

Project: 2016.22



Budget Estimate Report for:

Proposed Capital Expenditure Works,
Martins Creek Quarry



6th May 2016



VASEY CONSULTING

2016.22

6th May, 2016



VASEY CONSULTING
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Mr David Mingay

Chairman

Daracon Group

17 James Street,

WALLSEND, NSW 2287

Re: Budget Estimate Report

Martins Creek Quarry – Proposed Capital Expenditure Works

Dear David,

Further to the request on your behalf by Stuart Murray (Site R&D Pty Ltd) on 12/4/2016, please find contained in this report our budget estimates for the following proposed capital works at the Martins Creek Quarry:

1. Gresford & Dungog Road Intersection Works
2. Duke Street/ King Street, Paterson Intersection Median Works
3. Butterwick & Clarence Town Road Intersection Works
4. Brandy Hill Drive & Clarence Town Road Intersection Works
5. Martins Creek Quarry Noise Wall
6. Martins Creek Rail Bridge & Associated Works

If you have any queries in relation to this report, please do not hesitate to contact me.

Regards

Robert Vasey
B. Con. Mgt (Hons) A.AIQS JP

Quantity Surveyor &
Construction Cost Consultant
Vasey Consulting

2016.22 Cover Letter



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Appendix 2 Schedule Of Information



1.0 Project Overview

Several areas within and around the Quarry at Martins Creek have been identified as requiring improvements to improve the overall operating efficiency of the quarry and minimise its impact on the surrounding residents and local area in general.

These areas of work include:

1. Gresford & Dungog Road Intersection Works
2. Duke Street/ King Street, Paterson Intersection Median Works
3. Butterwick & Clarence Town Road Intersection Works
4. Brandy Hill Drive & Clarence Town Road Intersection Works
5. Martins Creek Quarry Noise Wall
6. Martins Creek Rail Bridge & Associated Works

Vasey Consulting has been engaged to provide budget estimates for each of the identified areas of work as part of the design/planning and pre-construction phase.

2.0 Estimating Methodology

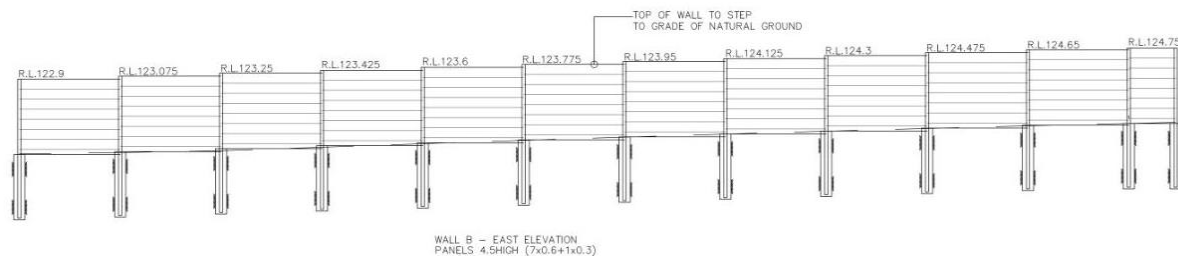
A separate budget estimate has been compiled for each of the above areas of work. These estimates are based on the information provided by Stuart Murray from Site R & D Pty Ltd (See Appendix 2 of this report).

Each of the budget estimates for Road Intersection Works have been constructed based on the scope detailed on the Acor drawings and quantities taken off from these same drawings. Rates for these items of work have generally been compiled using first principals estimating techniques and Vasey Consulting's current and where applicable, historical construction cost data resources.

No design information was available for the Noise Wall to assist in compiling a budget estimate for this work. From discussions with Stuart Murray from Site R & D Pty Ltd, we have developed a high level scope for the wall:

- Overall Wall Length: 500m
- Overall Wall Height: 5m
- Footings: Bored concrete footings
- Posts: Galvanised steel UC columns at 6m centres
- Panels: Precast concrete

Vasey Consulting also used this generic drawing to also assist in producing the estimate:





Rates for the Noise Wall have generally been compiled using first principals estimating techniques and Vasey Consulting's current and where applicable, historical construction cost data resources.

No design information was available for the Rail Bridge and Associated Works estimate. However, a budget estimate produced by Daracon which detailed the scope, items and quantities for this work was used by Vasey Consulting as a template. Rates for these items of works have generally been compiled using first principals estimating techniques and Vasey Consulting's current and where applicable, historical construction cost data resources.

Vasey Consulting has assumed in compiling the preliminaries for each estimate, a theoretical duration for the works. Each area of works has been assumed to be independent of any other works.

An appropriate arm's length allowance for contractors overhead and margin has been separately allowed for in each estimate. In these estimates 7.5% has been allowed for contractors overhead. Contractors margin has also been allowed at 7.5%.

In reviewing the level of detail contained within the design documentation used for these estimates, we have allowed an overall contingency/design development allowance of 15%. Refer to 3.0 Estimate Summary for further details.

Please refer to each of the individual estimates for clarifications and exclusions.

3.0 Estimate Summary

Please see below, summary estimated costs for each area of work with an overall total. A contingency/design development allowance of 15% is also allowed.

Item	Area of Work	Estimate Total (EXCL. GST)
1	Gresford & Dungog Road Intersection Works	\$46,006.73
2	Duke Street/ King Street, Paterson Intersection Median Works	\$105,617.33
3	Butterwick & Clarence Town Road Intersection Works	\$348,778.47
4	Brandy Hill Drive & Clarence Town Road Intersection Works	\$417,037.26
5	Martins Creek Quarry Noise Wall	\$1,647,223.17
6	Martins Creek Rail Bridge & Associated Works	\$2,058,246.66
	Sub-Total	<u>\$4,622,909.62</u>
7	Contingency/Design Development (15%)	\$693,436.44
	Total (Excl. GST)	<u>\$5,316,346.06</u>



4.0 Disclaimer

This Budget Estimate Report is provided as a general guide only and cannot be relied upon for tendering/construction or as legal, financial or taxation advice. This Budget Estimate Report is based on information provided by the Client and assumptions made by Vasey Consulting. Vasey Consulting and its owners make no warranty in respect to the accuracy or completeness of the information contained in this document, nor will they have any liability to you or any other party for any representations stated or implied in this document or any omissions from that information.

For further information regarding exclusions, please refer to the Schedule of Clarifications contained within each individual estimate.



Appendix 1 Capex Estimates



Appendix 1.1 Gresford & Dungog Road Intersection Works Estimate



Intersection Works

Job name:	Gresford & Dungog Rd Intersection	Description:	Modifications to existing intersection at Gresford & Dungog Roads
Client's name:	Site R & D Pty Ltd	Printed:	7/05/2016 9:58:50 PM

Description	Quantity	Unit	Rate	Markup %	Total
PRELIMINARIES					\$9,168.60
Project Management & Site Supervision					\$1,691.00
Project Manager	0.1	Week	\$4,750.00		\$475.00
Site Engineer	0.2	Week	\$2,850.00		\$570.00
Site Supervisor	0.2	Week	\$3,230.00		\$646.00
Site Compound, Hoardings, Accommodation & Amenities					\$65.00
Construct Compound Hardstand	1	Item			EXCL
Temporary Fence to Compound	1	Item			EXCL
Temporary Hoarding to Work Area	1	Item			EXCL
Hire Small Site Office	1	Item			EXCL
Hire Crib Shed	1	Item			EXCL
Hire Portaloo	1	Week	\$65.00		\$65.00
Generator	1	Item			EXCL
Fuel for Generator	1	Item			EXCL
Site Office Expenses					\$25.00
Drinking Water	0.5	Week	\$50.00		\$25.00
Site Mobilisation & Demobilisation					\$250.00
Mobilisation:					\$125.00
Mobilise Site office	1	Item			EXCL
Mobilise Crib Shed	1	Item			EXCL
Mobilise Portaloo	1	No.	\$125.00		\$125.00
Mobilise Generator	1	Item			EXCL
Connection of Electrical Services to compound	1	Item			EXCL
Demobilisation:					\$125.00
Demobilise Site office	1	Item			EXCL
Demobilise Crib Shed	1	Item			EXCL
Demobilise Portaloo	1	No.	\$125.00		\$125.00
Demobilise Generator	1	Item			EXCL

Description	Quantity	Unit	Rate	Markup %	Total
Disconnection of Electrical Services to compound	1	Item			EXCL
Site OH&S					\$717.60
Site OH& S Representative	0.6	Week	\$646.00		\$387.60
Site Induction (Allow 7 Workers)	3.5	Hr	\$60.00		\$210.00
Weekly Toolbox Talk	1	Item			EXCL
PPE Equipment	1	Item	\$120.00		\$120.00
Existing Services Location					\$380.00
Services Locator & Associated Sundries	1	Item	\$380.00		\$380.00
Erosion & Sediment Control - N/A					
Traffic Management					\$4,085.00
Traffic Management Plan	1	No.	\$285.00		\$285.00
Allowance for Misc. Signage & Barricades	1	No.	\$200.00		\$200.00
3 Man traffic Control Crew	2	Day	\$1,800.00		\$3,600.00
Geotech Testing & Supervision - N/A					
Site Survey					\$1,320.00
Site Survey & Setout for Line Marking	3	Hr	\$220.00		\$660.00
Survey Crew Conformance (Linemarking)	3	Hr	\$220.00		\$660.00
WAE					\$135.00
Allowance for Works As Executed Survey	1	Item	\$135.00		\$135.00
Contract Insurances & Security					\$500.00
Contract Works Insurance	1	Item			INCL
Workers Compensation Insurance	1	Item			INCL
Public Liability Insurance	1	Item			INCL
Professional Indemnity Insurance	1	Item			INCL
Allowance for Bank Guarantee 2 x 5% BG's - 12 months defects Liability Period	1	Item	\$500.00		\$500.00
LINEMARKING & SIGNAGE					\$30,837.25
Line Marking Removal:					\$6,676.74
Allowance to remove existing line marking	1,479	m	\$4.51		\$6,676.74
New Line Marking:					\$23,910.51
Allow for Cleaning Gravel from existing pavement to receive linemarking	1	Item	\$750.00		\$750.00

Description	Quantity	Unit	Rate	Markup %	Total
Line marking crew establishment	1	No.	\$1,800.00		\$1,800.00
Allow for Waterborne Linemarking (1 x application)	1	NOTE			
Edge Line	927	m	\$1.50		\$1,390.50
Lane Lines	346	m	\$1.50		\$519.00
Centre Line (Type BB)	144	m	\$2.50		\$360.00
Chevron	389	m2	\$45.00		\$17,505.00
Arrows	3	No.	\$75.00		\$225.00
Allow for Thermoplastic					
New Hold Line (TB)	32	m	\$8.00		\$256.00
Raised Pavement Markers	130.001	No.	\$8.50		\$1,105.01
New Signage:					\$250.00
Supply & Install traffic sign and post (R1-2 Give Way)	1	No.	\$250.00		\$250.00
CONTRACTORS OVERHEAD & MARGIN					\$6,000.88
Allowance for Contractors Overhead (7.5%)	1	Item	\$3,000.44		\$3,000.44
Allowance for Contractors Margin (7.5%)	1	Item	\$3,000.44		\$3,000.44
SCHEDULE OF INFORMATION					
Martins Creek Quarry Gresford and Dungog Road Intersection Works Drawing by ACOR Consultants (NNSW) Pty Ltd, numbered NE140152 Figure 7 Revision A, dated 8/12/2015	1	NOTE			
SCHEDULE OF CLARIFICATIONS					
This estimate assumes existing GPS service available on site if GPS machine control is to be used	1	NOTE			
Design/Consultants Fees - EXCL.	1	NOTE			
Authorities Fees & Charges - EXCL.	1	NOTE			
Delay costs including Inclement Weather- EXCL.	1	NOTE			
Adjustments to existing utilities - EXCL.	1	NOTE			
Testing, treatment & management of contaminated material/buired rubbish on site - EXCL.	1	NOTE			
Demolition of existing structures - EXCL.	1	NOTE			
Unknown ground conditions and engineers design - EXCL.	1	NOTE			

Description	Quantity	Unit	Rate	Markup %	Total
Contingency - EXCL.	1	NOTE			
Cost escalation beyond May 2016 - EXCL.	1	NOTE			
Subtotal:					\$46,006.73
Adjustment:					\$0.00
Subtotal:					\$46,006.73
G.S.T [10%]:					\$4,600.67
Total:					\$50,607.40



Appendix 1.2 Duke Street/ King Street, Paterson Intersection Median Works Estimate



Intersection Works

Job name: Duke & King St Intersection **Description:** Modifications to existing intersection at Duke & King Streets, Paterson
Client's name: Site R & D Pty Ltd **Printed:** 7/05/2016 9:53:58 PM

Description	Quantity	Unit	Rate	Markup %	Total
PRELIMINARIES					\$44,632.60
Project Management & Site Supervision					\$7,011.00
Project Manager	0.3	Week	\$4,750.00		\$1,425.00
Site Engineer	0.6	Week	\$2,850.00		\$1,710.00
Site Supervisor	1.2	Week	\$3,230.00		\$3,876.00
Site Compound, Hoardings, Accommodation & Amenities					\$7,570.00
Construct Compound Hardstand	200	m2	\$10.00		\$2,000.00
Temporary Fence to Compound	60	m	\$12.00		\$720.00
Remove Hardstand & make good at completion of works	200	m2	\$7.00		\$1,400.00
Temporary Hoarding to Work Area	100	m	\$12.00		\$1,200.00
Hire Small Site Office	1	Item			EXCL
Hire Crib Shed	2	Week	\$85.00		\$170.00
Hire Portaloo	2	Week	\$65.00		\$130.00
Generator	2	Week	\$450.00		\$900.00
Fuel for Generator	2	Week	\$525.00		\$1,050.00
Site Office Expenses					\$100.00
Drinking Water	2	Week	\$50.00		\$100.00
Site Mobilisation & Demobilisation					\$6,950.00
Mobilisation:					\$3,925.00
Mobilise Site office	1	Item			EXCL
Mobilise Crib Shed	1	No.	\$500.00		\$500.00
Mobilise Portaloo	1	No.	\$125.00		\$125.00
Mobilise Generator	1	No.	\$500.00		\$500.00
Connection of Electrical Services to compound	1	Item	\$1,800.00		\$1,800.00
Mobilise 8t excavator	1	No.	\$500.00		\$500.00
Mobilise Skid Steer Loader	1	No.	\$250.00		\$250.00

Description	Quantity	Unit	Rate	Markup %	Total
Mobilise Roller	1	No.	\$250.00		\$250.00
Demobilisation:					\$3,025.00
Demobilise Site office	1	Item			EXCL
Demobilise Crib Shed	1	No.	\$500.00		\$500.00
Demobilise Portaloo	1	No.	\$125.00		\$125.00
Demobilise Generator	1	No.	\$500.00		\$500.00
Disconnection of Electrical Services to compound	1	Item	\$900.00		\$900.00
Demobilise 8t excavator	1	No.	\$500.00		\$500.00
Demobilise Skid Steer Loader	1	No.	\$250.00		\$250.00
Demobilise Roller	1	No.	\$250.00		\$250.00
Site OH&S					\$867.60
Site OH& S Representative	0.6	Week	\$646.00		\$387.60
Site Induction (Allow 7 Workers)	3.5	Hr	\$60.00		\$210.00
Weekly Toolbox Talk (Allow Average of 5 Workers)	1	Item	\$150.00		\$150.00
PPE Equipment	1	Item	\$120.00		\$120.00
Existing Services Location					\$2,720.00
Services Locator	4	Hr	\$95.00		\$380.00
Non-Destructive Digging Truck	6	Hr	\$280.00		\$1,680.00
Labourer x 2	12	Hr	\$55.00		\$660.00
Erosion & Sediment Control					\$779.00
KIP Silt Trap	5	No.	\$45.00		\$225.00
Hay Bale Check Dam (3 Bale)	4	No.	\$138.50		\$554.00
Traffic Management					\$11,490.00
Traffic Management Plan	1	No.	\$570.00		\$570.00
Allowance for Misc. Signage & Barricades	1	No.	\$500.00		\$500.00
Allowance for Traffic Barriers	80	m/wk	\$17.75		\$1,420.00
3 Man traffic Control Crew	5	Day	\$1,800.00		\$9,000.00
Geotech Testing & Supervision					\$3,160.00
Geotech Site Establishment	2	No.	\$100.00		\$200.00
Stripped Surface Inspection	4	Hr	\$175.00		\$700.00
Density Tests	16	No.	\$110.00		\$1,760.00
Report	1	Item			\$500.00
Site Survey					\$3,080.00
Site Survey & Setout	6	Hr	\$220.00		\$1,320.00
Survey Crew Conformance	8	Hr	\$220.00		\$1,760.00

Description	Quantity	Unit	Rate	Markup %	Total
WAE					\$405.00
Allowance for Works As Executed Survey	1	Item	\$405.00		\$405.00
Contract Insurances & Security					\$500.00
Contract Works Insurance	1	Item			INCL
Workers Compensation Insurance	1	Item			INCL
Public Liability Insurance	1	Item			INCL
Professional Indemnity Insurance	1	Item			INCL
Allowance for Bank Guarantee 2 x 5% BG's - 12 months defects Liability Period	1	Item	\$500.00		\$500.00
DEMOLITION					\$16,302.71
Demolish & Remove Kerb & Gutter and dispose off site	35	m	\$90.24		\$3,158.53
Demolish & Remove Footpath and dispose off site	39	m2	\$68.62		\$2,676.22
Boxout existing footpath for new road pavement not exceeding 600 deep	54.998	m3	\$118.55		\$6,519.76
Sawcut not exceeding 50 thick to existing AC pavement	107	m	\$11.26		\$1,205.00
Excavate AC pavement not exceeding 50 thick and dispose off site	49	m2	\$43.45		\$2,129.24
Allowance to remove existing longitudinal line marking	119	m	\$4.51		\$537.21
Ditto transverse line	17	m	\$4.51		\$76.74
Remove existing Silent Cop	1	No.			EXCL
ROADWORKS					\$20,081.84
Trim & Compact Subgrade	91	m2	\$8.35		\$760.00
Allowance for Remove & Replace Unsuitable Subgrade	3	m3	\$417.53		\$1,252.60
Supply & Place 250 thick DGS Subbase course	23	m3	\$142.65		\$3,280.88
Supply & Place 150 thick DGB Base course	8	m3	\$171.56		\$1,372.48
Supply & Lay 40 thick AC14 Wearing course on and including tac coat	5.003	t	\$786.00		\$3,932.70
Form & Pour SM Kerb to new Traffic Islands	62	m	\$67.89		\$4,209.17
Form & Pour Upright Kerb & Gutter	28	m	\$72.89		\$2,040.91
Supply & Place 32MPa concrete infill to islands	10	m3	\$323.31		\$3,233.10
DRAINAGE					

Description	Quantity	Unit	Rate	Markup %	Total
Supply & Install subsoil drainage to back of new kerb & gutter	1	Item			EXCL
Supply & install intrapavement drainage	1	Item			EXCL
LINEMARKING & SIGNAGE					\$6,579.01
New Line Marking:					\$5,079.01
Allow for Cleaning Gravel from existing pavement to receive linemarking	1	Item	\$500.00		\$500.00
Line marking crew establishment	1	No.	\$1,800.00		\$1,800.00
Allow for Waterborne Linemarking (1 x application)	1	NOTE			
Edge Line	322	m	\$1.50		\$483.00
Centre Line (Type BB)	58	m	\$2.50		\$145.00
Chevron	22	m2	\$45.00		\$990.00
Allow for Thermoplastic					
New Hold Line (TB)	7	m	\$8.00		\$56.00
Raised Pavement Markers	130.001	No.	\$8.50		\$1,105.01
Signage:					\$1,500.00
Relocate existing signage	5	No.	\$250.00		\$1,250.00
Supply & Install traffic sign and post (R1-2 Give Way)	1	No.	\$250.00		\$250.00
LANDSCAPING & MISC. WORKS					\$4,245.00
FRP New Concrete driveway	13	m2	\$150.00		\$1,950.00
FRP Concrete Footpath to match existing	21	m2	\$95.00		\$1,995.00
Supply & Place Turf incl. 50 thick topsoil	40	m2	\$7.50		\$300.00
Maintenance	1	Item			EXCL
CONTRACTORS OVERHEAD & MARGIN					\$13,776.17
Allowance for Contractors Overhead (7.5%)	1	Item	\$6,888.09		\$6,888.09
Allowance for Contractors Margin (7.5%)	1	Item	\$6,888.09		\$6,888.09
SCHEDULE OF INFORMATION					
Martins Creek Quarry Duke Street/ King Street, Paterson - Intersection Works Drawing by ACOR Consultants (NNSW) Pty Ltd, numbered NE140152 Figure 8 Revision A, dated 8/12/2015	1	NOTE			
SCHEDULE OF CLARIFICATIONS					

Description	Quantity	Unit	Rate	Markup %	Total
This estimate assumes existing GPS service available on site if GPS machine control is to be used	1	NOTE			
Design/Consultants Fees - EXCL.	1	NOTE			
Authorities Fees & Charges - EXCL.	1	NOTE			
Delay costs including Inclement Weather- EXCL.	1	NOTE			
Adjustments to existing utilities - EXCL.	1	NOTE			
Testing, treatment & management of contaminated material/buired rubbish on site - EXCL.	1	NOTE			
Demolition of existing structures - EXCL.	1	NOTE			
Unknown ground conditions and engineers design - EXCL.	1	NOTE			
Contingency - EXCL.	1	NOTE			
Cost escalation beyond May 2016 - EXCL.	1	NOTE			
Subtotal:					\$105,617.33
Adjustment:					\$0.00
Subtotal:					\$105,617.33
G.S.T [10%]:					\$10,561.73
Total:					\$116,179.07



Appendix 1.3 Butterwick & Clarence Town Road Intersection Works Estimate



Intersection Works

Job name: Butterwick & Clarence Town Rd Intersection **Description:** Modifications to existing intersection at Butterwick & Clarence Town Roads
Client's name: Site R & D Pty Ltd **Printed:** 7/05/2016 11:01:13 PM

Description	Quantity	Unit	Rate	Markup %	Total
PRELIMINARIES					\$104,080.73
Project Management & Site Supervision					\$20,520.00
Project Manager	0.4	Week	\$4,750.00		\$1,900.00
Site Engineer	2	Week	\$2,850.00		\$5,700.00
Site Supervisor	4	Week	\$3,230.00		\$12,920.00
Site Compound, Hoardings, Accommodation & Amenities					\$12,260.00
Construct Compound Hardstand	400	m2	\$10.00		\$4,000.00
Temporary Fence to Compound	80	m	\$12.00		\$960.00
Remove Hardstand & make good at completion of works	400	m2	\$7.00		\$2,800.00
Hire Small Site Office	1	Item			EXCL
Hire Crib Shed	4	Week	\$85.00		\$340.00
Hire Portaloo	4	Week	\$65.00		\$260.00
Generator	4	Week	\$450.00		\$1,800.00
Fuel for Generator	4	Week	\$525.00		\$2,100.00
Site Office Expenses					\$200.00
Drinking Water	4	Week	\$50.00		\$200.00
Site Mobilisation & Demobilisation					\$9,050.00
Mobilisation:					\$4,975.00
Mobilise Site office	1	Item			EXCL
Mobilise Crib Shed	1	No.	\$500.00		\$500.00
Mobilise Portaloo	1	No.	\$125.00		\$125.00
Mobilise Generator	1	No.	\$500.00		\$500.00
Connection of Electrical Services to compound	1	Item	\$1,800.00		\$1,800.00
Mobilise 8t excavator	1	No.	\$500.00		\$500.00
Mobilise Grader	1	No.	\$500.00		\$500.00
Mobilise Skid Steer Loader	1	No.	\$250.00		\$250.00

Description	Quantity	Unit	Rate	Markup %	Total
Mobilise Roller	2	No.	\$400.00		\$800.00
Demobilisation:					\$4,075.00
Demobilise Site office	1	Item			EXCL
Demobilise Crib Shed	1	No.	\$500.00		\$500.00
Demobilise Portaloo	1	No.	\$125.00		\$125.00
Demobilise Generator	1	No.	\$500.00		\$500.00
Disconnection of Electrical Services to compound	1	Item	\$900.00		\$900.00
Demobilise 8t excavator	1	No.	\$500.00		\$500.00
Mobilise Grader	1	No.	\$500.00		\$500.00
Demobilise Skid Steer Loader	1	No.	\$250.00		\$250.00
Demobilise Roller	2	No.	\$400.00		\$800.00
Site OH&S					\$2,616.00
Site OH& S Representative	1	Week	\$646.00		\$646.00
Site Induction (Allow 15 Workers)	7.5	Hr	\$60.00		\$450.00
Weekly Toolbox Talk (Allow Average of 6 Workers)	1	Item	\$720.00		\$720.00
PPE Equipment	1	Item	\$800.00		\$800.00
Existing Services Location					\$2,720.00
Services Locator	4	Hr	\$95.00		\$380.00
Non-Destructive Digging Truck	6	Hr	\$280.00		\$1,680.00
Labourer x 2	12	Hr	\$55.00		\$660.00
Erosion & Sediment Control					\$10,243.00
Sediment Control Fence	692	m	\$12.00		\$8,304.00
Hay Bale Check Dam (3 Bale)	14	No.	\$138.50		\$1,939.00
Traffic Management					\$26,510.00
Traffic Management Plan	1	No.	\$570.00		\$570.00
Allowance for Misc. Signage & Barricades	1	No.	\$500.00		\$500.00
Allowance for Traffic Barriers	1,200	m/wk	\$10.85		\$13,020.00
Portable traffic lights	4	Week	\$900.00		\$3,600.00
3 Man traffic Control Crew	4	Day	\$1,800.00		\$7,200.00
Temporary Fencing to adjacent property	135	m	\$12.00		\$1,620.00
Geotech Testing & Supervision					\$10,900.00
Geotech Site Establishment	10	No.	\$100.00		\$1,000.00
Stripped Surface Inspection	12	Hr	\$175.00		\$2,100.00
Level 1 Supervision (Cut to Fill)	2	Day	\$950.00		\$1,900.00

Description	Quantity	Unit	Rate	Markup %	Total
Density Tests	40	No.	\$110.00		\$4,400.00
Report	1	Item			\$1,500.00
Site Survey					\$6,600.00
Site Survey & Setout	6	Hr	\$220.00		\$1,320.00
Survey Crew Conformance (Subgrade)	6	Hr	\$220.00		\$1,320.00
Survey Crew Conformance (Subbase)	6	Hr	\$220.00		\$1,320.00
Survey Crew Conformance (Base)	6	Hr	\$220.00		\$1,320.00
Survey Crew Conformance (Final)	6	Hr	\$220.00		\$1,320.00
WAE					\$1,080.00
Allowance for Works As Executed Survey	1	Item	\$1,080.00		\$1,080.00
Contract Insurances & Security					\$1,381.73
Contract Works Insurance	1	Item			INCL
Workers Compensation Insurance	1	Item			INCL
Public Liability Insurance	1	Item			INCL
Professional Indemnity Insurance	1	Item			INCL
Allowance for Bank Guarantee 2 x 5% BG's - 12 months defects Liability Period	1	Item	\$1,381.73		\$1,381.73
CLEARING & DEMOLITION					\$12,335.00
Remove Existing Trees	2	No.	\$2,000.00		\$4,000.00
Demolish & Remove existing rural fence	135	m	\$10.00		\$1,350.00
Sawcut existing pavement interface with new not exceeding 100 thick	578	m	\$11.88		\$6,865.00
Remove existing guideposts (where required)	8	No.	\$15.00		\$120.00
EARTHWORKS					\$41,649.98
Strip topsoil not exceeding 150 thick & stockpile adjacent to site	1,508	m2	\$2.71		\$4,087.50
Cut (Boxout) to fill for new road shoulder	242.002	m3	\$35.83		\$8,671.74
Cut (Boxout) to spoil off site	242.002	m3	\$80.33		\$19,440.83
Allow to Reshape V Drain adjacent to new road shoulder	268	m2	\$7.28		\$1,950.44
Take from stockpile and respread topsoil to regrade/drain areas not exceeding 300 thick	200	m3	\$28.83		\$5,766.67

Description	Quantity	Unit	Rate	Markup %	Total
Jute line & seed V Drain	268	m2	\$4.60		\$1,232.80
Allow to seed balance of regrade area	1,000	m2	\$0.50		\$500.00
ROADWORKS					\$109,903.48
Trim & Compact Subgrade	1,448.002	m2	\$5.29		\$7,663.24
Allowance for Remove & Replace Unsuitable Subgrade	44	m3	\$179.16		\$7,882.95
Supply & Place 250 thick DGS Subbase course	361.998	m3	\$130.02		\$47,066.98
Supply & Place 150 thick DGB Base course	181.004	m3	\$149.27		\$27,018.32
2 coat seal (Incl. shoulder)	1,448	m2	\$14.00		\$20,272.00
DRAINAGE					\$3,607.80
Allow to adjust existing RC pipe culvers to property entries (2No.)	12	m	\$300.65		\$3,607.80
Supply & Install subsoil drainage to shoulder of new pavement	1	Item			EXCL
Supply & install intrapavement drainage	1	Item			EXCL
LINEMARKING & SIGNAGE					\$27,988.64
Line Marking Removal:					\$4,749.11
Allowance to remove existing line marking	1,052	m	\$4.51		\$4,749.11
New Line Marking:					\$22,629.53
Allow for Cleaning Gravel from existing pavement to receive linemarking	1	Item	\$250.00		\$250.00
Line marking crew establishment	1	No.	\$1,800.00		\$1,800.00
Allow for Waterborne Linemarking (1 x application)	1	NOTE			
Edge Line	887	m	\$1.50		\$1,330.50
Lane Lines	328	m	\$1.50		\$492.00
Centre Line (Type BB)	113	m	\$2.50		\$282.50
Chevron	377	m2	\$45.00		\$16,965.00
Arrows	3	No.	\$75.00		\$225.00
Allow for Thermoplastic					
New Hold Line (TB)	32	m	\$8.00		\$256.00
Raised Pavement Markers	121.003	No.	\$8.50		\$1,028.53
New Signage:					\$610.00
Supply & Install traffic sign and post (R1-2 Give Way)	1	No.	\$250.00		\$250.00
Guideposts	8	No.	\$45.00		\$360.00
FENCING WORKS					\$3,720.00

Description	Quantity	Unit	Rate	Markup %	Total
New Rural Fence	135	m	\$27.56		\$3,720.00
CONTRACTORS OVERHEAD & MARGIN					\$45,492.84
Allowance for Contractors Overhead (7.5%)	1	Item	\$22,746.42		\$22,746.42
Allowance for Contractors Margin (7.5%)	1	Item	\$22,746.42		\$22,746.42
SCHEDULE OF INFORMATION					
Martins Creek Quarry Butterwick & Clarence Town Road Intersection Works Drawing by ACOR Consultants (NNSW) Pty Ltd, numbered NE140152 Figure 9 Revision A, dated 8/12/2015	1	NOTE			
SCHEDULE OF CLARIFICATIONS					
This estimate assumes existing GPS service available on site if GPS machine control is to be used	1	NOTE			
Design/Consultants Fees - EXCL.	1	NOTE			
Authorities Fees & Charges - EXCL.	1	NOTE			
Delay costs including Inclement Weather- EXCL.	1	NOTE			
Adjustments to existing utilities - EXCL.	1	NOTE			
Testing, treatment & management of contaminated material/buired rubbish on site - EXCL.	1	NOTE			
Demolition of existing structures - EXCL.	1	NOTE			
Unknown ground conditions and engineers design - EXCL.	1	NOTE			
Contingency - EXCL.	1	NOTE			
Cost escalation beyond May 2016 - EXCL.	1	NOTE			
Subtotal:					\$348,778.47
Adjustment:					\$0.00
Subtotal:					\$348,778.47
G.S.T [10%]:					\$34,877.85
Total:					\$383,656.32



Appendix 1.4 Brandy Hill Drive & Clarence Town Road Intersection Works Estimate



Intersection Works

Job name: Brandy Hill Drv & Clarence Town Rd **Description:** Modifications to existing intersection at Brandy Hill Drive & Clarence Town Roads
Client's name: Site R & D Pty Ltd **Printed:** 7/05/2016 11:47:21 PM

Description	Quantity	Unit	Rate	Markup %	Total
PRELIMINARIES					\$97,336.14
Project Management & Site Supervision					\$20,520.00
Project Manager	0.4	Week	\$4,750.00		\$1,900.00
Site Engineer	2	Week	\$2,850.00		\$5,700.00
Site Supervisor	4	Week	\$3,230.00		\$12,920.00
Site Compound, Hoardings, Accommodation & Amenities					\$12,260.00
Construct Compound Hardstand	400	m2	\$10.00		\$4,000.00
Temporary Fence to Compound	80	m	\$12.00		\$960.00
Remove Hardstand & make good at completion of works	400	m2	\$7.00		\$2,800.00
Hire Small Site Office	1	Item			EXCL
Hire Crib Shed	4	Week	\$85.00		\$340.00
Hire Portaloo	4	Week	\$65.00		\$260.00
Generator	4	Week	\$450.00		\$1,800.00
Fuel for Generator	4	Week	\$525.00		\$2,100.00
Site Office Expenses					\$200.00
Drinking Water	4	Week	\$50.00		\$200.00
Site Mobilisation & Demobilisation					\$9,050.00
Mobilisation:					\$4,975.00
Mobilise Site office	1	Item			EXCL
Mobilise Crib Shed	1	No.	\$500.00		\$500.00
Mobilise Portaloo	1	No.	\$125.00		\$125.00
Mobilise Generator	1	No.	\$500.00		\$500.00
Connection of Electrical Services to compound	1	Item	\$1,800.00		\$1,800.00
Mobilise 8t excavator	1	No.	\$500.00		\$500.00
Mobilise Grader	1	No.	\$500.00		\$500.00
Mobilise Skid Steer Loader	1	No.	\$250.00		\$250.00

Description	Quantity	Unit	Rate	Markup %	Total
Mobilise Roller	2	No.	\$400.00		\$800.00
Demobilisation:					\$4,075.00
Demobilise Site office	1	Item			EXCL
Demobilise Crib Shed	1	No.	\$500.00		\$500.00
Demobilise Portaloo	1	No.	\$125.00		\$125.00
Demobilise Generator	1	No.	\$500.00		\$500.00
Disconnection of Electrical Services to compound	1	Item	\$900.00		\$900.00
Demobilise 8t excavator	1	No.	\$500.00		\$500.00
Mobilise Grader	1	No.	\$500.00		\$500.00
Demobilise Skid Steer Loader	1	No.	\$250.00		\$250.00
Demobilise Roller	2	No.	\$400.00		\$800.00
Site OH&S					\$2,616.00
Site OH& S Representative	1	Week	\$646.00		\$646.00
Site Induction (Allow 15 Workers)	7.5	Hr	\$60.00		\$450.00
Weekly Toolbox Talk (Allow Average of 6 Workers)	1	Item	\$720.00		\$720.00
PPE Equipment	1	Item	\$800.00		\$800.00
Existing Services Location					\$2,720.00
Services Locator	4	Hr	\$95.00		\$380.00
Non-Destructive Digging Truck	6	Hr	\$280.00		\$1,680.00
Labourer x 2	12	Hr	\$55.00		\$660.00
Erosion & Sediment Control					\$4,191.00
Sediment Control Fence	280	m	\$12.00		\$3,360.00
Hay Bale Check Dam (3 Bale)	6	No.	\$138.50		\$831.00
Traffic Management					\$24,367.60
Traffic Management Plan	1	No.	\$570.00		\$570.00
Allowance for Misc. Signage & Barricades	1	No.	\$500.00		\$500.00
Allowance for Traffic Barriers	1,216	m/wk	\$10.85		\$13,193.60
3 Man traffic Control Crew	4	Day	\$1,800.00		\$7,200.00
Temporary Fencing to adjacent property	242	m	\$12.00		\$2,904.00
Geotech Testing & Supervision					\$12,220.00
Geotech Site Establishment	10	No.	\$100.00		\$1,000.00
Stripped Surface Inspection	12	Hr	\$175.00		\$2,100.00
Level 1 Supervision (Cut to Fill)	2	Day	\$950.00		\$1,900.00
Density Tests	52	No.	\$110.00		\$5,720.00

Description	Quantity	Unit	Rate	Markup %	Total
Report	1	Item			\$1,500.00
Site Survey					\$6,600.00
Site Survey & Setout	6	Hr	\$220.00		\$1,320.00
Survey Crew Conformance (Subgrade)	6	Hr	\$220.00		\$1,320.00
Survey Crew Conformance (Subbase)	6	Hr	\$220.00		\$1,320.00
Survey Crew Conformance (Base)	6	Hr	\$220.00		\$1,320.00
Survey Crew Conformance (Final)	6	Hr	\$220.00		\$1,320.00
WAE					\$1,080.00
Allowance for Works As Executed Survey	1	Item	\$1,080.00		\$1,080.00
Contract Insurances & Security					\$1,511.54
Contract Works Insurance	1	Item			INCL
Workers Compensation Insurance	1	Item			INCL
Public Liability Insurance	1	Item			INCL
Professional Indemnity Insurance	1	Item			INCL
Allowance for Bank Guarantee 2 x 5% BG's - 12 months defects Liability Period	1	Item	\$1,511.54		\$1,511.54
CLEARING & DEMOLITION					\$25,484.31
Demolish & Remove existing rural fence	242	m	\$10.00		\$2,420.00
Provisional Allowance to relocate existing electrical kiosk and service pit adjacent to Clarence Town Rd	1	PSU M			\$20,000.00
Sawcut existing pavement interface with new not exceeding 100 thick	258	m	\$11.88		\$3,064.31
EARTHWORKS					\$43,536.66
Strip topsoil not exceeding 150 thick & stockpile adjacent to site	1,014.003	m2	\$2.71		\$2,748.50
Cut (Boxout) to fill for new road shoulder	288.996	m3	\$35.83		\$10,355.69
Cut (Boxout) to spoil off site	288.996	m3	\$80.33		\$23,216.01
Allow to Reshape V Drain adjacent to new road shoulder	209	m2	\$7.28		\$1,521.06
Take from stockpile and respread topsoil to regrade/drain areas not exceeding 300 thick	153	m3	\$28.83		\$4,411.50
Jute line & seed V Drain	209	m2	\$4.60		\$961.40

Description	Quantity	Unit	Rate	Markup %	Total
Allow to seed balance of regrade area	645	m2	\$0.50		\$322.50
ROADWORKS					\$166,155.07
Trim & Compact Subgrade	1,728.996	m2	\$5.29		\$9,150.34
Allowance for Remove & Replace Unsuitable Subgrade	52	m3	\$179.16		\$9,316.27
Supply & Place 250 thick DGS Subbase course	432.999	m3	\$130.02		\$56,298.53
Supply & Place 150 thick DGB Base course	217.005	m3	\$149.27		\$32,392.08
2 coat seal (Incl. shoulder)	1,729	m2	\$12.00		\$20,748.00
40 thick AC14 Wearing Course	152.999	t	\$250.00		\$38,249.85
DRAINAGE					
Supply & Install subsoil drainage to shoulder of new pavement	1	Item			EXCL
Supply & install intrapavement drainage	1	Item			EXCL
LINEMARKING & SIGNAGE					\$23,460.47
Line Marking Removal:					\$1,868.95
Allowance to remove existing line marking	414	m	\$4.51		\$1,868.95
New Line Marking:					\$20,591.53
Allow for Cleaning Gravel from existing pavement to receive linemarking	1	Item	\$250.00		\$250.00
Line marking crew establishment	1	No.	\$1,800.00		\$1,800.00
Allow for Waterborne Linemarking (1 x application)	1	NOTE			
Edge Line	783	m	\$1.50		\$1,174.50
Lane Lines	327	m	\$1.50		\$490.50
Centre Line (Type BB)	86	m	\$2.50		\$215.00
Chevron	339	m2	\$45.00		\$15,255.00
Arrows	3	No.	\$75.00		\$225.00
Allow for Thermoplastic					
New Hold Line (TB)	34	m	\$8.00		\$272.00
Raised Pavement Markers	107.003	No.	\$8.50		\$909.53
New Signage:					\$1,000.00
Relocate existing signs	3	No.	\$250.00		\$750.00
Supply & Install traffic sign and post (R1-2 Give Way)	1	No.	\$250.00		\$250.00
FENCING & MISC. WORKS					\$6,668.44
New Rural Fence	242	m	\$27.56		\$6,668.44
CONTRACTORS OVERHEAD & MARGIN					\$54,396.17

Description	Quantity	Unit	Rate	Markup %	Total
Allowance for Contractors Overhead (7.5%)	1	Item	\$27,198.08		\$27,198.08
Allowance for Contractors Margin (7.5%)	1	Item	\$27,198.08		\$27,198.08
SCHEDULE OF INFORMATION					
Martins Creek Quarry Butterwick & Clarence Town Road Intersection Works Drawing by ACOR Consultants (NNSW) Pty Ltd, numbered NE140152 Figure 10 Revision A, dated 24/2/2016	1	NOTE			
SCHEDULE OF CLARIFICATIONS					
This estimate assumes existing GPS service available on site if GPS machine control is to be used	1	NOTE			
Design/Consultants Fees - EXCL.	1	NOTE			
Authorities Fees & Charges - EXCL.	1	NOTE			
Delay costs including Inclement Weather- EXCL.	1	NOTE			
Adjustments to existing utilities beyond that described in this estimate - EXCL.	1	NOTE			
Testing, treatment & management of contaminated material/buired rubbish on site - EXCL.	1	NOTE			
Demolition of existing structures - EXCL.	1	NOTE			
Unknown ground conditions and engineers design - EXCL.	1	NOTE			
Contingency - EXCL.	1	NOTE			
Cost escalation beyond May 2016 - EXCL.	1	NOTE			
Subtotal:					\$417,037.26
Adjustment:					\$0.00
Subtotal:					\$417,037.26
G.S.T [10%]:					\$41,703.73
Total:					\$458,740.99



Appendix 1.5 Martins Creek Quarry Noise Wall Estimate



Martins Creek Quarry Capex Works

Job name:	Martins Creek Noise Wall	Description:	Construction of Noise Wall at Martins Creek Quarry
Client's name:	Site R & D Pty Ltd	Printed:	7/05/2016 9:49:20 PM

Description	Quantity	Unit	Rate	Markup %	Total
PRELIMINARIES					\$162,094.23
Project Management & Site Supervision					\$67,640.00
Project Manager - 50%	4	Week	\$4,750.00		\$19,000.00
Site Engineer - 100%	8	Week	\$2,850.00		\$22,800.00
Site Supervisor - 100%	8	Week	\$3,230.00		\$25,840.00
Site Compound, Hoardings, Accommodation & Amenities					\$36,560.00
Construct Compound Hardstand	600	m2	\$10.00		\$6,000.00
Temporary Fence to Compound	100	m	\$12.00		\$1,200.00
Remove Hardstand & make good at completion of works	600	m2	\$7.00		\$4,200.00
Temporary Hoarding to Work Area	1,240	m	\$12.00		\$14,880.00
Hire Small Site Office	8	Week	\$65.00		\$520.00
Hire Crib Shed	8	Week	\$85.00		\$680.00
Hire Ablution	8	Week	\$110.00		\$880.00
Holding Tank to last	8	Week	\$50.00		\$400.00
Generator	8	Week	\$450.00		\$3,600.00
Fuel for Generator	8	Week	\$525.00		\$4,200.00
Site Office Expenses					\$400.00
Drinking Water	8	Week	\$50.00		\$400.00
Site Mobilisation & Demobilisation					\$13,160.00
Mobilisation:					\$7,690.00
Mobilise Site office	1	No.	\$500.00		\$500.00
Mobilise Crib Shed	1	No.	\$500.00		\$500.00
Mobilise Ablution & Storage Tank	1	No.	\$500.00		\$500.00
Mobilise Generator	1	No.	\$500.00		\$500.00
Connection of Electrical Services to compound	1	Item	\$1,800.00		\$1,800.00
Mobilise D6 Dozer	1	No.	\$660.00		\$660.00

Description	Quantity	Unit	Rate	Markup %	Total
Mobilise 25t Excavator	1	No.	\$660.00		\$660.00
Mobilise 12t Excavator	1	No.	\$660.00		\$660.00
Mobilise Grader	1	No.	\$660.00		\$660.00
Mobilise Pad Foot Roller	1	No.	\$500.00		\$500.00
Mobilise SD Roller	1	No.	\$500.00		\$500.00
Mobilise Skid Steer Loader	1	No.	\$250.00		\$250.00
Demobilisation:					\$5,470.00
Demobilise Site office	1	No.	\$500.00		\$500.00
Demobilise Crib Shed	1	No.	\$500.00		\$500.00
Demobilise Ablution & Storage Tank	1	No.	\$500.00		\$500.00
Demobilise Generator	1	No.	\$500.00		\$500.00
Disconnection of Electrical Services to compound	1	Item	\$900.00		\$900.00
Demobilise D6 Dozer	1	No.	\$660.00		\$660.00
Demobilise 25t Excavator	1	No.			EXCL
Demobilise 12t Excavator	1	No.			EXCL
Demobilise Grader	1	No.	\$660.00		\$660.00
Demobilise Pad Foot Roller	1	No.	\$500.00		\$500.00
Demobilise SD Roller	1	No.	\$500.00		\$500.00
Demobilise Skid Steer Loader	1	No.	\$250.00		\$250.00
Site OH&S					\$12,168.00
Site OH& S Representative	8	Week	\$646.00		\$5,168.00
Site Induction (Allow 20 Workers)	10	Hr	\$60.00		\$600.00
Weekly Toolbox Talk (Allow Average of 20 Workers)	80	Hr	\$60.00		\$4,800.00
PPE Equipment	1	Item	\$1,600.00		\$1,600.00
Existing Services Location					\$3,560.00
Services Locator	4	Hr	\$95.00		\$380.00
Non-Destructive Digging Truck	6	Hr	\$280.00		\$1,680.00
Labourer x 2	12	Hr	\$55.00		\$660.00
Skid Steer Loader	6	Hr	\$115.00		\$690.00
Sand for Backfill	5	t	\$30.00		\$150.00
Erosion & Sediment Control					\$10,602.00
Shaker Grid	1	No.	\$1,500.00		\$1,500.00
Sediment Control Fence	1,240	m	\$6.00		\$7,440.00

Description	Quantity	Unit	Rate	Markup %	Total
Hay Bale Check Dam (3 Bale)	12	No.	\$138.50		\$1,662.00
Traffic Management					\$2,070.00
Traffic Management Plan	1	No.	\$570.00		\$570.00
Allowance for Misc. Signage & Barricades	1	No.	\$1,500.00		\$1,500.00
Geotech Testing & Supervision					\$4,150.00
Geotech Site Establishment	5	No.	\$150.00		\$750.00
Geotech Engineer Inspection of Access Road	4	Hr	\$150.00		\$600.00
Geotech Engineer Inspection of Boreholes	12	Hr	\$150.00		\$1,800.00
Geotech Report on Inspections	1	Item	\$1,000.00		\$1,000.00
Site Survey					\$5,280.00
Site Survey & Setout	8	Hr	\$220.00		\$1,760.00
Survey Crew Conformance (Footings)	8	Hr	\$220.00		\$1,760.00
Survey Crew Conformance (Final Wall)	8	Hr	\$220.00		\$1,760.00
WAE					\$810.00
Allowance for Works As Executed Survey	1	Item	\$810.00		\$810.00
Contract Insurances & Security					\$5,694.23
Contract Works Insurance	1	Item			INCL
Workers Compensation Insurance	1	Item			INCL
Public Liability Insurance	1	Item			INCL
Professional Indemnity Insurance	1	Item			INCL
Bank Guarantee 2 x 5% BG's - 12 months defects Liability Period	1	Item	\$5,694.23		\$5,694.23
DEMOLITION & CLEARING					\$7,000.00
Allowance to Clear Vegetation around Noise Wall alignment and stockpile on site	5,200	m2	\$1.35		\$7,000.00
EARTHWORKS					\$53,906.00
Allow to trim alignment to remove steep gradients	2,500	m2	\$0.91		\$2,262.50
Allowance to provide construction all weather access	2,000	m2	\$25.82		\$51,643.50
NOISE WALL					\$1,209,367.74
Bore foundations 0.6m diameter x 4m deep x 6m centers	84	No.	\$178.33		\$14,980.00
Extra over allowance to hammer rock	24	m3	\$464.38		\$11,145.19

Description	Quantity	Unit	Rate	Markup %	Total
Supply & Install 200UC 59.4 x 9m galvanised beam (84 No.)	45	t	\$6,100.00		\$274,502.44
Supply and place concrete to footings	95	m3	\$549.04		\$52,158.11
Supply & Install 6m long x 0.3m wide x 0.125m thick precast reinforced concrete wall panels	84	No.	\$594.00		\$49,896.00
Ditto 6m long x 0.6m wide x 0.125m thick ditto	672	No.	\$1,188.00		\$798,336.00
Allowance for cleanup and make good site	2,500	m2	\$3.34		\$8,350.00
CONTRACTORS OVERHEAD & MARGIN					\$214,855.20
Allowance for Contractors Overhead (7.5%)	1	Item	\$107,427.60		\$107,427.60
Allowance for Contractors Margin (7.5%)	1	Item	\$107,427.60		\$107,427.60
SCHEDULE OF INFORMATION					
Email Correspondance from Stuart Murray 3/5/2016	1	NOTE			
SCHEDULE OF CLARIFICATIONS					
This estimate assumes existing GPS service available on site if GPS machine control is to be used	1	NOTE			
Design/Consultants Fees - EXCL.	1	NOTE			
Authorities Fees & Charges - EXCL.	1	NOTE			
Delay costs including Inclement Weather- EXCL.	1	NOTE			
Adjustments to existing utilities - EXCL.	1	NOTE			
Testing, treatment & management of contaminated material/buired rubbish on site - EXCL.	1	NOTE			
Demolition of existing structures - EXCL.	1	NOTE			
Unknown ground conditions and engineers design - EXCL.	1	NOTE			
Contingency - EXCL.	1	NOTE			
Cost escalation beyond May 2016 - EXCL.	1	NOTE			
Subtotal:					\$1,647,223.17
Adjustment:					\$0.00
Subtotal:					\$1,647,223.17
G.S.T [10%]:					\$164,722.32
Total:					\$1,811,945.48



Appendix 1.6 Martins Creek Rail Bridge & Associated Works Estimate



Rail Bridge & Associated Works

Job name:	Martins Creek Rail Bridge	Description:	Construction of Rail Bridge at Martins Creek Quarry
Client's name:	Site R & D Pty Ltd	Printed:	8/05/2016 4:34:25 AM

Description	Quantity	Unit	Rate	Markup %	Total
PRELIMINARIES					\$437,496.64
Project Management & Site Supervision					\$183,207.50
Project Manager - 75%	14.25	Week	\$4,750.00		\$67,687.50
Site Engineer - 100%	19	Week	\$2,850.00		\$54,150.00
Site Supervisor - 100%	19	Week	\$3,230.00		\$61,370.00
Site Compound, Hoardings, Accommodation & Amenities					\$39,450.00
Construct Compound Hardstand	600	m2	\$10.00		\$6,000.00
Temporary Fence to Compound	100	m	\$12.00		\$1,200.00
Remove Hardstand & make good at completion of works	600	m2	\$7.00		\$4,200.00
Temporary Hoarding to Work Area	200	m	\$12.00		\$2,400.00
Hire Small Site Office	19	Week	\$65.00		\$1,235.00
Hire Site office for Superintendant	19	Week	\$65.00		\$1,235.00
Hire Crib Shed	19	Week	\$85.00		\$1,615.00
Hire Ablution	19	Week	\$110.00		\$2,090.00
Holding Tank to last	19	Week	\$50.00		\$950.00
Generator	19	Week	\$450.00		\$8,550.00
Fuel for Generator	19	Week	\$525.00		\$9,975.00
Site Office Expenses					\$950.00
Drinking Water	19	Week	\$50.00		\$950.00
Site Mobilisation & Demobilisation					\$23,600.00
Mobilisation:					\$13,900.00
Mobilise Site office	1	No.	\$500.00		\$500.00
Mobilise Site office for Superintendant	1	No.	\$500.00		\$500.00
Mobilise Crib Shed	1	No.	\$500.00		\$500.00
Mobilise Ablution & Storage Tank	1	No.	\$500.00		\$500.00

Description	Quantity	Unit	Rate	Markup %	Total
Mobilise Generator	1	No.	\$500.00		\$500.00
Connection of Electrical Services to compound	1	Item	\$1,800.00		\$1,800.00
Mobilise D6 Dozer	1	No.	\$660.00		\$660.00
Mobilise 30t Excavator	2	No.	\$660.00		\$1,320.00
Mobilise 12t Excavator	1	No.	\$660.00		\$660.00
Mobilise 30t Artic Dump truck	4	No.	\$660.00		\$2,640.00
Mobilise Grader	2	No.	\$660.00		\$1,320.00
Mobilise Pad Foot Roller	2	No.	\$500.00		\$1,000.00
Mobilise SD Roller	2	No.	\$500.00		\$1,000.00
Mobilise Skid Steer Loader/Backhoe	4	No.	\$250.00		\$1,000.00
Demobilisation:					\$9,700.00
Demobilise Site office	1	No.	\$500.00		\$500.00
Demobilise Site office for Superintendant	1	No.	\$500.00		\$500.00
Demobilise Crib Shed	1	No.	\$500.00		\$500.00
Demobilise Ablution & Storage Tank	1	No.	\$500.00		\$500.00
Demobilise Generator	1	No.	\$500.00		\$500.00
Disconnection of Electrical Services to compound	1	Item	\$900.00		\$900.00
Demobilise D6 Dozer	1	No.	\$660.00		\$660.00
Demobilise 30t Excavator	1	No.			EXCL
Demobilise 12t Excavator	1	No.			EXCL
Demobilise 30t Artic Dump truck	2	No.	\$660.00		\$1,320.00
Demobilise Grader	2	No.	\$660.00		\$1,320.00
Demobilise Pad Foot Roller	2	No.	\$500.00		\$1,000.00
Demobilise SD Roller	2	No.	\$500.00		\$1,000.00
Demobilise Skid Steer Loader	4	No.	\$250.00		\$1,000.00
Site OH&S					\$35,199.00
Site OH& S Representative	19	Week	\$646.00		\$12,274.00
Site Induction (Allow 20 Workers)	160	Hr	\$75.00		\$12,000.00
Weekly Toolbox Talk (Allow Average of 10 Workers)	95	Hr	\$75.00		\$7,125.00
PPE Equipment	1	Item	\$3,800.00		\$3,800.00
Existing Services Location					\$5,340.00
Services Locator	8	Hr	\$125.00		\$1,000.00

Description	Quantity	Unit	Rate	Markup %	Total
Non-Destructive Digging Truck	8	Hr	\$280.00		\$2,240.00
Labourer x 2	16	Hr	\$55.00		\$880.00
Skid Steer Loader	8	Hr	\$115.00		\$920.00
Sand for Backfill	10	t	\$30.00		\$300.00
Erosion & Sediment Control					\$28,270.00
Shaker Grid	1	No.	\$1,500.00		\$1,500.00
Sediment Control Fence	2,000	m	\$12.00		\$24,000.00
Hay Bale Check Dam (3 Bale)	20	No.	\$138.50		\$2,770.00
Traffic Management					\$22,463.60
Traffic Management Plan	1	No.	\$570.00		\$570.00
Allowance for Misc. Signage & Barricades	1	No.	\$1,500.00		\$1,500.00
Allowance for Traffic Barriers	1,216	m/wk	\$10.85		\$13,193.60
3 Man traffic Control Crew	4	Day	\$1,800.00		\$7,200.00
Geotech Testing & Supervision					\$57,890.00
Geotech Site Establishment	38	No.	\$150.00		\$5,700.00
Geotech Engineer Inspection of Bridge Abutment Excavation	16	Hr	\$150.00		\$2,400.00
Geotech Engineer Inspection of Pierholes	16	Hr	\$150.00		\$2,400.00
Stripped Surface Inspection	24	Hr	\$175.00		\$4,200.00
Level 1 Supervision (Fill)	5	Day	\$950.00		\$4,750.00
Density Tests	304	No.	\$110.00		\$33,440.00
Report	1	Item			\$5,000.00
Site Survey					\$29,040.00
Intersection					\$7,040.00
Site Survey & Setout (Intersection)	8	Hr	\$220.00		\$1,760.00
Survey Crew Conformance (Intersection Subgrade)	8	Hr	\$220.00		\$1,760.00
Survey Crew Conformance (Intersection Pavement Layers)	8	Hr	\$220.00		\$1,760.00
Survey Crew Conformance (Final Intersection)	8	Hr	\$220.00		\$1,760.00
Haul Road					\$7,040.00
Site Survey & Setout (Haul Rd)	8	Hr	\$220.00		\$1,760.00

Description	Quantity	Unit	Rate	Markup %	Total
Survey Crew Conformance (Haul Rd Subgrade)	8	Hr	\$220.00		\$1,760.00
Survey Crew Conformance (Haul Rd Pavement Layers)	8	Hr	\$220.00		\$1,760.00
Survey Crew Conformance (Final Haul Rd)	8	Hr	\$220.00		\$1,760.00
Primary Rd					\$3,520.00
Site Survey & Setout (Primary Rd)	4	Hr	\$220.00		\$880.00
Survey Crew Conformance (Primary Rd Subgrade)	4	Hr	\$220.00		\$880.00
Survey Crew Conformance (Primary Rd Pavement Layers)	4	Hr	\$220.00		\$880.00
Survey Crew Conformance (Final Primary Rd)	4	Hr	\$220.00		\$880.00
Rail Bridge					\$11,440.00
Site Survey & Setout (Bridge)	12	Hr	\$220.00		\$2,640.00
Survey Crew Conformance (Piers)	12	Hr	\$220.00		\$2,640.00
Survey Crew Conformance (Abutments)	12	Hr	\$220.00		\$2,640.00
Survey Crew Conformance (Deck)	8	Hr	\$220.00		\$1,760.00
Survey Crew Conformance (Bridge Final)	8	Hr	\$220.00		\$1,760.00
WAE					\$2,700.00
Allowance for Works As Executed Survey	1	Item	\$2,700.00		\$2,700.00
Contract Insurances & Security					\$9,386.54
Contract Works Insurance	1	Item			INCL
Workers Compensation Insurance	1	Item			INCL
Public Liability Insurance	1	Item			INCL
Professional Indemnity Insurance	1	Item			INCL
Bank Guarantee 2 x 5% BG's - 12 months defects Liability Period	1	Item	\$9,386.54		\$9,386.54
INTERSECTION					\$273,311.53
TOPSOIL					\$5,646.00

Description	Quantity	Unit	Rate	Markup %	Total
Strip topsoil to stockpile on proposed road reserve areas - 100mm depth	160	m3	\$18.63		\$2,980.00
Respread stockpiled topsoil to road batters, verges and disturbed areas max 300mm thick	160	m3	\$16.66		\$2,666.00
EARTHWORKS					\$17,408.00
Box out to subgrade level and compact (assume pavement depth 800mm) and stockpile:					
Material on site adjacent to works	1,280	m3	\$11.35		\$14,528.00
Trim footpath, berms and batters	1,600	m2	\$1.80		\$2,880.00
SUBSOIL DRAINAGE					\$24,931.90
Supply, lay bed and backfill 100mm uPVC (@interface with existing pavement only)	650	m	\$38.36		\$24,931.90
ROAD PAVEMENT					\$200,553.13
Saw cut existing pavement	650	m	\$7.33		\$4,765.00
Trim and compact subgrade	2,000	m2	\$2.87		\$5,733.33
Supply and place Select (300mm)	2,000	m2	\$20.31		\$40,614.00
Supply, place, trim and compact subbase course 220mm thick	2,000	m2	\$22.42		\$44,831.40
Supply, place, trim and compact bound basecourse 150mm thick	1,850	m2	\$28.52		\$52,769.40
Primer seal (2 establishments)	1,600	m2	\$6.00		\$9,600.00
Hotmix (40mm)	1,600	m2	\$26.40		\$42,240.00
SIGNPOSTING & LINEMARKING					\$6,222.50
Signage and posts	4	No.	\$250.00		\$1,000.00
Line marking to channelised right hand turn to RMS specs					\$5,222.50
Allow for Cleaning Gravel from existing pavement to receive linemarking	1	Item	\$250.00		\$250.00
Line marking crew establishment	1	No.	\$1,800.00		\$1,800.00
Allow for Waterborne Linemarking (1 x application)	1	NOTE			
Edge Line	368	m	\$1.50		\$552.00

Description	Quantity	Unit	Rate	Markup %	Total
Lane Lines	31	m	\$1.50		\$46.50
Centre Line (Type BB)	48	m	\$2.50		\$120.00
Chevron	40	m2	\$45.00		\$1,800.00
Arrows	3	No.	\$75.00		\$225.00
Allow for Thermoplastic					
New Hold Line (TB)	9	m	\$8.00		\$72.00
Raised Pavement Markers	42	No.	\$8.50		\$357.00
Linemarking - \$2.00/m - RATE ONLY	1	NOTE			
Painted Island Infill - \$45/m2 - RATE ONLY	1	NOTE			
GRASSING & LANDSCAPE					\$1,750.00
Native grass seeding, fertilising and watering of road verges to Council requirements	700	m2	\$2.50		\$1,750.00
SEDIMENT & EROSION CONTROL					\$11,800.00
Sediment fence	700	m	\$12.00		\$8,400.00
Hay bale sediment traps (5 Bale)	16	No.	\$212.50		\$3,400.00
MISCELLANEOUS					\$5,000.00
Maintain access to existing driveways	2	No.	\$2,500.00		\$5,000.00
GRAVEL HAUL ROAD					\$391,089.27
CLEARING					\$17,000.00
Clear and Grub	1	Ha	\$17,000.00		\$17,000.00
TOPSOIL					\$11,158.33
Strip topsoil (nominally 100mm thick) and temporarily stockpile at an approved site(s)	1,000	m3	\$11.16		\$11,158.33
EARTHWORKS					\$74,308.33
Load, haul, place and compact material sourced from Cuttings in Fills for roadworks	4,500	m3	\$7.41		\$33,337.50
Load, haul and cart to spoil within 1 km from site or reuse.	5,200	m3	\$7.10		\$36,941.67
Allowance for removal and replacement of unsuitable material as directed by the Superintendent	100	m3	\$40.29		\$4,029.17
STORMWATER DRAINAGE					\$25,194.00
Culvert 300mm dia	45	m	\$157.76		\$7,099.00
Precast headwalls for 300mm dia. Culverts	6	No.	\$411.67		\$2,470.00

Description	Quantity	Unit	Rate	Markup %	Total
Supply, place and secure 230 mm thick rockfilled mattress scour protection for the above pipe culvert inlet and outlets	50	m2	\$85.00		\$4,250.00
Supply, place and secure BIDIM A34 geotextile to underside of scour protection	50	m2			INCL
Construct unlined catch-drains	1,625	m	\$7.00		\$11,375.00
Extra over item for excavation at the inlet and outlet of pipe culverts.	20	m3			INCL
SUBSOIL DRAINAGE					\$33,178.61
Allowance for 100mm dia. Class 1000 slotted subsoil pipe with filter sock at critical locations in Cuttings.	865	m	\$38.36		\$33,178.61
Rework allowance for subsurface drainage works (20% of sum of subsurface drainage items)	1	NOTE			
ROAD PAVEMENT					\$230,250.00
Supply, place and compact 400mm thick base material to road pavement.	6,140	m2	\$37.50		\$230,250.00
PRIMARY ROAD					\$80,700.17
ROAD PAVEMENT					\$80,700.17
Construct new flexible pavement. Supply, spread and compact:					
250mm DGS 40 Sub base	840	m2	\$23.10		\$19,407.15
100mm DGB base	840	m2	\$14.80		\$12,428.64
Primer Seal	840	m2	\$6.00		\$5,040.00
50mm AC 14 wearing course	840	m2	\$33.00		\$27,720.00
Concrete edge strip (150x75)	105	m	\$28.38		\$2,979.38
Construct concrete catch-drains	105	m	\$125.00		\$13,125.00
STORMWATER DRAINAGE					
Excavate in OTR material, supply and lay RRJ reinforced concrete pipes for road and interallotment drainage. Excess cut material to be placed in road or lot fills:					
375 dia class 3	1	Item			EXCL
Pits including step irons where required:					

Description	Quantity	Unit	Rate	Markup %	Total
Kerb Inlet Pit - 1.8m Lintel	1	Item			EXCL
Supply and install outlet headwall					
Subsoil drainage 100 dia PVC:					
in kerb inlet pits	1	Item			EXCL
at all kerb lines (part of pavement design for salinity)	1	Item			EXCL
RAIL BRIDGE					\$474,605.82
PILING					\$150,170.31
Piles - Daracon Quoted Price Used	1	Item	\$59,878.64		\$59,878.64
Abutment headstocks/curtain wall - Daracon Price Used	2	No.	\$45,145.84		\$90,291.67
BEARINGS					\$22,380.00
Supply and installation of 480x300x115 laminated elastomeric bearings (A.S. Part No. 060907R) including the attachment plate, keeper assembly and epoxy mortar block	8	No.	\$2,195.00		\$17,560.00
Elastomeric bearing strip 95 x 20	16	m	\$133.75		\$2,140.00
Elastomeric buffer bearing pad 450 x 250 x 25 incl SS fixings	8	No.	\$335.00		\$2,680.00
PSC SUPER T GIRDERS					\$212,611.50
1200mm Deep X 25400mm Nominal Length:					
Manufacture including all reinforcement, forming of all voids and prestressing of tendons	4	No.	\$27,260.55		\$109,042.20
Delivery and stacking	4	No.	\$3,490.00		\$13,960.00
Erection	4	No.	\$5,125.00		\$20,500.00
Deck slab over super T girders	40	m3	\$891.95		\$35,678.00
Deck slab reo	9	t	\$2,400.00		\$21,600.00
Traffic barrier stitch pour	4	m3	\$2,110.20		\$8,440.80
Traffic barrier precast stitch pour	1	m3	\$3,390.50		\$3,390.50
PRECAST CONCRETE BARRIERS					\$73,544.01
Manufacture, supply and installation of Precast concrete barriers	50	m	\$355.09		\$17,754.61
3m approach slabs	17	m3	\$1,075.85		\$18,289.40

Description	Quantity	Unit	Rate	Markup %	Total
Spill protection fence	50	m	\$750.00		\$37,500.00
Allowance for Guardrail to approaches	24	m	\$350.00		\$8,400.00
Allowance for services conduits to bridge	50	m	\$150.00		\$7,500.00
DESIGN & CONSULTANTS FEES					\$132,576.27
Allowance for Engineering/Consultants Fees (Incl. ConstructionPhase) - 8%	1	Item	\$132,576.27		\$132,576.27
Liaison with Council and service authorities included in rates generally	1	NOTE			INCL
CONTRACTORS OVERHEAD & MARGIN					\$268,466.96
Allowance for Contractors Overhead (7.5%)	1	Item	\$134,233.48		\$134,233.48
Allowance for Contractors Margin (7.5%)	1	Item	\$134,233.48		\$134,233.48
SCHEDULE OF INFORMATION					
Copy of Daracon 7074 Rail Bridge Martins Creek Budget Updated March 2016 from Stuart Murray 12/4/2016	1	NOTE			
SCHEDULE OF CLARIFICATIONS					
This estimate assumes existing GPS service available on site if GPS machine control is to be used	1	NOTE			
All excavation assumed in OTR (Other Than Rock) unless noted otherwise	1	NOTE			
No Allowance for out of hours work	1	NOTE			
Design/Consultants Fees - EXCL.	1	NOTE			
Authorities Fees & Charges - EXCL.	1	NOTE			
Delay costs including Inclement Weather- EXCL.	1	NOTE			
Adjustments to existing utilities - EXCL.	1	NOTE			
Testing, treatment & management of contaminated material/buired rubbish on site - EXCL.	1	NOTE			
Demolition of existing structures - EXCL.	1	NOTE			
Unknown ground conditions and engineers design - EXCL.	1	NOTE			
Contingency - EXCL.	1	NOTE			

Description	Quantity	Unit	Rate	Markup %	Total
Cost escalation beyond May 2016 - EXCL.	1	NOTE			
Subtotal:					\$2,058,246.66
Adjustment:					\$0.00
Subtotal:					\$2,058,246.66
G.S.T [10%]:					\$205,824.67
Total:					\$2,264,071.32

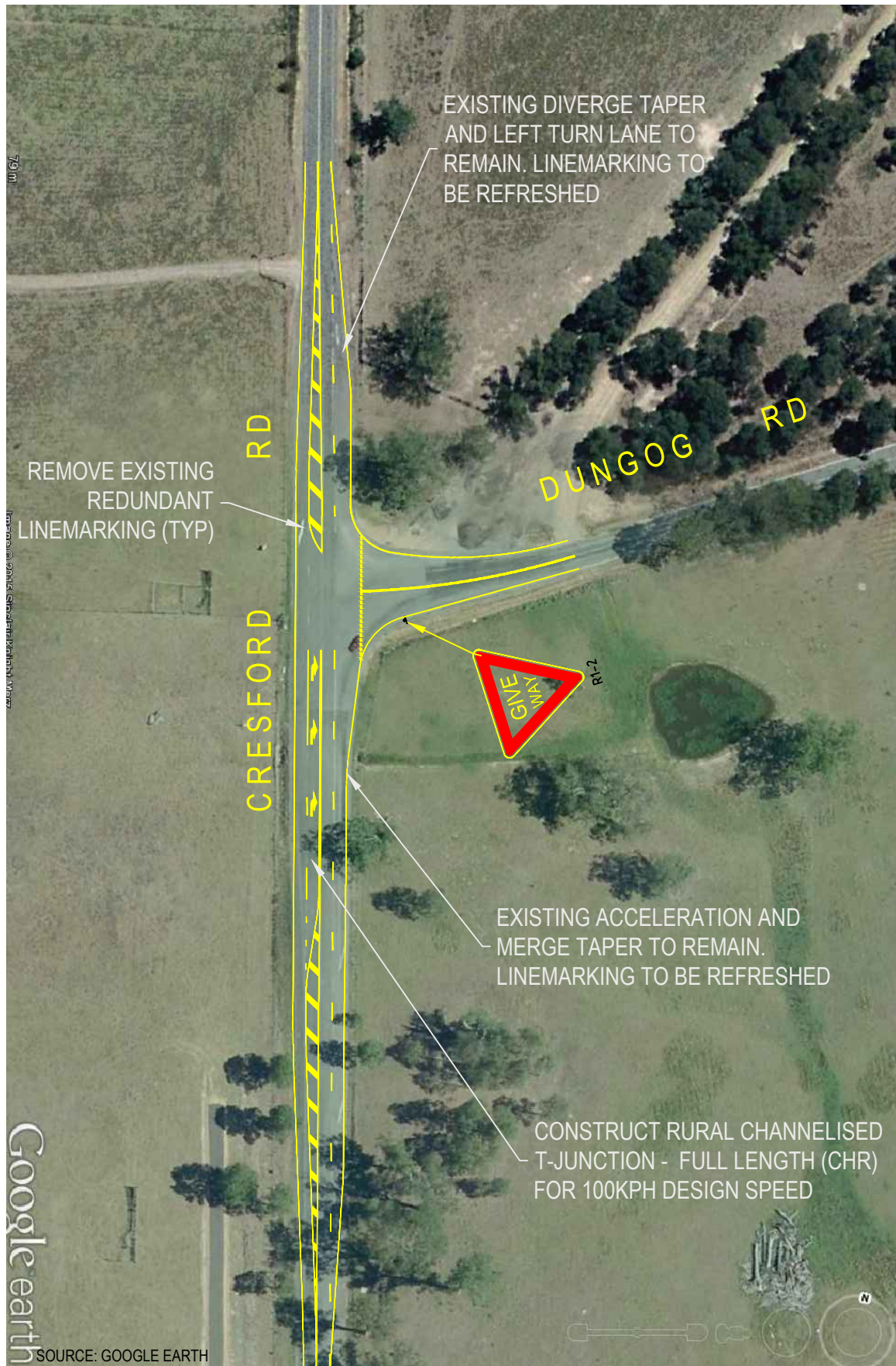


Appendix 2 Schedule of Information

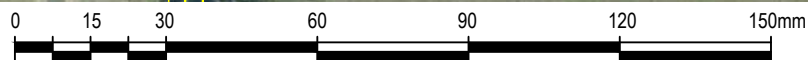


Schedule of Information:

Item	Description	Comment
1	Martins Creek Quarry Gresford and Dungog Road Intersection Works Drawing by ACOR Consultants (NNSW) Pty Ltd, numbered NE140152 Figure 7 Revision A, dated 8/12/2015	-
2	Martins Creek Quarry Duke Street/ King Street, Paterson - Intersection Works Drawing by ACOR Consultants (NNSW) Pty Ltd, numbered NE140152 Figure 8 Revision A, dated 8/12/2015	-
3	Martins Creek Quarry Butterwick & Clarence Town Road Intersection Works Drawing by ACOR Consultants (NNSW) Pty Ltd, numbered NE140152 Figure 9 Revision A, dated 8/12/2015	-
4	Martins Creek Quarry Butterwick & Clarence Town Road Intersection Works Drawing by ACOR Consultants (NNSW) Pty Ltd, numbered NE140152 Figure 10 Revision A, dated 24/2/2016	-
5	Email Correspondence from Stuart Murray 3/5/2016 regarding Noise Wall scope	-
6	Copy of Daracon 7074 Rail Bridge Martins Creek Budget Updated March 2016 from Stuart Murray 12/4/2016	-



SCALE 1:1500



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ENGINEERS | MANAGERS | INFRASTRUCTURE PLANNERS | DEVELOPMENT CONSULTANTS

Drawing Title

MARTINS CREEK QUARRY
GRESFORD AND DUNGOG ROAD INTERSECTION WORKS

Project No.

NE140152

Scale

1:1500

@ A4

Figure No.

7

Issue

A



SCALE 1:500 0 5 10 20 30 40 50 metres

SCALE IS BEFORE REDUCTION

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**Ac
OR**

CONSULTANTS

ENGINEERS | MANAGERS | INFRASTRUCTURE PLANNERS | DEVELOPMENT CONSULTANTS

Drawing Title
MARTINS CREEK QUARRY
DUKE STREET / KING STREET, PATERSON -
INTERSECTION MEDIAN WORKS

Project No.
NE140152

Scale
1:500 @ A4

Figure No.
8

Issue
A



REMOVE EXISTING
REDUNDANT
LINEMARKING (TYP)

ROAD

RD

BUTTERWICK

CLARENCE TOWN



CONSTRUCT RURAL CHANNELISED
T-JUNCTION - FULL LENGTH (CHR)
FOR 100KPH DESIGN SPEED

SOURCE: GOOGLE EARTH

SCALE 1:1500



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Drawing Title

MARTINS CREEK QUARRY
BUTTERWICK & CLARENCE TOWN ROAD INTERSECTION WORKS

Project No.

NE140152

Scale

1:1500

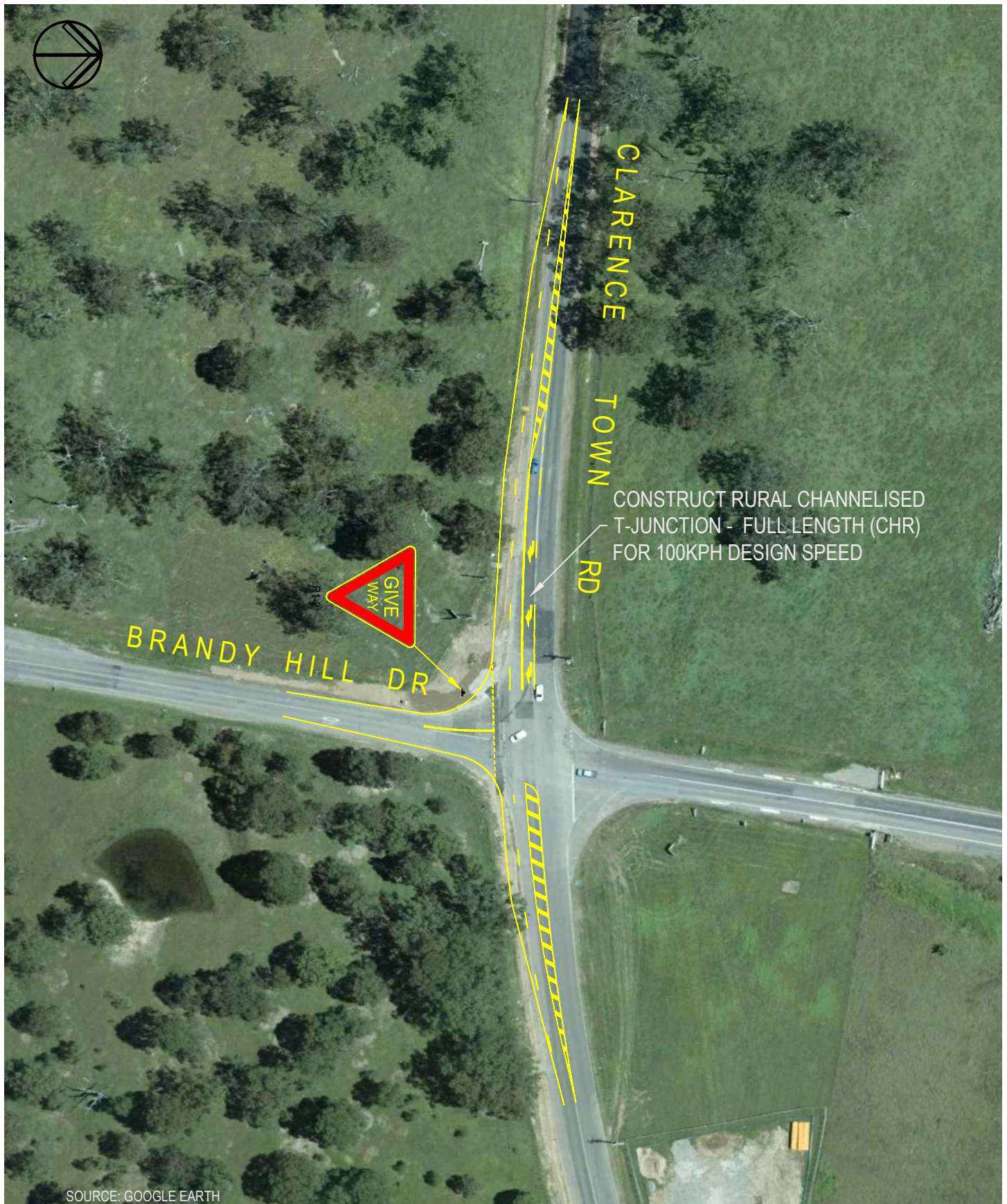
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Figure No.

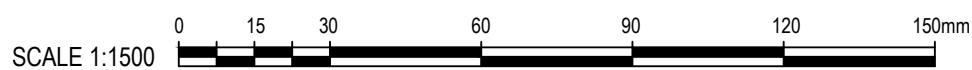
9

Issue

A



SOURCE: GOOGLE EARTH



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Drawing Title

MARTINS CREEK QUARRY
BRANDY HILL DRIVE AND CLARENCE TOWN ROAD
INTERSECTION WORKS

Project No.

NE140152

Scale

1:1500 @ A4

Figure No.

10

Issue

A

Submission Schedule

7074 Rail Bridge Martins Creek Budget Updated March 2016

Printed : March 10, 2016 16:39:54

Item	Description	Unit	Quantity	Unit Rate	Amount (AUD)
Intersection					
1	GENERAL				
1.1	Office for superintendent	Item	1		Included
1.2	Site establishment and disestablishment including security fencing, provision of erosion and sediment control signage, any other signs and notices required by Council	Item	1	163,192.83	163,192.83
1.3	Traffic control including traffic management plan	Item	1	63,708.58	63,708.58
1.4	Clearing and grubbing including cutting existing trees, mulching of vegetation, stockpiling and spreading onto disturbed areas.	Item	1	21,999.89	21,999.89
1.5	Location of services	Item	1		Excluded
1.6	Relocation and protection of existing services	Item	1		Excluded
1.7	Geotechnical testing and certification of road pavements	Item	1	58,085.73	58,085.73
1.8	Survey set out and Works As Executed survey to Council requirements	Item	1	26,241.06	26,241.06
2	TOPSOIL				
2.1	Strip topsoil to stockpile on proposed road reserve areas - 100mm depth	m3	160	20.70	3,312.00
2.2	Respread stockpiled topsoil to road batters, verges and disturbed areas max 300mm thick	m3	160	13.55	2,168.00
3	EARTHWORKS				
	Box out to subgrade level and compact (assume pavement depth 800mm) and stockpile:				
3.1	Material on site adjacent to works	m3	1,280	13.64	17,459.20
3.2	Trim footpath, berms and batters	m2	1,600	1.63	2,608.00
4	SUBSOIL DRAINAGE				
4.1	Supply, lay bed and backfill 100mm uPVC (@ interface with existing pavement only)	m	650	42.53	27,644.50
5	ROAD PAVEMENT				
5.1	Saw cut existing pavement	m	650	7.15	4,647.50
5.2	Trim and compact subgrade	m2	2,000	3.07	6,140.00
5.3	Supply and place Select (300mm)	m2	2,000	18.50	37,000.00
5.4	Supply, place, trim and compact subbase course 220mm thick	m2	2,000	23.48	46,960.00
5.5	Supply, place, trim and compact bound basecourse 150mm thick	m2	1,850	35.50	65,675.00
5.6	Primer seal (2 establishments)	m2	1,600	5.76	9,216.00
5.7	Hotmix (40mm)	m2	1,600	23.53	37,648.00

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Item	Description	Unit	Quantity	Unit Rate	Amount (AUD)
6	SIGNPOSTING AND LINEMARKING				
6.1	Signage and posts	each	4	275.00	1,100.00
	Line marking to channelised right hand turn to RMS specs	item	1	4,452.78	4,452.78
6.2	Linemarking	m		5.34	Rate Only
6.3	Painted Island Infill	m2		19.25	Rate Only
7	GRASSING AND LANDSCAPING				
7.1	Native grass seeding, fertilising and watering of road verges to Council requirements	m2	700	2.46	1,722.00
8	SEDIMENT AND EROSION CONTROL				
8.1	Sediment fence	m	700	10.25	7,175.00
8.2	Hay bale sediment traps	each	16	179.32	2,869.12
12	MISCELLANEOUS				
12.1	Engineering Consultants Fees (inc. construction phase) - 4 %	item	4	21,999.89	87,999.56
12.3	Maintain access to existing driveways	each	2	5,499.97	10,999.94
12.4	Liaison with Council and service authorities included in rates generally				
	Gravel Haul Road				
2	Preliminary				
2.1	Clear and Grub	Ha	1	16,389.92	23,273.69
2.2	Strip topsoil (nominally 100mm thick) and temporarily stockpile at an approved site(s)	m3	1,000	8.45	8,450.00
3	Earthworks				
3.1	Load, haul, place and compact material sourced from Cuttings in Fills for roadworks	m3	4,500	7.60	34,200.00
3.3	Load, haul and cart to spoil within 1 km from site or reuse.	m3	5,200	8.49	44,148.00
3.8	Allowance for removal and replacement of unsuitable material as directed by the Superintendent	m3	100	681.58	68,158.00
4	Stormwater Drainage				
4.1	Culvert 300mm dia	m	45	142.83	6,427.35
4.2	Precast headwalls for 300mm dia. Culverts	No.	6	405.33	2,431.98
4.3	Supply, place and secure 230 mm thick rockfilled mattress scour protection for the above pipe culvert inlet and outlets	m2	50	88.72	4,436.00
4.4	Supply, place and secure BIDIM A34 geotextile to underside of scour protection	m2	50		Included
4.5	Construct unlined catch-drains	m	1,625	6.92	11,245.00
4.6	Extra over item for excavation at the inlet and outlet of pipe culverts.	m3	20		Included
5	Subsurface Drainage				

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Item	Description	Unit	Quantity	Unit Rate	Amount (AUD)
5.1	Allowance for 100mm dia. Class 1000 slotted subsoil pipe with filter sock at critical locations in Cuttings.	m	865	40.44	34,980.60
5.2	Rework allowance for subsurface drainage works (20% of sum of subsurface drainage items)				
6	Pavement				
6.1	Supply, place and compact 400mm thick base material to road pavement.	m2	6,140	36.08	221,531.20
5	ROAD PAVEMENT				
5.1	Primary Road - Construct new flexible pavement. Supply, spread and compact:				
5.1.1	250mm DGS 40 Sub base	m2	840	24.91	20,924.40
5.1.2	100mm DGB base	m2	840	14.76	12,398.40
5.1.3	Primer Seal	m2	840	5.76	4,838.40
5.1.4	50mm AC 14 wearing course	m2	840	30.98	26,023.20
5.1.5	Concrete edge strip (150x75)	m	105	32.65	3,428.25
4.10	Construct concrete catch-drains	m	105	60.82	6,386.10
4	STORMWATER DRAINAGE				
4.1	Excavate in OTR material, supply and lay RRJ reinforced concrete pipes for road and interallotment drainage. Excess cut material to be placed in road or lot fills:				
4.1.1	375 dia class 3				
4.2	Pits including step irons where required:				
4.2.3	Kerb Inlet Pit - 1.8m Lintel				
4.3	Supply and install outlet headwall				
4.4	Subsoil drainage 100 dia PVC:				
4.4.1	in kerb inlet pits				
4.4.2	at all kerb lines (part of pavement design for salinity)				
	Rail Bridge				
1	Piles	item	1	65,866.50	65,866.50
	Abutment headstocks/curtain walls	each	2	49,660.42	99,320.84
	BEARINGS				
8	Supply and installation of 480x300x115 laminated elastomeric bearings (A.S. Part No. 060907R) including the attachment plate, keeper assembly and epoxy mortar block	each	8	2,651.43	21,211.44
9	Elastomeric bearing strip 95 x 20	m	16	106.15	1,698.40
10	Elastomeric buffer bearing pad 450 x 250 x 25 incl SS fixings	each	8	438.07	3,504.56
12	PSC SUPER T GIRDERS				
a)	1200mm Deep X 25400mm Nominal Length				
(i)	Manufacture including all reinforcement, forming of all voids and prestressing of tendons	each	4	38,538.31	154,153.24
(ii)	Delivery and stacking	each	4	453.20	1,812.80

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Item	Description	Unit	Quantity	Unit Rate	Amount (AUD)
(iii)	Erection	each	4	10,630.35	42,521.40
	Deck slab over super T girders	m3	40	1,192.39	47,695.60
	Deck slab reo	t	9	2,657.59	24,981.35
b)	Traffic barrier stitch pour	m3	4	3,237.72	12,950.88
b)	Traffic barrier precast stitch pour	t	1	3,596.25	4,315.50
15	Precast Concrete Barriers				
a)	Manufacture, supply and installation of Precast concrete barriers	m	50	2,980.76	149,038.00
	3m approach slabs	m3	17	1,291.39	21,953.63
	Spill protection fence	m	50	546.68	27,334.00
	Rail Bridge				678,358.14
	Contingency	item	1	192,169.06	192,169.06
	Total for project				2,113,832.46