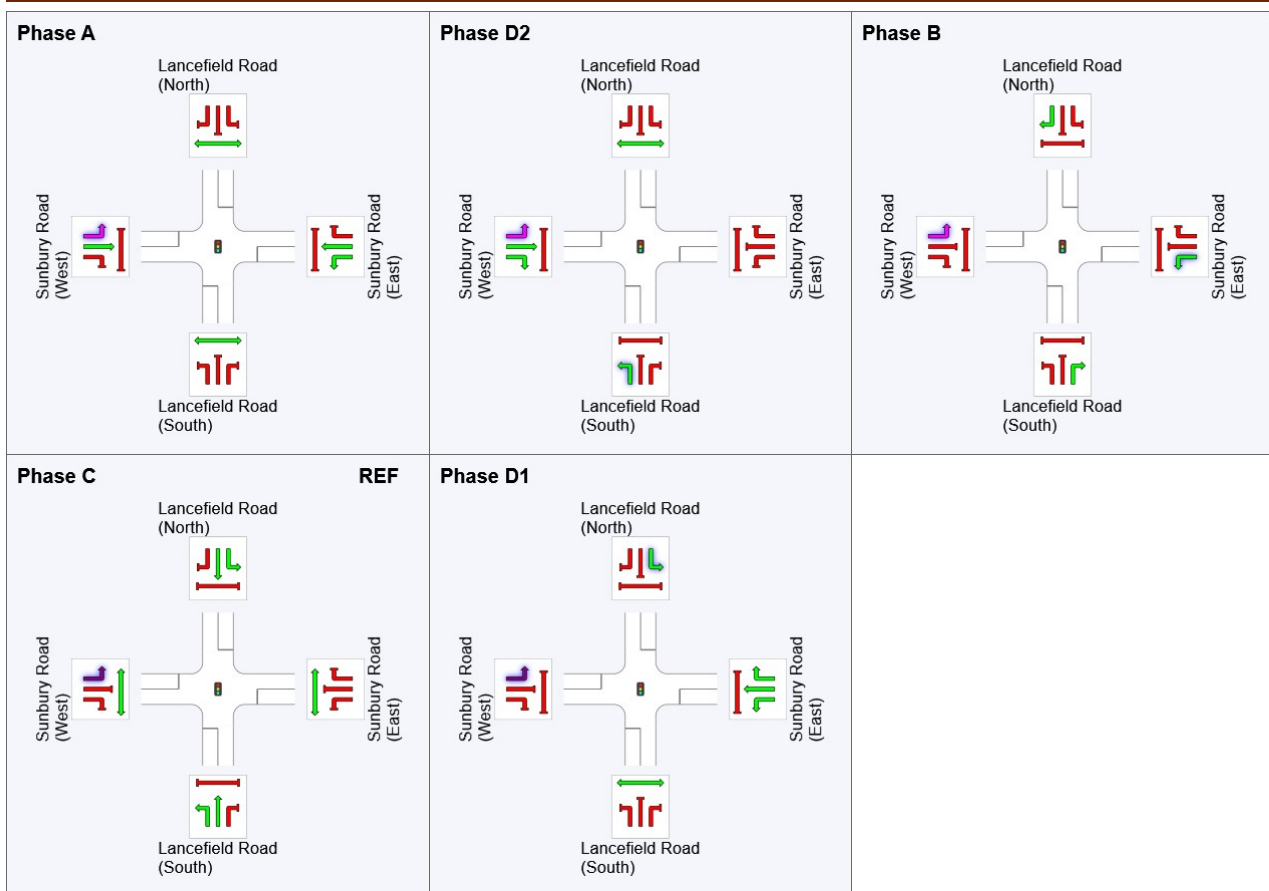
Phase Timing Summary

Phase	A	D2	B	C	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 and Performance													
	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV						Veh	Dist				
	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: Lancefield Road (South)													
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: Sunbury 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	32.9
Lane 6	586	0.2	464	1.263	100	309.5	LOS F	96.9	679.3	Full	500	0.0	32.9
Approach	2493	5.4		1.263		169.5	LOS F	96.9	679.3				
North: Lancefield Road (North)													
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	40.5
Lane 3	605	0.2	479 ¹	1.264	100	304.5	LOS F	100.2	702.1	Full	500	0.0	36.0
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: Sunbury Road (West)													
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	7.3
Lane 3	399	10.9	312	1.279	100	319.4	LOS F	67.1	513.0	Full	500	0.0	7.3
Lane 4	399	10.9	312	1.279	100	319.4	LOS F	67.1	513.0	Full	500	0.0	7.3
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				
Intersection	7445	3.7		1.279		173.5	LOS F	105.2	737.5				

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-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

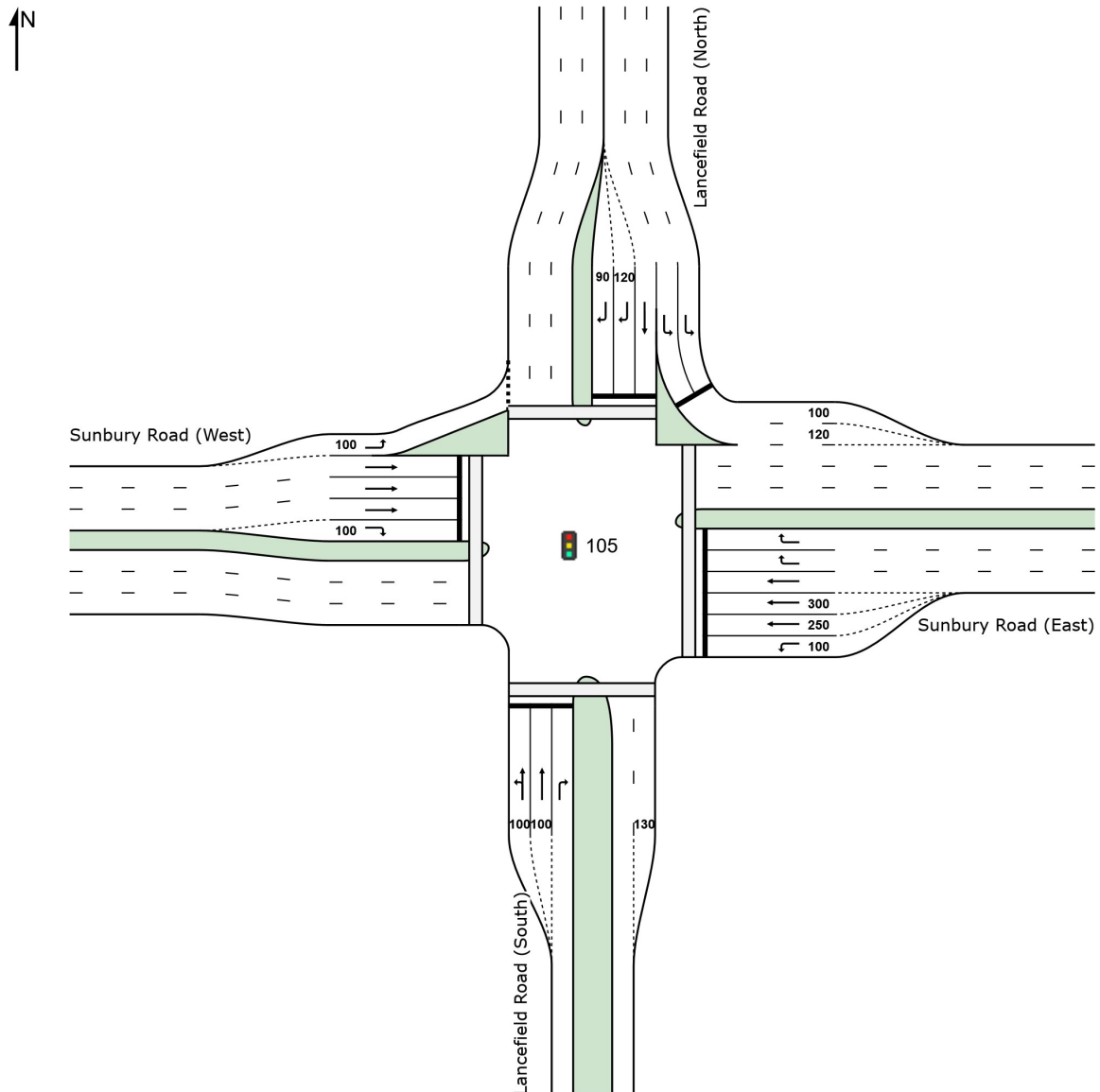
Reference Phase: Phase C

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

Output Phase Sequence: D2, B, B2*, C, D1

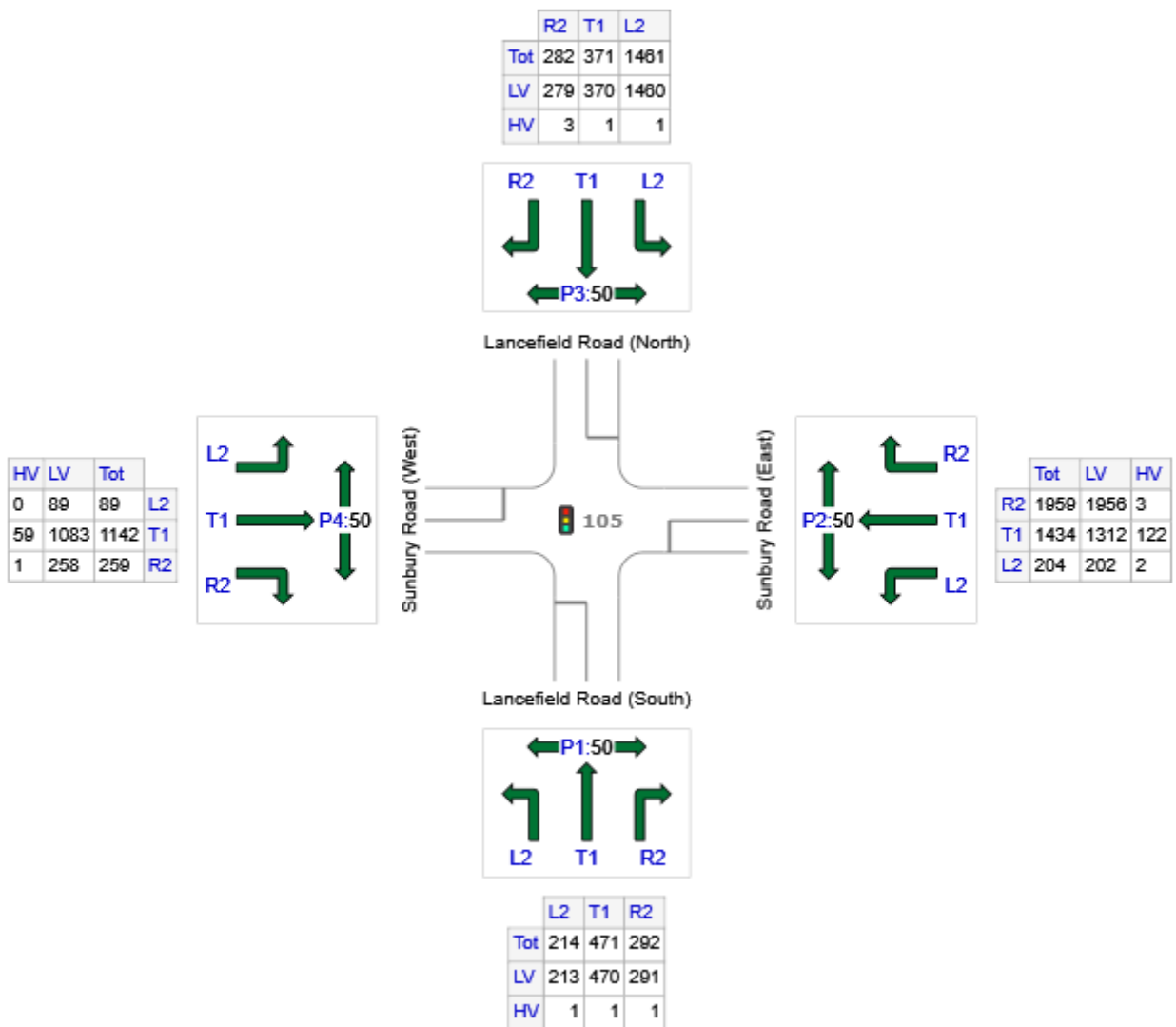
(* Variable Phase)

Site Layout



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

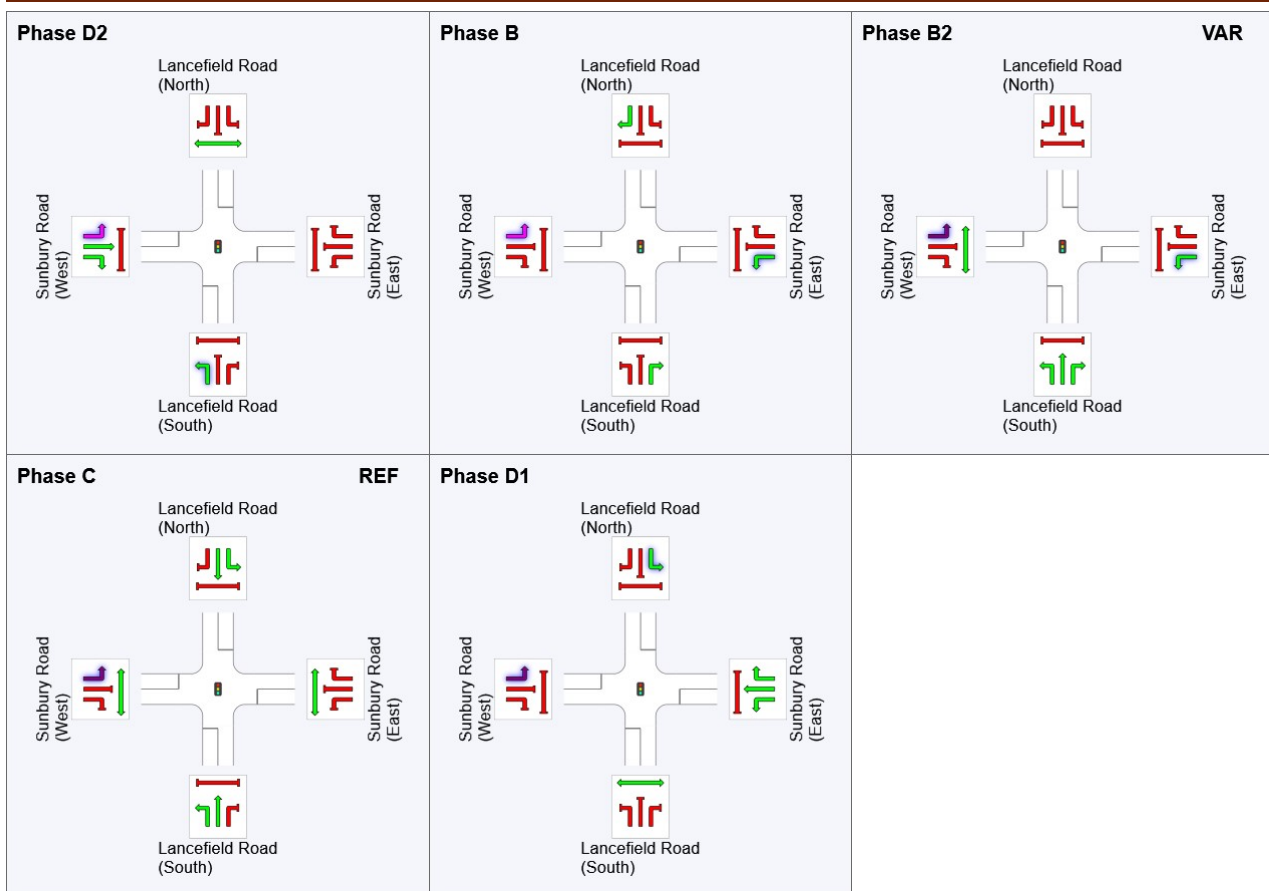
Phase Timing Summary

Phase	D2	B	B2	C	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



REF: Reference Phase

VAR: Variable Phase



Lane Use and Performance													
	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Lancefield Road (South)													
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: Sunbury 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: Lancefield Road (North)													
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: Sunbury Road (West)													
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	12.9
Lane 3	381	5.2	270	1.412	100	433.5	LOS F	74.6	545.5	Full	500	0.0	12.9
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				
Intersection	8178	2.4		1.509		228.6	LOS F	213.0	1493.2				

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 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

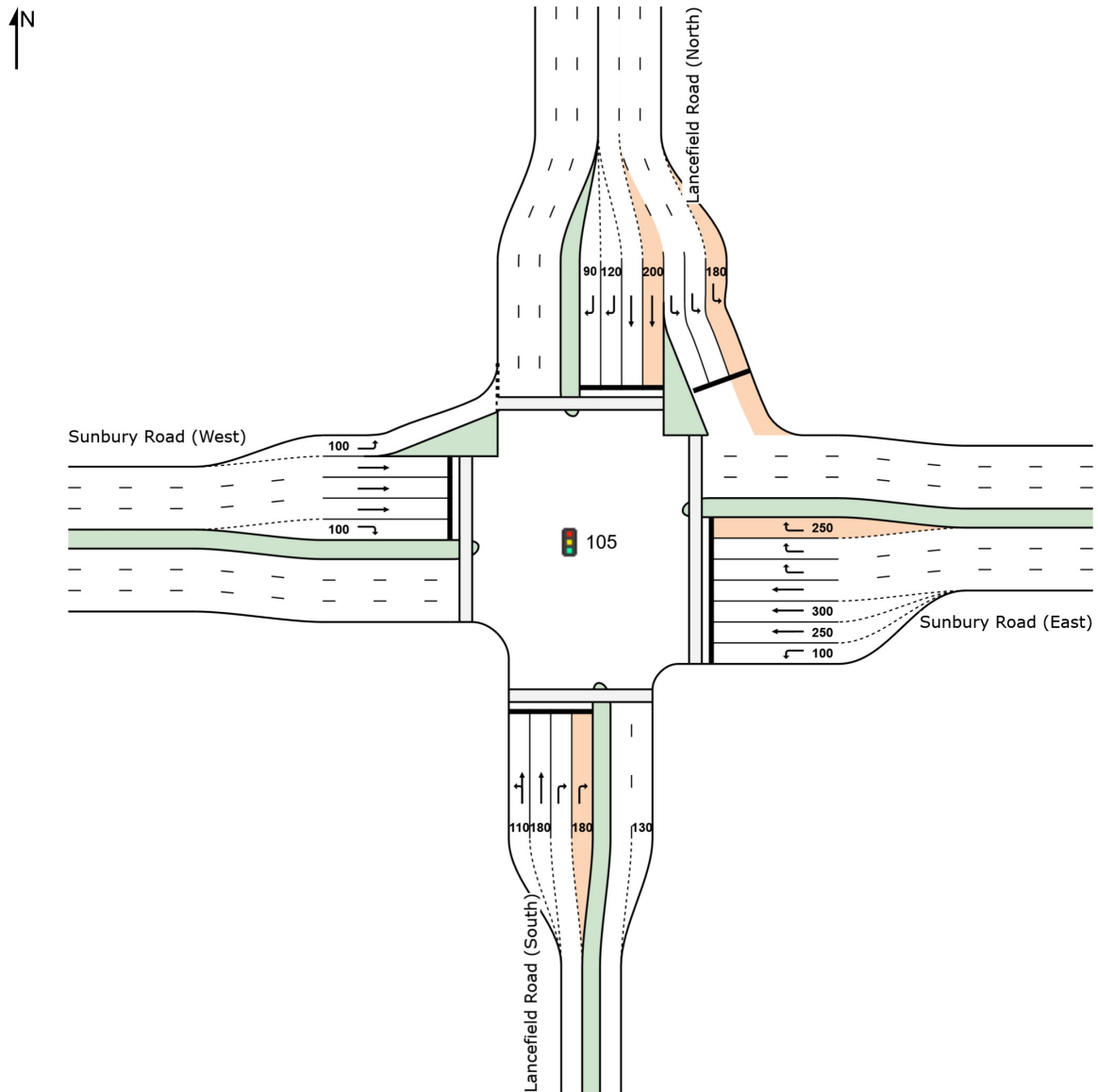
Reference Phase: Phase C

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

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

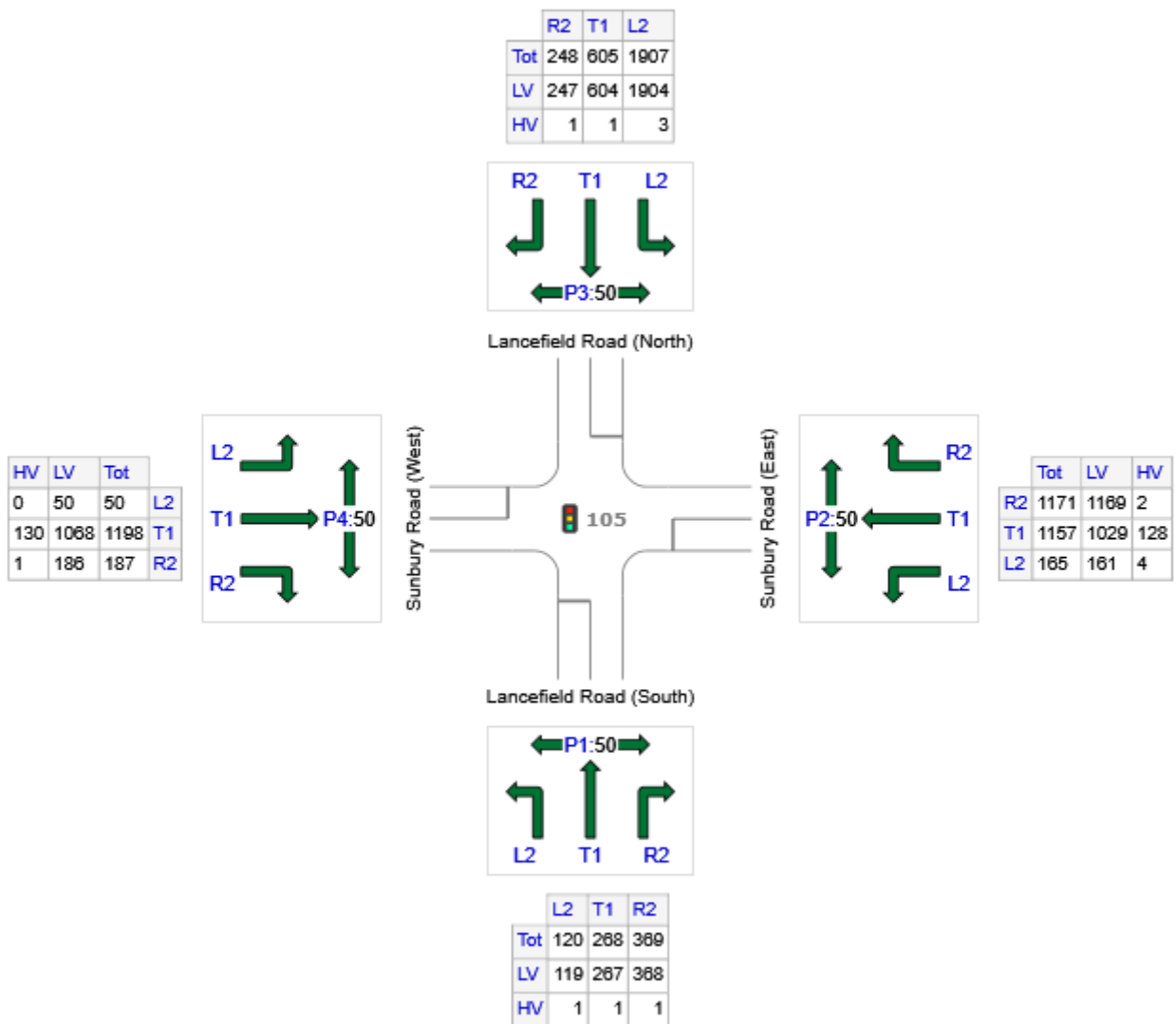
(* Variable Phase)

Site Layout



Input Volumes

Volume Display Method: Separate



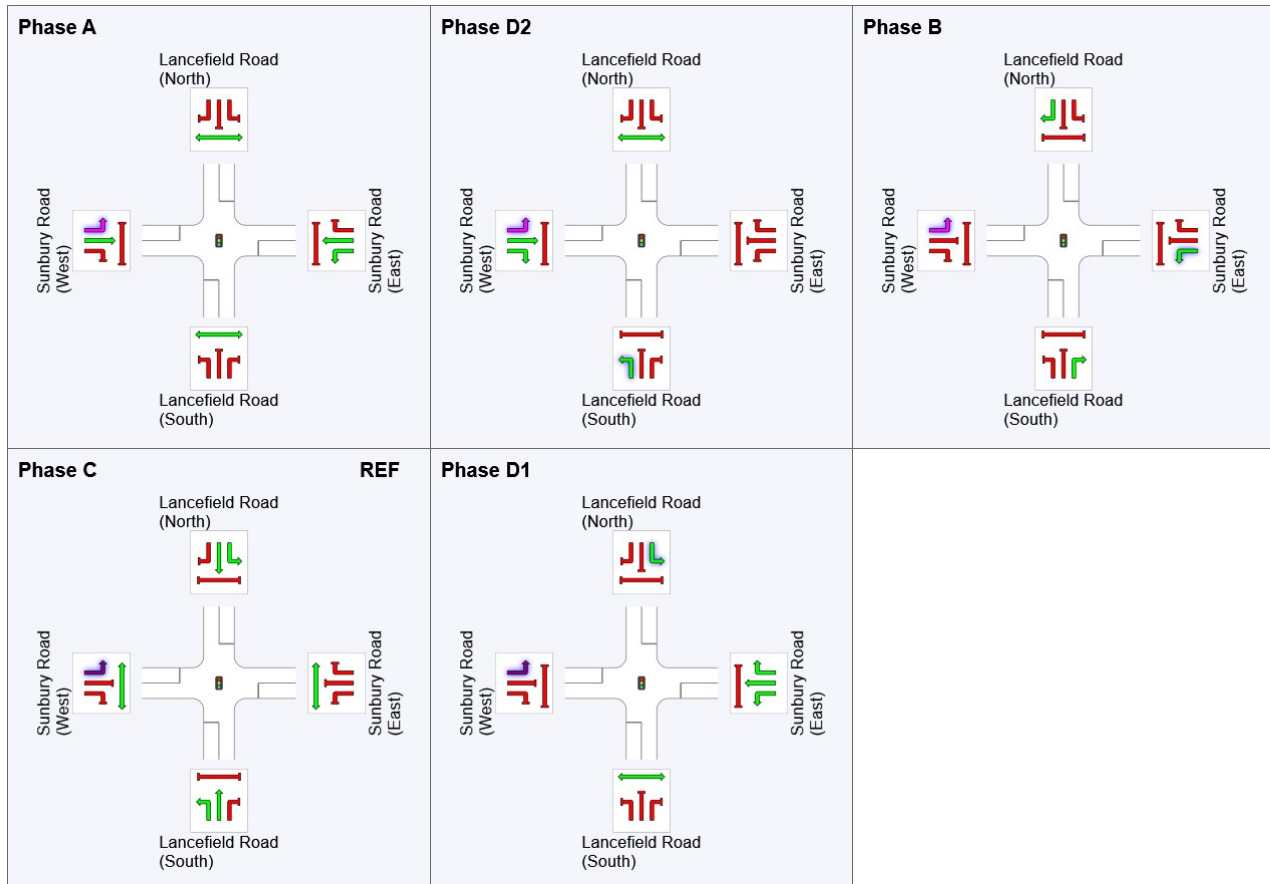
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	757	754	3
E: Sunbury Road (East)	2493	2359	134
N: Lancefield Road (North)	2760	2755	5
W: Sunbury Road (West)	1435	1304	131
Total	7445	7172	273

Phase Timing Summary

Phase	A	D2	B	C	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%

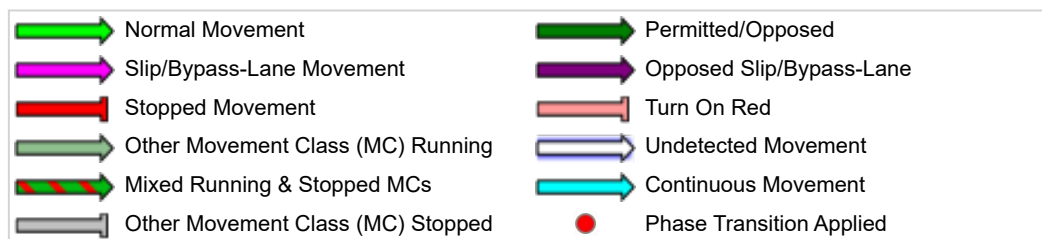
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



Lane Use and Performance													
	Demand Total	Flows HV	Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	veh/h	%	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Lancefield Road (South)													
Lane 1	200	0.6	442	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: Sunbury 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: Lancefield Road (North)													
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: Sunbury 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				
Intersection	7445	3.7		0.875		52.0	LOS D	32.5	229.7				

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-PM 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

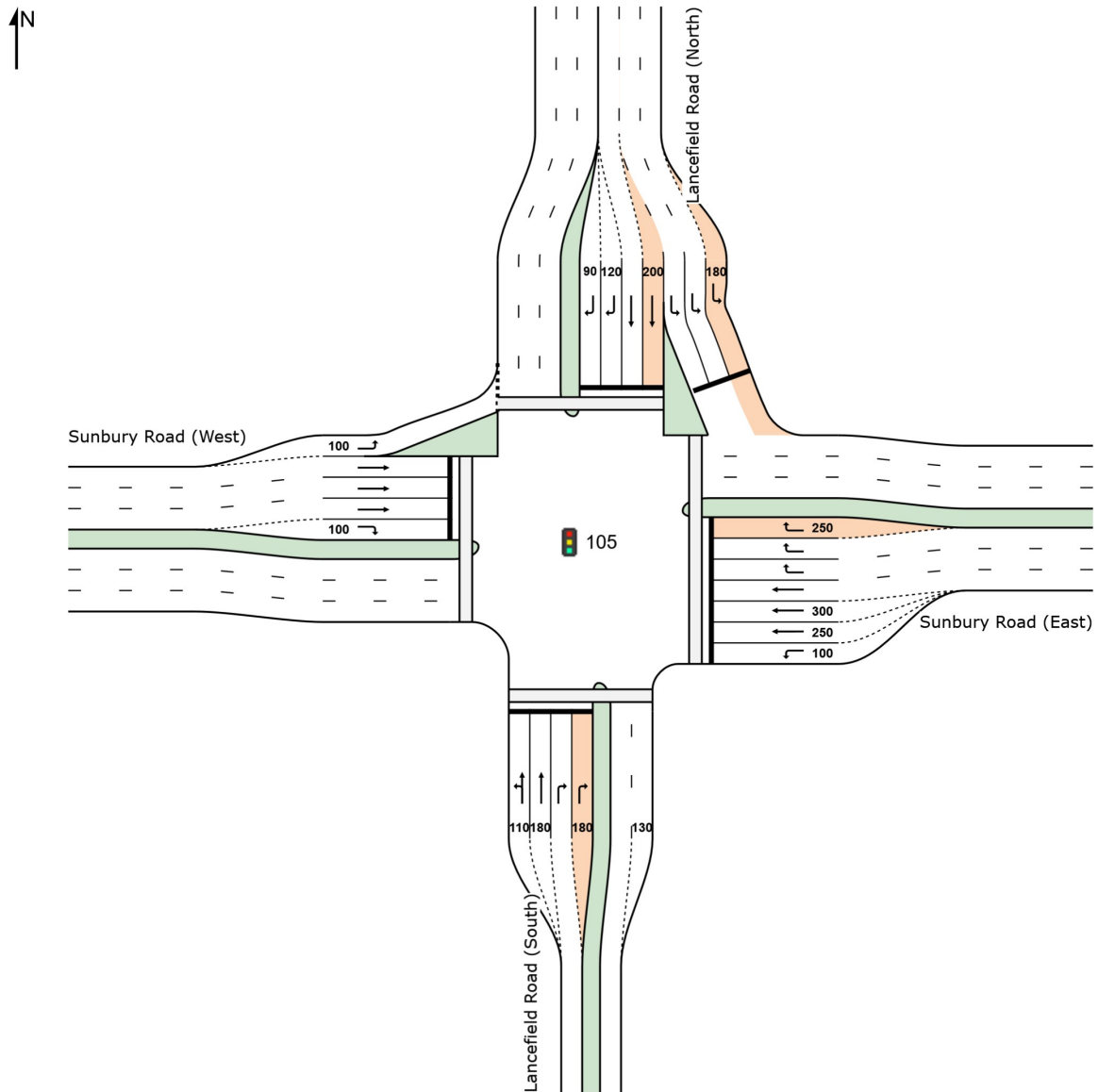
Reference Phase: Phase C

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

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

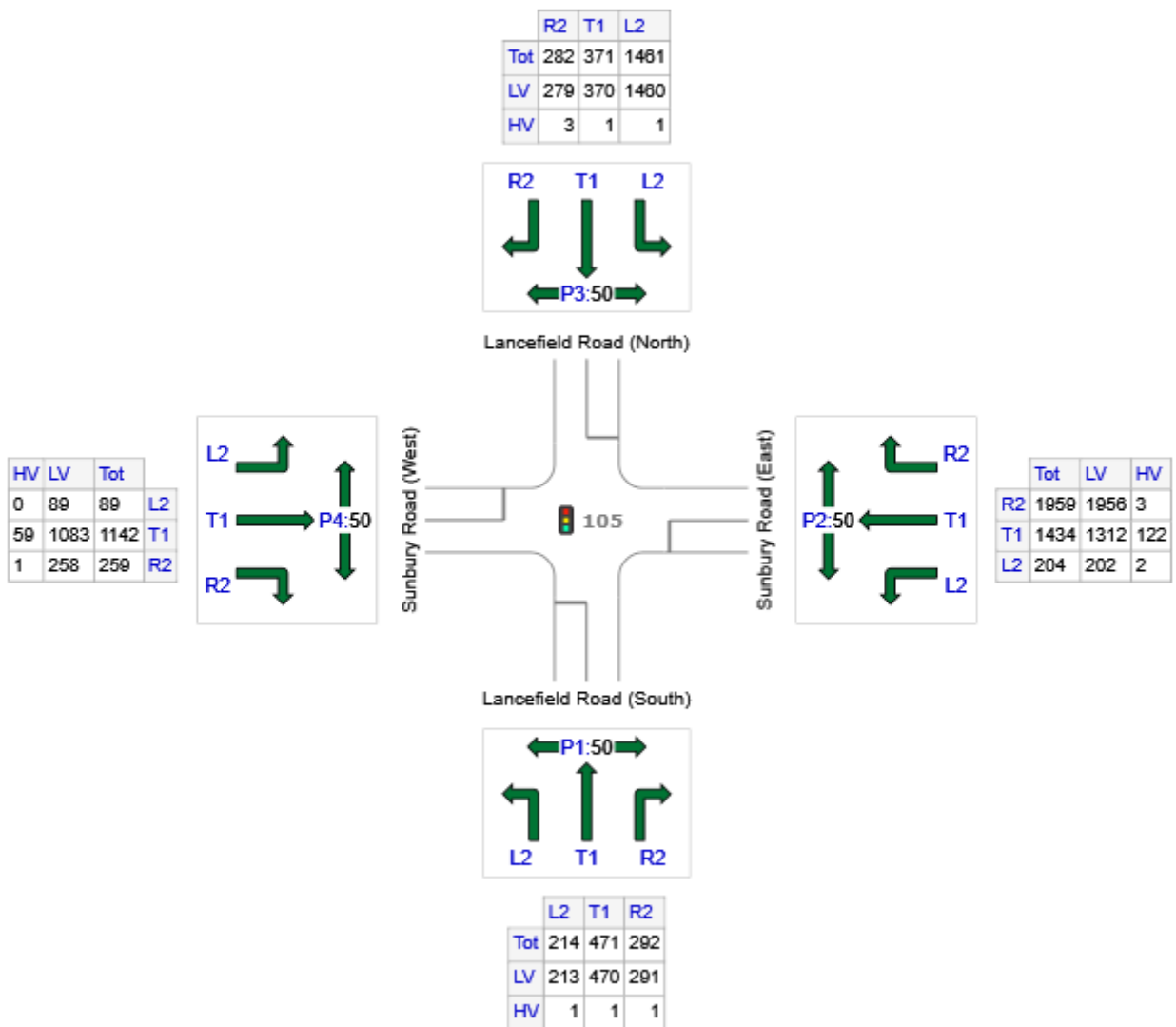
(* Variable Phase)

Site Layout



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

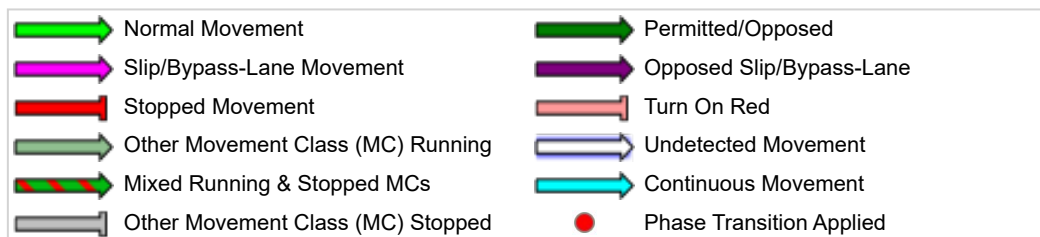
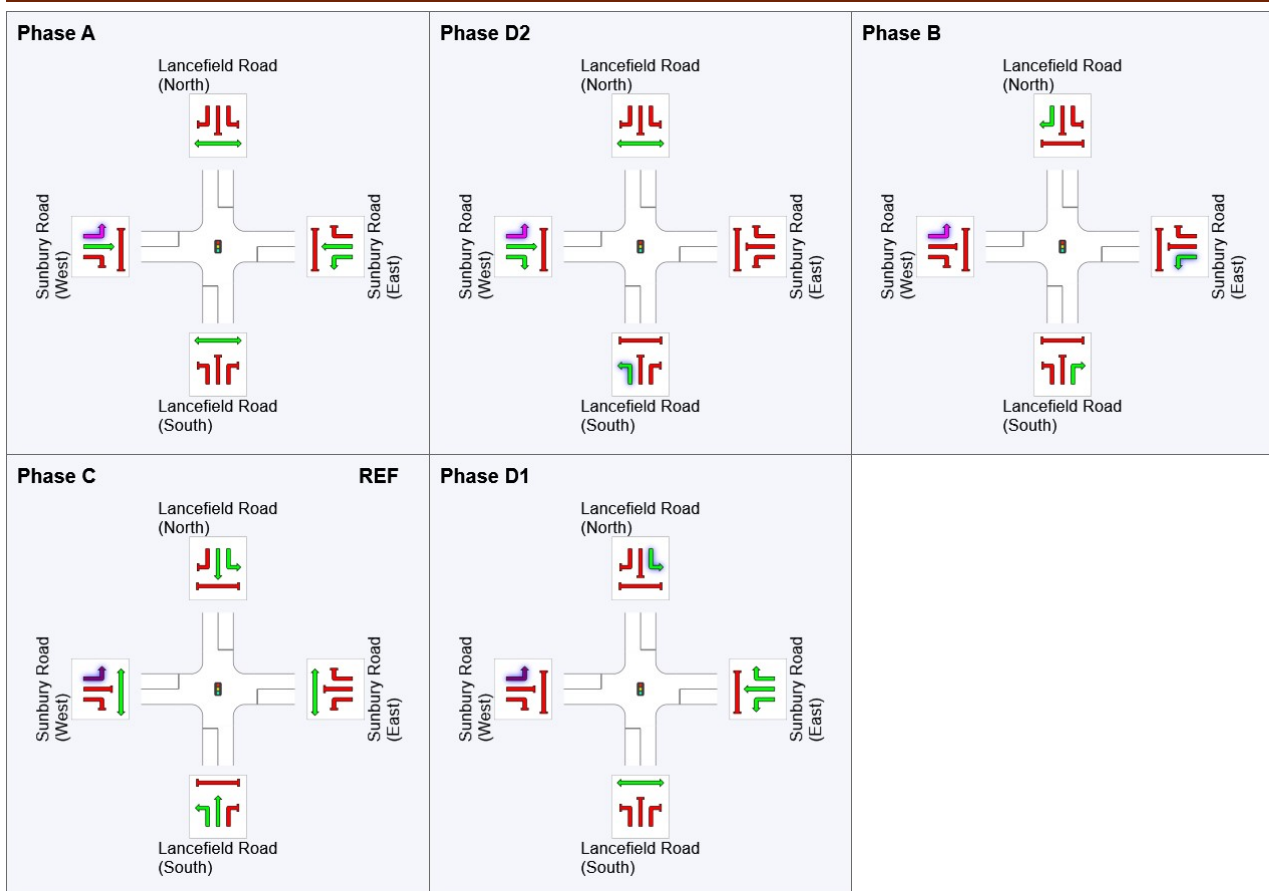
Phase Timing Summary

Phase	A	D2	B	C	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



Lane Use and Performance													
	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV						Veh	Dist				
	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: Lancefield Road (South)													
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: Sunbury 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	5.7 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: Lancefield Road (North)													
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: Sunbury 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				
Intersection	8178	2.4		1.049		78.9	LOS E	71.9	503.6				

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

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

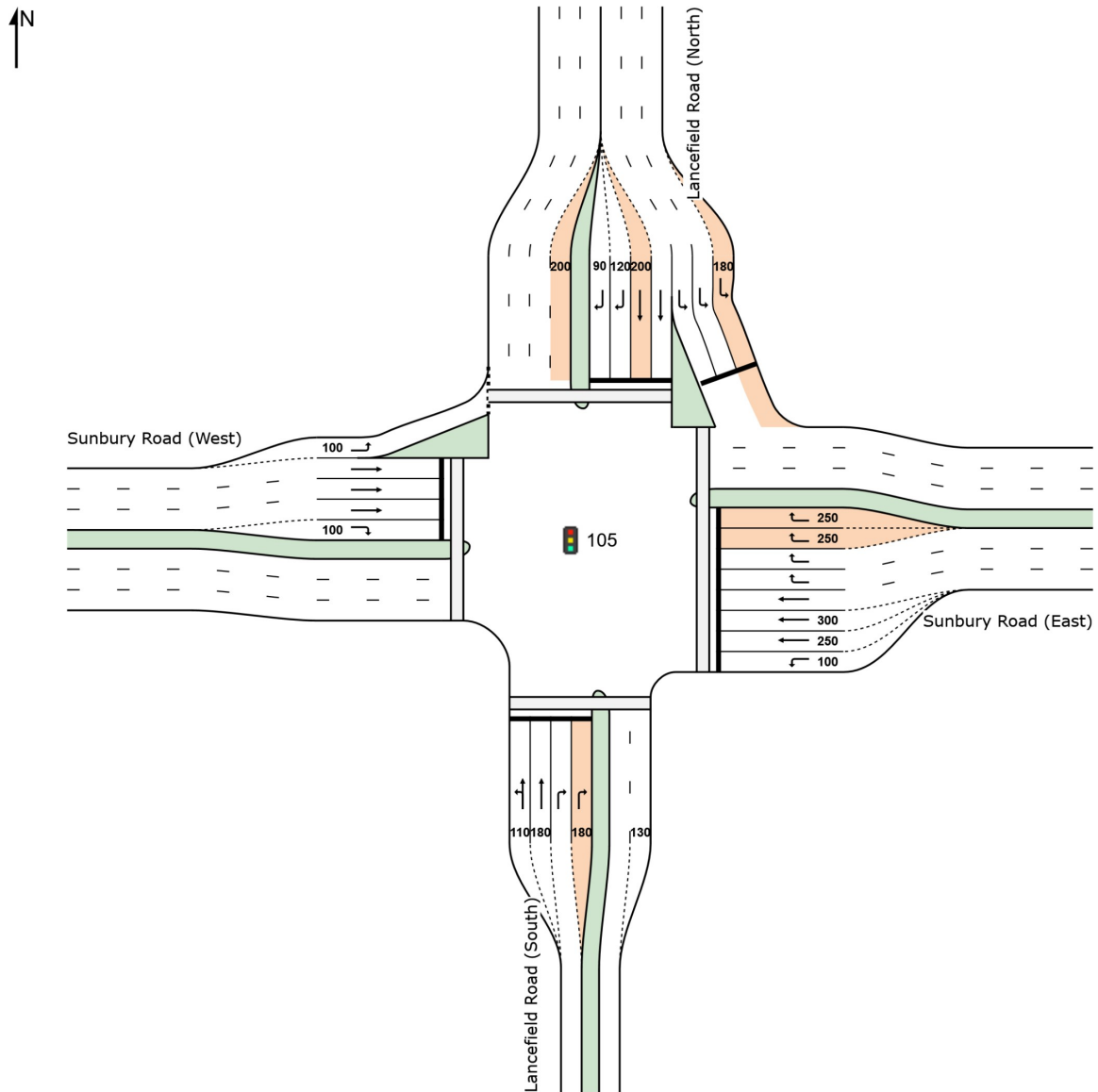
Reference Phase: Phase C

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

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

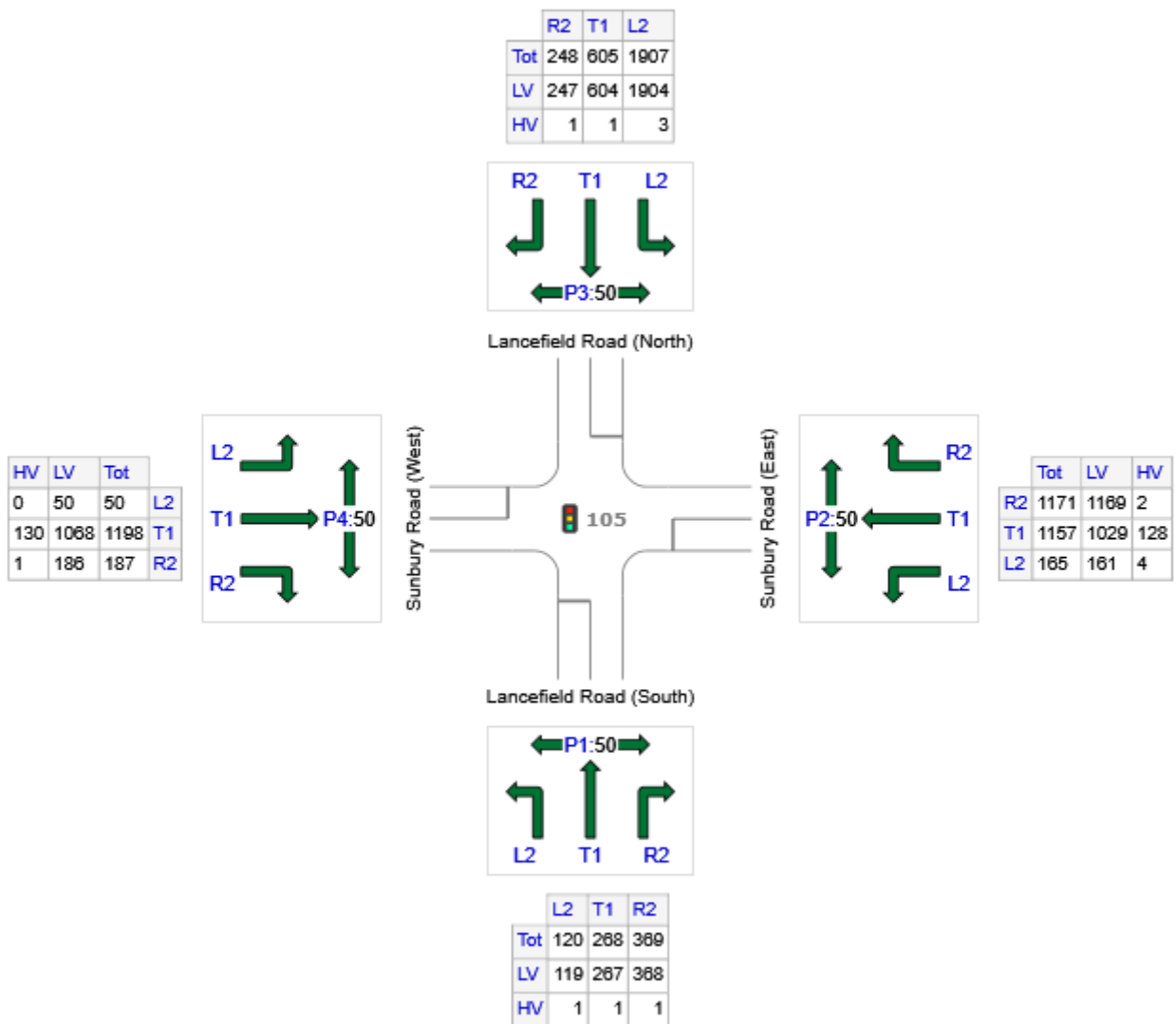
(* Variable Phase)

Site Layout



Input Volumes

Volume Display Method: Separate



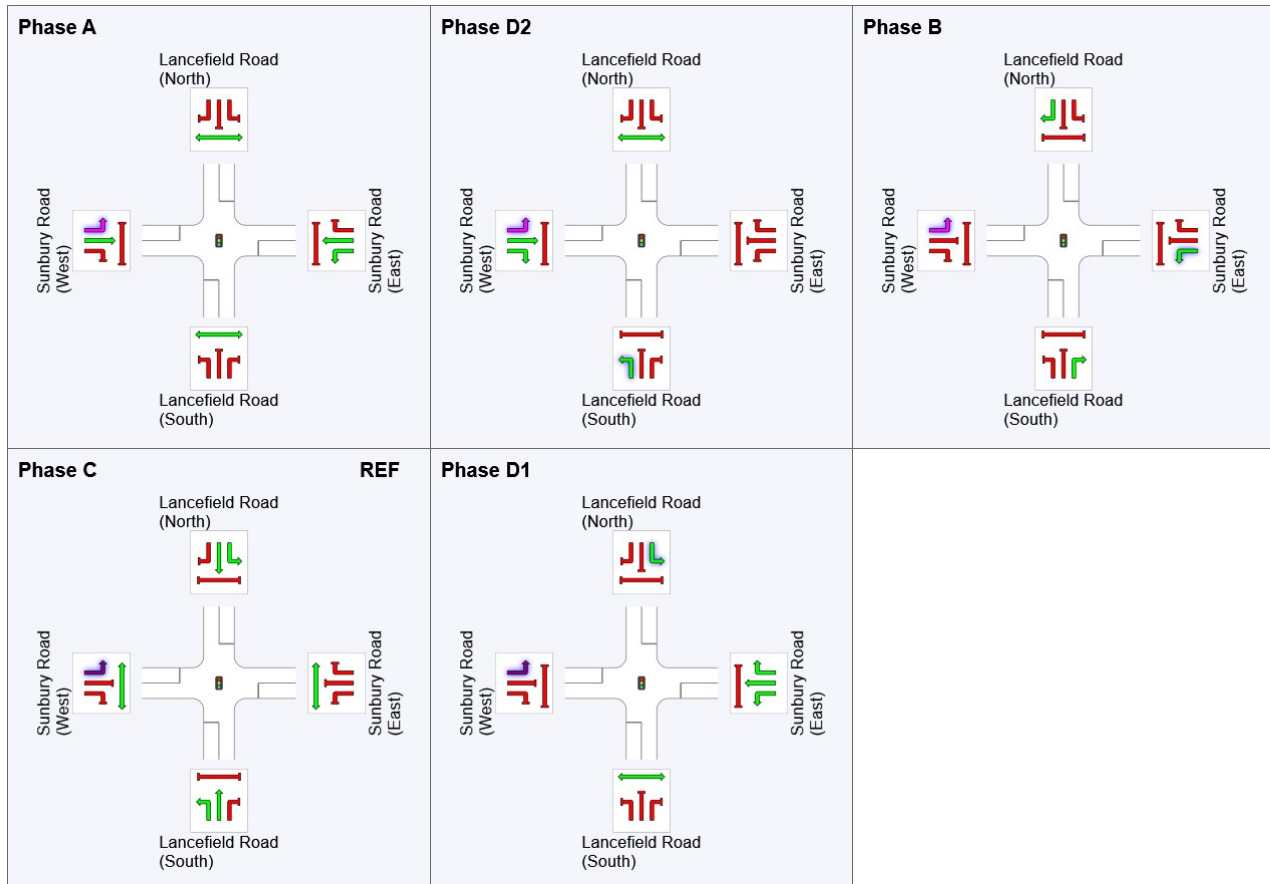
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	757	754	3
E: Sunbury Road (East)	2493	2359	134
N: Lancefield Road (North)	2760	2755	5
W: Sunbury Road (West)	1435	1304	131
Total	7445	7172	273

Phase Timing Summary

Phase	A	D2	B	C	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%

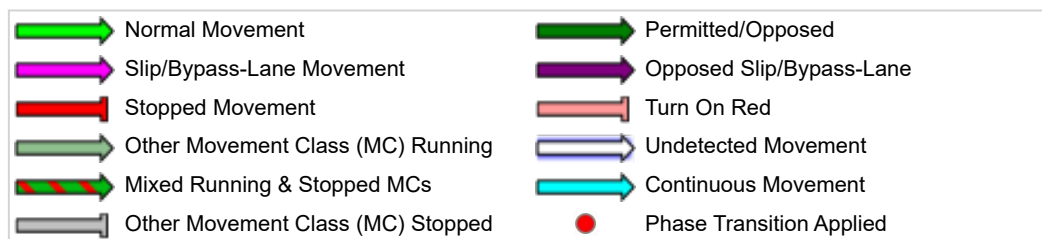
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



Lane Use and Performance													
	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV						Veh	Dist				
	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: 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				
Intersection	7445	3.7		0.877		47.2	LOS D	29.0	203.0				

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 2a- GTA - East approach RT]

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

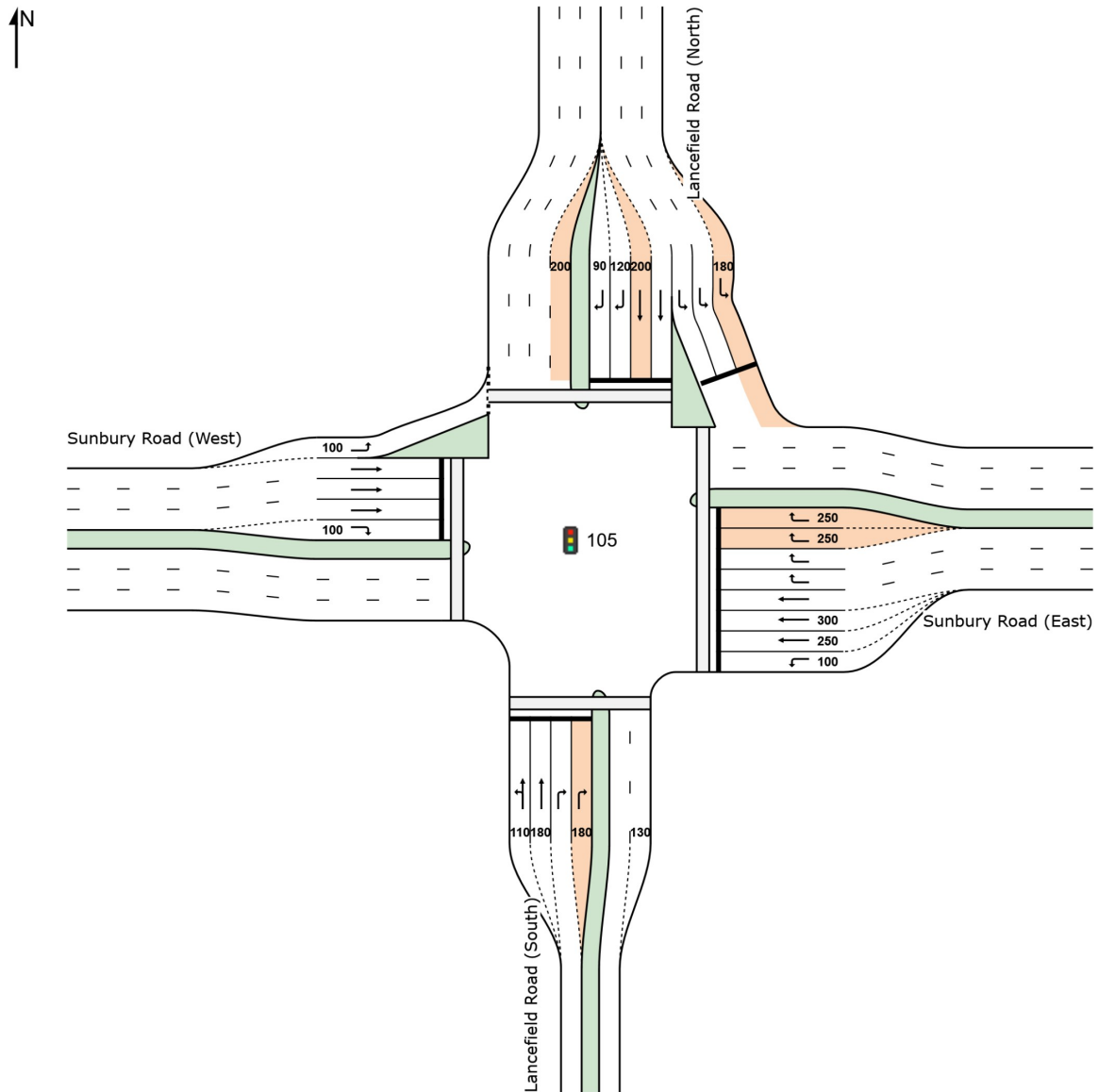
Reference Phase: Phase C

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

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

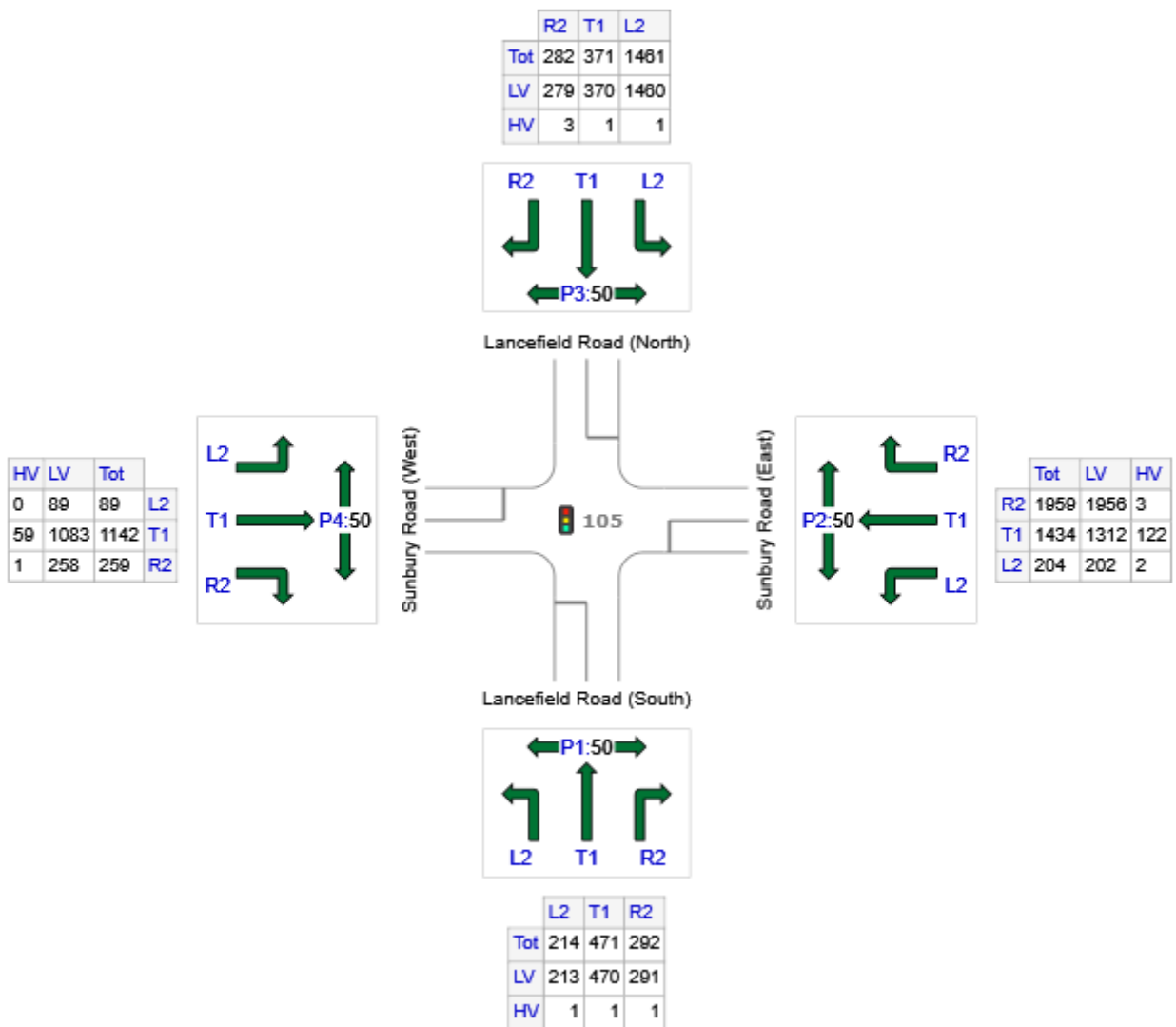
(* Variable Phase)

Site Layout



Input Volumes

Volume Display Method: Separate



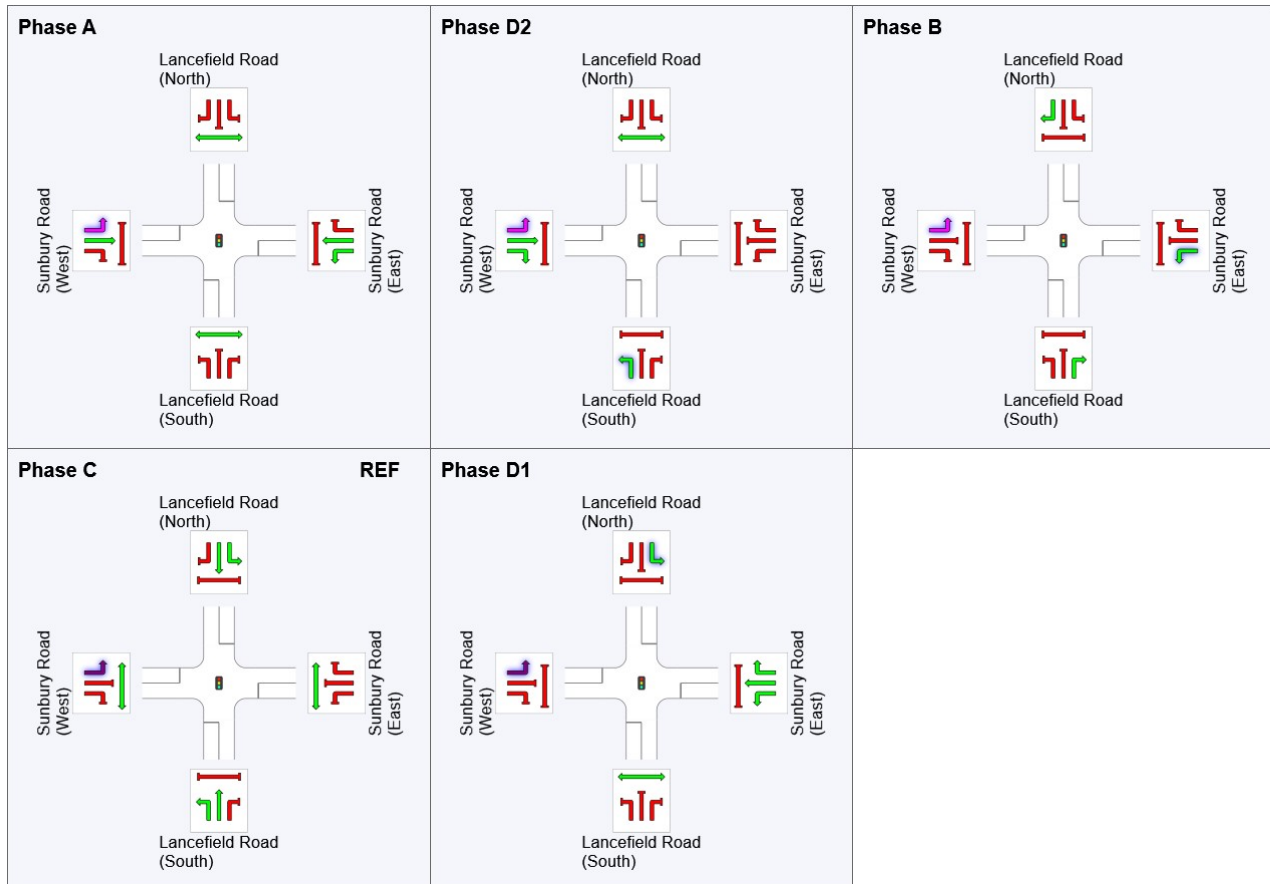
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	977	974	3
E: Sunbury Road (East)	3597	3470	127
N: Lancefield Road (North)	2114	2109	5
W: Sunbury Road (West)	1490	1430	60
Total	8178	7983	195

Phase Timing Summary

Phase	A	D2	B	C	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



REF: Reference Phase

VAR: Variable Phase



Lane Use and Performance													
	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist m		m	%	%
South: Lancefield Road (South)													
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: Sunbury 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: Lancefield Road (North)													
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: Sunbury Road (West)													
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				
Intersection	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]

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

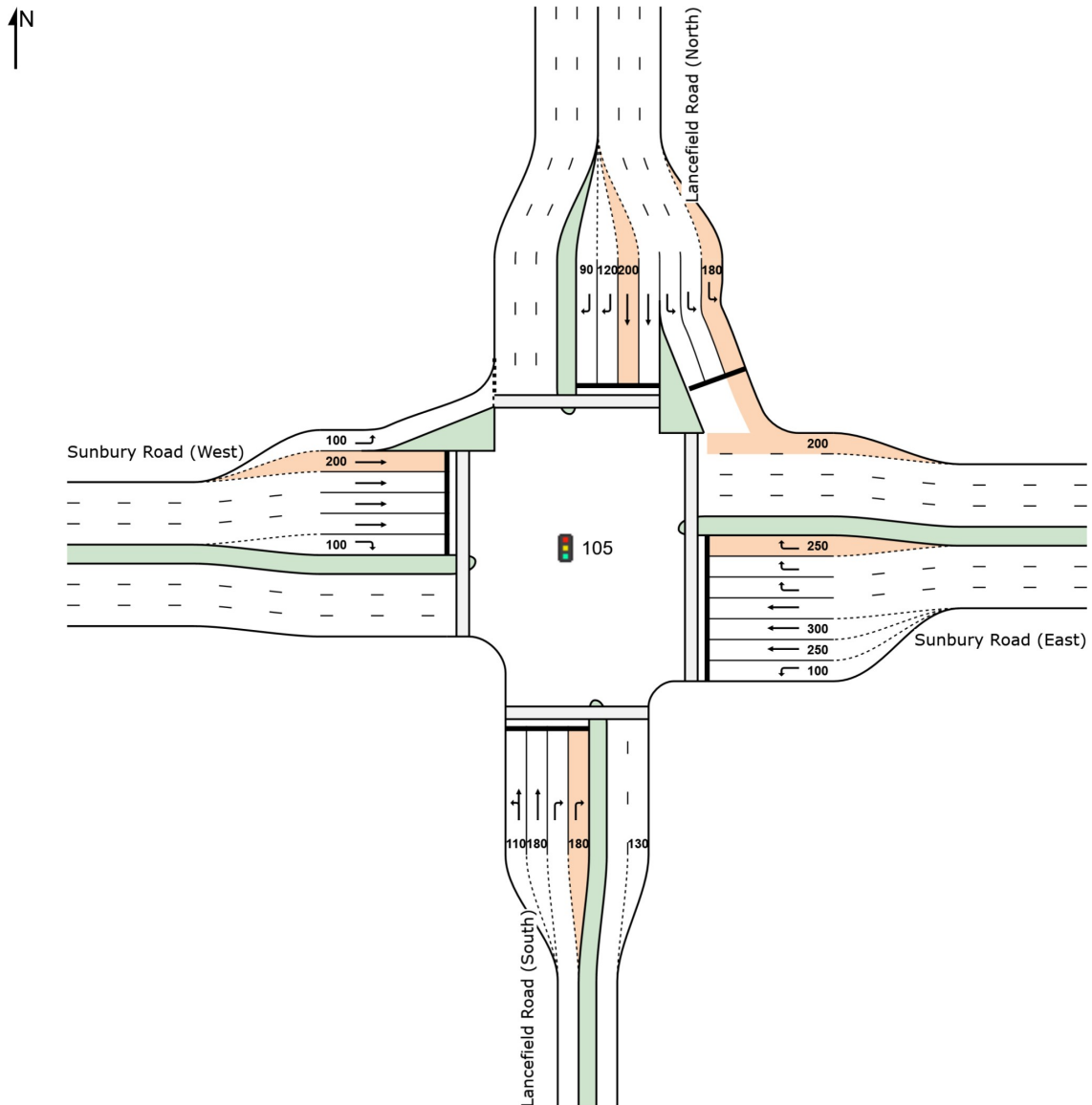
Reference Phase: Phase C

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

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

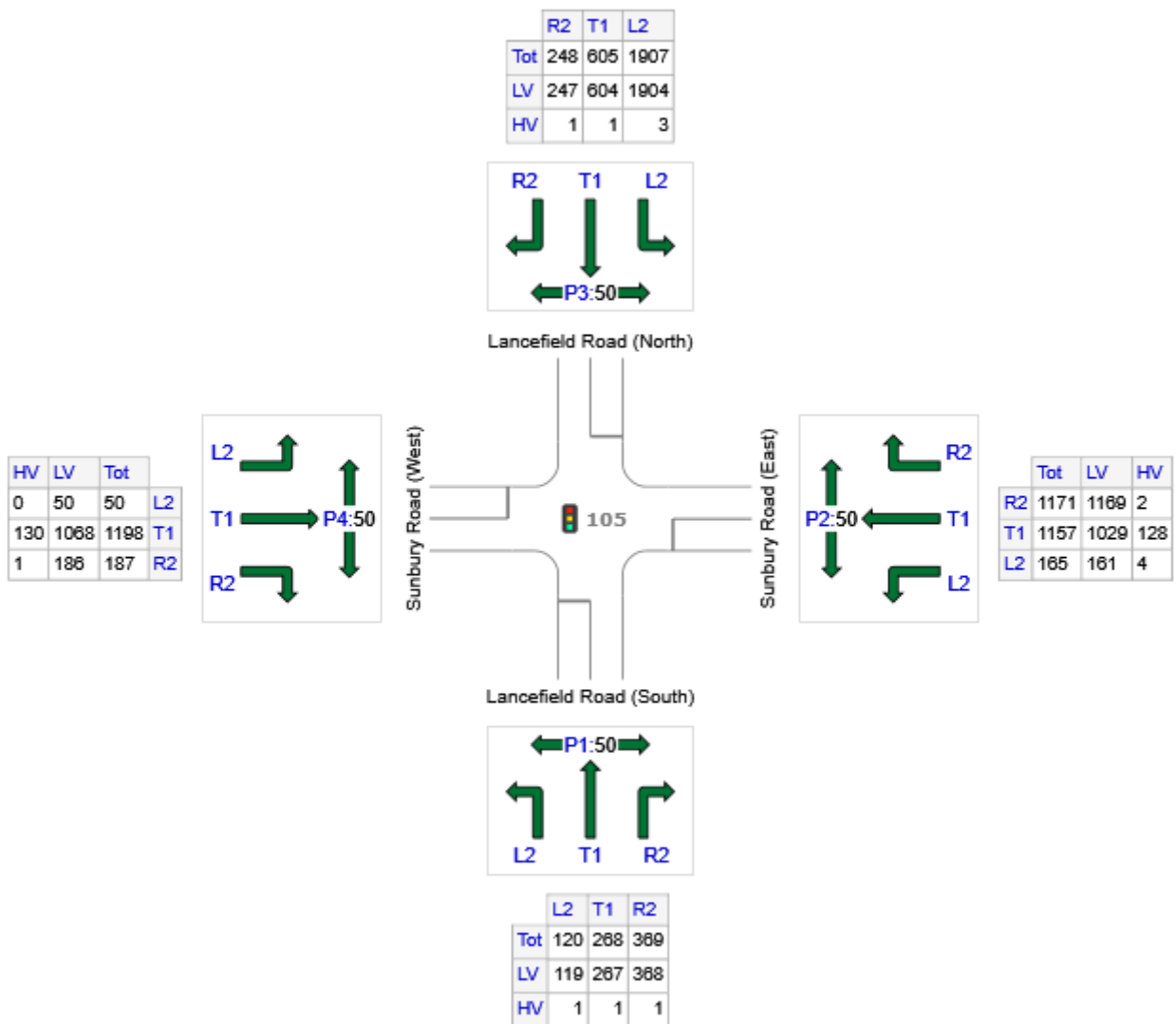
(* Variable Phase)

Site Layout



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

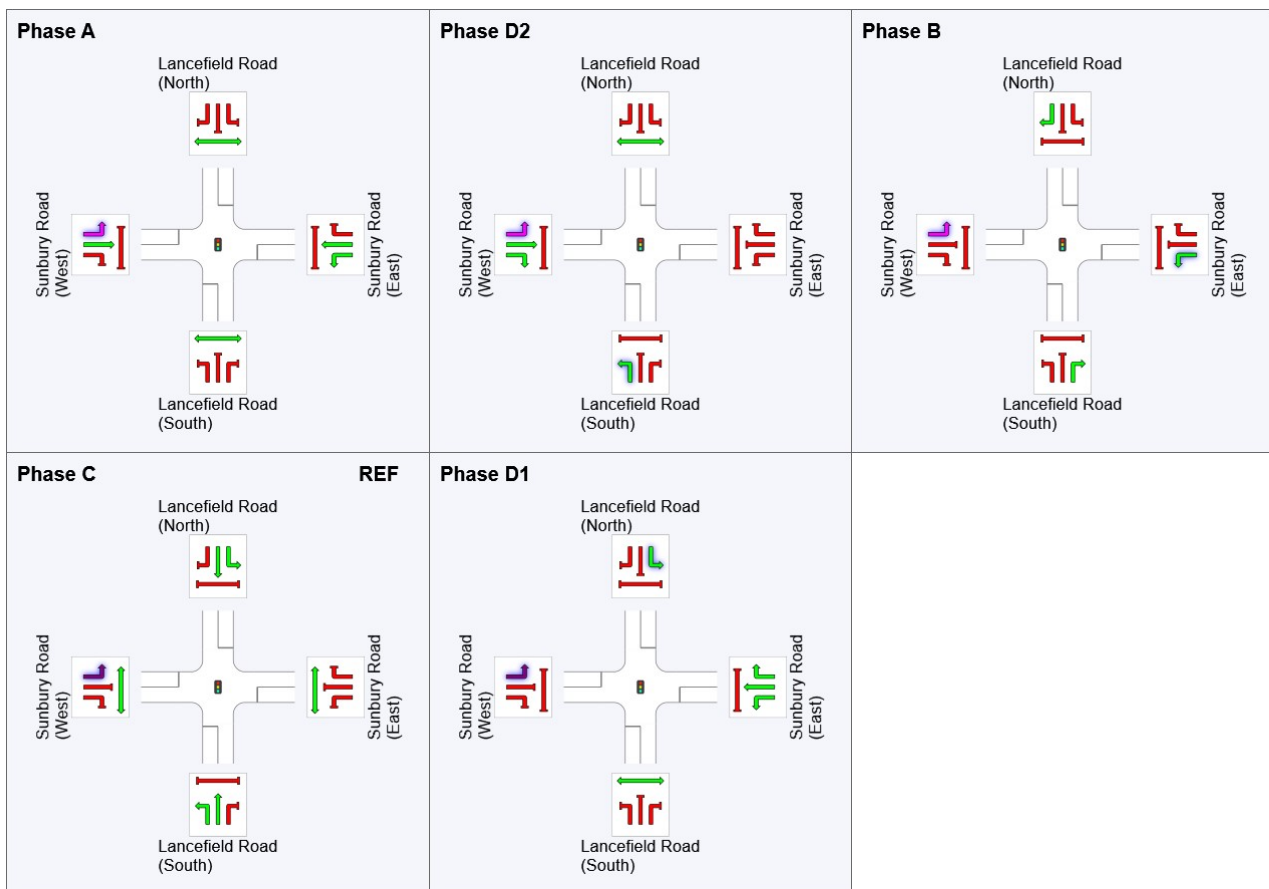
Phase Timing Summary

Phase	A	D2	B	C	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%.

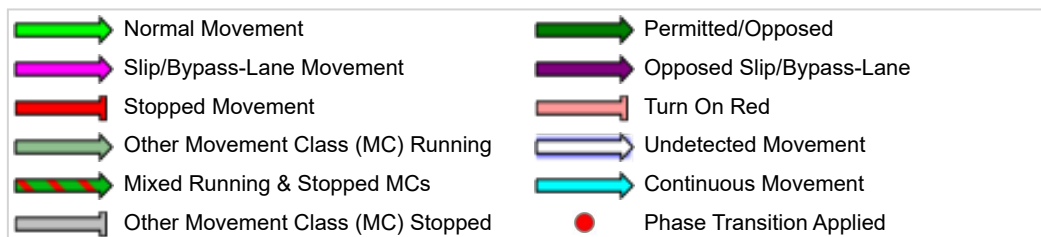
*** No green time has been calculated for this phase because the next phase starts during its intergreen time. This occurs with overlap phasing where there is no single movement connecting this phase to the next, or where the only such movement is a dummy movement with zero minimum green time specified.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



Lane Use and Performance													
	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV						Veh	Dist				
	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	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				
North: Lancefield Road (North)													
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				
Intersection	7445	3.7		0.871		45.6	LOS D	25.6	179.5				

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.

⁶ Lane under-utilisation due to downstream effects

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

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

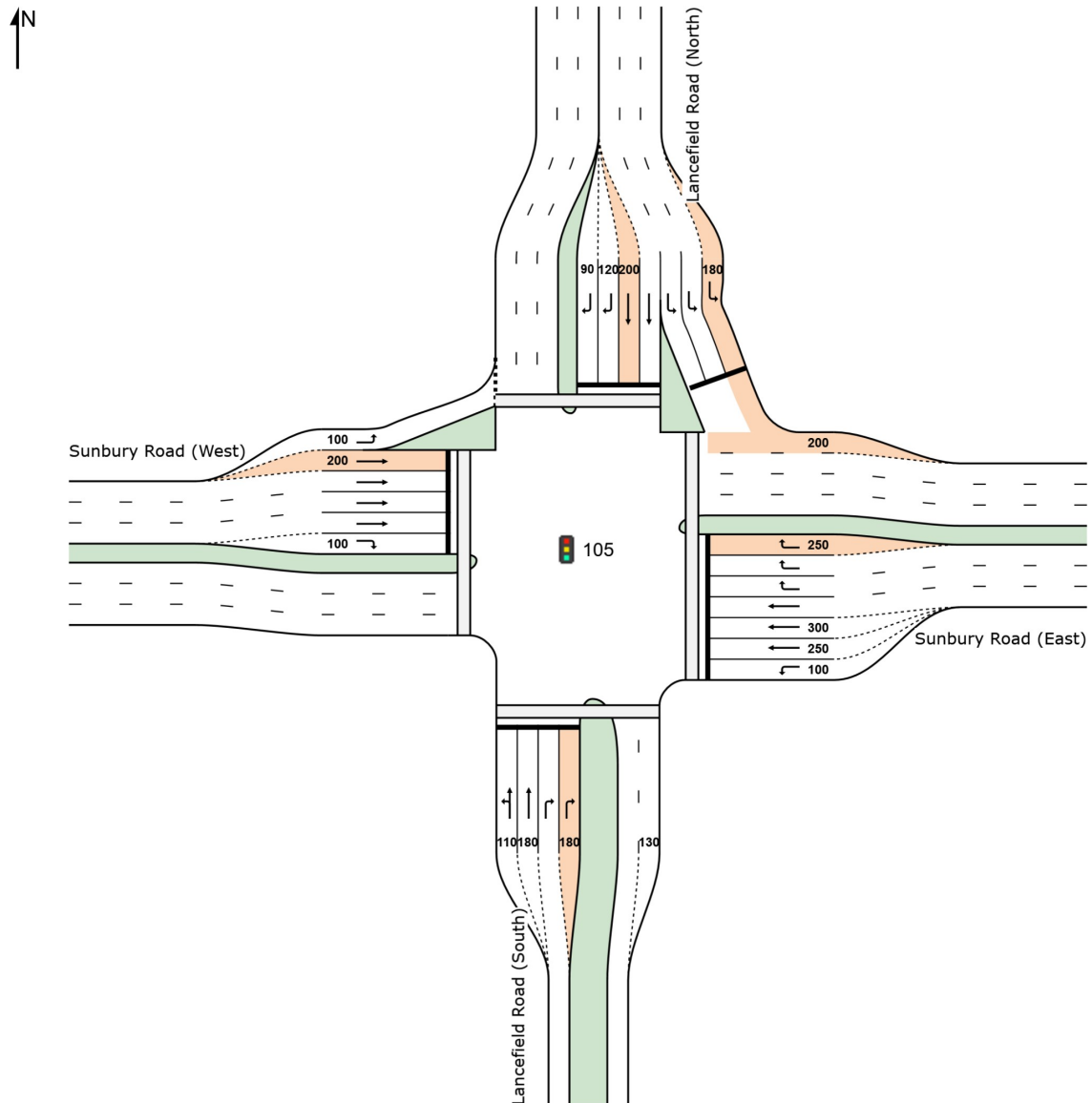
Reference Phase: Phase C

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

Output Phase Sequence: D2, B, C, D1

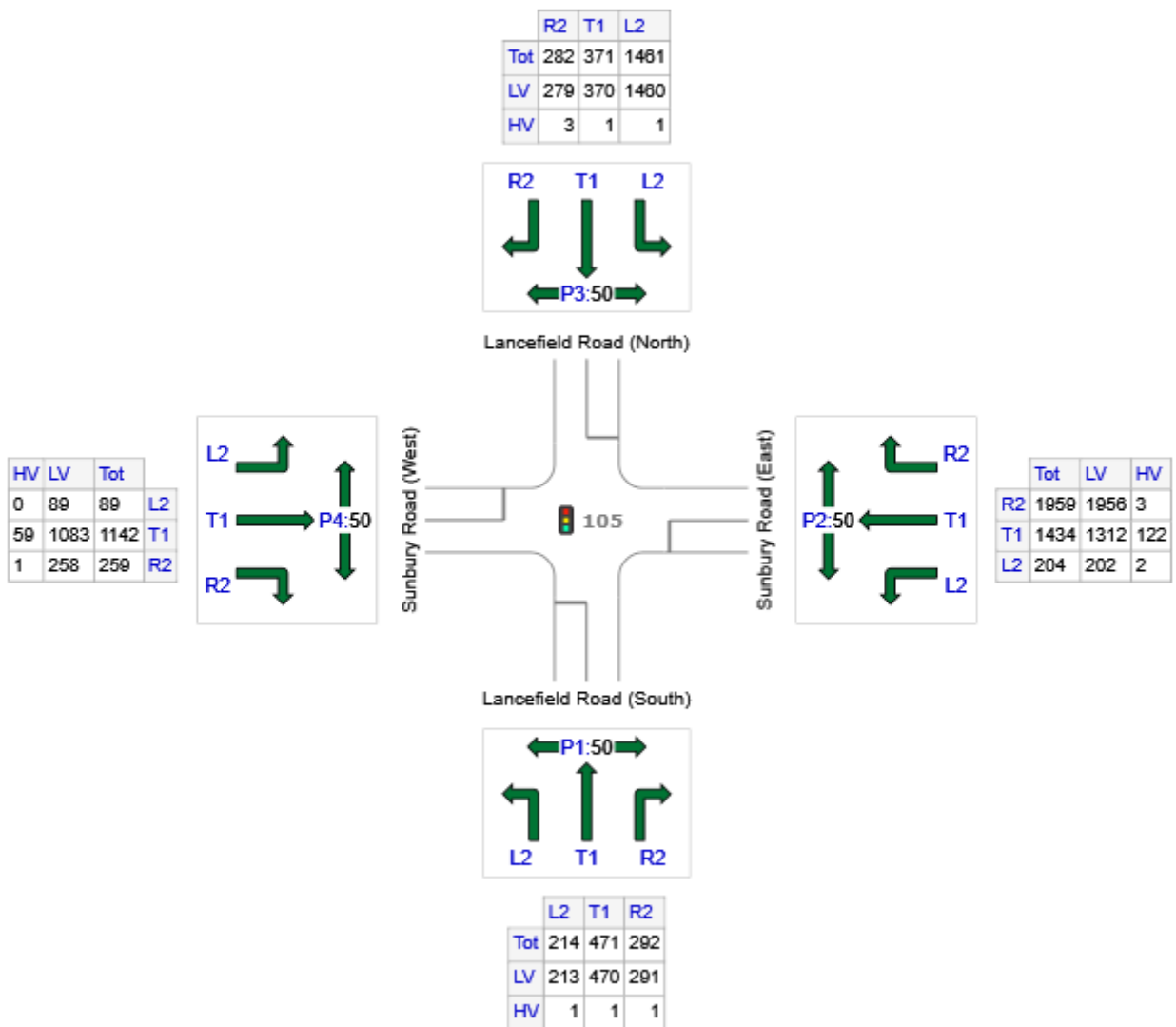
(* Variable Phase)

Site Layout



Input Volumes

Volume Display Method: Separate



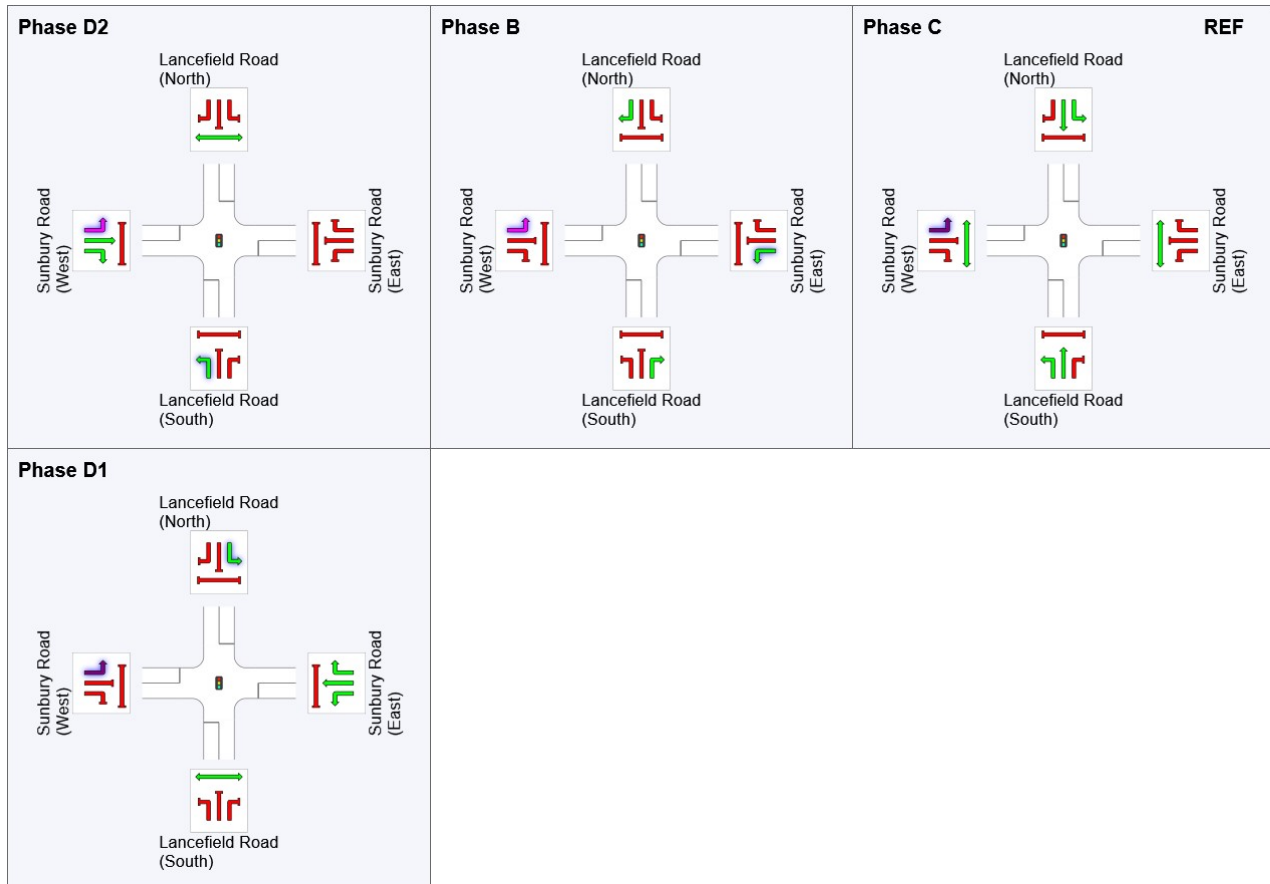
	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Lancefield Road (South)	977	974	3
E: Sunbury Road (East)	3597	3470	127
N: Lancefield Road (North)	2114	2109	5
W: Sunbury Road (West)	1490	1430	60
Total	8178	7983	195

Phase Timing Summary

Phase	D2	B	C	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%

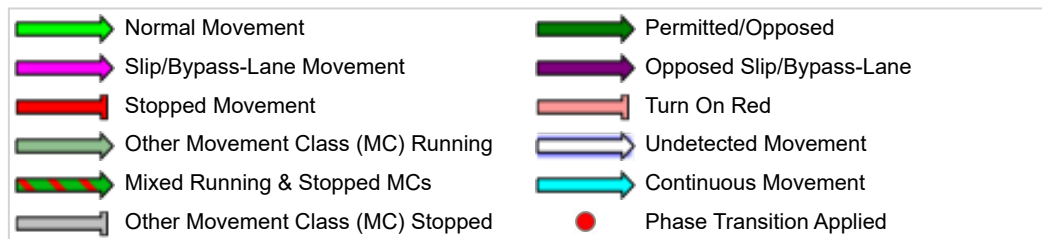
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



Lane Use and Performance													
	Demand Flows Total veh/h	HV % %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
								Veh	Dist m				
South: Lancefield Road (South)													
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: Sunbury 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: Lancefield Road (North)													
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: Sunbury 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				
Intersection	8178	2.4		1.003		63.0	LOS E	60.9	426.7				

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

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
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
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		m3	\$ 37.80	\$ -	
1.2.3	Cut to fill	8,578	m3	\$ 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 PAVEMENT					
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	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	6,200	LM	\$ 48.60	\$ 301,320.00	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	4,650	m2	\$ 59.00	\$ 274,350.00	Pedestrian path to both sides of proposed road 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 of the road. Total span (3.4m) wide
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	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	1,550	LM	\$ -	\$ -	
4.1.1	Stormwater drainage (300mm DIA)	413	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)	465	LM	\$ 383.50	\$ 178,327.50	
4.1.4	Drainage, sub grade drain	3,100	LM	\$ 54.00	\$ 167,400.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	41	No.	\$ 2,700.00	\$ 111,600.00	Assumed spacing of 75m
4.3	Drainage - WSUD	41	Allow.	\$ 1,500.00	\$ 62,000.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	
5	TRAFFIC					
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	1,550	LM	\$ 32.00	\$ 49,600.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	32	No.	\$ 350.00	\$ 11,200.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	11,900	m2	\$ 3.00	\$ 35,700.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	11,900	m2	\$ 10.00	\$ 119,000.00	Topsailing and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	31	No.	\$ 12,500.00	\$ 387,500.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELLANEOUS					
8.1	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	\$ 112,000.00	Up to 2m high
8.2.2	Retaining wall (3-5m high)	157	LM	\$ 4,480.00	\$ 703,360.00	Up to 5m high
8.2.3	Retaining wall (6-8m high)	-	LM	\$ 7,840.00	\$ -	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	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 10,803,583.00	
10	DELIVERY					
	Fees					
10.1	Council Fees	3.25%	Item	\$	351,116.45	
10.2	VicRoads Fees	1.00%	Item	\$	108,035.83	
10.3	Traffic Management	5.00%	Item	\$	540,179.15	
10.4	Environmental Management	0.50%	Item	\$	54,017.92	
10.5	Survey & Design	5.00%	Item	\$	540,179.15	
10.6	Supervision & Project Management	9.00%	Item	\$	972,322.47	
10.7	Site Establishment	2.50%	Item	\$	270,089.58	
10.8	Contingency	15.00%	Item	\$	1,620,537.45	
SUB-TOTAL DELIVERY					\$ 4,456,477.99	
11	TOTAL ESTIMATED PROJECT COST				\$ 15,260,060.99	

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	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	21,114	m2	\$ 5.40	\$ 114,015.60	
1.2	Earthworks					
1.2.1	Cut and disposal		m3	\$ 55.00	\$ -	
1.2.2	Fill	6,986	m3	\$ 37.80	\$ 264,080.25	Additional 10% contingency applied
1.2.3	Cut to fill	13,864	m3	\$ 70.00	\$ 970,462.50	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 PAVEMENT					
2.1	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 Existing Pavement					
2.2.1	Pavement profiling and reshaping	-	Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	2,484	LM	\$ 48.60	\$ 120,722.40	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	1,863	m2	\$ 59.00	\$ 109,917.00	Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3.0m) wide
3.2.2	Cycle pathway	2,111	m2	\$ 66.00	\$ 139,352.40	Two way Cycle path (1.7m) wide each side of the road. Total span (3.4m) wide
3.2.3	Shared pathway	-	m2	\$ 66.00	\$ -	Assumed not included in SS-RD4
3.3	Median strip					
3.3.1	Median (Levelled ground)	4,347	m2	\$ 32.40	\$ 140,842.80	
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage	621	LM			
4.1.1	Stormwater drainage (300mm DIA)	166	LM	\$ 216.00	\$ 35,769.60	
4.1.2	Stormwater drainage (450mm DIA)	621	LM	\$ 260.00	\$ 161,460.00	
4.1.3	Stormwater drainage (525mm DIA)		LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain	1,242	LM	\$ 54.00	\$ 67,068.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	17	No.	\$ 2,700.00	\$ 44,712.00	Assumed spacing of 75m
4.3	Drainage - WSUD	17	Allow.	\$ 1,500.00	\$ 24,840.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
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	621	LM	\$ 32.00	\$ 19,872.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	14	No.	\$ 350.00	\$ 4,900.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	2,432	m2	\$ 3.00	\$ 7,296.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	2,432	m2	\$ 10.00	\$ 24,320.00	Topsolling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	12	No.	\$ 12,500.00	\$ 155,250.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls		LM			
8.2.1	Retaining wall (0-2m high)	100	LM	\$ 1,120.00	\$ 112,000.00	Up to 2m high
8.2.2	Retaining wall (3-5m high)	100	LM	\$ 4,480.00	\$ 448,000.00	Up to 5m high
8.2.3	Retaining wall (6-8m high)	50	LM	\$ 7,840.00	\$ 392,000.00	Up to 8m high
8.2.4	Retaining wall (9-11m high)	-	LM	\$ 11,200.00	\$ -	Up to 11m high
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 4,497,464.31	
10	DELIVERY					
	Fees					
10.1	Council Fees	3.25%	Item	\$	146,167.59	
10.2	VicRoads Fees	1.00%	Item	\$	44,974.64	
10.3	Traffic Management	5.00%	Item	\$	224,873.22	
10.4	Environmental Management	0.50%	Item	\$	22,487.32	
10.5	Survey & Design	5.00%	Item	\$	224,873.22	
10.6	Supervision & Project Management	9.00%	Item	\$	404,771.79	
10.7	Site Establishment	2.50%	Item	\$	112,436.61	
10.8	Contingency	15.00%	Item	\$	674,619.65	
SUB-TOTAL DELIVERY					\$ 1,855,204.03	
11	TOTAL ESTIMATED PROJECT COST				\$ 6,352,668.34	

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	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	31,450	m2	\$ 5.40	\$ 169,830.00	
1.2	Earthworks					
1.2.1	Cut and disposal	13,663	m3	\$ 55.00	\$ 751,471.67	Additional 10% contingency applied
1.2.2	Fill		m3	\$ 37.80	\$ -	
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	
2	ROAD PAVEMENT					
2.1	New Pavement					
2.1.1	Road pavement - Traffic lanes	10,730	m2	\$ 156.60	\$ 1,680,318.00	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	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	3,700	LM	\$ 48.60	\$ 179,820.00	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths					
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 of the road. Total span (3.4m) wide
3.2.3	Shared pathway	-	m2	\$ 66.00	\$ -	Assumed not included in SS-RD4
3.3	Median strip					
3.3.1	Median (Levelled ground)	6,475	m2	\$ 32.40	\$ 209,790.00	
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage	925	LM	\$ -	\$ -	
4.1.1	Stormwater drainage (300mm DIA)	247	LM	\$ 216.00	\$ 53,280.00	
4.1.2	Stormwater drainage (450mm DIA)	648	LM	\$ 260.00	\$ 168,350.00	
4.1.3	Stormwater drainage (525mm DIA)	278	LM	\$ 383.50	\$ 106,421.25	
4.1.4	Drainage, sub grade drain	1,850	LM	\$ 54.00	\$ 99,900.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	25	No.	\$ 2,700.00	\$ 66,600.00	Assumed spacing of 75m
4.3	Drainage - WSUD	25	Allow.	\$ 1,500.00	\$ 37,000.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
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	925	LM	\$ 32.00	\$ 29,600.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	14	No.	\$ 350.00	\$ 4,900.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	3,235	m2	\$ 3.00	\$ 9,705.00	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 LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	19	No.	\$ 12,500.00	\$ 231,250.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls	-	LM			
8.2.1	Retaining wall (0-2m high)	160	LM	\$ 1,120.00	\$ 179,200.00	Up to 2m high
8.2.2	Retaining wall (3-5m high)	200	LM	\$ 4,480.00	\$ 896,000.00	Up to 5m high
8.2.3	Retaining wall (6-8m high)	150	LM	\$ 7,840.00	\$ 1,176,000.00	Up to 8m high
8.2.4	Retaining wall (9-11m high)	50	LM	\$ 11,200.00	\$ 560,000.00	Up to 11m high
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 8,137,724.47	
10	DELIVERY					
	Fees					
10.1	Council Fees	3.25%	Item	\$	264,476.05	
10.2	VicRoads Fees	1.00%	Item	\$	81,377.24	
10.3	Traffic Management	5.00%	Item	\$	406,886.22	
10.4	Environmental Management	0.50%	Item	\$	40,688.62	
10.5	Survey & Design	5.00%	Item	\$	406,886.22	
10.6	Supervision & Project Management	9.00%	Item	\$	732,395.20	
10.7	Site Establishment	2.50%	Item	\$	203,443.11	
10.8	Contingency	15.00%	Item	\$	1,220,658.67	
SUB-TOTAL DELIVERY					\$ 3,356,811.34	
11	TOTAL ESTIMATED PROJECT COST				\$ 11,494,535.81	

Jacksons Hill Creek Crossing - South

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

Item	Description		Quantity	Unit	Rate	Amount	Comments
WORKS							
1	SITEWORKS AND EARTHWORKS						
1.1	Pre-construction						
1.1.1	Demolition and site preparation		8,330	m2	\$ 5.40	\$ 44,982.00	
1.2	Earthworks						
1.2.1	Cut and disposal			m3	\$ 55.00	\$ -	
1.2.2	Fill		17,632	m3	\$ 37.80	\$ 666,484.07	Additional 10% contingency applied
1.2.3	Cut to fill		612	m3	\$ 70.00	\$ 42,833.18	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 PAVEMENT						
2.1	New Pavement						
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	Rehabilitate Existing Pavement						
2.2.1	Pavement profiling and reshaping		-	Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS						
3.1	Kerb and Channel						
3.1.1	Kerb and channel		980	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		735	m2	\$ 59.00	\$ 43,365.00	Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3.0m) wide
3.2.2	Cycle pathway		833	m2	\$ 66.00	\$ 54,978.00	Two way Cycle path (1.7m) wide each side of the road. Total span (3.4m) wide
3.2.3	Shared pathway		-	m2	\$ 66.00	\$ -	Assumed not included in SS-RD4
3.3	Median strip						
3.3.1	Median (Levelled ground)		1,715	m2	\$ 32.40	\$ 55,566.00	
4	DRAINAGE						
4.1	Drainage - Pipes						
4.1.1	Stormwater drainage		245	LM		\$ -	
4.1.1	Stormwater drainage (300mm DIA)		65	LM	\$ 216.00	\$ 14,112.00	
4.1.2	Stormwater drainage (450mm DIA)		245	LM	\$ 260.00	\$ 63,700.00	
4.1.3	Stormwater drainage (525mm DIA)			LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain		490	LM	\$ 54.00	\$ 26,460.00	
4.2	Drainage - Pits						
4.2.1	Side entry pits		7	No.	\$ 2,700.00	\$ 17,640.00	Assumed spacing of 75m
4.3	Drainage - WSUD		7	Allow.	\$ 1,500.00	\$ 9,800.00	
4.4	Drainage - Miscellaneous		-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC						
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		245	LM	\$ 32.00	\$ 7,840.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE						
6.1	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		967	m2	\$ 3.00	\$ 2,901.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip		967	m2	\$ 10.00	\$ 9,670.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING						
7.1	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	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 (0-2m high)		-	LM	\$ 1,120.00	\$ -	Up to 2m high
8.2.2	Retaining wall (3-5m high)		190	LM	\$ 4,480.00	\$ 851,200.00	Up to 5m high
8.2.3	Retaining wall (6-8m high)		-	LM	\$ 7,840.00	\$ -	Up to 8m high
8.2.4	Retaining wall (9-11m high)		-	LM	\$ 11,200.00	\$ -	Up to 11m high
9	SERVICES						
9.1	Services Relocation		-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection		-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS						\$ 2,479,366.45	
10	DELIVERY						
	Fees						
10.1	Council Fees		3.25%	Item		\$ 80,579.41	
10.2	VicRoads Fees		1.00%	Item		\$ 24,793.66	
10.3	Traffic Management		5.00%	Item		\$ 123,968.32	
10.4	Environmental Management		0.50%	Item		\$ 12,396.83	
10.5	Survey & Design		5.00%	Item		\$ 123,968.32	
10.6	Supervision & Project Management		9.00%	Item		\$ 223,142.98	
10.7	Site Establishment		2.50%	Item		\$ 61,984.16	
10.8	Contingency		15.00%	Item		\$ 371,904.97	
SUB-TOTAL DELIVERY						\$ 1,022,738.66	
11	TOTAL ESTIMATED PROJECT COST					\$ 3,502,105.11	

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	SITEWORKS AND EARTHWORKS						
1.1	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		m3	\$ 37.80	\$ -	
	1.2.3	Cut to fill		m3	\$ 70.00	\$ -	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 PAVEMENT						
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 (11.6m)
2.2	Rehabilitate Existing Pavement						
	2.2.1	Pavement profiling and reshaping	-	Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS						
3.1	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						
	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
	3.2.3	Shared pathway	-	m2	\$ 66.00	\$ -	Assumed not included in SS-RD4
3.3	Median strip						
	3.3.1	Median (Levelled ground)	2,709	m2	\$ 32.40	\$ 87,771.60	
4	DRAINAGE						
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)	271	LM	\$ 260.00	\$ 70,434.00	
	4.1.3	Stormwater drainage (525mm DIA)	116	LM	\$ 383.50	\$ 44,524.35	
	4.1.4	Drainage, sub grade drain	774	LM	\$ 54.00	\$ 41,796.00	
4.2	Drainage - Pits						
	4.2.1	Side entry pits	10	No.	\$ 2,700.00	\$ 27,864.00	Assumed spacing of 75m
4.3	Drainage - WSUD		10	Allow.	\$ 1,500.00	\$ 15,480.00	
4.4	Drainage - Miscellaneous		-	No.	\$ -	\$ -	
5	TRAFFIC						
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	LANDSCAPE						
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 plantings	1,362	m2	\$ 3.00	\$ 4,086.00	Allowance of 2 per m2 to nature strip
	6.2.2	Nature strip	1,362	m2	\$ 10.00	\$ 13,620.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING						
7.1	Street Lighting						
	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	MISCELLANEOUS						
8.1	Speed cameras		-	Item	\$ -	\$ -	Excluded
	8.1.2	Speed bumps	-	No.	\$ -	\$ -	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)		LM	\$ 4,480.00	\$ -	Up to 5m high
	8.2.3	Retaining wall (6-8m high)	160	LM	\$ 7,840.00	\$ 1,254,400.00	Up to 8m high
	8.2.4	Retaining wall (9-11m high)	300	LM	\$ 11,200.00	\$ 3,360,000.00	Up to 11m high
9	SERVICES						
9.1	Services Relocation		-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection		-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS						\$ 12,211,445.76	
10	DELIVERY						
	Fees						
10.1	Council Fees		3.25%	Item		\$ 396,871.99	
10.2	VicRoads Fees		1.00%	Item		\$ 122,114.46	
10.3	Traffic Management		5.00%	Item		\$ 610,572.29	
10.4	Environmental Management		0.50%	Item		\$ 61,057.23	
10.5	Survey & Design		5.00%	Item		\$ 610,572.29	
10.6	Supervision & Project Management		9.00%	Item		\$ 1,099,030.12	
10.7	Site Establishment		2.50%	Item		\$ 305,286.14	
10.8	Contingency		15.00%	Item		\$ 1,831,716.86	
SUB-TOTAL DELIVERY						\$ 5,037,221.38	
11	TOTAL ESTIMATED PROJECT COST					\$ 17,248,667.14	

Buckland Way

SS-RD-05: Approx. length: 1084m (ex. Intersections)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	27,100	m2	\$ 5.40	\$ 146,340.00	
1.2	Earthworks					
1.2.1	Cut and disposal	8,722	m3	\$ 55.00	\$ 479,715.50	Additional 10% contingency applied
1.2.2	Fill		m3	\$ 37.80	\$ -	
1.2.3	Cut to fill	2,826	m3	\$ 70.00	\$ 197,834.35	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 PAVEMENT					
2.1	New Pavement					
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	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping		Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	2,168	LM	\$ 48.60	\$ 105,364.80	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	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 strip					
3.3.1	Median (Levelled ground)	-	m2	\$ 32.40	\$ -	Assumed not included
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	289	LM	\$ 216.00	\$ 62,438.40	
4.1.2	Stormwater drainage (450mm DIA)	759	LM	\$ 260.00	\$ 197,288.00	
4.1.3	Stormwater drainage (525mm DIA)	325	LM	\$ 383.50	\$ 124,714.20	
4.1.4	Drainage, sub grade drain	2,168	LM	\$ 54.00	\$ 117,072.00	includes subsoil drainage
4.2	Drainage - Pits					
4.2.1	Side entry pits	29	No.	\$ 2,700.00	\$ 78,048.00	Assumed spacing of approx. 75m
4.3	Drainage - WSUD	29	Allow.	\$ 1,500.00	\$ 43,360.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
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	1,084	LM	\$ 32.00	\$ 34,688.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	20	No.	\$ 350.00	\$ 7,000.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	8,596	m2	\$ 3.00	\$ 25,786.80	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	8,596	m2	\$ 10.00	\$ 85,956.00	Topsolling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	22	No.	\$ 12,500.00	\$ 271,000.00	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	8.1.2 Speed bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall					
	Retaining wall (3-5m high)					Allow for retaining wall heights:
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 4,296,855.33	
10	DELIVERY					
	Fees					
10.1	Council Fees	3.25%	Item	\$	139,647.80	
10.2	VicRoads Fees	1.00%	Item	\$	42,968.55	
10.3	Traffic Management	5.00%	Item	\$	214,842.77	
10.4	Environmental Management	0.50%	Item	\$	21,484.28	
10.5	Survey & Design	5.00%	Item	\$	214,842.77	
10.6	Supervision & Project Management	9.00%	Item	\$	386,716.98	
10.7	Site Establishment	2.50%	Item	\$	107,421.38	
10.8	Contingency	15.00%	Item	\$	644,528.30	
SUB-TOTAL DELIVERY					\$ 1,772,452.82	
11	TOTAL ESTIMATED PROJECT COST				\$ 6,069,308.15	

Fox Hollow Drive

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

Item	Description		Quantity	Unit	Rate	Amount	Comments
WORKS							
1	SITEWORKS AND EARTHWORKS						
1.1	Pre-construction						
	1.1.1	Demolition and site preparation	17,000	m2	\$ 5.40	\$ 91,800.00	
1.2	Earthworks						
	1.2.1	Cut and disposal	9,133	m3	\$ 55.00	\$ 502,297.61	Additional 10% contingency applied
	1.2.2	Fill		m3	\$ 37.80	\$ -	
	1.2.3	Cut to fill	2,669	m3	\$ 70.00	\$ 186,825.01	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 PAVEMENT						
2.1	New Pavement						
	2.1.1	Road pavement - Traffic lanes	7,616	m2	\$ 156.60	\$ 1,192,665.60	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	-	Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS						
3.1	Kerb and Channel						
	3.1.1	Kerb and channel	1,360	LM	\$ 48.60	\$ 66,096.00	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths						
	3.2.1	Pedestrian footpath	2,040	m2	\$ 59.00	\$ 120,360.00	
	3.2.2	Cycle pathway	2,040	m2	\$ 66.00	\$ 134,640.00	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 strip						
	3.3.1	Median (Levelled ground)	-	m2	\$ -	\$ -	Assumed not included
4	DRAINAGE						
4.1	Drainage - Pipes						
	4.1.1	Stormwater drainage	680	LM		\$ -	
	4.1.1	Stormwater drainage (300mm DIA)	181	LM	\$ 216.00	\$ 39,168.00	
	4.1.2	Stormwater drainage (450mm DIA)	476	LM	\$ 260.00	\$ 123,760.00	
	4.1.3	Stormwater drainage (525mm DIA)	204	LM	\$ 383.50	\$ 78,234.00	
	4.1.4	Drainage, sub grade drain	1,360	LM	\$ 54.00	\$ 73,440.00	
4.2	Drainage - Pits						
	4.2.1	Side entry pits	18	No.	\$ 2,700.00	\$ 48,960.00	Assumed spacing of 75m
4.3	Drainage - WSUD						
			18	Allow.	\$ 1,500.00	\$ 27,200.00	
4.4	Drainage - Miscellaneous						
			-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC						
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	680	LM	\$ 32.00	\$ 21,760.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE						
6.1	Trees						
	6.1.1	Tree planting (2-2.5m tall)	12	No.	\$ 350.00	\$ 4,200.00	Allowance only
6.2	Landscaping						
	6.2.1	Tube stock plantings	5,460	m2	\$ 3.00	\$ 16,380.00	Allowance of 2 per m2 to nature strip
	6.2.2	Nature strip	5,460	m2	\$ 10.00	\$ 54,600.00	Topsoiling and 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	\$ 170,000.00	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						
	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
SUB TOTAL - WORKS						\$ 2,964,886.22	
10	DELIVERY						
	Fees						
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		\$ 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	
11	TOTAL ESTIMATED PROJECT COST						\$ 4,187,901.78

Watsons Road

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

Item	Description		Quantity	Unit	Rate	Amount	Comments
WORKS							
1	SITEWORKS AND EARTHWORKS						
1.1	Pre-construction						
1.1.1	Demolition and site preparation		37,210	m2	\$ 5.40	\$ 200,931.84	
1.2	Earthworks						
1.2.1	Cut and disposal		34,098	m3	\$ 55.00	\$ 1,875,362.50	Additional 10% contingency applied
1.2.2	Fill			m3	\$ 37.80	\$ -	
1.2.3	Cut to fill			m3	\$ 70.00	\$ -	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 PAVEMENT						
2.1	New Pavement						
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)
2.2	Rehabilitate Existing Pavement						
2.2.1	Pavement profiling and reshaping			Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS						
3.1	Kerb and Channel						
3.1.1	Kerb and channel		3,876	LM	\$ 48.60	\$ 188,373.60	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths						
3.2.1	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
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	DRAINAGE						
4.1	Drainage - Pipes						
4.1.1	Stormwater drainage (300mm DIA)		517	LM	\$ 216.00	\$ 111,628.80	
4.1.2	Stormwater drainage (450mm DIA)		1,357	LM	\$ 260.00	\$ 352,716.00	
4.1.3	Stormwater drainage (525mm DIA)		581	LM	\$ 383.50	\$ 222,966.90	
4.1.4	Drainage, sub grade drain		3,876	LM	\$ 54.00	\$ 209,304.00	
4.2	Drainage - Pits						
4.2.1	Side entry pits		52	No.	\$ 2,700.00	\$ 139,536.00	Assumed spacing of approx. 75m
4.3	Drainage - WSUD		52	Allow.	\$ 1,500.00	\$ 77,520.00	
4.4	Drainage - Miscellaneous		-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC						
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		1,938	LM	\$ 32.00	\$ 62,016.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE						
6.1	Trees						
6.1.1	Tree planting (2-2.5m tall)		42	No.	\$ 350.00	\$ 14,700.00	Allowance only
6.2	Landscaping						
6.2.1	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	Topsolling and seeding of nature strips, varying in widths
7	STREET LIGHTING						
7.1	Street Lighting						
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	MISCELLANEOUS						
8.1	8.1.1 Speed cameras						
8.1.2	Speed bumps		-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls						
8.2.1	Retaining wall		-	LM	\$ -	\$ -	
9	SERVICES						
9.1	Services Relocation		-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection		-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS						\$ 7,071,876.90	
10	DELIVERY						
	Fees						
10.1	Council Fees		3.25%	Item		\$ 229,836.00	
10.2	VicRoads Fees		1.00%	Item		\$ 70,718.77	
10.3	Traffic Management		5.00%	Item		\$ 353,593.85	
10.4	Environmental Management		0.50%	Item		\$ 35,359.38	
10.5	Survey & Design		5.00%	Item		\$ 353,593.85	
10.6	Supervision & Project Management		9.00%	Item		\$ 636,468.92	
10.7	Site Establishment		2.50%	Item		\$ 176,796.92	
10.8	Contingency		15.00%	Item		\$ 1,060,781.54	
SUB-TOTAL DELIVERY						\$ 2,917,149.22	
11	TOTAL ESTIMATED PROJECT COST					\$ 9,989,026.12	

Crinnion Road

SS-RD-08 Approx. length: 1630m (ex. Intersections)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS 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	\$ -	
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	ROAD PAVEMENT					
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	CONCRETE 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					
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
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 Allow Cycle path (3m) wide
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)		LM	\$ 216.00	\$ -	Assumed not included
4.1.2	Stormwater drainage (450mm DIA)		LM	\$ 260.00	\$ -	Assumed not included
4.1.3	Stormwater drainage (525mm DIA)		LM	\$ 383.50	\$ -	Assumed not included
4.1.4	Drainage, sub grade drain		LM	\$ 54.00	\$ -	Assumed not included
4.2	Drainage - Pits					
4.2.1	Side entry pits		No.	\$ 2,700.00	\$ -	Assumed not included
4.3	Drainage - WSUD	1	Allow.	\$ 50,000.00	\$ 50,000.00	Allowance only
4.4	Drainage - Miscellaneous	2	No.	\$ 150,000.00	\$ 300,000.00	Allowance only - Swale to each side of road way
5	TRAFFIC					
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	1,630	LM	\$ 32.00	\$ 52,160.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	28	No.	\$ 350.00	\$ 9,800.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	-	m2	\$ 3.00	\$ -	
6.2.2	Nature strip	-	m2	\$ 10.00	\$ -	
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	33	No.	\$ 12,500.00	\$ 407,500.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall	-	LM	\$ -	\$ -	
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 3,288,135.69	
10	DELIVERY					
	Fees					
10.1	Council Fees	3.25%	Item	\$	106,864.41	
10.2	VicRoads Fees	1.00%	Item	\$	32,881.36	
10.3	Traffic Management	5.00%	Item	\$	164,406.78	
10.4	Environmental Management	0.50%	Item	\$	16,440.68	
10.5	Survey & Design	5.00%	Item	\$	164,406.78	
10.6	Supervision & Project Management	9.00%	Item	\$	295,932.21	
10.7	Site Establishment	2.50%	Item	\$	82,203.39	
10.8	Contingency	15.00%	Item	\$	493,220.35	
SUB-TOTAL DELIVERY					\$ 1,356,355.97	
11	TOTAL ESTIMATED PROJECT COST				\$ 4,644,491.66	

Jacksons Hill Link

SS-RD-09 Approx. Length:250m (ex. Intersections)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	6,250	m2	\$ 5.40	\$ 33,750.00	
1.2	Earthworks					
1.2.1	Cut and disposal		m3	\$ 55.00	\$ -	
1.2.2	Fill		m3	\$ 37.80	\$ -	
1.2.3	Cut to fill	10,256	m3	\$ 70.00	\$ 717,920.00	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 PAVEMENT					
2.1	New Pavement					
2.1.1	Road pavement - Traffic 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)
2.2	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping		Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
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 ground)	-	m2	\$ 32.40	\$ -	Assumed not included
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	67	LM	\$ 216.00	\$ 14,400.00	
4.1.2	Stormwater drainage (450mm DIA)	250	LM	\$ 260.00	\$ 65,000.00	
4.1.3	Stormwater drainage (525mm DIA)		LM	\$ 383.50	\$ -	Assumed not included
4.1.4	Drainage, sub grade drain	500	LM	\$ 54.00	\$ 27,000.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	7	No.	\$ 2,700.00	\$ 18,000.00	Assumed spacing of approx. 75m
4.3	Drainage - WSUD	7	Allow.	\$ 1,500.00	\$ 10,000.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
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	250	LM	\$ 32.00	\$ 8,000.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	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	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	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting 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	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 (3-5m high)	197	LM	\$ 4,480.00	\$ 882,560.00	
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 2,435,924.00	
10	DELIVERY					
	Fees					
10.1	Council Fees	3.25%	Item	\$	79,167.53	
10.2	VicRoads Fees	1.00%	Item	\$	24,359.24	
10.3	Traffic Management	5.00%	Item	\$	121,796.20	
10.4	Environmental Management	0.50%	Item	\$	12,179.62	
10.5	Survey & Design	5.00%	Item	\$	121,796.20	
10.6	Supervision & Project Management	9.00%	Item	\$	219,233.16	
10.7	Site Establishment	2.50%	Item	\$	60,898.10	
10.8	Contingency	15.00%	Item	\$	365,388.60	
SUB-TOTAL DELIVERY					\$ 1,004,818.65	
11	TOTAL ESTIMATED PROJECT COST				\$ 3,440,742.65	

Intersection on Sunbury Road

SS-IN-01 (Cross Intersection - Interim)

Item	Description		Quantity	Unit	Rate	Amount	Comments
WORKS							
1	SITEWORKS AND EARTHWORKS						
1.1	Pre-construction						
1.1.1	Demolition and site preparation		31,500	m2	\$ 5.40	\$ 170,100.00	
1.2	Earthworks						
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	\$ -	
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		14,980	m2	\$ 156.60	\$ 2,345,868.00	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.	\$ 149,482.80	\$ 149,482.80	Allowance only
3	CONCRETE WORKS						
3.1	Kerb and Channel						
3.1.1	Kerb and channel		1,180	LM	\$ 48.60	\$ 57,348.00	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & 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 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						
3.3.1	Median (Levelled ground)		3,666	m2	\$ 32.40	\$ 118,778.40	
4	DRAINAGE						
4.1	Drainage - Pipes						
4.1.1	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	
4.1.3	Stormwater drainage (525mm DIA)		226	LM	\$ 383.50	\$ 86,632.65	
4.1.4	Drainage, sub grade drain		1,506	LM	\$ 54.00	\$ 81,324.00	
4.2	Drainage - Pits						
4.2.1	Side entry pits		8	No.	\$ 2,700.00	\$ 21,600.00	Assumed spacing of approx. 100m
4.3	Drainage - WSUD		8	Allow.	\$ 1,500.00	\$ 12,000.00	
4.4	Drainage - Miscellaneous		-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC						
5.1	Traffic Signals						
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 Safety						
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	LANDSCAPE						
6.1	Trees						
6.1.1	Tree planting (2-2.5m tall)		14	No.	\$ 350.00	\$ 4,900.00	Allowance only
6.2	Landscaping						
6.2.1	Tube stock plantings		2,259	m2	\$ 3.00	\$ 6,777.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip		2,259	m2	\$ 10.00	\$ 22,590.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING						
7.1	Street Lighting						
7.1.1	Street lighting (incl. lighting conduits)		16	No.	\$ 12,500.00	\$ 200,000.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls						
	8.2.1	Retaining wall	-	LM	\$ -	\$ -	Assume no retaining walls
9	SERVICES						
9.1	Services Relocation (Electrical Pole Relocation)		1	Allow.	\$ 400,000.00		Excluded
9.2	Services Protection		1	Allow.	\$ 20,000.00		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						\$ 5,685,540.65	
11	DELIVERY						
	Fees						
11.1	Council Fees		3.25%	Item	\$	184,780.07	
11.2	VicRoads Fees		1.00%	Item	\$	56,855.41	
11.3	Traffic Management		5.00%	Item	\$	284,277.03	
11.4	Environmental Management		0.50%	Item	\$	28,427.70	
11.5	Survey & Design		5.00%	Item	\$	284,277.03	
11.6	Supervision & Project Management		9.00%	Item	\$	511,698.66	
11.7	Site Establishment		2.50%	Item	\$	142,138.52	
11.8	Contingency		15.00%	Item	\$	852,831.10	
SUB-TOTAL DELIVERY						\$ 2,345,285.52	
12	TOTAL ESTIMATED PROJECT COST					\$ 8,030,826.17	

Intersection on Sunbury Road

SS-IN-02 (Cross Intersection - Interim)

Item	Description		Quantity	Unit	Rate	Amount	Comments
WORKS							
1	SITEWORKS AND EARTHWORKS						
1.1	Pre-construction						
1.1.1	Demolition and site preparation		31,969	m2	\$ 5.40	\$ 172,632.60	
1.2	Earthworks						
1.2.1	Cut and disposal at specified location		25,975	m3	\$ 55.00	\$ 1,428,614.69	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 PAVEMENT						
2.1	New Pavement						
2.1.1	Road pavement - Traffic lanes		15,039	m2	\$ 156.60	\$ 2,355,107.40	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.	\$ 194,767.20	\$ 194,767.20	Allowance only
3	CONCRETE WORKS						
3.1	Kerb and Channel						
3.1.1	Kerb and channel		5,890	LM	\$ 48.60	\$ 286,254.00	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & 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 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						
3.3.1	Median (Levelled ground)		3,606	m2	\$ 32.40	\$ 116,834.40	
4	DRAINAGE						
4.1	Drainage - Pipes						
4.1.1	Stormwater drainage (300mm DIA)		204	LM	\$ 216.00	\$ 44,006.40	
4.1.2	Stormwater drainage (450mm DIA)		535	LM	\$ 260.00	\$ 139,048.00	
4.1.3	Stormwater drainage (525mm DIA)		229	LM	\$ 383.50	\$ 87,898.20	
4.1.4	Drainage, sub grade drain		1,528	LM	\$ 54.00	\$ 82,512.00	
4.2	Drainage - Pits						
4.2.1	Side entry pits		9	No.	\$ 2,700.00	\$ 24,300.00	Assumed spacing of approx. 100m
4.3	Drainage - WSUD		9	Allow.	\$ 1,500.00	\$ 13,500.00	
4.4	Drainage - Miscellaneous		-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC						
5.1	Traffic Signals						
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 Safety						
5.2.1	Line marking and Traffic Signage		835	LM	\$ 32.00	\$ 26,720.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE						
6.1	Trees						
6.1.1	Tree planting (2-2.5m tall)		16	No.	\$ 350.00	\$ 5,600.00	Allowance only
6.2	Landscaping						
6.2.1	Tube stock plantings		666	m2	\$ 3.00	\$ 1,998.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip		666	m2	\$ 10.00	\$ 6,660.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING						
7.1	Street Lighting						
7.1.1	Street lighting (incl. lighting conduits)		17	No.	\$ 12,500.00	\$ 212,500.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELLANEOUS						
8.1	Speed cameras		-	Item	\$ -	\$ -	Excluded
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		-	Allow.	\$ 400,000.00	\$ -	Excluded
9.2	Services Protection		-	Allow.	\$ 20,000.00	\$ -	Excluded
10	MAINTENANCE						
10.1	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						\$ 5,929,952.89	
11	DELIVERY						
	Fees						
11.1	Council Fees		3.25%	Item		\$ 192,723.47	
11.2	VicRoads Fees		1.00%	Item		\$ 59,299.53	
11.3	Traffic Management		5.00%	Item		\$ 296,497.64	
11.4	Environmental Management		0.50%	Item		\$ 29,649.76	
11.5	Survey & Design		5.00%	Item		\$ 296,497.64	
11.6	Supervision & Project Management		9.00%	Item		\$ 533,695.76	
11.7	Site Establishment		2.50%	Item		\$ 148,248.82	
11.8	Contingency		15.00%	Item		\$ 889,492.93	
SUB-TOTAL DELIVERY						\$ 2,446,105.57	
12	TOTAL ESTIMATED PROJECT COST					\$ 8,376,058.45	

Sunbury Road/Lancefield Road Intersection

SS-IN-03 (Cross Intersection - Interim)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	29,950	m2	\$ 5.40	\$ 161,730.00	
1.2	Earthworks					
1.2.1	Cut and disposal	18,394	m3	\$ 55.00	\$ 1,011,660.65	
1.2.2	Fill		m3	\$ 37.80	\$ -	
1.2.3	Cut to fill	473	m3	\$ 70.00	\$ 33,075.00	With 10% additional factor
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	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	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping	1	Allow.	\$ 306,633.60	\$ 306,633.60	Allowance only
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	1,580	LM	\$ 48.60	\$ 76,788.00	Kerb and channel as per drawing outlined
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	390	m2	\$ 59.00	\$ 23,010.00	Allow pedestrian paths to both sides of proposed road each 1.5m wide. Total span (3.0m)
3.2.2	Cycle pathway	442	m2	\$ 66.00	\$ 29,172.00	Two 1.5m wide Cycle paths (both sides of the 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 strip					
3.3.1	Median (Levelled ground - no plants)	3,800	m2	\$ 21.60	\$ 82,080.00	Assumed levelled soil, future proofed for planting
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	239	LM	\$ 216.00	\$ 51,609.60	
4.1.2	Stormwater drainage (450mm DIA)	627	LM	\$ 260.00	\$ 163,072.00	
4.1.3	Stormwater drainage (525mm DIA)	269	LM	\$ 383.50	\$ 103,084.80	
4.1.4	Drainage, sub grade drain	1,792	LM	\$ 54.00	\$ 96,768.00	
4.2	Drainage - Pits					
4.2.1	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		LM	\$ -	\$ -	Included above
4.3	Drainage - WSUD	18	Allow.	\$ 1,500.00	\$ 26,880.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Signals					
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 Safety					
5.2.1	Line marking and Traffic Signage	896	LM	\$ 32.00	\$ 28,672.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	19	No.	\$ 350.00	\$ 6,650.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	978	m2	\$ 3.00	\$ 2,934.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	978	m2	\$ 10.00	\$ 9,780.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
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	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	\$ -	\$ -	Assume no retaining walls
9	SERVICES					
9.1	Services Relocation	1	Allow.	\$ 400,000.00	\$ 400,000.00	Allowance only
9.2	Services Protection	1	Allow.	\$ 20,000.00	\$ 20,000.00	Electrical Pole Relocation Allowance only
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					\$ 7,782,490.45	
11	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	\$ 252,930.94	
11.2	VicRoads Fees	1.00%	Item	\$	\$ 77,824.90	
11.3	Traffic Management	5.00%	Item	\$	\$ 389,124.52	
11.4	Environmental Management	0.50%	Item	\$	\$ 38,912.45	
11.5	Survey & Design	5.00%	Item	\$	\$ 389,124.52	
11.6	Supervision & Project Management	9.00%	Item	\$	\$ 700,424.14	
11.7	Site Establishment	2.50%	Item	\$	\$ 194,562.26	
11.8	Contingency	15.00%	Item	\$	\$ 1,167,373.57	
SUB-TOTAL DELIVERY					\$ 3,210,277.31	
12	TOTAL ESTIMATED PROJECT COST				\$ 10,992,767.76	

Intersection on Sunbury Road

SS-IN-04 (Cross Intersection - Interim)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	21,127	m2	\$ 5.40	\$ 114,085.80	
1.2	Earthworks					
1.2.1	Cut and disposal at specified location	22,315	m3	\$ 55.00	\$ 1,227,346.66	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 PAVEMENT					
2.1	New Pavement					
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	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping	1	Allow.	\$ 228,171.60	\$ 228,171.60	Allowance only
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	1,083	LM	\$ 48.60	\$ 52,633.80	Kerb and channel as per drawing outlined
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	780	m2	\$ 59.00	\$ 46,020.00	Allow pedestrian paths to both sides of 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
3.2.3	Shared pathway	-	m2	\$ 66.00	\$ -	
3.3	Median strip					
3.3.1	Median (Levelled ground - no plants)	5,623	m2	\$ 21.60	\$ 121,456.80	Assumed levelled soil, future proofed for planting
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	228	LM	\$ 216.00	\$ 49,248.00	
4.1.2	Stormwater drainage (450mm DIA)	599	LM	\$ 260.00	\$ 155,610.00	
4.1.3	Stormwater drainage (525mm DIA)	257	LM	\$ 383.50	\$ 98,367.75	
4.1.4	Drainage, sub grade drain	1,710	LM	\$ 54.00	\$ 92,340.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	11	No.	\$ 2,700.00	\$ 29,700.00	Assumed spacing of 50m
4.3	Drainage - WSUD	11	Allow.	\$ 1,500.00	\$ 16,500.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Signals					
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 Safety					
5.2.1	Line marking and Traffic Signage	855	LM	\$ 32.00	\$ 27,360.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	16	No.	\$ 350.00	\$ 5,600.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	2,400	m2	\$ 3.00	\$ 7,200.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	2,400	m2	\$ 10.00	\$ 24,000.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
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	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	\$ -	\$ -	Assume no retaining walls
9	SERVICES					
9.1	Services Relocation	1	Allow.	\$ 395,000.00	\$ 395,000.00	Allowance only Electrical Pole Relocation
9.2	Services Protection	1	Allow.	\$ 20,000.00	\$ 20,000.00	Allowance only Fibre Optic Protection
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					\$ 5,487,840.51	
11	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	178,354.82	
11.2	VicRoads Fees	1.00%	Item	\$	54,878.41	
11.3	Traffic Management	5.00%	Item	\$	274,392.03	
11.4	Environmental Management	0.50%	Item	\$	27,439.20	
11.5	Survey & Design	5.00%	Item	\$	274,392.03	
11.6	Supervision & Project Management	9.00%	Item	\$	493,905.65	
11.7	Site Establishment	2.50%	Item	\$	137,196.01	
11.8	Contingency	15.00%	Item	\$	823,176.08	
SUB-TOTAL DELIVERY					\$ 2,263,734.21	
12	TOTAL ESTIMATED PROJECT COST				\$ 7,751,574.72	

Vinyard Road/Jacksons Creek Crossing (South)

SS-IN-05 (T-intersection - Interim)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	17,350	m2	\$ 5.40	\$ 93,690.00	
1.2	Earthworks					
1.2.1	Cut and disposal at specified location	14,097	m3	\$ 55.00	\$ 775,328.13	Assuming pavement composition depth total 650mm deep including fill
1.2.2	Fill	7,662	m3	\$ 37.80	\$ 289,616.51	
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	5,773	m2	\$ 156.60	\$ 904,051.80	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.	\$ 184,550.40	\$ 184,550.40	Allowance only
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	1,391	LM	\$ 48.60	\$ 67,602.60	Kerb and channel as per drawing outlined
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	345	m2	\$ 59.00	\$ 20,355.00	Allow pedestrian path to both sides of proposed road each (1.5m) wide
3.2.2	Cycle pathway	391	m2	\$ 66.00	\$ 25,806.00	Allow Cycle path (3m) wide
3.2.3	Shared pathway	630	m2	\$ 66.00	\$ 41,580.00	
3.3	Median strip					
3.3.1	Median (Levelled ground - no plants)	1,619	m2	\$ 21.60	\$ 34,970.40	Assumed levelled soil, future proofed for planting
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	155	LM	\$ 216.00	\$ 33,408.00	
4.1.2	Stormwater drainage (450mm DIA)	580	LM	\$ 260.00	\$ 150,800.00	
4.1.3	Stormwater drainage (525mm DIA)		LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain	1,160	LM	\$ 54.00	\$ 62,640.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	14	No.	\$ 2,700.00	\$ 37,800.00	Assumed spacing of approx. 100m
4.3	Drainage - WSUD	14	Allow.	\$ 1,500.00	\$ 21,000.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Signals					
5.1.1	Traffic signals (incl. conduit subset)	1	Allow.	\$ 405,000.00	\$ 405,000.00	Rate includes for signals, conduits, pits, footings etc.
5.2	Traffic Safety					
5.2.1	Line marking and Traffic Signage	580	LM	\$ 32.00	\$ 18,560.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
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	1,360	m2	\$ 3.00	\$ 4,080.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	1,360	m2	\$ 10.00	\$ 13,600.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	12	No.	\$ 12,500.00	\$ 150,000.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall	-	LM	\$ -	\$ -	Assume no retaining walls
9	SERVICES					
9.1	Services Relocation	-	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
SUB TOTAL - WORKS					\$ 3,431,438.84	
11	DELIVERY					
	Fees					
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	
SUB-TOTAL DELIVERY					\$ 1,415,468.52	
12	TOTAL ESTIMATED PROJECT COST				\$ 4,846,907.36	

Vineyard Rd / Moore Rd / Old Vineyard Rd Intersection

SS-IN-07 (Cross Intersection - Interim)

Item	Description		Quantity	Unit	Rate	Amount	Comments
WORKS							
1	SITEWORKS AND EARTHWORKS						
1.1	Pre-construction						
1.1.1	Demolition and site preparation		14,106	m2	\$ 5.40	\$ 76,172.40	
1.2	Earthworks						
1.2.1	Cut and disposal at specified location		14,899	m3	\$ 55.00	\$ 819,470.44	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 PAVEMENT						
2.1	New Pavement						
2.1.1	Road pavement - Traffic lanes		7,534	m2	\$ 156.60	\$ 1,179,824.40	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.	\$ 152,344.80	\$ 152,344.80	Allowance only
3	CONCRETE 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
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 planting
4	DRAINAGE						
4.1	Drainage - Pipes						
4.1.1	Stormwater drainage (300mm DIA)		145	LM	\$ 216.00	\$ 31,392.00	
4.1.2	Stormwater drainage (450mm DIA)		545	LM	\$ 260.00	\$ 141,700.00	
4.1.3	Stormwater drainage (525mm DIA)		-	LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain		1,090	LM	\$ 54.00	\$ 58,860.00	
4.2	Drainage - Pits						
4.2.1	Side entry pits		15	No.	\$ 2,700.00	\$ 40,500.00	Assumed spacing of 75m
4.3	Drainage - WSUD		15	Allow.	\$ 1,500.00	\$ 22,500.00	
4.4	Drainage - Miscellaneous		-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC						
5.1	Traffic Signals						
5.1.1	Traffic signal for major cross intersection (incl. conduit subset)		1	Allow.	\$ 540,000.00	\$ 540,000.00	Rate includes for signals, conduits, pits, 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	LANDSCAPE						
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	m2	\$ 3.00	\$ 6,162.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip		2,054	m2	\$ 10.00	\$ 20,540.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING						
7.1	Street Lighting						
7.1.1	Street lighting (incl. lighting conduits)		11	No.	\$ 12,500.00	\$ 137,500.00	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						
8.1.2	Speed bumps		-	No.	\$ -	\$ -	Excluded
8.2	8.2 Retaining walls						
8.2.1	Retaining wall		-	LM	\$ -	\$ -	Assume no retaining walls
9	SERVICES						
9.1	Services Relocation		-	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
SUB TOTAL - WORKS						\$ 3,638,547.94	
11	DELIVERY						
	Fees						
11.1	Council Fees		3.25%	Item	\$	\$ 118,252.81	
11.2	VicRoads Fees		1.00%	Item	\$	\$ 36,385.48	
11.3	Traffic Management		5.00%	Item	\$	\$ 181,927.40	
11.4	Environmental Management		0.50%	Item	\$	\$ 18,192.74	
11.5	Survey & Design		5.00%	Item	\$	\$ 181,927.40	
11.6	Supervision & Project Management		9.00%	Item	\$	\$ 327,469.31	
11.7	Site Establishment		2.50%	Item	\$	\$ 90,963.70	
11.8	Contingency		15.00%	Item	\$	\$ 545,782.19	
SUB-TOTAL DELIVERY						\$ 1,500,901.02	
12	TOTAL ESTIMATED PROJECT COST					\$ 5,139,448.96	

Lancefield Rd/Gellies Road Intersection

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

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	16,720	m2	\$ 5.40	\$ 90,288.00	
1.2	Earthworks					
1.2.1	Cut and disposal at specified location	9,758	m3	\$ 55.00	\$ 536,690.00	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 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 (11.2m)
2.2	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping	1	Allow.	\$ 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					
3.2.1	Pedestrian footpath	462	m2	\$ 59.00	\$ 27,258.00	Connector Road: Pedestrian path to both sides 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		m2	\$ 66.00	\$ -	
3.3	Median strip					
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)	670	LM	\$ 260.00	\$ 174,200.00	
4.1.3	Stormwater drainage (525mm DIA)		LM	\$ 383.50	\$ -	
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.	\$ 2,700.00	\$ 24,300.00	Assumed spacing of approx. 100m
4.3	Drainage - WSUD	9	Allow.	\$ 1,500.00	\$ 13,500.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Signals					
5.1.1	Traffic signals (incl. conduit subset)	1	Allow.	\$ 405,000.00	\$ 405,000.00	Rate includes for signals, conduits, pits, footings etc.
5.2	Traffic Safety					
5.2.1	Line marking and Traffic Signage	670	LM	\$ 32.00	\$ 21,440.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	12	No.	\$ 350.00	\$ 4,200.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	910	m2	\$ 3.00	\$ 2,730.30	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	910	m2	\$ 10.00	\$ 9,101.00	Allow for total (3m) wide. Topsoiling and 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 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.	\$ 400,000.00	\$ 400,000.00	Allowance only
9.2	Services Protection	1	Allow.	\$ 20,000.00	\$ 20,000.00	Electrical Pole Relocation Allowance only
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					\$ 4,278,536.30	
11	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	139,052.43	
11.2	VicRoads Fees	1.00%	Item	\$	42,785.36	
11.3	Traffic Management	5.00%	Item	\$	213,926.82	
11.4	Environmental Management	0.50%	Item	\$	21,392.68	
11.5	Survey & Design	5.00%	Item	\$	213,926.82	
11.6	Supervision & Project Management	9.00%	Item	\$	385,068.27	
11.7	Site Establishment	2.50%	Item	\$	106,963.41	
11.8	Contingency	15.00%	Item	\$	641,780.45	
SUB-TOTAL DELIVERY					\$ 1,764,896.22	
12	TOTAL ESTIMATED PROJECT COST				\$ 6,043,432.52	

Jacksons Creek Crossing (South)/ Buckland Way Intersection

SS-IN-09 (ULTIMATE) (Cross Intersection)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	15,114	m2	\$ 5.40	\$ 81,615.60	
1.2	Earthworks					
1.2.1	Cut and disposal		m3	\$ 55.00	\$ -	
1.2.2	Import fill	3,908	m3	\$ 37.80	\$ 147,737.98	
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 PAVEMENT					
2.1	New Pavement					
2.1.1	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)
2.2	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping		Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	1,440	LM	\$ 48.60	\$ 69,984.00	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths					
3.2.1	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	
3.2.3	Shared pathway	460	m2	\$ 66.00	\$ 30,360.00	Apparent shared pathway on western side of SS-RD4
3.3	Median strip					
3.3.1	Median (Levelled ground)	451	m2	\$ 32.40	\$ 14,612.40	
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	159	LM	\$ 216.00	\$ 34,329.60	
4.1.2	Stormwater drainage (450mm DIA)	596	LM	\$ 260.00	\$ 154,960.00	
4.1.3	Stormwater drainage (525mm DIA)		LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain	1,192	LM	\$ 54.00	\$ 64,368.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	16	No.	\$ 2,700.00	\$ 43,200.00	Assumed spacing of 75m
4.3	Drainage - WSUD	16	Allow.	\$ 1,500.00	\$ 24,000.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Signals					
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 Safety					
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	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	12	No.	\$ 350.00	\$ 4,200.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	3,528	m2	\$ 3.00	\$ 10,584.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	3,528	m2	\$ 10.00	\$ 35,280.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	12	No.	\$ 12,500.00	\$ 150,000.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall (3-5m high)	562	LM	\$ 4,480.00	\$ 2,517,760.00	
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 6,275,351.74	
10	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	203,948.93	
11.2	VicRoads Fees	1.00%	Item	\$	62,753.52	
11.3	Traffic Management	5.00%	Item	\$	313,767.59	
11.4	Environmental Management	0.50%	Item	\$	31,376.76	
11.5	Survey & Design	5.00%	Item	\$	313,767.59	
11.6	Supervision & Project Management	9.00%	Item	\$	564,781.66	
11.7	Site Establishment	2.50%	Item	\$	156,883.79	
11.8	Contingency	15.00%	Item	\$	941,302.76	
SUB-TOTAL DELIVERY					\$ 2,588,582.59	
11	TOTAL ESTIMATED PROJECT COST				\$ 8,863,934.34	

Jacksons Creek Crossing/Fox Hollow Drive Intersection

SS-IN-10 (ULTIMATE) (Cross Intersection)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	9,605	m2	\$ 5.40	\$ 51,867.00	
1.2	Earthworks					
1.2.1	Cut and disposal	21,601	m3	\$ 55.00	\$ 1,188,053.74	Assuming pavement composition depth total 650mm deep including fill
1.2.2	Fill		m3	\$ 37.80	\$ -	
1.2.3	Cut to fill	2,309	m3	\$ 70.00	\$ 161,607.60	
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	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	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping	-	Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb 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
3.2	Pedestrian & 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	
3.2.3	Shared pathway	-	m2	\$ 66.00	\$ -	
3.3	Median strip					
3.3.1	Median (Levelled ground)	1,417	m2	\$ 32.40	\$ 45,910.80	
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	95	LM	\$ 216.00	\$ 20,563.20	
4.1.2	Stormwater drainage (450mm DIA)	357	LM	\$ 260.00	\$ 92,820.00	
4.1.3	Stormwater drainage (525mm DIA)		LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain	714	LM	\$ 54.00	\$ 38,556.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	10	No.	\$ 2,700.00	\$ 27,000.00	Assumed spacing of 75m
4.3	Drainage - WSUD	10	Allow.	\$ 1,500.00	\$ 15,000.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Signals					
5.1.1	Traffic signals (incl. conduit subset)	1	Allow.	\$ 432,000.00	\$ 432,000.00	Rate includes for signals, conduits, pits, footings etc.
5.2	Traffic 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	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 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 LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	8	No.	\$ 12,500.00	\$ 100,000.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall (3-5m high)	100	LM	\$ 4,480.00	\$ 448,000.00	
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 3,669,727.94	
10	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	119,266.16	
11.2	VicRoads Fees	1.00%	Item	\$	36,697.28	
11.3	Traffic Management	5.00%	Item	\$	183,486.40	
11.4	Environmental Management	0.50%	Item	\$	18,348.64	
11.5	Survey & Design	5.00%	Item	\$	183,486.40	
11.6	Supervision & Project Management	9.00%	Item	\$	330,275.51	
11.7	Site Establishment	2.50%	Item	\$	91,743.20	
11.8	Contingency	15.00%	Item	\$	550,459.19	
SUB-TOTAL DELIVERY					\$ 1,513,762.77	
11	TOTAL ESTIMATED PROJECT COST				\$ 5,183,490.71	

Crinnion Road/Bulla-Digger Rest Road Intersection

SS-IN-11 (Roundabout)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	3,086	m2	\$ 5.40	\$ 16,666.84	
1.2	Earthworks					
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					
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	3,086	m2	\$ 156.60	\$ 483,338.23	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	1	Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	860	LM	\$ 48.60	\$ 41,796.00	Kerb and channel all sides of intersection
3.2	Pedestrian & Cycle Paths					
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
3.2.3	Shared pathway	-	m2	\$ 66.00	\$ -	
3.3	Median strip					
3.3.1	Median (Levelled ground)	730	m2	\$ 32.40	\$ 23,652.00	
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	-	LM	\$ 216.00	\$ -	
4.1.2	Stormwater drainage (450mm DIA)	400	LM	\$ 260.00	\$ 104,000.00	
4.1.3	Stormwater drainage (525mm DIA)	-	LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain	860	LM	\$ 54.00	\$ 46,440.00	
4.2	Drainage - Pits					
4.2.1	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	TRAFFIC					
5.1	Traffic Signals					
5.1.1	Traffic signals (incl. conduit subset)	-	Allow.	\$ 432,000.00	\$ -	Rate includes for signals, conduits, pits, footings etc.
5.2	Traffic Safety					
5.2.1	Line marking and Traffic Signage	900	LM	\$ 32.00	\$ 28,800.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
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 plantings	-	m2	\$ 3.00	\$ -	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	-	m2	\$ 10.00	\$ -	Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
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	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 (3-5m high)	-	LM	\$ 4,480.00	\$ -	
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 1,004,845.61	
10	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	\$ 32,657.48	
11.2	VicRoads Fees	1.00%	Item	\$	\$ 10,048.46	
11.3	Traffic Management	5.00%	Item	\$	\$ 50,242.28	
11.4	Environmental Management	0.50%	Item	\$	\$ 5,024.23	
11.5	Survey & Design	5.00%	Item	\$	\$ 50,242.28	
11.6	Supervision & Project Management	9.00%	Item	\$	\$ 90,436.11	
11.7	Site Establishment	2.50%	Item	\$	\$ 25,121.14	
11.8	Contingency	15.00%	Item	\$	\$ 150,726.84	
SUB-TOTAL DELIVERY					\$ 414,498.82	
11	TOTAL ESTIMATED PROJECT COST				\$ 1,419,344.43	

Lancefield Road/ Connector Road

SS-IN-12 (Cross Intersection - Interim)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	9,605	m2	\$ 5.40	\$ 51,867.00	
1.2	Earthworks					
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	\$ -	
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	9,789	m2	\$ 156.60	\$ 1,532,957.40	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.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	1,361	LM	\$ 48.60	\$ 66,144.60	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	780	m2	\$ 59.00	\$ 46,020.00	Connector Road: Pedestrian path to both 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					
3.3.1	Median (Levelled ground)	618	m2	\$ 32.40	\$ 20,023.20	
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	159	LM	\$ 216.00	\$ 34,329.60	
4.1.2	Stormwater drainage (450mm DIA)	417	LM	\$ 260.00	\$ 108,472.00	
4.1.3	Stormwater drainage (525mm DIA)	179	LM	\$ 383.50	\$ 68,569.80	
4.1.4	Drainage, sub grade drain	1,192	LM	\$ 54.00	\$ 64,368.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	16	No.	\$ 2,700.00	\$ 43,200.00	Assumed spacing of 75m
4.3	Drainage - WSUD	16	Allow.	\$ 1,500.00	\$ 24,000.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Signals					
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 Safety					
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	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	12	No.	\$ 350.00	\$ 4,200.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	1,912	m2	\$ 3.00	\$ 5,736.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	1,912	m2	\$ 10.00	\$ 19,120.00	Topsolling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	9	No.	\$ 12,500.00	\$ 112,500.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall (3-5m high)	-	LM	\$ 4,480.00	\$ -	
9	SERVICES					
9.1	Services Relocation	1	Allow.	\$ 400,000.00	\$ 400,000.00	Allowance only
9.2	Services Protection	1	Allow.	\$ 20,000.00	\$ 20,000.00	Electrical Pole Relocation Allowance only
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					\$ 3,771,951.98	
11	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	122,588.44	
11.2	VicRoads Fees	1.00%	Item	\$	37,719.52	
11.3	Traffic Management	5.00%	Item	\$	188,597.60	
11.4	Environmental Management	0.50%	Item	\$	18,859.76	
11.5	Survey & Design	5.00%	Item	\$	188,597.60	
11.6	Supervision & Project Management	9.00%	Item	\$	339,475.68	
11.7	Site Establishment	2.50%	Item	\$	94,298.80	
11.8	Contingency	15.00%	Item	\$	565,792.80	
SUB-TOTAL DELIVERY					\$ 1,555,930.19	
12	TOTAL ESTIMATED PROJECT COST				\$ 5,327,882.16	

Watsons Road/Fox Hollow Drive Intersection

SS-IN-13 (Roundabout)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	2,910	m2	\$ 5.40	\$ 15,714.00	
1.2	Earthworks					
1.2.1	Cut and 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					
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	1,510	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)
2.2	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping	1	Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
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 & 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 strip					
3.3.1	Median (Levelled ground)	38	m2	\$ 32.40	\$ 1,231.20	
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	77	LM	\$ 216.00	\$ 16,704.00	
4.1.2	Stormwater drainage (450mm DIA)	290	LM	\$ 260.00	\$ 75,400.00	
4.1.3	Stormwater drainage (525mm DIA)	-	LM	\$ 383.50	\$ -	
4.1.4	Drainage, 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 - WSUD	8	Allow.	\$ 1,500.00	\$ 12,000.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Safety					
5.1.1	Line marking and Traffic Signage	290	LM	\$ 32.00	\$ 9,280.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
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 plantings	573	m2	\$ 3.00	\$ 1,719.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	573	m2	\$ 10.00	\$ 5,730.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
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	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 (3-5m high)	-	LM	\$ -	\$ -	
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 1,044,815.25	
10	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	\$ 33,956.50	
11.2	VicRoads Fees	1.00%	Item	\$	\$ 10,448.15	
11.3	Traffic Management	5.00%	Item	\$	\$ 52,240.76	
11.4	Environmental Management	0.50%	Item	\$	\$ 5,224.08	
11.5	Survey & Design	5.00%	Item	\$	\$ 52,240.76	
11.6	Supervision & Project Management	9.00%	Item	\$	\$ 94,033.37	
11.7	Site Establishment	2.50%	Item	\$	\$ 26,120.38	
11.8	Contingency	15.00%	Item	\$	\$ 156,722.29	
SUB-TOTAL DELIVERY					\$ 430,986.29	
11	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						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	2,910	m2	\$ 5.40	\$ 15,714.00	
1.2	Earthworks					
1.2.1	Cut and 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					
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	1,510	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)
2.2	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping	1	Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
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 & 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 strip					
3.3.1	Median (Levelled ground)	38	m2	\$ 32.40	\$ 1,231.20	
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	77	LM	\$ 216.00	\$ 16,704.00	
4.1.2	Stormwater drainage (450mm DIA)	290	LM	\$ 260.00	\$ 75,400.00	
4.1.3	Stormwater drainage (525mm DIA)	-	LM	\$ 383.50	\$ -	
4.1.4	Drainage, 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 - WSUD	8	Allow.	\$ 1,500.00	\$ 12,000.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Safety					
5.1.1	Line marking and Traffic Signage	290	LM	\$ 32.00	\$ 9,280.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
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 plantings	573	m2	\$ 3.00	\$ 1,719.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	573	m2	\$ 10.00	\$ 5,730.00	Topsolling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
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	MISCELLANEOUS					
8.1	Speed cameras	-	Item	\$ -	\$ -	Excluded
8.1.2	Speed bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall (3-5m high)	-	LM	\$ -	\$ -	Assumed no walls
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 1,044,815.25	
10	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	\$ 33,956.50	
11.2	VicRoads Fees	1.00%	Item	\$	\$ 10,448.15	
11.3	Traffic Management	5.00%	Item	\$	\$ 52,240.76	
11.4	Environmental Management	0.50%	Item	\$	\$ 5,224.08	
11.5	Survey & Design	5.00%	Item	\$	\$ 52,240.76	
11.6	Supervision & Project Management	9.00%	Item	\$	\$ 94,033.37	
11.7	Site Establishment	2.50%	Item	\$	\$ 26,120.38	
11.8	Contingency	15.00%	Item	\$	\$ 156,722.29	
SUB-TOTAL DELIVERY					\$ 430,986.29	
11	TOTAL ESTIMATED PROJECT COST				\$ 1,475,801.54	

Watsons Road, Crinnion Road Intersection

SS-IN-15 (T-intersection - Ultimate)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	9,605	m2	\$ 5.40	\$ 51,867.00	
1.2	Earthworks					
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	\$ -	
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.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	385	LM	\$ 48.60	\$ 18,711.00	Kerb and channel to both sides of each traffic 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					
3.3.1	Median (Levelled ground)	150	m2	\$ 32.40	\$ 4,860.00	
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	103	LM	\$ 216.00	\$ 22,176.00	
4.1.2	Stormwater drainage (450mm DIA)	385	LM	\$ 260.00	\$ 100,100.00	
4.1.3	Stormwater drainage (525mm DIA)		LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain	770	LM	\$ 54.00	\$ 41,580.00	
4.2	Drainage - Pits					
4.2.1	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	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					
5.2.1	Line marking and Traffic Signage	100	LM	\$ 32.00	\$ 3,200.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	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	1,250	m2	\$ 3.00	\$ 3,750.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	1,250	m2	\$ 10.00	\$ 12,500.00	Topping and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	8	No.	\$ 12,500.00	\$ 100,000.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELLANEOUS					
8.1	Speed cameras	-	Item	\$ -	\$ -	Excluded
8.1.2	Speed bumps	-	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					
11.1	Council Fees	3.25%	Item	\$	20,973.34	
11.2	VicRoads Fees	1.00%	Item	\$	6,453.34	
11.3	Traffic Management	5.00%	Item	\$	32,266.68	
11.4	Environmental Management	0.50%	Item	\$	3,226.67	
11.5	Survey & Design	5.00%	Item	\$	32,266.68	
11.6	Supervision & Project Management	9.00%	Item	\$	58,080.02	
11.7	Site Establishment	2.50%	Item	\$	16,133.34	
11.8	Contingency	15.00%	Item	\$	96,800.03	
SUB-TOTAL DELIVERY					\$ 266,200.07	
11	TOTAL ESTIMATED PROJECT COST				\$ 911,533.57	

Jacksons Creek Crossing

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

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	8,330	m2	\$ 5.40	\$ 44,982.00	
1.2	Earthworks					
1.2.1	Cut and disposal	29,268	m3	\$ 55.00	\$ 1,609,742.96	With 10% additional factor
1.2.2	Fill		m3	\$ 37.80	\$ -	
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	ROAD PAVEMENT					
2.1	New Pavement					
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	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping	-	Allow.	\$ -	\$ -	Have assumed all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	980	LM	\$ 48.60	\$ 47,628.00	
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	980	m2	\$ 59.00	\$ 57,820.00	Pedestrian path to both sides of proposed road 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 strip					
3.3.1	Median (Levelled ground)	1,470	m2	\$ 32.40	\$ 47,628.00	Assume median (6.0m) to be levelled soil - no landscaping assumed
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	65	LM	\$ 216.00	\$ 14,112.00	
4.1.2	Stormwater drainage (450mm DIA)	245	LM	\$ 260.00	\$ 63,700.00	
4.1.3	Stormwater drainage (525mm DIA)	-	LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain	490	LM	\$ 54.00	\$ 26,460.00	Inclusive of subsoil drainage
4.2	Drainage - Pits					
4.2.1	Side entry pits	7	No.	\$ 2,700.00	\$ 17,640.00	Assumed spacing of 75m
4.3	Drainage - WSUD	7	Allow.	\$ 1,500.00	\$ 9,800.00	
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					
5.2.1	Line marking and Traffic Signage	245	LM	\$ 32.00	\$ 7,840.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	2	Item	\$ 350.00	\$ 700.00	Allowance only - Assumed spacing of 100m
6.2	Landscaping					
6.2.1	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	Topsailing and seeding of nature strips (4.5m) to both sides. Total (9.0m) wide
7	STREET LIGHTING					
7.1	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	MISCELLANEOUS					
8.1	Speed cameras	-	Item	\$ -	\$ -	Excluded
8.1.2	Speed bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall (0-2m high)	240	LM	\$ 1,120.00	\$ 268,800.00	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)	80	LM	\$ 7,840.00	\$ 627,200.00	Up to 8m high
8.2.4	Retaining wall (9-11m high)		LM	\$ 11,200.00	\$ -	Up to 11m high
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 3,984,103.16	
10	DELIVERY					
	Fees					
10.1	Council Fees	3.25%	Item	\$	129,483.35	
10.2	VicRoads Fees	1.00%	Item	\$	39,841.03	
10.3	Traffic Management	5.00%	Item	\$	199,205.16	
10.4	Environmental Management	0.50%	Item	\$	19,920.52	
10.5	Survey & Design	5.00%	Item	\$	199,205.16	
10.6	Supervision & Project Management	9.00%	Item	\$	358,569.28	
10.7	Site Establishment	2.50%	Item	\$	99,602.58	
10.8	Contingency	15.00%	Item	\$	597,615.47	
SUB-TOTAL DELIVERY					\$ 1,643,442.55	
11	TOTAL ESTIMATED PROJECT COST				\$ 5,627,545.71	

Jacksons Creek Crossing

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

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	6,494	m2	\$ 5.40	\$ 35,067.60	
1.2	Earthworks					
1.2.1	Cut and disposal	24,526	m3	\$ 55.00	\$ 1,348,911.37	With 10% additional factor
1.2.2	Fill		m3	\$ 37.80	\$ -	
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	ROAD PAVEMENT					
2.1	New Pavement					
2.1.1	Road pavement - Traffic lanes	2,216	m2	\$ 156.60	\$ 346,962.96	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.	\$ -	\$ -	Have assumed all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	764	LM	\$ 48.60	\$ 37,130.40	
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	764	m2	\$ 59.00	\$ 45,076.00	Pedestrian path to both sides of proposed 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					
3.3.1	Median (Levelled ground)	1,146	m2	\$ 32.40	\$ 37,130.40	Assume median (6.0m) to be levelled soil - no landscaping assumed
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	51	LM	\$ 216.00	\$ 11,001.60	
4.1.2	Stormwater drainage (450mm DIA)	191	LM	\$ 260.00	\$ 49,660.00	
4.1.3	Stormwater drainage (525mm DIA)	-	LM	\$ 383.50	\$ -	
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					
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	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	2	Item	\$ 350.00	\$ 700.00	Allowance only
6.2	Landscaping					
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	Topping and seeding of nature strips (4.5m) to both sides. Total (9.0m) wide
7	STREET 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
		-	LM	\$ -	\$ -	
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 (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)	120	LM	\$ 7,840.00	\$ 940,800.00	Up to 8m high
8.2.4	Retaining wall (9-11m high)		LM	\$ 11,200.00	\$ -	Up to 11m high
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 3,698,029.73	
10	DELIVERY					
	Fees					
10.1	Council Fees	3.25%	Item	\$	120,185.97	
10.2	VicRoads Fees	1.00%	Item	\$	36,980.30	
10.3	Traffic Management	5.00%	Item	\$	184,901.49	
10.4	Environmental Management	0.50%	Item	\$	18,490.15	
10.5	Survey & Design	5.00%	Item	\$	184,901.49	
10.6	Supervision & Project Management	9.00%	Item	\$	332,822.68	
10.7	Site Establishment	2.50%	Item	\$	92,450.74	
10.8	Contingency	15.00%	Item	\$	554,704.46	
SUB-TOTAL DELIVERY					\$ 1,525,437.26	
11	TOTAL ESTIMATED PROJECT COST				\$ 5,223,466.99	

Balbethan Drive

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

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	15,892	m2	\$ 5.40	\$ 85,816.80	
1.2	Earthworks					
1.2.1	Cut and disposal	-	m3	\$ 55.00	\$ -	
1.2.2	Fill	1,939	m3	\$ 37.80	\$ 73,300.01	With 10% additional factor
1.2.3	Cut to fill	3,202	m3	\$ 70.00	\$ 224,131.34	With 10% additional factor
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	5,264	m2	\$ 156.60	\$ 824,342.40	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	-	Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	940	LM	\$ 48.60	\$ 45,684.00	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	1,410	m2	\$ 59.00	\$ 83,190.00	Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3.0m) wide
3.2.2	Cycle pathway	1,410	m2	\$ 66.00	\$ 93,060.00	Two way Cycle path. Total span (3m) wide
3.2.3	Shared pathway	-	m2	\$ 66.00	\$ -	Assumed not included in LR-RD3
3.3	Median strip					
3.3.1	Median (Levelled ground)	-	m2	\$ 32.40	\$ -	Assumed not included in LR-RD3
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	125	LM	\$ 216.00	\$ 27,072.00	
4.1.2	Stormwater drainage (450mm DIA)	470	LM	\$ 260.00	\$ 122,200.00	
4.1.3	Stormwater drainage (525mm DIA)	-	LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain	940	LM	\$ 54.00	\$ 50,760.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	13	No.	\$ 2,700.00	\$ 33,840.00	Assumed spacing of approx. 75m
4.3	Drainage - WSUD	13	Allow.	\$ 1,500.00	\$ 18,800.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
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	470	LM	\$ 32.00	\$ 15,040.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
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	7,990	m2	\$ 3.00	\$ 23,970.00	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip	7,990	m2	\$ 10.00	\$ 79,900.00	Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	9	No.	\$ 12,500.00	\$ 117,500.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
8	MISCELLANEOUS					
8.1	Speed cameras	-	Item	\$ -	\$ -	Excluded
8.1.2	Speed bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall	-	LM	\$ -	\$ -	Assume no retaining walls to LR-RD3
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 1,934,606.55	
10	DELIVERY					
	Fees					
10.1	Council Fees	3.25%	Item	\$	62,874.71	
10.2	VicRoads Fees	1.00%	Item	\$	19,346.07	
10.3	Traffic Management	5.00%	Item	\$	96,730.33	
10.4	Environmental Management	0.50%	Item	\$	9,673.03	
10.5	Survey & Design	5.00%	Item	\$	96,730.33	
10.6	Supervision & Project Management	9.00%	Item	\$	174,114.59	
10.7	Site Establishment	2.50%	Item	\$	48,365.16	
10.8	Contingency	15.00%	Item	\$	290,190.98	
SUB-TOTAL DELIVERY					\$ 798,025.20	
11	TOTAL ESTIMATED PROJECT COST				\$ 2,732,631.75	

Ex Stockwell Drive Upgrade

LR-RD-04 Approx. length: 738m

Item	Description		Quantity	Unit	Rate		Amount	Comments
WORKS								
1	SITEWORKS AND EARTHWORKS							
1.1	Pre-construction							
1.1.1	Demolition and site preparation		18,450	m2	\$	5.40	\$ 99,630.00	Assuming pavement composition depth total 650mm deep including fill
1.2	Earthworks							
1.2.1	Cut and disposal		7,077	m3	\$	55.00	\$ 389,258.10	With 10% additional factor
1.2.2	Fill			m3	\$	37.80	\$ -	
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	ROAD PAVEMENT							
2.1	New Pavement							
2.1.1	Road pavement - Traffic lanes		8,266	m2	\$	156.60	\$ 1,294,392.96	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		-	Allow.	\$	-	\$ -	Have assumed all new works.
3	CONCRETE WORKS							
3.1	Kerb and Channel							
3.1.1	Kerb and channel		1,476	LM	\$	48.60	\$ 71,733.60	
3.2	Pedestrian & Cycle Paths							
3.2.1	Pedestrian footpath		2,214	m2	\$	59.00	\$ 130,626.00	Pedestrian path to both sides of proposed road each (1.5m) wide. Total span (3m) wide
3.2.2	Cycle pathway		2,214	m2	\$	66.00	\$ 146,124.00	Cycle path on one side of the road (3m) wide
3.2.3	Shared pathway		-	m2	\$	66.00	\$ -	Assumed not included in LR-RD2
3.3	Median strip							
3.3.1	Median (Levelled ground)		-	m2	\$	32.40	\$ -	Assumed none
4	DRAINAGE							
4.1	Drainage - Pipes							
4.1.1	Stormwater drainage (300mm DIA)		197	LM	\$	216.00	\$ 42,508.80	
4.1.2	Stormwater drainage (450mm DIA)		517	LM	\$	260.00	\$ 134,316.00	
4.1.3	Stormwater drainage (525mm DIA)		221	LM	\$	383.50	\$ 84,906.90	
4.1.4	Drainage, sub grade drain		1,476	LM	\$	54.00	\$ 79,704.00	Inclusive of subsoil drainage
4.2	Drainage - Pits							
4.2.1	Side entry pits		20	No.	\$	2,700.00	\$ 53,136.00	Assumed spacing of 75m
4.3	Drainage - WSUD		20	Allow.	\$	1,500.00	\$ 29,520.00	
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							
5.2.1	Line marking and Traffic Signage		738	LM	\$	32.00	\$ 23,616.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE							
6.1	Trees							
6.1.1	Tree planting (2-2.5m tall)		14	Item	\$	350.00	\$ 4,900.00	Allowance only
6.2	Landscaping							
6.2.1	Tube stock plantings		5,756	m2	\$	3.00	\$ 17,269.20	Allowance of 2 per m2 to nature strip
6.2.2	Nature strip		5,756	m2	\$	10.00	\$ 57,564.00	Topsoiling and seeding of nature strips to both sides. Total (7.8m) wide
7	STREET LIGHTING							
7.1	Street Lighting							
7.1.1	Street lighting (incl. lighting conduits)		15	No.	\$	12,500.00	\$ 184,500.00	Assume install poles 12m high with luminaries placed every 50m (roads) to one side. Rate includes for electrical lighting conduits
			-	LM	\$	-	\$ -	
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	\$	-	\$ -	
9	SERVICES							
9.1	Services Relocation		-	Allow.	\$	-	\$ -	Excluded
9.2	Services Protection		-	Allow.	\$	-	\$ -	Excluded
SUB TOTAL - WORKS							\$ 2,856,205.56	
10	DELIVERY							
	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		\$	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	
SUB-TOTAL DELIVERY							\$ 1,178,184.79	
11	TOTAL ESTIMATED PROJECT COST						\$ 4,034,390.35	

Lancefield Road/Sunningdale Road Intersection

LR-IN-01 (Cross Intersection - Interim)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	19,220	m2	\$ 5.40	\$ 103,788.00	
1.2	Earthworks					
1.2.1	Cut and disposal at specified location	12,699	m3	\$ 55.00	\$ 698,465.63	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 PAVEMENT					
2.1	New Pavement					
2.1.1	Road pavement - Traffic lanes	15,630	m2	\$ 156.60	\$ 2,447,658.00	Quantity adopted from SMEC detailed design
2.2	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping	1	Allow.	\$ 195,436.80	\$ 195,436.80	Allowance only
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	1,450	LM	\$ 48.60	\$ 70,470.00	Quantity adopted from SMEC detailed design
3.2	Pedestrian & 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 sides of the road). Total span (6.0m) wide
3.3	Median strip					
3.3.1	Median (Levelled ground - no plants)	4,056	m2	\$ 21.60	\$ 87,609.60	Assumed levelled soil, future proofed for planting
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	225	LM	\$ 216.00	\$ 48,614.40	
4.1.2	Stormwater drainage (450mm DIA)	591	LM	\$ 260.00	\$ 153,608.00	
4.1.3	Stormwater drainage (525mm DIA)	253	LM	\$ 383.50	\$ 97,102.20	
4.1.4	Drainage, sub grade drain	1,688	LM	\$ 54.00	\$ 91,152.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	12	No.	\$ 2,700.00	\$ 32,400.00	Assumed spacing of approx. 100m
4.3	Drainage - WSUD	12	Allow.	\$ 1,500.00	\$ 18,000.00	
4.4	Drainage - Miscellaneous					
4.4.1	4 No 900x300 Box Culvert	120	m	\$ 1,500.00	\$ 180,000.00	
5	TRAFFIC					
5.1	Traffic Signals					
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 Safety					
5.2.1	Line marking and Traffic Signage	844	LM	\$ 32.00	\$ 27,008.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	16	No.	\$ 350.00	\$ 5,600.00	Allowance only
6.2	Landscaping					
6.2.1	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 LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	17	No.	\$ 12,500.00	\$ 212,500.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall	-	LM	\$ 702.00	\$ -	Assume no retaining walls
9	SERVICES					
9.1	Services Relocation	1	Allow.	\$ 400,000.00	\$ 400,000.00	Allowance for elec and comms relocations
9.2	Services Protection	1	Allow.	\$ 20,000.00	\$ 20,000.00	Allowance only
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					\$ 5,667,397.63	
11	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	184,190.42	
11.2	VicRoads Fees	1.00%	Item	\$	56,673.98	
11.3	Traffic Management	5.00%	Item	\$	283,369.88	
11.4	Environmental Management	0.50%	Item	\$	28,336.99	
11.5	Survey & Design	5.00%	Item	\$	283,369.88	
11.6	Supervision & Project Management	9.00%	Item	\$	510,065.79	
11.7	Site Establishment	2.50%	Item	\$	141,684.94	
11.8	Contingency	15.00%	Item	\$	850,109.64	
SUB-TOTAL DELIVERY					\$ 2,337,801.52	
12	TOTAL ESTIMATED PROJECT COST				\$ 8,005,199.15	

Lancefield Road/Rolling Meadows Drive Intersection

LR-IN-02 (Cross Intersection - Interim)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	16,600	m2	\$ 5.40	\$ 89,640.00	
1.2	Earthworks					
1.2.1	Cut and disposal at specified location	10,430	m3	\$ 55.00	\$ 573,650.00	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 PAVEMENT					
2.1	New Pavement					
2.1.1	Road pavement - Traffic lanes	12,837	m2	\$ 156.60	\$ 2,010,195.90	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.	\$ 201,258.00	\$ 201,258.00	Allowance only
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	2,385	LM	\$ 48.60	\$ 115,911.00	Quantity adopted from SMEC detailed design
3.2	Pedestrian & 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	980	m2	\$ 66.00	\$ 64,680.00	Quantity adopted from SMEC detailed design
3.2.3	Shared pathway		m2	\$ 66.00	\$ -	
3.3	Median strip					
3.3.1	Median (Levelled ground - no plants)	2,847	m2	\$ 21.60	\$ 61,495.20	Assumed levelled soil, future proofed for planting
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	163	LM	\$ 216.00	\$ 35,208.00	Quantity adopted from SMEC detailed design
4.1.2	Stormwater drainage (450mm DIA)	207	LM	\$ 260.00	\$ 53,820.00	Quantity adopted from SMEC detailed design
4.1.3	Stormwater drainage (525mm DIA)	118	LM	\$ 383.50	\$ 45,253.00	Quantity adopted from SMEC detailed design
4.1.4	Stormwater drainage (600mm DIA)	339	LM	\$ 480.00	\$ 162,720.00	Quantity adopted from SMEC detailed design
4.1.5	Stormwater drainage (675mm DIA)	74	LM	\$ 550.00	\$ 40,700.00	Quantity adopted from SMEC detailed design
4.1.6	Stormwater drainage (1050mm DIA)	80	LM	\$ 650.00	\$ 52,000.00	Quantity adopted from SMEC detailed design
4.1.7	Drainage, sub grade drain	1,540	LM	\$ 54.00	\$ 83,160.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	11	No.	\$ 2,700.00	\$ 29,700.00	Assumed spacing of approx. 100m
4.3	Drainage - WSUD	11	Allow.	\$ 1,500.00	\$ 16,500.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Signals					
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 Safety					
5.2.1	Line marking and Traffic Signage	770	LM	\$ 32.00	\$ 24,640.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees			\$ -		
6.1.1	Tree planting (2-2.5m tall)	14	No.	\$ 350.00	\$ 4,900.00	Allowance only
6.2	Landscaping					
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	\$ 18,010.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting conduits)	16	No.	\$ 12,500.00	\$ 200,000.00	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 bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall	-	LM	\$ 702.00	\$ -	Assume no retaining walls
9	SERVICES					
9.1	Services Relocation	1	Allow.	\$ 400,000.00	\$ 400,000.00	Allowance for elec and comms relocations
9.2	Services Protection	1	Allow.	\$ 20,000.00	\$ 20,000.00	Allowance only
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					\$ 5,000,164.10	
11	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	162,505.33	
11.2	VicRoads Fees	1.00%	Item	\$	50,001.64	
11.3	Traffic Management	5.00%	Item	\$	250,008.21	
11.4	Environmental Management	0.50%	Item	\$	25,000.82	
11.5	Survey & Design	5.00%	Item	\$	250,008.21	
11.6	Supervision & Project Management	9.00%	Item	\$	450,014.77	
11.7	Site Establishment	2.50%	Item	\$	125,004.10	
11.8	Contingency	15.00%	Item	\$	750,024.62	
SUB-TOTAL DELIVERY					\$ 2,062,567.69	
12	TOTAL ESTIMATED PROJECT COST				\$ 7,062,731.79	

Lancefield Road/Balbethan Drive Intersection

LR-IN-03 (Cross Intersection - Interim)

Item	Description		Quantity	Unit	Rate	Amount	Comments
WORKS							
1	SITEWORKS AND EARTHWORKS						
1.1	Pre-construction						
1.1.1	Demolition and site preparation		18,123	m2	\$ 5.40	\$ 97,864.20	
1.2	Earthworks						
1.2.1	Cut and disposal at specified location		10,825	m3	\$ 55.00	\$ 595,375.00	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 PAVEMENT						
2.1	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	CONCRETE WORKS						
3.1	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						
3.2.1	Pedestrian footpath		780	m2	\$ 59.00	\$ 46,020.00	Connector Road: Pedestrian path to both 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						
3.3.1	Median (Levelled ground - no plants)		-	m2	\$ 21.60	\$ -	
4	DRAINAGE						
4.1	Drainage - Pipes						
4.1.1	Stormwater drainage		930	LM		\$ -	
4.1.1	Stormwater drainage (300mm DIA)		248	LM	\$ 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)		279	LM	\$ 383.50	\$ 106,996.50	
4.1.4	Drainage, sub grade drain		1,860	LM	\$ 54.00	\$ 100,440.00	
4.2	Drainage - Pits						
4.2.1	Side entry pits		11	No.	\$ 2,700.00	\$ 29,700.00	Assumed spacing of approx. 100m
4.3	Drainage - WSUD		11	Allow.	\$ 1,500.00	\$ 16,500.00	
4.4	Drainage - Miscellaneous		-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC						
5.1	Traffic Signals						
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 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	LANDSCAPE						
6.1	Trees						
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	m2	\$ 10.00	\$ 32,420.00	Allow for total (3m) wide. Topsoiling and seeding of nature strips, varying in widths
7	STREET LIGHTING						
7.1	Street Lighting						
7.1.1	Street lighting (incl. lighting conduits)		29	No.	\$ 12,500.00	\$ 362,500.00	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 bumps		-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls						
8.2.1	Retaining wall		-	LM	\$ 702.00	\$ -	Assume no retaining walls
9	SERVICES						
9.1	Services Relocation		1	Allow.	\$ 400,000.00	\$ 400,000.00	Allowance only
9.2	Services Protection		1	Allow.	\$ 20,000.00	\$ 20,000.00	Electrical Pole Relocation Allowance only
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						\$ 5,100,119.10	
DELIVERY							
11.1	Council Fees		3.25%	Item		\$ 165,753.87	
11.2	VicRoads Fees		1.00%	Item		\$ 51,001.19	
11.3	Traffic Management		5.00%	Item		\$ 255,005.96	
11.4	Environmental Management		0.50%	Item		\$ 25,500.60	
11.5	Survey & Design		5.00%	Item		\$ 255,005.96	
11.6	Supervision & Project Management		9.00%	Item		\$ 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						\$ 2,103,799.13	
12	TOTAL ESTIMATED PROJECT COST					\$ 7,203,918.23	

Lancefield Road/Jacksons Creek Crossing (North) Intersection

LR-IN-04 (Cross Intersection- Interim)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	16,250	m2	\$ 5.40	\$ 87,750.00	
1.2	Earthworks					
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 PAVEMENT					
2.1	New Pavement					
2.1.1	Road pavement - Traffic lanes	12,900	m2	\$ 156.60	\$ 2,020,140.00	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.	\$ 181,494.00	\$ 181,494.00	Allowance only
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	1,400	LM	\$ 48.60	\$ 68,040.00	Kerb and channel as per drawing outlined
3.2	Pedestrian & Cycle Paths					
3.2.1	Pedestrian footpath	660	m2	\$ 59.00	\$ 38,940.00	Allow Cycle path (3m) wide
3.2.2	Cycle pathway	660	m2	\$ 66.00	\$ 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	DRAINAGE					
4.1	Drainage - 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)	314	LM	\$ 383.50	\$ 120,457.35	
4.1.4	Drainage, sub grade drain	2,094	LM	\$ 54.00	\$ 113,076.00	
4.2	Drainage - Pits					
4.2.1	Side entry pits	21	No.	\$ 2,700.00	\$ 56,700.00	Assumed spacing of approx. 100m
4.3	Drainage - WSUD	21	Allow.	\$ 1,500.00	\$ 31,500.00	
4.4	Drainage - Miscellaneous	-	No.	\$ -	\$ -	Assumed none.
5	TRAFFIC					
5.1	Traffic Signals					
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 Safety					
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	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	21	No.	\$ 350.00	\$ 7,350.00	Allowance only
6.2	Landscaping					
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 seeding of nature strips, varying in widths
7	STREET LIGHTING					
7.1	Street Lighting					
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	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	\$ 702.00	\$ -	Assume no retaining walls
9	SERVICES					
9.1	Services Relocation (Electrical Pole Relocation)	1	Allow.	\$ 400,000.00	\$ 400,000.00	Allowance only
9.2	Services Protection	1	Allow.	\$ 20,000.00	\$ 20,000.00	Allowance
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					\$ 4,978,481.75	
11	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	161,800.66	
11.2	VicRoads Fees	1.00%	Item	\$	49,784.82	
11.3	Traffic Management	5.00%	Item	\$	248,924.09	
11.4	Environmental Management	0.50%	Item	\$	24,892.41	
11.5	Survey & Design	5.00%	Item	\$	248,924.09	
11.6	Supervision & Project Management	9.00%	Item	\$	448,063.36	
11.7	Site Establishment	2.50%	Item	\$	124,462.04	
11.8	Contingency	15.00%	Item	\$	746,772.26	
SUB-TOTAL DELIVERY					\$ 2,053,623.72	
12	TOTAL ESTIMATED PROJECT COST				\$ 7,032,105.47	

Stockwell Drive / Balethan Drive to 3 way roundabout

LR-IN6 (Roundabout)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Demolition and site preparation	1,862.00	m2	\$ 5.40	\$ 10,054.80	
1.2	Earthworks					
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
1.2.2	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 PAVEMENT					
2.1	New Pavement					
2.1.1	Road pavement - Traffic 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)
2.2	Rehabilitate Existing Pavement					
2.2.1	Pavement profiling and reshaping		Allow.	\$ -	\$ -	Assume all new works.
3	CONCRETE WORKS					
3.1	Kerb and Channel					
3.1.1	Kerb and channel	264.00	LM	\$ 48.60	\$ 12,830.40	Kerb and channel to both sides of each traffic lane
3.2	Pedestrian & Cycle Paths					
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 ground)	227.00	m2	\$ 32.40	\$ 7,354.80	Assume median (6.0m) to be levelled soil - no landscaping assumed
4	DRAINAGE					
4.1	Drainage - Pipes					
4.1.1	Stormwater drainage (300mm DIA)	32.00	LM	\$ 216.00	\$ 6,912.00	
4.1.2	Stormwater drainage (450mm DIA)	120.00	LM	\$ 260.00	\$ 31,200.00	
4.1.3	Stormwater drainage (525mm DIA)	-	LM	\$ 383.50	\$ -	
4.1.4	Drainage, sub grade drain	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					
5.1.1	Line marking and Traffic Signage	120.00	LM	\$ 32.00	\$ 3,840.00	Includes fixed signage, guide posts, line markings, traffic safety
6	LANDSCAPE					
6.1	Trees					
6.1.1	Tree planting (2-2.5m tall)	2	No.	\$ 350.00	\$ 700.00	Allowance only
6.2	Landscaping					
6.2.1	Tube stock plantings	548.00	m2	\$ 3.00	\$ 1,644.00	Allowance of \$2 per m2 to nature strip
6.2.2	Nature strip	548.00	m2	\$ 10.00	\$ 5,480.00	Topsoiling and seeding of nature strips (4.5m) to both sides. Total (9.0m) wide
7	STREET LIGHTING					
7.1	Street Lighting					
7.1.1	Street lighting (incl. lighting 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	MISCELLANEOUS					
8.1	Speed cameras	-	Item	\$ -	\$ -	Excluded
8.1.2	Speed bumps	-	No.	\$ -	\$ -	Excluded
8.2	Retaining walls					
8.2.1	Retaining wall	-	LM	\$ 702.00	\$ -	Assume no retaining walls to LR-RD2
9	SERVICES					
9.1	Services Relocation	-	Allow.	\$ -	\$ -	Excluded
9.2	Services Protection	-	Allow.	\$ -	\$ -	Excluded
SUB TOTAL - WORKS					\$ 367,083.20	
11	DELIVERY					
	Fees					
11.1	Council Fees	3.25%	Item	\$	11,930.20	
11.2	VicRoads Fees	1.00%	Item	\$	3,670.83	
11.3	Traffic Management	5.00%	Item	\$	18,354.16	
11.4	Environmental Management	0.50%	Item	\$	1,835.42	
11.5	Survey & Design	5.00%	Item	\$	18,354.16	
11.6	Supervision & Project Management	9.00%	Item	\$	33,037.49	
11.7	Site Establishment	2.50%	Item	\$	9,177.08	
11.8	Contingency	15.00%	Item	\$	55,062.48	
SUB-TOTAL DELIVERY					\$ 151,421.82	
12	TOTAL ESTIMATED PROJECT COST				\$ 518,505.02	

SS-BR-01

Approx. length 280m - Concrete Super T

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Site preparation	2	Item	\$ 5,500.00	\$ 11,000.00	
1.1.2	Strip Site Locally	-	sq.m	\$ 2.75	\$ -	
1.2	Earthworks					
1.2.1	Bulk excavation and fill	6,922	cu.m	\$ 70.00	\$ 484,505.00	
1.2.3	Fill only	-	cu.m	\$ 37.80	\$ -	
1.3	Set-Out					
1.3.1	Allow for site setout and marking	1	Item	\$ -	\$ 12,500.00	
2	STRUCTURE					
2.1	Slab & Foundations/Piers/Beams					
2.1.1	Bridge structure	4,200	sq.m	\$ 2,450.00	\$ 10,290,000.00	Allow for reinforced single span concrete bridge (Total width 13.5m approx.) 200mm thick deck slab on top of super 1800mm deep T-Beams
2.1.2	Elastomeric Bearings	-	Item	\$ 1,650.00	\$ -	
2.1.3	Cast in-situ concrete base slab with footings	-	sq.m	\$ 550.00	\$ -	
2.1.4	Bridge Columns	2,818	cu.m	\$ 1,100.00	\$ 3,099,800.00	
2.1.5	Piles	70	Item	\$ 3,584.70	\$ 250,929.00	Driven piles Approx. 10 per pier
2.1.6	Pile Cap	7	Item	\$ 31,950.00	\$ 223,650.00	
2.1.7	Retaining Walls - Wing & Keeper Walls	-	sq.m	\$ 1,100.00	\$ -	
2.1.8	Retaining Walls - Fender Wall	-	Item	\$ 16,500.00	\$ -	
2.1.9	Retaining Wall	-	sq.m	\$ 1,120.00	\$ -	
2.1.10	Bridge Deck	-	sq.m	\$ 480.00	\$ -	
2.1.11	Constructability	1	Item		\$ 2,203,812.21	Allowance for temporary works due to site conditions
2.2	Abutments					
2.2.1	RC Abutment / Crosshead Beam	130	cu.m	\$ 2,500.00	\$ 325,000.00	
2.2.2	Anti Sliding Blocks	10	Item	\$ 2,500.00	\$ 25,000.00	
2.2.3	Abutment Walls and Bearings	1	Item	\$ 400,000.00	\$ 400,000.00	
2.2.4	Bored piles	8	Item	\$ 9,712.80	\$ 77,702.40	Bored piles behind RC retaining wall
2.3	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)	-	LM	\$ 110.00	\$ -	
2.4	Other					
3	ON-BRIDGE WORKS					
3.1	Asphalt Wearing Course Over Slab					
3.1.1	Asphalt pavement	1,960	sq.m	\$ 110.00	\$ 215,600.00	Road pavement - Traffic lane Allow Traffic lane (7m) wide
3.1.2	Road pavement under bridge	-	sq.m	\$ 250.00	\$ -	
3.1.3	Cycle track	-	sq.m	\$ 1,200.00	\$ -	
3.2	Kerb and Channel					
3.2.1	Kerb and channel	560	LM	\$ 75.00	\$ 42,000.00	
3.3	Footpath					
3.3.1	Bridge walkway	-	sq.m	\$ 1,500.00	\$ -	
3.3.2	Pedestrian footpath	-	sq.m	\$ 155.00	\$ -	
3.3.3	Shared path	1,400	sq.m	\$ 132.00	\$ 184,800.00	Shared path overlay total
3.4	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					
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 Guard Rail/Barrier					
4.2.1	Handrails	-	Item	\$ 5,000.00	\$ -	
4.2.2	Guard rails	200	LM	\$ 1,500.00	\$ 300,000.00	Vehicle approach barriers
4.2.3	Safety rails	-	Item	\$ 20,000.00	\$ -	
4.3	Drainage					
4.3.1	Drainage to bridge	2	Item	\$ 150,000.00	\$ 300,000.00	Works to approach slabs
4.3.2	Drainage to lowered road under	-	Item	\$ 100,000.00	\$ -	
4.3.3	Rock Beaching	560	cu.m	\$ 100.00	\$ 56,000.00	300mm thick
4.4	Scour Protection					
4.5	Other					
5	MISCELLANEOUS					
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	
5.3	Dewatering works	1	Item	\$ 250,000.00	\$ 250,000.00	Allowance for dewatering works
5.4	Melbourne Water Temp Diversion	-	sq.m	\$ -	\$ -	
5.5	Linemarking	280	LM	\$ 32.00	\$ 8,960.00	
5.6	Signage	-	Item	\$ 25,000.00	\$ -	
5.7	Occupation costs	-	Item	\$ 20,000.00	\$ -	
5.8	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
5.9	Habitat compenstaion fee	1	Item	\$ 88,000.88	\$ 88,000.88	Estimate from DELWP
6	RAIL RELATED ITEMS					
6.1	Occupation costs (minor)	-	Item	\$ 20,000.00	\$ -	
6.2	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
6.3	Signalling Adjustments	-	Item	\$ 750,000.00	\$ -	
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	-	Note			
6.5	Rail Occupation Costs (Major) - Vline	-	Wkend	\$ 100,000.00	\$ -	
6.6	Track & Ballast	-	Item	\$ 1,650.00	\$ -	
6.7	OHLE (Assume + 100m each way)	-	TM	\$ 550.00	\$ -	
7	SERVICES					
7.1	APA Gas	-	Item	\$ 4,400,000.00	\$ -	
7.2	Telstra NBN	-	Item	\$ 400,000.00	\$ -	
7.3	Western Water Sewer	-	Item	\$ 300,000.00	\$ -	
7.4	Services relocation	1	Item	\$ 150,000.00	\$ 150,000.00	Allowances for service relocation surrounding 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	
8	DELIVERY					
8.1	Council Fees	3%	Item		\$ 767,423.06	
8.2	VicRoads Fees	0%	Item		\$ -	
8.3	Traffic Management	5%	Item		\$ 1,180,650.86	
8.4	Environmental Management	1%	Item		\$ 118,065.09	
8.5	Survey & Design	5%	Item		\$ 1,180,650.86	
8.6	Supervision & Project Management	12%	Item		\$ 2,833,562.07	Increase due to scale of project
8.7	Site Establishment	3%	Item		\$ 590,325.43	
8.8	Contingency	20%	Item		\$ 4,722,603.45	
SUB TOTAL - DELIVERY					\$ 11,393,280.84	
TOTAL					\$ 35,006,298.11	

SS-BR-01

Approx. length 280m - Concrete Super T with Steel Box Girder Section

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Site preparation	2	Item	\$ 5,500.00	\$ 11,000.00	
1.1.2	Strip Site Locally	-	sq.m	\$ 2.75	\$ -	
1.2	Earthworks					
1.2.1	Bulk excavation and fill	6,922	cu.m	\$ 70.00	\$ 484,505.00	
1.2.3	Fill only	-	cu.m	\$ 37.80	\$ -	
1.3	Set-Out					
1.3.1	Allow for site setout and marking	1	Item	\$ -	\$ 12,500.00	
2	STRUCTURE					
2.1	Slab & Foundations/Piers/Beams					
2.1.1	Bridge structure	3,300	sq.m	\$ 2,450.00	\$ 8,085,000.00	Allow for reinforced single span concrete bridge (Total width 13.5m approx.) 200mm thick deck slab on top of super 1800mm deep T-Beams Conc slab (200mm thk) including 3000mm deep steel girders Steel Girder, 50m spans with reinforced concrete deck
		900	sq.m	\$ 4,450.00	\$ 4,005,000.00	
2.1.2	Elastomeric Bearings	-	Item	\$ 1,650.00	\$ -	
2.1.3	Cast in-situ concrete base slab with footings	-	sq.m	\$ 550.00	\$ -	
2.1.4	Bridge Columns	2,153	cu.m	\$ 1,100.00	\$ 2,368,300.00	
2.1.5	Piles	60	Item	\$ 3,584.70	\$ 215,082.00	Driven piles Approx. 10 per pier
2.1.6	Pile Cap	6	Item	\$ 31,950.00	\$ 191,700.00	
2.1.7	Retaining Walls - Wing & Keeper Walls	-	sq.m	\$ 1,100.00	\$ -	
2.1.8	Retaining Walls - Fender Wall	-	Item	\$ 16,500.00	\$ -	
2.1.9	Retaining Wall	-	sq.m	\$ 1,120.00	\$ -	
2.1.10	Bridge Deck	-	sq.m	\$ 480.00	\$ -	
2.1.11	Constructability	1	Item		\$ 2,353,917.66	Allowance for temporary works due to site conditions
2.2	Abutments					
2.2.1	RC Abutment / Crosshead Beam	130	cu.m	\$ 2,500.00	\$ 325,000.00	
2.2.2	Anti Sliding Blocks	10	Item	\$ 2,500.00	\$ 25,000.00	
2.2.3	Abutment Walls and Bearings	1	Item	\$ 400,000.00	\$ 400,000.00	
2.2.4	Bored piles	8	Item	\$ 9,712.80	\$ 77,702.40	Bored piles behind RC retaining wall
2.3	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)	-	LM	\$ 110.00	\$ -	
2.4	Other					
3	ON-BRIDGE WORKS					
3.1	Asphalt Wearing Course Over Slab					
3.1.1	Asphalt pavement	1,960	sq.m	\$ 110.00	\$ 215,600.00	Road pavement - Traffic lane Allow Traffic lane (7m) wide
3.1.2	Road pavement under bridge	-	sq.m	\$ 250.00	\$ -	
3.1.3	Cycle track	-	sq.m	\$ 1,200.00	\$ -	
3.2	Kerb and Channel					
3.2.1	Kerb and channel	560	LM	\$ 75.00	\$ 42,000.00	
3.3	Footpath					
3.3.1	Bridge walkway	-	sq.m	\$ 1,500.00	\$ -	
3.3.2	Pedestrian footpath	-	sq.m	\$ 155.00	\$ -	
3.3.3	Shared path	1,400	sq.m	\$ 132.00	\$ 184,800.00	Shared path overlay total
3.4	Lighting On-Bridge					
3.4.1	Lighting	10	Item	\$ 17,500.00	\$ 175,000.00	Assumed poles 12m high with luminaires
3.4.2	Allowance for Conduits	-	LM	\$ 16.50	\$ -	
3.5	Other					
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 Guard Rail/Barrier					
4.2.1	Handrails	-	Item	\$ 5,000.00	\$ -	
4.2.2	Guard rails	200	LM	\$ 1,500.00	\$ 300,000.00	Vehicle approach barriers
4.2.3	Safety rails	-	Item	\$ 20,000.00	\$ -	
4.3	Drainage					
4.3.1	Drainage to bridge	2	Item	\$ 150,000.00	\$ 300,000.00	Works to approach slabs
4.3.2	Drainage to lowered road under	-	Item	\$ 100,000.00	\$ -	
4.3.3	Rock Beaching	560	cu.m	\$ 100.00	\$ 56,000.00	300mm thick
4.4	Scour Protection					
4.5	Other					
5	MISCELLANEOUS					
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	
5.3	Dewatering works	1	Item	\$ 250,000.00	\$ 250,000.00	Allowance for dewatering works
5.4	Melbourne Water Temp Diversion	-	sq.m	\$ -	\$ -	
5.5	Linemarking	280	LM	\$ 32.00	\$ 8,960.00	
5.6	Signage	-	Item	\$ 25,000.00	\$ -	
5.7	Occupation costs	-	Item	\$ 20,000.00	\$ -	
5.8	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
5.9	Habitat compenstaion fee	1	Item	\$ 88,000.88	\$ 88,000.88	Estimate from DELWP
6	RAIL RELATED ITEMS					
6.1	Occupation costs (minor)	-	Item	\$ 20,000.00	\$ -	
6.2	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
6.3	Signalling Adjustments	-	Item	\$ 750,000.00	\$ -	
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	-	Note			
6.5	Rail Occupation Costs (Major) - Vline	-	Wkend	\$ 100,000.00	\$ -	
6.6	Track & Ballast	-	Item	\$ 1,650.00	\$ -	
6.7	OHLE (Assume + 100m each way)	-	TM	\$ 550.00	\$ -	
7	SERVICES					
7.1	APA Gas	-	Item	\$ 4,400,000.00	\$ -	
7.2	Telstra NBN	-	Item	\$ 400,000.00	\$ -	
7.3	Western Water Sewer	-	Item	\$ 300,000.00	\$ -	
7.4	Services relocation	1	Item	\$ 150,000.00	\$ 150,000.00	Allowances for service relocation surrounding approach slabs
7.5	Increase 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	
8	DELIVERY					
8.1	Council Fees	3%	Item		\$ 805,946.37	
8.2	VicRoads Fees	0%	Item		\$ -	
8.3	Traffic Management	5%	Item		\$ 1,239,917.50	
8.4	Environmental Management	1%	Item		\$ 123,991.75	
8.5	Survey & Design	5%	Item		\$ 1,239,917.50	
8.6	Supervision & Project Management	12%	Item		\$ 2,975,802.00	Increase due to scale of project
8.7	Site Establishment	3%	Item		\$ 619,958.75	
8.8	Contingency	20%	Item		\$ 4,959,670.00	
SUB TOTAL - DELIVERY					\$ 11,965,203.86	
TOTAL					\$ 36,763,553.84	

SS-BR-02

Approx. length 22m

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Site preparation	1	Item	\$ 5,500.00	\$ 5,500.00	
1.1.2	Strip Site Locally	368	sq.m	\$ 2.75	\$ 1,012.00	
1.2	Earthworks					
1.2.1	Bulk excavation and fill	-	cu.m	\$ 70.00	\$ -	
1.2.1	Fill only	500	cu.m	\$ 38.50	\$ 19,250.00	Imported fill
1.3	Set-Out					
1.3.1	Allow for site setout and marking	1	Item	\$ 5,500.00	\$ 5,500.00	
2	STRUCTURE					
2.1	Slab & Foundations/Piers/Beams					
2.1.1	Bridge structure	330	sq.m	\$ 2,450.00	\$ 808,500.00	Single span precast 1200 mm deep Super T-beam arrangement with in-situ deck overlay.
2.1.2	Elastomeric Bearings	-	Item	\$ 1,650.00	\$ -	
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	\$ -	
2.1.5	Piles	-	Item	\$ 3,584.70	\$ -	
2.1.6	Pile Cap	-	Item	\$ 31,950.00	\$ -	
2.1.7	Retaining Walls - Wing & Keeper Walls	160	sq.m	\$ 1,100.00	\$ 176,000.00	
2.1.8	Retaining Walls - Fender Wall	2	Item	\$ 16,500.00	\$ 33,000.00	
2.1.9	Retaining Wall	-	sq.m	\$ 1,120.00	\$ -	
2.1.10	Bridge Deck	-	sq.m	\$ 480.00	\$ -	
2.1.11	Constructability	-	Item			
2.2	Abutments					
2.2.1	RC Abutment / Crosshead Beam	27	LM	\$ 3,147.00	\$ 84,969.00	
2.2.2	Anti Sliding Blocks	-	Item	\$ 2,500.00	\$ -	
2.2.3	Abutment Walls and Bearings	1	Item	\$ 400,000.00	\$ 400,000.00	
2.2.4	Bored piles	-	Item	\$ 9,712.80	\$ -	
2.3	Bridge Containment Barriers					
2.3.1	Bridge containment barriers	-	LM	\$ 2,850.00	\$ -	
2.3.2	Barriers - Medium Containment	40	LM	\$ 1,750.00	\$ 70,000.00	
2.3.3	Barriers - Armco (off structure)	160	LM	\$ 110.00	\$ 17,600.00	
2.4	Other					
3	ON-BRIDGE WORKS					
3.1	Ashphalt Wearing Course Over Slab					
3.1.1	Asphalt pavement	154	sq.m	\$ 110.00	\$ 16,940.00	
3.1.2	Road pavement under bridge	-	sq.m	\$ 250.00	\$ -	
3.1.3	Cycle track	-	sq.m	\$ 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	33	sq.m	\$ 155.00	\$ 5,115.00	
3.3.3	Shared path	66	sq.m	\$ 155.00	\$ 10,230.00	
3.4	Lighting On-Bridge					
3.4.1	Lighting	2	Item	\$ 17,500.00	\$ 35,000.00	
3.4.2	Allowance for Conduits	178	LM	\$ 16.50	\$ 2,944.92	
3.5	Other					
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 Guard Rail/Barrier					
4.2.1	Handrails	-	Item	\$ 5,000.00	\$ -	
4.2.2	Guard rails	-	Item	\$ 5,000.00	\$ -	
4.2.3	Safety rails	-	Item	\$ 20,000.00	\$ -	
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	-	Item	\$ 100,000.00	\$ -	
4.3.3	Rock Beaching	30	cu.m	\$ 176.00	\$ 5,280.00	300mm thick
4.4	Scour Protection					
4.5	Other					
5	MISCELLANEOUS					
5.1	Architectural screens / cladding to Piers / Deck	-	LM	\$ 2,000.00	\$ -	
5.2	Anti Throw screens	-	LM	\$ 1,650.00	\$ -	
5.3	Dewatering works	-	Item	\$ 250,000.00	\$ -	
5.4	Melbourne Water Temp Diversion	250	sq.m	\$ 1,000.00	\$ 250,000.00	
5.5	Linemarking	1	Item	\$ 1,200.00	\$ 1,200.00	
5.6	Signage	1	Item	\$ 25,000.00	\$ 25,000.00	
5.7	Occupation costs	-	Item	\$ 20,000.00	\$ -	
5.8	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
5.9	Habitat Compensation Fee (Estimate)	-	Item	\$ -	\$ -	
6	RAIL RELATED ITEMS					
6.1	Occupation costs (minor)	-	Item	\$ 20,000.00	\$ -	
6.2	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
6.3	Signalling Adjustments	-	Item	\$ 750,000.00	\$ -	
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	-	Note			
6.5	Rail Occupation Costs (Major) - Vline	-	Wkend	\$ 100,000.00	\$ -	
6.6	Track & Ballast	-	Item	\$ 1,650.00	\$ -	
6.7	OHLE (Assume + 100m each way)	-	TM	\$ 550.00	\$ -	
7	SERVICES					
7.1	APA Gas	-	Item	\$ 4,400,000.00	\$ -	
7.2	Telstra NBN	-	Item	\$ 400,000.00	\$ -	
7.3	Western Water Sewer	-	Item	\$ 300,000.00	\$ -	
7.4	Services relocation	-	Item	\$ 150,000.00	\$ -	
7.5	Increase in Head Contractor Preliminaries (22% to 25%)	-	%	\$ 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	0%	Item		\$ -	
8.3	Traffic Management	5%	Item		\$ 102,677.05	
8.4	Environmental Management	1%	Item		\$ 10,267.70	
8.5	Survey & Design	5%	Item		\$ 102,677.05	
8.6	Supervision & Project Management	9%	Item		\$ 184,818.68	
8.7	Site Establishment	3%	Item		\$ 51,338.52	
8.8	Contingency	20%	Item		\$ 410,708.18	
SUB TOTAL - DELIVERY					\$ 929,227.27	
TOTAL					\$ 2,982,768.19	

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

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Site preparation	1	Item	\$ 5,500.00	\$ 5,500.00	
1.1.2	Strip Site Locally	368	sq.m	\$ 2.75	\$ 1,012.00	At Approach Ramps / RE Walls
1.2	Earthworks					
1.2.1	Bulk excavation and fill	640	cu.m	\$ 70.00	\$ 44,800.00	
1.2.2	Fill only	-	cu.m	\$ 38.50	\$ -	
1.3	Set-Out					
1.3.1	Allow for site setout and marking	1	Item	\$ 5,500.00	\$ 5,500.00	
2	STRUCTURE					
2.1	Slab & Foundations/Piers/Beams					
2.1.1	Bridge Structure	240	sq.m	\$ 3,200.00	\$ 768,000.00	Single span precast 1200 mm deep Super T-beam arrangement with in-situ deck overlay.
2.1.2	Elastomeric Bearings	-	Item	\$ 1,650.00	\$ -	
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	\$ -	
2.1.5	Piles	-	Item	\$ 3,584.70	\$ -	
2.1.6	Pile Cap	-	Item	\$ 31,950.00	\$ -	
2.1.7	Retaining Walls - Wing & Keeper Walls	160	sq.m	\$ 1,100.00	\$ 176,000.00	
2.1.8	Retaining Walls - Fender Wall	2	Item	\$ 16,500.00	\$ 33,000.00	
2.1.9	Retaining Wall	-	sq.m	\$ 1,120.00	\$ -	
2.1.10	Bridge Deck	-	sq.m	\$ 480.00	\$ -	
2.1.11	Constructability	-	Item			
2.2	Abutments					
2.2.1	RC Abutment / Crosshead Beam	27	LM	\$ 3,147.00	\$ 84,969.00	
2.2.2	Anti Sliding Blocks	-	Item	\$ 2,500.00	\$ -	
2.2.3	Abutment Walls and Bearings	1	Item	\$ 400,000.00	\$ 400,000.00	
2.2.4	Bored piles	-	Item	\$ 9,712.80	\$ -	
2.3	Bridge Containment Barriers					
2.3.1	Bridge containment barriers	-	LM	\$ 2,850.00	\$ -	
2.3.2	Barriers - Medium Containment	40	LM	\$ 1,750.00	\$ 70,000.00	
2.3.3	Barriers - Armco (off structure)	160	LM	\$ 110.00	\$ 17,600.00	
2.4	Other					
3	ON-BRIDGE WORKS					
3.1	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	-	sq.m	\$ 250.00	\$ -	
3.1.3	Cycle track	-	sq.m	\$ 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	32	sq.m	\$ 155.00	\$ 4,960.00	
3.3.3	Shared path	56	sq.m	\$ 155.00	\$ 8,680.00	
3.4	Lighting On-Bridge					
3.4.1	Lighting	1	Item	\$ 12,500.00	\$ 12,500.00	
3.4.2	Allowance for Conduits	-	LM	\$ 16.50	\$ -	
3.5	Other					
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	-	Item	\$ 5,000.00	\$ -	
4.2.2	Guard rails	-	Item	\$ 5,000.00	\$ -	
4.2.3	Safety rails	-	Item	\$ 20,000.00	\$ -	
4.3	Drainage					
4.3.1	Drainage to bridge	-	Item	\$ 22,000.00	\$ -	
4.3.2	Drainage to lowered road under	-	Item	\$ 100,000.00	\$ -	
4.3.3	Rock Beaching	30	cu.m	\$ 176.00	\$ 5,280.00	300mm thick
4.4	Scour Protection					
4.5	Other					
5	MISCELLANEOUS					
5.1	Architectural screens / cladding to Piers / Deck	-	LM	\$ 2,000.00	\$ -	
5.2	Anti Throw screens	-	LM	\$ 1,650.00	\$ -	
5.3	Dewatering works	-	Item	\$ 250,000.00	\$ -	
5.4	Melbourne Water Temp Diversion	-	sq.m	\$ 1,000.00	\$ -	
5.5	Linemarking	1	Item	\$ 1,200.00	\$ 1,200.00	
5.6	Signage	-	Item	\$ 25,000.00	\$ -	
5.7	Occupation costs	-	Item	\$ 20,000.00	\$ -	
5.8	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
5.9	Habitat Compensation Fee (Estimate)	-	Item	\$ -	\$ -	
6	RAIL RELATED ITEMS					
6.1	Occupation costs (minor)	-	Item	\$ 20,000.00	\$ -	
6.2	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
6.3	Signalling Adjustments	-	Item	\$ 750,000.00	\$ -	
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	-	Note			
6.5	Rail Occupation Costs (Major) - Vline	-	Wkend	\$ 100,000.00	\$ -	
6.6	Track & Ballast	-	Item	\$ 1,650.00	\$ -	
6.7	OHLE (Assume + 100m each way)	-	TM	\$ 550.00	\$ -	
7	SERVICES					
7.1	APA Gas	-	Item	\$ 4,400,000.00	\$ -	
7.2	Telstra NBN	-	Item	\$ 400,000.00	\$ -	
7.3	Western Water Sewer	-	Item	\$ 300,000.00	\$ -	
7.4	Services relocation	-	Item	\$ 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	Council Fees	3%	Item		\$ 55,626.38	
8.2	VicRoads Fees	0%	Item		\$ -	
8.3	Traffic Management	5%	Item		\$ 85,579.05	
8.4	Environmental Management	1%	Item		\$ 8,557.91	
8.5	Survey & Design	5%	Item		\$ 85,579.05	
8.6	Supervision & Project Management	9%	Item		\$ 154,042.29	
8.7	Site Establishment	3%	Item		\$ 42,789.53	
8.8	Contingency	20%	Item		\$ 342,316.20	
SUB TOTAL - DELIVERY					\$ 774,490.40	
TOTAL					\$ 2,486,071.40	

SS-BR-04 - Bridge

Approx. length 12m (road under rail)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Site preparation	1	Item	\$ 5,500.00	\$ 5,500.00	
1.1.2	Strip Site Locally	-	sq.m	\$ 2.75	\$ -	
1.2	Earthworks					
1.2.1	Bulk excavation and fill	1,040	cu.m	\$ 70.00	\$ 72,800.00	Site excavation, compaction and rock beaching
1.2.3	Fill only	-	cu.m	\$ 37.80	\$ -	
1.3	Set-Out					
1.3.1	Allow for site setout and marking		Item			Incl
2	STRUCTURE					
2.1	Slab & Foundations/Piers/Beams					
2.1.1	Bridge structure	194	sq.m	\$ 1,900.00	\$ 368,600.00	Single span precast prestressed 1200 mm deep Super T-beam (4no.) arrangement with in-situ deck slab overlay on top of reinforced abutment cross head.
2.1.2	Elastomeric Bearings	-	Item	\$ 1,650.00	\$ -	
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	\$ -	
2.1.5	Piles	8	Item	\$ 15,000.00	\$ 120,000.00	Including pile caps, pile set up, drilling, concrete, and reinforcement.
2.1.6	Pile Cap	-	Item	-	\$ -	
2.1.7	Retaining Walls - Wing & Keeper Walls	-	sq.m	\$ 1,100.00	\$ -	
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 thick steel fibre shotcrete wall
2.1.10	Bridge Deck	-	sq.m	\$ 480.00	\$ -	
2.1.11	Constructability	-	Item			
2.2	Abutments					
2.2.1	RC Abutment / Crosshead Beam	30	LM	\$ 3,147.00	\$ 94,410.00	
2.2.2	Anti Sliding Blocks	-	Item	\$ 2,500.00	\$ -	
2.2.3	Abutment Walls and Bearings	-	Item	\$ 400,000.00	\$ -	
2.2.4	Bored piles	-	Item	\$ 9,712.80	\$ -	
2.3	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)	-	LM	\$ 110.00	\$ -	
2.4	Other					
3	ON-BRIDGE WORKS					
3.1	Ashphalt Wearing Course Over Slab					
3.1.1	Asphalt pavement	-	sq.m	\$ 110.00	\$ -	
3.1.2	Road pavement under bridge	194	sq.m	\$ 250.00	\$ 48,500.00	
3.1.3	Cycle track	58	sq.m	\$ 1,200.00	\$ 69,840.00	(160mm thk deck slab onto of 1No. Super T grider
3.2	Kerb and Channel					
3.2.1	Kerb and channel	30	LM	\$ 75.00	\$ 2,250.00	
3.3	Footpath					
3.3.1	Bridge walkway	-	sq.m	\$ 1,500.00	\$ -	
3.3.2	Pedestrian footpath	-	sq.m	\$ 155.00	\$ -	
3.3.3	Shared path	-	sq.m	\$ 155.00	\$ -	
3.4	Lighting On-Bridge					
3.4.1	Lighting	4	Item	\$ 2,500.00	\$ 10,000.00	Mounted to underside of bridge
3.4.2	Allowance for Conduits	-	LM	\$ 16.50	\$ -	
3.5	Other					
4	OFF-BRIDGE WORKS					
4.1	Approach Slabs					
4.1.1	Reinforced concrete slabs (approach slabs)	115	sq.m	\$ 500.00	\$ 57,600.00	Assume 4m long approach RC slab at each abutment (assumed also 200mm thick)
4.2	Safety Gurad Rail/Barrier					
4.2.1	Handrails	1	Item	\$ 5,000.00	\$ 5,000.00	Allowance only, Pedestrain barriers to bridge over
4.2.2	Guard rails	1	Item	\$ 5,000.00	\$ 5,000.00	Allowance only, vehicle approach barriers
4.2.3	Safety rails	1	Item	\$ 20,000.00	\$ 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	\$ 22,000.00	
4.3.2	Drainage to lowered road under	1	Item	\$ 100,000.00	\$ 100,000.00	
4.3.3	Rock Beaching	-	cu.m	\$ 100.00	\$ -	
4.4	Scour Protection					
4.5	Other					
5	MISCELLANEOUS					
5.1	Architctural screens / cladding to Piers / Deck	2	Item	\$ 44,000.00	\$ 88,000.00	
5.2	Anti Throw screens	-	LM	\$ 1,650.00	\$ -	
5.3	Dewatering works	-	Item	\$ 250,000.00	\$ -	
5.4	Melbourne Water Temp Diversion	-	sq.m	\$ 1,000.00	\$ -	
5.5	Linemarking	1	Item	\$ 1,200.00	\$ 1,200.00	
5.6	Signage	-	Item	\$ 25,000.00	\$ -	
5.7	Occupation costs	3	Item	\$ 20,000.00	\$ 60,000.00	
5.8	Construction occupation	2	Item	\$ 1,035,000.00	\$ 2,070,000.00	
5.9	Habitat Compensation Fee (Estimate)	-	Item	\$ -	\$ -	
6	RAIL RELATED ITEMS					
6.1	Occupation costs (minor)	-	Item	\$ 20,000.00	\$ -	
6.2	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
6.3	Signalling Adjustments	1	Item	\$ 750,000.00	\$ 750,000.00	
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	-	Note			
6.5	Rail Occupation Costs (Major) - Vline	-	Wkend	\$ 100,000.00	\$ -	
6.6	Track & Ballast	444	TM	\$ 1,650.00	\$ 732,600.00	Assume + 100m each way
6.7	OHLE (Assume + 100m each way)	444	TM	\$ 550.00	\$ 244,200.00	
7	SERVICES					
7.1	APA Gas	1	Item	\$ 4,400,000.00	\$ 4,400,000.00	Figure provided by APA
7.2	Telstra NBN	1	Item	\$ 400,000.00	\$ 400,000.00	
7.3	Western Water Sewer	1	Item	\$ 300,000.00	\$ 300,000.00	
7.4	Services relocation	-	Item	\$ 150,000.00	\$ -	
7.5	Increase in Head Contractor Preliminaries (22% to 25%)	3	%	\$ 10,383,500.00	\$ 311,505.00	Increase due to project complexity
SUB TOTAL - WORKS					\$ 10,695,005.00	
8	DELIVERY					
8.1	Council Fees	3%	Item		\$ 347,587.66	
8.2	VicRoads Fees	0%	Item		\$ -	
8.3	Traffic Management	5%	Item		\$ 534,750.25	
8.4	Environmental Management	1%	Item		\$ 53,475.03	
8.5	Survey & Design	5%	Item		\$ 534,750.25	
8.6	Supervision & Project Management	25%	Item		\$ 2,673,751.25	Includes LXRA Fee
8.7	Site Establishment	3%	Item		\$ 267,375.13	
8.8	Contingency	20%	Item		\$ 2,139,001.00	
SUB TOTAL - DELIVERY					\$ 6,550,690.56	
TOTAL					\$ 17,245,695.56	

LR-BR-02

Approx. Length 11m (road under rail)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Site preparation	1	Item	\$ 5,500.00	\$ 5,500.00	
1.1.2	Strip Site Locally	-	sq.m	\$ 2.75	\$ -	
1.2	Earthworks					
1.2.1	Bulk excavation and fill	1,130	cu.m	\$ 70.00	\$ 79,100.00	
1.2.3	Fill only	-	cu.m	\$ 37.80	\$ -	
1.3	Set-Out					
1.3.1	Allow for site setout and marking	1	Item	\$ 5,000.00	\$ 5,000.00	
2	STRUCTURE					
2.1	Slab & Foundations/Piers/Beams					
2.1.1	Bridge structure	250	sq.m	\$ 1,900.00	\$ 475,000.00	Single span precast prestressed 1200 mm deep Super T-beam (Sno.) arrangement with in-situ deck slab overlay on top of reinforced abutment cross head
2.1.2	Elastomeric Bearings	-	Item	\$ 1,650.00	\$ -	
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	\$ -	
2.1.5	Piles	8	Item	\$ 15,000.00	\$ 120,000.00	Pile set up, drilling, concrete, and reinforcement.
2.1.6	Pile Cap	-	sq.m	\$ 1,100.00	\$ -	
2.1.7	Retaining Walls - Wing & Keeper Walls	-	Item	\$ 16,500.00	\$ -	
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 thick steel fibre shotcrete wall
2.1.10	Bridge Deck	-	sq.m	\$ 480.00	\$ -	
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	-	Item	\$ 400,000.00	\$ -	
2.2.4	Bored piles	-	Item	\$ 9,712.80	\$ -	
2.3	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)	-	LM	\$ 110.00	\$ -	
2.4	Other					
3	ON-BRIDGE WORKS					
3.1	Asphalt Wearing Course Over Slab					
3.1.1	Asphalt pavement	154	sq.m	\$ 110.00	\$ 16,940.00	
3.1.2	Road pavement under bridge	-	sq.m	\$ 250.00	\$ -	
3.1.3	Cycle track	-	sq.m	\$ 1,200.00	\$ -	
3.2	Kerb and Channel					
3.2.1	Kerb and channel	30	LM	\$ 75.00	\$ 2,250.00	
3.3	Footpath					
3.3.1	Bridge walkway	25	sq.m	\$ 1,500.00	\$ 37,500.00	Steel mesh atop steel frame attached to side of rail bridge
3.3.2	Pedestrian footpath	33	sq.m	\$ 155.00	\$ 5,115.00	
3.3.3	Shared path	66	sq.m	\$ 155.00	\$ 10,230.00	
3.4	Lighting On-Bridge					
3.4.1	Lighting	4	Item	\$ 2,500.00	\$ 10,000.00	To underside of bridge
3.4.2	Allowance for Conduits	-	LM	\$ 16.50	\$ -	
3.5	Other					
4	OFF-BRIDGE WORKS					
4.1	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 Guard Rail/Barrier					
4.2.1	Handrails	1	Item	\$ 5,000.00	\$ 5,000.00	Allowance only, Pedestrian barriers to bridge over
4.2.2	Guard rails	1	Item	\$ 5,000.00	\$ 5,000.00	Allowance only, vehicle approach barriers
4.2.3	Safety rails	1	Item	\$ 20,000.00	\$ 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	\$ 22,000.00	
4.3.2	Drainage to lowered road under	1	Item	\$ 100,000.00	\$ 100,000.00	
4.3.3	Rock Beaching	-	cu.m	\$ 100.00	\$ -	
4.4	Scour Protection					
4.5	Other					
5	MISCELLANEOUS					
5.1	Architectural screens / cladding to Piers / Deck	2	Item	\$ 44,000.00	\$ 88,000.00	
5.2	Anti Throw screens	-	LM	\$ 1,650.00	\$ -	
5.3	Dewatering works	-	Item	\$ 250,000.00	\$ -	
5.4	Melbourne Water Temp Diversion	-	sq.m	\$ 1,000.00	\$ -	
5.5	Linemarking	1	Item	\$ 1,200.00	\$ 1,200.00	
5.6	Signage	-	Item	\$ 25,000.00	\$ -	
5.7	Occupation costs	-	Item	\$ 20,000.00	\$ -	
5.8	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
5.9	Habitat Compensation Fee (Estimate)	-	Item	\$ -	\$ -	
6	RAIL RELATED ITEMS					
6.1	Occupation costs (minor)	3	Item	\$ 20,000.00	\$ 60,000.00	Allowance for 3 ALBF Occupations for OHL works
6.2	Construction occupation	2	Item	\$ 1,035,000.00	\$ 2,070,000.00	Allowance for 2 weekend occupations for construction works (Metro and V-Line)
6.3	Signalling Adjustments	1	Item	\$ 750,000.00	\$ 750,000.00	
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	-	Note			
6.5	Rail Occupation Costs (Major) - Vline	2	Wkend	\$ 100,000.00	\$ 200,000.00	
6.6	Track & Ballast	210	Item	\$ 1,650.00	\$ 346,500.00	Lowering of Track & Ballast assume 100m each direction
6.7	OHLE (Assume + 100m each way)	-	TM	\$ 550.00	\$ -	
7	SERVICES					
7.1	APA Gas	-	Item	\$ 4,400,000.00	\$ -	
7.2	Telstra NBN	-	Item	\$ 400,000.00	\$ -	
7.3	Western Water Sewer	-	Item	\$ 300,000.00	\$ -	
7.4	Services relocation	-	Item	\$ 150,000.00	\$ -	
7.5	Increase in Head Contractor Preliminaries (22% to 25%)	3	%	\$ 4,922,035.00	\$ 147,661.05	
SUB TOTAL - WORKS					\$ 5,069,696.05	
8	DELIVERY					
8.1	Council Fees	3%	Item		\$ 164,765.12	
8.2	VicRoads Fees	0%	Item		\$ -	
8.3	Traffic Management	5%	Item		\$ 253,484.80	
8.4	Environmental Management	1%	Item		\$ 25,348.48	
8.5	Survey & Design	5%	Item		\$ 253,484.80	
8.6	Supervision & Project Management	25%	Item		\$ 1,267,424.01	Includes LXRA Fees
8.7	Site Establishment	3%	Item		\$ 126,742.40	
8.8	Contingency	20%	Item		\$ 1,013,939.21	
SUB TOTAL - DELIVERY					\$ 3,105,188.83	
TOTAL					\$ 8,174,884.88	

LR-BR-03

Approx. Length 29m (road over rail)

Item	Description	Quantity	Unit	Rate	Amount	Comments
WORKS						
1	SITEWORKS AND EARTHWORKS					
1.1	Pre-construction					
1.1.1	Site preparation	1		\$ 5,500.00	\$ 5,500.00	
1.1.2	Strip Site Locally	-	sq.m	\$ 2.75	\$ -	
1.2	Earthworks					
1.2.1	Bulk excavation and fill	3,000	cu.m	\$ 70.00	\$ 210,000.00	
1.2.3	Fill only	500	cu.m	\$ 37.80	\$ 18,900.00	Fill to approach
1.3	Set-Out					
1.3.1	Allow for site setout and marking	1	Item	\$ 5,000.00	\$ 5,000.00	
2	STRUCTURE					
2.1	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 bridge
2.1.2	Elastomeric Bearings	8	Item	\$ 1,650.00	\$ 13,200.00	
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	\$ -	
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			
2.1.7	Retaining Walls - Wing & Keeper Walls	-	sq.m	\$ 1,100.00	\$ -	
2.1.8	Retaining Walls - Fender Wall	-	Item	\$ 16,500.00	\$ -	
2.1.9	Retaining Wall	150	sq.m	\$ 1,120.00	\$ 168,000.00	Assume rock bolts at 1.5mx1.5m grid with 75mm thick steel fibre shotcrete wall (
2.1.10	Bridge Deck	-	sq.m	\$ 480.00	\$ -	
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	-	Item	\$ 400,000.00	\$ -	
2.2.4	Bored piles	8	sq.m	\$ 15,000.00	\$ 120,000.00	Reinforced concrete bored piles (supporting abutment crossheads)
2.3	Bridge Containment Barriers					
2.3.1	Bridge containment barriers	-	LM	\$ 2,850.00	\$ -	
2.3.2	Barriers - Medium Containment	56	LM	\$ 1,750.00	\$ 97,370.00	
2.3.3	Barriers - Armco (off structure)	80	LM	\$ 110.00	\$ 8,800.00	
2.4	Other					
3	ON-BRIDGE WORKS					
3.1	Asphalt 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	\$ -	
3.1.3	Cycle track	-	sq.m	\$ 1,200.00	\$ -	
3.2	Kerb and Channel					
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	sq.m	\$ 155.00	\$ 9,300.00	
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-BRIDGE WORKS					
4.1	Approach Slabs					
4.1.1	Reinforced concrete slabs (approach slabs)	92	sq.m	\$ 500.00	\$ 46,000.00	
4.2	Safety Guard Rail/Barrier					
4.2.1	Handrails	-	Item	\$ 5,000.00	\$ -	
4.2.2	Guard rails	-	Item	\$ 5,000.00	\$ -	
4.2.3	Safety rails	-	Item	\$ 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	-	Item	\$ 100,000.00	\$ -	
4.3.3	Rock Beaching	-	cu.m	\$ 100.00	\$ -	
4.4	Scour Protection					
4.5	Other					
5	MISCELLANEOUS					
5.1	Architectural screens / cladding to Piers / Deck	2	Item	\$ 44,000.00	\$ 88,000.00	
5.2	Anti Throw screens	-	LM	\$ 1,650.00	\$ -	
5.3	Dewatering works	-	Item	\$ 250,000.00	\$ -	
5.4	Melbourne Water Temp Diversion	-	sq.m	\$ 1,000.00	\$ -	
5.5	Linemarking	1	Item	\$ 1,200.00	\$ 1,200.00	
5.6	Signage	-	Item	\$ 25,000.00	\$ -	
5.7	Occupation costs	-	Item	\$ 20,000.00	\$ -	
5.8	Construction occupation	-	Item	\$ 1,035,000.00	\$ -	
5.9	Habitat Compensation Fee (Estimate)	-	Item	\$ -	\$ -	
6	RAIL RELATED ITEMS					
6.1	Occupation costs (minor)	3	Item	\$ 20,000.00	\$ 60,000.00	Allowance for 3 ALBF Occupations for OHL works
6.2	Construction occupation	2	Item	\$ 1,035,000.00	\$ 2,070,000.00	Allowance fo 2 weekend occupations for construction works (Metro and V-Line)
6.3	Signalling Adjustments	1	Item	\$ 500,000.00	\$ 500,000.00	
6.4	Rail Occupation Costs (Power Off) - N/A Vline Only	-	Note			
6.5	Rail Occupation Costs (Major) - Vline	2	Wkend	\$ 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
6.7	OHLE (Assume + 100m each way)	-	TM	\$ 550.00	\$ -	
7	SERVICES					
7.1	APA Gas	-	Item	\$ 4,400,000.00	\$ -	
7.2	Telstra NBN	-	Item	\$ 400,000.00	\$ -	
7.3	Western Water Sewer	-	Item	\$ 300,000.00	\$ -	
7.4	Services relocation	-	Item	\$ 150,000.00	\$ -	
7.5	Increase in Head Contractor Preliminaries (22% to 25%)	3	%	\$ 4,683,835.00	\$ 140,515.05	
SUB TOTAL - WORKS					\$ 4,824,350.05	
8	DELIVERY					
8.1	Council Fees	3%	Item		\$ 156,791.38	
8.2	VicRoads Fees	0%	Item		\$ -	
8.3	Traffic Management	5%	Item		\$ 241,217.50	
8.4	Environmental Management	1%	Item		\$ 24,121.75	
8.5	Survey & Design	5%	Item		\$ 241,217.50	
8.6	Supervision & Project Management	25%	Item		\$ 1,206,087.51	Includes LXRA Fees
8.7	Site Establishment	3%	Item		\$ 120,608.75	
8.8	Contingency	20%	Item		\$ 964,870.01	
SUB TOTAL - DELIVERY					\$ 2,954,914.41	
TOTAL					\$ 7,779,264.46	

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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
A	L.Morrison	M.Whalen	*M Whalen	M.Whalen	*M Whalen	18/03/2021

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