

Appendix D
Cost Estimate

M2PP Scheme Estimate

L	Item	Bill description	Unit	Bill qty	Net	
					Rate	Amount
1		TOTAL PROJECT COST				563170945.50
2		Nett Property Costs				59,669,365.00
2		I&R Phase Costs				31,310,000.00
2		Design & Project Documentation				9,350,000.00
2		NZTA Non Alliance Costs				5,030,000.00
2		DESIGN & MONITORING				28,000,000.00
2		ENVIRONMENTAL WORKS				3,700,000.01
2		EARTHWORKS				48,235,856.39
3		Cut to Fill				12030737.12
3		Imported Fill (AP65)				1,368,504.53
3		Topsoil				1,273,554.10
3		Other				1,419,161.40
3		Peat Removal				9,741,446.56
3		Cut to Fill (Sand) used for replacement				653,254.28
3		Reuse Preload Surcharge (Sand) used for replacement				586,828.21
3		Construct embankment using imported granular fill (quarry rock in 0.5m layers)GAP 65				10462603.00
3		Complete embankment using cut to fill (sand in 0.5m layers)				10684467.19
3		Complete embankment reusing surcharge sand (sand in 0.5m layers)				10,700.00
3		Miscellaneous Items				4,600.00
2		GROUND IMPROVEMENTS				41,186,364.99
3		Excavate and remove Peat (depth greater than 3m) (Total area approximately 56,500m2) GI Pricing Package 1 - Peat Table (Assessed volumes used) Item Reference Preload -High Strength Geotextile				12965638.91
3		Geotextile is to be either Stabilenka (1000kn) or Woven Polyester Geotextile PET 1000-50				5,680,429.40
3		Ground Improvements - Stone Columns, CFA Piles & Vertical Strengthening				12779687.44

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3		Shear Piles in Front of Abutments to Limit seismic movements 3 rows of 1.5m diameter piles at 4.5m spacing, over a width of 30m (i.e. 24 piles per abutment). Depths as noted below				
3		GeoGrid - Include allowance in Gabion walls for tying into Geogrid abutments				2,022,650.24
3		Granular fill to MSE Walls to bridge abutments laid and compacted in layers. Fill material to be GAP65 or similar				7,737,959.00
2		<u>DRAINAGE Refer to drawings CV-SW-100 to 132 for locations</u>				33,128,261.16
3		All pipework unless otherwise stated will involve trench excavation, bedding, thrust blocks and the like Culverts				6,274,399.42
3		MSE Temporary water channel crossing consisting of steel plate fixed over cement treated sand bags, primary and secondary geogrid including water diversion for culvert as necessary all as per drawing CV-SW-302 to suit the following culvert sizes				2,259,237.50
3		Permanent water channel crossing consisting of pavement over treated sand bags, primary and secondary geogrid including water diversion for culvert as necessary all as per drawing CV-SW-302 to suit the following culvert sizes				6,077,435.00
3		Stream bed substrate consisting of D50 gravel all as per drawing No. CV-SW-305 and 307 to suit the following culvert sizes				135,980.00
3		The following in ground improvement to Culvert reference 4 - Refer to drawing o. CV-SW-306 500 thick granular fill with layer of geogrid to suit the following culvert sizes				2,553,725.00
3		1m thick settlement slab to suit the following culvert sizes				292,766.10
3		250 SED timber piles, 1.3m embedment into ground in a 1.5m square grid pattern to suit the following culvert sizes				666,451.40
3		Manholes to Culverts				1,724,195.76
3		Pipework (including trench, excavation, backfill, thrustblocks etc)				4,736,015.00
3		Swales, Watercourses and Channels (Refer to drawing No. CV-SW-201 for typical cross section)				1,877,800.00

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3		Wetland Areas Typical pond section (Refer to drawing No. CV-SW-212) Note that the Earthworks volumes have been included in the Bulk Earthworks section and the items below will be for the formation of the Wetlands and trimming and shaping as required				1,753,918.00
3		DRAINAGE TO LOCAL ROADS Includes allowance for drainage to access road off Kapiti road				2,090,568.86
3		Waikanae River Alignment				46,000.00
3		Refer to drawing CV-SC-011 for details of Kerb and channels				1,972,001.35
3		Riprap Protection				667,767.77
2		<u>PAVEMENT AND SURFACING Refer to Temporay works and Accommodation works package for all temporary pavement and traffic management works required</u>				<u>44,970,463.20</u>
3		Pavement Type 1 (Main line)				5,583,401.28
3		Pavement - Type 2 (Mainline)				26255964.58
3		Mainline Median Typical detail 6m Median				493,962.00
3		Mainline Median Typical detail 4m Median				1,998,642.30
3		Pavement Type 3 - Mainline Ramp				356,844.90
3		Pavement Type 4				1,249,195.78
3		Pavement Type 5				83,590.00
3		Pavement Type 6				1,176,698.58
3		Pavement Type 8 (Bridge decks)				599,768.00
3		Pavement Type 9 (Cycleway)				738,470.90
3		Pavement Type 10				208,137.28
3		Pavement Type 11				2,525,572.23
3		Pavement Type 12				126,250.75
3		Pavement Type 13				109,402.50
3		Pavement Type 14				966,430.28
3		Pavement Type 15 (Cycleway)				608,444.00
3		Pavement Type 16				421,921.78
3		Pavement Type 17				7,164.00
3		Pavement Type 18				204,068.80

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					Rate	Amount
3		Raumati Straight				
3		Rehabilitation of existing SH1				
3		Otaihanga Roundabout Proposal				1,256,533.26
2		BRIDGES				53,163,178.77
3		Global Tests & Adjustments				1,503,825.00
3		Poplar Ave				3,073,610.71
3		Raumati Road				3,404,493.54
3		Ihakara Road				3,946,629.92
3		Kapiti Road				4,632,681.92
3		Mazengarb Road				1,750,807.36
3		Otaihanga Road				1,671,271.28
3		Waikanae River				9,923,943.36
3		Te Moana				6,345,334.60
3		Te Moana On Ramp				1,096,634.36
3		Te Moana Off Ramp				1,096,634.36
3		Ngarara Road Overbridge				2,323,208.48
3		Smithfield Road Overbridge				2,199,725.00
3		Peka Peka Road Overbridge				3,588,329.92
3		Hatfield Road Overbridge				
3		Kakariki Stream bridge				1,070,551.60
3		Paetawa Stream bridge				996,749.56
3		Smithfield Road over Kakariki Stream				486,947.80
3		Cycleway Bridges				1,171,800.00
3		Pedestrian Expressway overbridge (refer to structural drawing ST-BR-970 for details)				2,880,000.00
2		RETAINING WALLS (excluding Bridge Abutments)				3,323,273.00
3		MSE Wall (Face area measured-includes additional 1m below undercut of embankment for keying and footing)				1,981,968.00
3		Concrete Bored Pile Wall (face area measured with depth of piles stated below ground level as provided)				1,321,305.00
3		Kapiti Service Road				20,000.00

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					Rate	Amount
2		<u>TRAFFIC SERVICES</u>				<u>10,667,346.24</u>
3		Traffic Services: Barriers & Guardrails				4,295,410.00
3		Traffic Services: Street Lights				2,073,110.40
3		Traffic Services: Signs & Gantries				516,000.00
3		Traffic Services: Road Marking & Delineation				322,150.00
3		Traffic Services: ITS				2,795,583.34
3		Traffic Services - Signals				240,000.00
3		Traffic Services - Footpaths				425,092.50
2		<u>LANDSCAPING</u>				<u>20,315,792.95</u>
3		FENCING AND NOISE WALLS				4,333,356.30
3		Planting Schedules				14467063.20
3		Cycle Ways				1,494,187.45
3		Miscellaneous				21,186.00
2		<u>SERVICES AND UTILITIES</u>				<u>23,696,998.80</u>
3		Water				1,875,880.20
3		Wastewater				1,051,468.60
3		Underground/Overhead power				6,600,000.00
3		Telecom				1,720,750.00
3		Telecom fibre optic				25,000.00
3		Telstra clear/saturn				795,300.00
3		FX Network				88,660.00
3		Relocate Gas Main				10365940.00
3		Relocate Transpower				924,000.00
3		General				250,000.00
2		<u>TRAFFIC MANAGEMENT</u>				<u>6,343,545.00</u>
3		General TM				3,633,115.00
3		Temporary Pavement Construction				180,000.00
3		Raumati Straight Works				2,308,110.00
3		Temporary Tie-In at Peka Peka				222,320.00
2		<u>Accommodation Works</u>				<u>6,052,499.99</u>

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3		Property Relocation and Demolition				6,052,499.99
<u>2</u>		<u>Temporary Works</u>				<u>4,828,000.00</u>
3		Refer to Site office - Landfill as per Assumptions and Risk Package				378,000.00
3		Temporary retaining walls				4,150,000.00
3		Temporary Water Supply				300,000.00
<u>2</u>		<u>MAINTENANCE</u>				<u>500,000.00</u>
<u>2</u>		<u>RISKS & ESCALATION</u>				<u>56,700,000.00</u>
<u>2</u>		<u>Preliminary & General Costs</u>				<u>73,000,000.00</u>
		TOTAL				563170945.50