

5 February 2020

Jackson Environment and Planning Pty Ltd Suite 102, Level 1, 25 Berry Street NORTH SYDNEY NSW 2060

ATTENTION: MARK JACKSON

RE: SAND, SOIL & BUILDING MATERIALS RECYCLING FACILITY 90 GINDURRA ROAD, SOMERSBY CAPITAL INVESTMENT VALUE ESTIMATE

As per your request dated 23 January 2020, Muller Partnership has prepared a Capital Investment Value (CIV) Estimate as required by the planning authority for the above development totalling \$ 14,866,000 (excl. GST) and enclose our report.

The purpose of this assessment is to determine the current construction cost value of the development for council purposes only and is not to be used for project budgeting, finance, insurance, sale, mortgage or any other purposes.

Should you wish to discuss any of the above please do not hesitate to contact the undersigned.

Yours faithfully MULLER PARTNERSHIP

PETER DALLY DIRECTOR PD: NW 18230 90 Gindurra Rd, Somersby - CIV Estimate



Newcastle | Sydney | Melbourne

SAND, SOIL & BUILDING MATERIALS RECYCLING FACILITY 90 GINDURRA ROAD, SOMERSBY CAPITAL INVESTMENT VALUE ESTIMATE

05 FEBRUARY 2020



Disclaimer

Muller Partnership have prepared this report in part on the basis of information supplied to it in the ordinary course of business by Jackson Environment and Planning Pty Ltd.

Whilst all reasonable professional care and skill have been exercised to validate its accuracy and authenticity, Muller Partnership is unable to provide any Guarantee in that regard, and will not be liable to any party for any loss arising as a result of any such information subsequently being found to be inaccurate, lacking authenticity or having been withheld.

This report is only intended for use by the Jackson Environment and Planning Pty Ltd and Muller Partnership accepts no responsibility to other parties who use opinions or information contained herein. They do so at their own risk.

In acting as Quantity Surveyor for Jackson Environment and Planning Pty Ltd, Muller Partnership's liability is limited to the scope of services and value limit, as defined in their Professional indemnity insurance cover. A copy is available on request.

This report covers only the items as contained in this report. Should Jackson Environment and Planning Pty Ltd require additional items or areas of assessment, these should be specifically requested and will be actioned as agreed between the parties.

The construction costs are current as at the date of this assessment only. The values assessed herein may change significantly and unexpectedly over a relatively short period (including as a result of general market movements or factors specific to the particular property). We do not accept liability for losses arising from such subsequent changes in values.

Document history & status

Revision	Date	Description	Ву	Review	Approved
0	05/02/2020	Capital Investment Value Estimate	YF	NW	PD



CONTENTS

1.0	Executive Summary	. 5
2.0	Capitial Investment Value Summary	7
3.0	Area Summary	8
4.0	Methodology	.9
5.0	Assumptions	10
6.0	Exclusions	11
Appen	dix A – Estimate Breakdown	13
Appen	dix B – Supporting Documents	14

Capital Investment Value	Capital Investment Value of a development or project includes all costs necessary to establish and operate the project, including the design and construction of buildings, structures, associated infrastructure and fixed or mobile plant and equipment, other than the following costs:
	(a) amounts payable, or the cost of land dedicated or any other benefit provided, under a condition imposed under Division 6 or 6A of Part 4 of the Environmental Planning and Assessment Act or a planning agreement under that Division
	(b) costs relating to any part of the development or project that is the subject of a separate development consent or project approval
	(c) land costs (including any costs of marketing and selling land)
	(d) GST (as defined by A New Tax System (Goods and Services Tax) Act 1999
Construction Contingency	The Construction Contingency is a contingency allowance made for unknowns that may occur during construction due to latent conditions or issues with the documentation.
Design Development Allowance	The Design Development Allowance is a contingency included within our estimate to allow for unknown costs associated with progressing the development from the initial concept through until the 'For Construction'. At the time of For Construction documentation this contingency should be 0% as the entire project will have been designed and costed accordingly.
Preliminaries & Margin	The Preliminaries and Margin Allowance is an allowance for the builders' margin and their establishment and management of the site. This item will therefore include for items such as site fencing & amenities, site foreman, head office overheads, insurances, cranage, site cleaning, OH&S management, QA, etc.



1.0 EXECUTIVE SUMMARY

Project Description

The project involves the construction of the proposed Sand, Soil and Building Materials Recycling Facility and associated infrastructure located at 90 Gindurra Road, Somersby, NSW.

The update of the CIV estimate for Sand, Soil & Building Recycling Facility involves:

- Smaller noise wall along the NE corner of the site then transitioning to the eastern boundary.
- Construction of a larger water quality pond including floating wetland, level rock spreader, gross pollutant traps and a package recycled water plant.
- Construction of a Crusher Building.
- Construction of a Mulcher Building and concrete storage bays.
- Construction of Tip and Spread Building, rainwater harvesting tanks and misting system.
- Installation of dust and fire suppression systems across the site including the Secondary Sorting Warehouse.
- Installation of sprinkler system for dust suppression above landscape storage bays.
- Installation of a second weighbridge, weighbridge office, traffic control lights and boom gates on site.

Cost Overview

We confirm the estimated CIV for Sand, Soil & Building Recycling Facility, Somersby is \$ 14,866,000 (excl. GST).

Key Notes & Actions:

 Please note that this estimate has been prepared for the purpose of authority review and is preliminary in nature. Muller Partnership can provide development budgeting, scenario estimating, cost planning, or similar services on request.

- We have assumed Stage 1 works (Demolition and Secondary processing building) are complete and excluded from the estimate.
- We have used the Engineers quantities for bulk exaction etc.
- Import fill is assumed to be sourced free of charge.
- Review assumptions and exclusions.

2.0 CAPITIAL INVESTMENT VALUE SUMMARY

CAPITAL INVESTMENT VALUE SUMMARY				
Item	Total Cost (\$)			
Demolition & Site Preparation	1,861,000			
Construction Works				
Crusher Operation Building	184,000			
Mulcher Operation Building	134,000			
Tip and Spread Building	830,000			
Secondary Processing Building	EXCL			
Admin Office and Amenities	EXCL			
External Works and Service	7,203,000			
Works Outside Boundary	59,000			
Mobile Plant and Equipment	3,622,000			
Design Development Allowance	EXCL			
Preliminaries, Overheads and Profit (7%)	973,000			
Total Construction Cost (Excl GST)	14,866,000			
Construction Contingency	EXCL			
Professional Fees	EXCL			
Consultant Fees	EXCL			
Authority Fees and Contributions	EXCL			
Escalation	EXCL			
Total Project Cost (Excl GST)	14,866,000			

NB. Above costs are rounded to nearest thousand.

3.0 AREA SUMMARY

Summary of areas is as follows:

Sand, Soil & Building Materials Recycling Facility	Area (m²)
Site	60,568
Tip and Spread Building	1,277
Mulcher Operation Building	96
Crusher Operation Building	147
Waste Storage Area	4,962
Admin Office and Amenities	104
Secondary Processing Building	2,378

*Areas (*m*²) are measured as per the definitions stated in the AIQS Book of Areas.



4.0 METHODOLOGY

Muller Partnership has used the following information in compiling our CIV Estimate:

All rates used within our Capital Investment Estimate have been gathered from our in-house databases as well as being constructed from first principles namely labour, materials and waste to reflect current market and project specific value.

Muller Partnership has used the following plans prepared by Sustainability Workshop, dated 16 December 2019, and received on 31 January 2020:

- Sheet 106 [Rev 2] General Arrangement Plan
- Sheet 107 [Rev 2] Civil Works Plan
- Sheet 108 [Rev 2] Retaining Wall Long Sections Sheet 1 of 2
- Sheet 109 [Rev 2] Retaining Wall Long Sections Sheet 2 of 2
- Sheet 110 [Rev 2] Bulk Earthwork Plan
- Sheet 111 [Rev 2] Turning Movement Plan
- Sheet 113 [Rev 2] Detailed Secondary Processing Building Plan
- Sheet 115 [Rev 2] Stormwater Plan
- Sheet 116 [Rev 2] Stormwater Sections & Details

Crusher and Mulcher Operation Building Plan by Raybal Constructions, received 31 January 2020 and named as follows:

- SSD-A-01-011 [Rev 3] Building Plans and Elevations
- SSD-A-01-012 [Rev 6] Tip and Spread Bay Plan and Section
- SSD-A-01-012 [Rev 6] Tip and Spread Bay Elevations

5.0 ASSUMPTIONS

We have made the following assumptions in the preparation of our CIV Estimate:

- 1. The works will be competitively tendered to a number of suitable qualified contractors on a lump sum basis.
- 2. Works will be completed during normal working hours.
- 3. Works are included for Stage 2 only (Stage 1 to include all demolition works and construction of warehouse).
- 4. Assumed builder will have clear access to the work area.
- 5. Assumed existing service connections are sufficient (NB: Unless noted otherwise in our foregoing estimate).
- 6. Assumed no hazardous material to be removed from site.
- 7. All hazardous materials and excess spoil is to be stockpiled and remain on site.
- 8. All volumes have been taken from Sustainability Workshop's provided bulk quantities as per the provided Civil Drawings (Refer to Schedule of Information for Details).
- Sustainability Workshop Bulk Earthwork Quantities are assumed to be for Stage 2 only and exclude earthworks to the Stage 1 Structures.
- 10. Quantity of trees (25 No.) to be removed is a provisional quantity.
- 11. Heavy vehicle pavement and asphalt pavement profiles has been assumed.
- 12. Waste receive area concrete slab profile has been assumed.
- 13. An allowance for site signage has been assumed to be required.
- 14. All electrical services have been assumed include extent of lighting and connection requirements.
- 15. Retaining wall details have been assumed based on previous project data and should be updated once further information becomes available.
- 16. Fencing has been assumed to be included in Stage 1 works as per the Waste Management Report prepared by Jackson Environment and Planning Pty Ltd.
- 17. Supply of equipment has been adopted as per Jackson Environment & Planning advice.

18. Project duration for road work has been assumed to be 1 week and include afterhours work.

- 19. Preliminaries, Overheads and Profit allowance of 7% has been included.
- 20. We have made allowances for the following Provisional Sums:
 - Weighbridge \$200,000
 - Signage \$10,000
 - Floating wetlands -\$33,795
 - Traffic Light (2 Sets) \$25,000
 - Dust suppression system \$228,765.

6.0 EXCLUSIONS

Within the following CIV the acronym 'EXCL' means work that has **not** been included in our estimate. We specifically note the following exclusions from the estimated cost:

- 1. Contamination & remediation.
- 2. Services diversions.
- 3. Excavation in rock.
- 4. Ground water.
- 5. Dewatering.
- 6. Disposal of excavated material as VENM at local waste facility.
- 7. Demolition of existing sheds/buildings on site.
- 8. Site security fencing including sliding entry gate and 6m wide double gate.
- 9. Secondary Processing Building and Admin Office and Amenities.
- 10. Outbound weighbridge once facility reaches 100KTPA.
- 11. Waste skip bins / receptables.
- 12. Retroreflective markers.
- 13. Greywater reuse system.
- 14. OSD tank approved under Stage 1.
- 15. Sewer pump station.
- 16. External gas supply.

- 17. Maintenance to landscaping.
- 18. CCTV.
- 19. Substation.
- 20. Amplification of existing services.
- 21. Escalation & changes in market conditions.
- 22. Client Side Project Management.
- 23. Finance costs.
- 24. Works outside normal hours.
- 25. Aboriginal and Heritage impacts.
- 26. Delays resulting from approvals such as Environmental/ Authorities.

- 27. Construction contingency.
- 28. Design contingency.
- 29. Professional Fees.
- 30. Authority Fees.
- 31. GST.

APPENDIX A - ESTIMATE BREAKDOWN



		Quantity	Unit	Rate	Total
1	DEMOLITION & SITE PREPARATION				\$1,860,676.00
2	CRUSHER OPERATION BUILDING				\$183,750.00
3	MULCHER OPERATION BUILDING				\$134,400.00
4	TIP AND SPREAD BUILDING				\$830,050.00
5	SECONDARY PROCESSING BUILDING				
6	ADMIN OFFICE AND AMENITIES				
7	EXTERNAL WORKS AND SERVICES				\$7,203,453.11
8	WORKS OUTSIDE BOUNDARY				\$59,005.00
9	MOBILE PLANT/ EQUIPMENT				\$3,622,000.00
10	DESIGN DEVEOPMENT ALLOWANCE				
11	PRELIMINARIES & MARGIN				\$972,533.39
12	CONSTRUCTION CONTINGENCY				
13	IDENTIFIED RISK ITEMS				
14	PROFESSIONAL FEES				
15	CONSULTANT FEES				
16	AUTHORITY FEES AND CONTRIBUTIONS	5			
17	ESCALATION				
				Subtotal	\$14,865,867.50

Adjustment \$0.00

Total \$14,865,867.50

1DEMOLITION & SITE PREPARATION\$1,860,675.001.1Allowance for demolition to recording demolition has been completed in demolition has been completed in stage 11itemEXCL1.2SITE PREPARATION\$1,860,676.001.2.1.1Site Clearing\$49,176.001.2.1.2Site clearing\$49,176.001.2.1.2Allowance for strup vegetative material and sockcplie the material on site\$0,568m2\$0.751.2.2Earthworks\$1,810.00\$3,750.001.2.2.1Guanthy and assumed strup vegetative material and sockcplie the material on site\$0,000\$3,750.001.2.2.2Fortworks\$1,810.00\$359,000.001.2.2.3Allowance for fill using stem aterial surge of the with in Southed strup stechnies (NE 1010)\$1,000m3\$43.501.2.2.4Allowance for fill using stem aterial surge of the with in Southed strup stechnies (NE 1010)\$1,000m3\$45.001.2.2.3Allowance for ingotted fill (RSUME) surge stechnies (NE 1010)\$1,000m3\$45.001.2.4CRUSHER OPERATION BUILDING\$1,300m3\$1,000\$13,4400.001.4Tup and spread building (excl. segurent part of Suge 11\$2,378m2\$1,600.001.4Tup and spread building (excl. segurent part of Suge 11\$2,378m2 <th></th> <th></th> <th>Quantity</th> <th>Unit</th> <th>Rate</th> <th>Total</th>			Quantity	Unit	Rate	Total
1.1.1 Allowance for demolition to recycling facility (NB: Assumed all required demolition has been completed in stope 1 1 item EXCL 1.2 SITE PREPARATION \$1,860,676.00 1.2.1 Site clearing \$449,176.00 1.2.1 Site clearing \$439,176.00 1.2.1.1 Malowance to strip vegetative material on site or removal of trees to on site area (NE: Provisional Quantity and assumed 500,1000mm grift) 25 No \$150.00 \$3,750.00 1.2.2 Earthworks \$1,811,500.00 \$1,811,500.00 \$3,750.00 1.2.2.1 Allowance for removal of quantity and assumed 500,1000mm grift) 25 No \$150.00 \$3,750.00 1.2.2.2 Allowance for bulk cut to fill [NB: Quantities & methodology adopted as per Drawing BEP110] 20,000 m3 \$8.50 \$170,000.00 1.2.2.3 Allowance for line willing set material cut to fill set material colling of set will act to gaterial colling (Sec.) 147 m2 \$1,220.00 \$13,250.00 \$13,250.00 2.1 CRUSHER OPERATION BUILDING \$133,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$11 Tip and spread bu	1	DEMOLITION & SITE PREPARATION				\$1,860,676.00
1.1.1facility (NB: Assumed all required demoliton has been completed in Stage 1]1RemEXCL1.2SITE PREPARATION\$1,860,676.001.2.1Site Clearing\$49,176.001.2.1Site Clearing\$49,176.001.2.1.1main state and stockpile the material and stockpile the stockpile the material and stockpile the stockpile the material and stockpile the stockpile the and stockpile the stockpile the and stockpile the stockpile the and stockpile the stockpile the and stockpile the stockpile the stockpile the and stockpile the stockpile the stockpile the and stockpile the sto	1.1	DEMOLITION & ALTERATIONS				
1.2.1 Site Clearing \$49,176.00 1.2.1.1 material and stockple the material on site 60,568 m2 \$0.75 \$45,426.00 1.2.1.2 Allowance for removal of trees to site area (NB: Provisional Quantity and assumed S00/1000mm girth) 25 No \$150.00 \$3,750.00 1.2.2 Earthworks \$1,811,500.00 \$1,811,500.00 \$3,750.00 1.2.2.1 Quantities methodiogy adopted as per Drawing BEPL101 20,000 m3 \$10.00 \$359,000.00 1.2.2.2 Allowance for fill using site material Allowance for imported fill (assumed S1,300 m3 \$20.00 m3 \$8.50 \$170,000.00 1.2.2.3 Sourced PCC of site within 20kms) \$1,300 m3 \$25.00 \$1,882,500.00 2.2.2 CRUSHER OPERATION BUILDING \$183,750.00 \$1,883,750.00 \$1,883,750.00 2.1 Crusher operation building (excl. equipment) 147 m2 \$1,250.00 \$183,750.00 3.1 MULCHER OPERATION BUILDING \$134,400.00 \$134,400.00 \$144,400.00 \$14,400.00 \$14,400.00 \$14,400.00 \$1283,050.00 \$155	1.1.1	facility [NB: Assumed all required demolition has been completed in	1	item		EXCL
1.2.1.1 Allowance to strip vegetative material and stockple the material on site area for removal of trees to on site area (NE: Provisional Quantity 25 No \$150.00 \$3,750.00 1.2.1.2 Allowance for removal of trees to a site area (NE: Provisional Quantity 25 No \$150.00 \$3,750.00 1.2.2 Earthworks \$1,811,500.00 1.2.2.1 Quantities & methodology adopted as per Drawing BEP101 35,900 m3 \$10.00 \$359,000.00 1.2.2.2 Allowance for bulk cut to fill (NB: Otto) fill (NB: Otto) fill (NB: Otto) fill (Assumed S0,000.00 material and stockple the within 20,000 m3 \$8.50 \$170,000.00 1.2.2.3 Allowance for illusing site material from existing stockples (NB: Otto) fill (Assumed S0,000.00 material stockples (NB: Otto) fill (Assumed S0,000.00 \$13,300 m3 \$25.00 \$1,282,500.00 2. CRUSHER OPERATION BUILDING \$133,750.00 \$1,282,500.00 \$134,400.00 3.1 Mulcher operation building (excl. equipment) 96 m2 \$1,400.00 \$134,400.00 4.1 Tip and spread building (excl. seque for of Stage 1 2,378 m2 EXCL \$650.00 5 SECONDARY PROCESSING BUILDING \$1,200 m10; m2,	1.2	SITE PREPARATION				\$1,860,676.00
1.2.1.1 material and stockplie the material on site 60,568 m2 \$0.75 \$45,426.00 1.2.1.2 Allowance for removal of trees to site area (BR: Provisional Quantity and assumed 500/1000mm girth) 25 No \$150.00 \$3,750.00 1.2.2 Earthworks \$1,811,500.00 \$1,811,500.00 \$3,750.00 1.2.2.1 Allowance for bulk cut to fill (INS: Quantities & methodology adopted as per Drawing BEP110] 20,000 m3 \$10.00 \$359,000.00 1.2.2.3 Allowance for fill using site material sourced FOC eff site within 20kms) \$1,300 m3 \$25.00 \$1,282,500.00 2 CRUSHER OPERATION BUILDING \$183,750.00 m3 \$25.00 \$183,750.00 2.1 Crusher operation building (excl. equipment) 147 m2 \$1,250.00 \$134,400.00 3.1 MULCHER OPERATION BUILDING \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$134,400.00 \$126,50.00 \$134,400.00 \$126,50.00	1.2.1	Site Clearing				\$49,176.00
1.2.1.2 site area [N8: Provisional Quantity and assumed 500/1000mm girh] 25 No \$150.00 \$3,750.00 1.2.2 Earthworks \$1,811,500.00 \$1,811,500.00 \$359,000.00 1.2.2.1 Quantities & methodology adopted as per Drawing BEP1101 35,900 m3 \$10.00 \$359,000.00 1.2.2.2 Allowance for ill using site material for existing stochpites [N8: Dito] 20,000 m3 \$8.50 \$170,000.00 1.2.2.3 Allowance for imported fill (assumed S01,000 m3 \$8.50 \$1,282,500.00 2 CRUSHER OPERATION BUILDING 51,300 m3 \$25.00 \$183,750.00 3.1 Crusher operation building (excl. equipment) 96 m2 \$1,400.00 \$134,400.00 3.1 Mulcher operation building (excl. equipment) 96 m2 \$1,400.00 \$134,400.00 4.1 Tip and spread building 1,277 m2 \$650.00 \$830,050.00 5. SECONDARY PROCESSING BUILDING 51.00 \$830,050.00 \$124,200.00 \$134,400.00 5.1 Secondary processing building - Assumed part of Stage 1 2,378 m2 \$126,00.00 \$134,400.10 <td>1.2.1.1</td> <td>material and stockpile the material</td> <td>60,568</td> <td>m2</td> <td>\$0.75</td> <td>\$45,426.00</td>	1.2.1.1	material and stockpile the material	60,568	m2	\$0.75	\$45,426.00
Allowance for bulk cut to fill [NB: as per Drawing BEP110] 35,900 m3 \$10.00 \$359,000.00 1.2.2.2 Allowance for fill using site material from existing stockpiles [NB: Ditto] 20,000 m3 \$8.50 \$170,000.00 1.2.2.3 Allowance for fill using site material gourced FOC off site within 20kms) 51,300 m3 \$25.00 \$11,282,500.00 2 CRUSHER OPERATION BUILDING \$183,750.00 \$11,282,500.00 \$1183,750.00 2.1 Crusher operation building (excl. equipment) 147 m2 \$1,250.00 \$183,750.00 3 MULCHER OPERATION BUILDING \$134,400.00 \$114,400.00 \$114,400.00 3.1 Mulcher operation building (excl. equipment) 96 m2 \$1,400.00 \$134,400.00 4 TIP AND SPREAD BUILDING \$830,050.00 \$114,400.00 \$134,400.00 5.1 Secondary processing building Assumed part of Stage 1 2,378 m2 EXCL 6 ADMIN OFFICE AND AMENITIES \$11 \$104 m2 \$2,009,111 7.1 EXTERNAL WORKS AND SERVICES \$7,203,453.111 \$1,11 Roads, footpaths and paving \$,53,673,639.111 7.1.	1.2.1.2	site area [NB: Provisional Quantity	25	No	\$150.00	\$3,750.00
1.2.2.1 Quantities & methodology adopted as per Drawing BEP1101 35,900 m3 \$10.00 \$359,000.00 1.2.2.2 Allowance for fill using site material sourced For Gill using site material sourced FOC off site within 20kms) 20,000 m3 \$8.50 \$170,000.00 1.2.2.3 Allowance for imported fill (assume) sourced FOC off site within 20kms) \$1,300 m3 \$25.00 \$1,282,500.00 2 CRUSHER OPERATION BUILDING \$183,750.00 \$1,300 m3 \$22.00 \$183,750.00 2.1 Crusher operation building (excl. equipment) 147 m2 \$1,282,500.00 \$134,400.00 3.1 Mulcher operation building (excl. equipment) 96 m2 \$1,400.00 \$134,400.00 4.1 Tip and spread building (excl. equipment) 96 m2 \$1,400.00 \$134,400.00 5. SECONDARY PROCESSING BUILDING \$830,050.00 \$134,400.00 \$134,400.00 \$134,400.00 4.1 Tip and spread building - 2,378 m2 \$830,050.00 \$134,400.00 \$134,400.00 5. SECONDARY PROCESSING BUILDING \$134,400.00 \$134,400.00 \$134,400.00 \$134,500.00 \$134,500.00 \$134,500.00	1.2.2	Earthworks				\$1,811,500.00
1.2.2.2 from existing stockplies (NB: Ditto) 20,000 m3 \$8:50 \$170,000.00 1.2.2.3 Allowance for imported fill (assumed sourced FOC off site within 200kms) 51,300 m3 \$25.00 \$1,282,500.00 2 CRUSHER OPERATION BUILDING \$183,750.00 2.1 Crusher operation building (excl. equipment) 147 m2 \$1,250.00 \$183,750.00 3 MULCHER OPERATION BUILDING \$134,400.00 \$134,400.00 \$134,400.00 3.1 Mulcher operation building (excl. 96 m2 \$1,400.00 \$134,400.00 4 TIP AND SPREAD BUILDING \$830,050.00 \$830,050.00 \$830,050.00 4.1 Tip and spread building 1,277 m2 \$650.00 \$830,050.00 5 SECONDARY PROCESSING BUILDING \$830,050.00 \$830,050.00 \$850,050.00 5.1 Secondary processing building - 2,378 m2 EXCL 6 ADMIN OFFICE AND AMENITIES \$6,062,059.11 \$7,10 7.1 EXTERNAL WORKS AND SERVICES \$7,203,453.11 \$3,673,639.11 7.1 EXTERNAL WORKS \$6,062,059.11 \$1,1.1 \$3,673,639.11	1.2.2.1	Quantities & methodology adopted	35,900	m3	\$10.00	\$359,000.00
1.1.2.3 sourced FOC off site within 20kms) 31,300 Ins \$23.00 \$1,82,200.00 2 CRUSHER OPERATION BUILDING \$183,750.00 2.1 Crusher operation building (excl. equipment) 147 m2 \$1,250.00 \$183,750.00 3 MULCHER OPERATION BUILDING \$134,400.00 \$134,400.00 3.1 Mulcher operation building (excl. equipment) 96 m2 \$1,400.00 \$134,400.00 4 TIP AND SPREAD BUILDING \$830,050.00 \$830,050.00 \$830,050.00 5.1 SECONDARY PROCESSING BUILDING \$830,050.00 \$830,050.00 5.1 Secondary processing building - Assumed part of Stage 1 2,378 m2 EXCL 6 ADMIN OFFICE AND AMENITIES \$7,203,453.11 EXCL 7 EXTERNAL WORKS AND SERVICES \$7,203,453.11 \$7,1 EXCL 7.1 EXTERNAL WORKS \$6,6062,059.11 \$3,673,639.11 7.1.1 Roads, footpaths and paving \$3,673,639.11 \$7,18,850.00 7.1.1.1 SL82 T&88 mesh, laid on 50mm smad blinding complete [Assumed no details provided] \$0,726 m2 \$50.00 \$1156,200.00	1.2.2.2		20,000	m3	\$8.50	\$170,000.00
2.1 Crusher operation building (excl. equipment) 147 m2 \$1,250.00 \$183,750.00 3 MULCHER OPERATION BUILDING \$134,400.00 3.1 equipment) 96 m2 \$1,400.00 3.1 equipment) 96 m2 \$1,400.00 4 TIP AND SPREAD BUILDING \$830,050.00 4.1 Tip and spread building 1,277 m2 \$650.00 \$830,050.00 5.1 Secondary processing building - Assumed part of Stage 1 2,378 m2 EXCL 6 ADMIN OFFICE AND AMENITIES EXCL \$6,062,059.11 7.1 EXTERNAL WORKS AND SERVICES \$7,203,453.11 \$6,062,059.11 7.1.1 Roads, footpaths and paving \$3,673,639.11 \$7,1.1.1 200mm thick reinforced concrete [40Mpa] slab on ground comprising SL&2 T&B mesh, laid on Stoms sand building complete [Assumed no details provided] \$0,226 m2 \$10.00 \$718,850.00 21.1.2 450mn NOM. recycled crushed 20,226 m2 \$50.00 \$15,26,200.00	1.2.2.3		51,300	m3	\$25.00	\$1,282,500.00
2.1 equipment) 147 112 \$1,23,000 \$103,730,000 3 MULCHER OPERATION BUILDING \$134,400.00 \$134,400.00 \$134,400.00 3.1 equipment) 96 m2 \$1,400.00 \$134,400.00 4 TIP AND SPREAD BUILDING 96 m2 \$1,400.00 \$134,400.00 4.1 Tip and spread building 1,277 m2 \$650.00 \$830,050.00 5. SECONDARY PROCESSING BUILDING \$830,050.00 \$830,050.00 \$830,050.00 5.1 Secondary processing building - Assumed part of Stage 1 2,378 m2 EXCL 6 ADMIN OFFICE AND AMENITIES \$6,000 \$7,203,453.11 \$7,1 7 EXTERNAL WORKS AND SERVICES \$7,203,453.11 \$7,1 7.1 EXTERNAL WORKS \$6,062,059.11 \$3,673,639.11 7.1.1 Roads, footpaths and paving \$3,673,639.11 \$7,18,850.00 900mm thick reinforced concrete [40Mpa] slab on ground comprising [4,040] \$20,226 m2 \$10.00 \$718,850.00 9110101 SL82 T&BB	2	CRUSHER OPERATION BUILDING				\$183,750.00
3.1 Mulcher operation building (excl. equipment) 96 m2 \$1,400.00 \$134,400.00 4 TIP AND SPREAD BUILDING \$830,050.00 4.1 Tip and spread building 1,277 m2 \$650.00 \$830,050.00 5. SECONDARY PROCESSING BUILDING 5 SECONDARY PROCESSING BUILDING 5.1 Secondary processing building - Assumed part of Stage 1 2,378 m2 EXCL 6 ADMIN OFFICE AND AMENITIES 6 EXCL 6 6.1 Admin office and amenities - Assumed part of Stage 1 104 m2 EXCL 7 EXTERNAL WORKS AND SERVICES \$7,203,453.11 7.1 EXTERNAL WORKS \$6,062,059.11 7.1.1 Roads, footpaths and paving \$3,673,639.11 \$3,673,639.11 \$7,11 \$110.00 \$718,850.00 7.1.1.1 SL82 T&B mesh, laid on SOmm sand deails provided] 6,535 m2 \$110.00 \$718,850.00 7.1.1.2 450mm NOM. recycled crushed 20,726 m2 \$50.00 \$1536,300.00	2.1		147	m2	\$1,250.00	\$183,750.00
3.1 equipment) 36 iii2 \$1,400.00 \$134,400.00 4 TIP AND SPREAD BUILDING \$830,050.00 4.1 Tip and spread building 1,277 m2 \$650.00 \$830,050.00 5 SECONDARY PROCESSING BUILDING 5 \$ECONDARY PROCESSING BUILDING EXCL 6 ADMIN OFFICE AND AMENITIES 6 Admin office and amenities - Assumed net of Stage 1 104 m2 EXCL 7 EXTERNAL WORKS AND SERVICES \$7,203,453.11 F.1.1 Roads, footpaths and paving \$3,673,639.11 7.1.1 Roads, footpaths and paving 6,535 m2 \$110.00 \$718,850.00 7.1.1.1 SL82 T&B mesh, laid on 50mm sand details provided] 6,535 m2 \$110.00 \$718,850.00 7.1.1.2 450mm NOM. recycled crushed 30,726 m3 \$50.00 \$11526,300.00	3	MULCHER OPERATION BUILDING				\$134,400.00
4.1 Tip and spread building 1,277 m2 \$650.00 \$830,050.00 5 SECONDARY PROCESSING BUILDING 5.1 Secondary processing building - Assumed part of Stage 1 2,378 m2 EXCL 6 ADMIN OFFICE AND AMENITIES 6.1 Admin office and amenities - Assumed part of Stage 1 104 m2 EXCL 7 EXTERNAL WORKS AND SERVICES \$7,203,453.11 7.1 EXTERNAL WORKS \$6,062,059.11 7.1.1 Roads, footpaths and paving \$3,673,639.11 7.1.1.1 SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided] 6,535 m2 \$110.00 \$718,850.00 7.1.1.2 450mm NOM. recycled crushed 30,726 m2 \$10.00 \$11536 300.00	3.1		96	m2	\$1,400.00	\$134,400.00
5 SECONDARY PROCESSING BUILDING 5.1 Secondary processing building - Assumed part of Stage 1 2,378 m2 EXCL 6 ADMIN OFFICE AND AMENITIES 6.1 Admin office and amenities - Assumed part of Stage 1 104 m2 EXCL 7 EXTERNAL WORKS AND SERVICES \$7,203,453.11 7.1 EXTERNAL WORKS \$6,062,059.11 7.1.1 Roads, footpaths and paving \$3,673,639.11 7.1.1.1 SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided] 6,535 m2 \$110.00 \$718,850.00 7.1.1.2 450mm NOM. recycled crushed 30,726 m3 #50.00 \$11526 300.00	4	TIP AND SPREAD BUILDING				\$830,050.00
5.1 Secondary processing building - Assumed part of Stage 1 2,378 m2 EXCL 6 ADMIN OFFICE AND AMENITIES 6 Admin office and amenities - Assumed part of Stage 1 104 m2 EXCL 7 EXTERNAL WORKS AND SERVICES \$7,203,453.11 7.1 EXTERNAL WORKS \$6,062,059.11 7.1 EXTERNAL WORKS \$6,062,059.11 \$3,673,639.11 7.1.1 Roads, footpaths and paving \$3,673,639.11 7.1.1.1 SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided] 6,535 m2 \$110.00 \$718,850.00 7.1.1.2 450mm NOM. recycled crushed 30,726 m2 \$10,00 \$11,526,300.00	4.1	Tip and spread building	1,277	m2	\$650.00	\$830,050.00
S.1 Assumed part of Stage 1 2,378 III2 EXCL 6 ADMIN OFFICE AND AMENITIES 6.1 Admin office and amenities - Assumed part of Stage 1 104 m2 EXCL 7 EXTERNAL WORKS AND SERVICES \$7,203,453.11 7.1 EXTERNAL WORKS \$6,062,059.11 7.1.1 Roads, footpaths and paving \$3,673,639.11 7.1.1 Roads, footpaths and paving \$3,673,639.11 7.1.1.1 SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided] 6,535 m2 \$110.00 \$718,850.00 7.1.1.2 450mm NOM. recycled crushed 30,726 m2 \$100 \$11536 300.00	5	SECONDARY PROCESSING BUILDING				
6.1Admin office and amenities - Assumed part of Stage 1104m2EXCL7EXTERNAL WORKS AND SERVICES\$7,203,453.117.1EXTERNAL WORKS\$6,062,059.117.1.1Roads, footpaths and paving\$3,673,639.117.1.1Roads, footpaths and paving\$3,673,639.117.1.1.1SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided]6,535m2\$110.00\$718,850.007.1.1.2450mm NOM. recycled crushed30,726m3\$50.00\$11,526,300.00	5.1		2,378	m2		EXCL
6.1part of Stage 1104m2EXCL7EXTERNAL WORKS AND SERVICES\$7,203,453.117.1EXTERNAL WORKS\$6,062,059.117.1Roads, footpaths and paving\$3,673,639.117.1.1Roads, footpaths and paving\$3,673,639.117.1.1.1SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided]6,535m27.1.1.2450mm NOM. recycled crushed30,726m2\$50,007.1.1.2450mm NOM. recycled crushed30,726m2\$50,00	6	ADMIN OFFICE AND AMENITIES				
7.1EXTERNAL WORKS\$6,062,059.117.1.1Roads, footpaths and paving\$3,673,639.117.1.1200mm thick reinforced concrete [40Mpa] slab on ground comprising SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided]6,535m27.1.1.2450mm NOM. recycled crushed30,726m2\$10.00\$11.2450mm NOM. recycled crushed30,726m2\$50.00	6.1		104	m2		EXCL
7.1.1Roads, footpaths and paving\$3,673,639.11200mm thick reinforced concrete [40Mpa] slab on ground comprising SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided]6,535m2\$110.00\$718,850.007.1.1.2450mm NOM. recycled crushed30,726m2\$50,00\$1,536,300,00	7	EXTERNAL WORKS AND SERVICES				\$7,203,453.11
200mm thick reinforced concrete [40Mpa] slab on ground comprising7.1.1.1SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided]6,535m2\$110.00\$718,850.007.1.1.2450mm NOM. recycled crushed30,726m2\$50.00\$1,536.300.00	7.1	EXTERNAL WORKS				\$6,062,059.11
[40Mpa] slab on ground comprising7.1.1.1SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no details provided]6,535m2\$110.00\$718,850.007.1.1.2450mm NOM. recycled crushed30,726m2\$50.00\$1,536.300.00	7.1.1	Roads, footpaths and paving				\$3,673,639.11
450mm NOM. recycled crushed 30,726 m2 450,00 \$1,536,300,00	7.1.1.1	[40Mpa] slab on ground comprising SL82 T&B mesh, laid on 50mm sand blinding complete [Assumed no	6,535	m2	\$110.00	\$718,850.00
	7.1.1.2	450mm NOM. recycled crushed	30,726	m2	\$50.00	\$1,536,300.00

	1	Quantity	Unit	Rate	Total
7.1.1.3	Extra over for 150mm drainage layer assumed blue metal with geotextile	30,725.63 8	m2	\$19.00	\$583,787.11
7.1.1.4	Asphalt pavement comprising 200mm thick DGB20 subbase, 200mm thick DGS20 base course, 7mm primer seal and 40mm thick AC layer [Assumed no details provided]	11,457	m2	\$71.00	\$813,447.00
7.1.1.5	Kerbs, gutters and edge strips				\$21,255.00
7.1.1.5.1	Concrete kerb and gutter	327	m	\$65.00	\$21,255.00
7.1.2	Retaining Walls				\$948,877.00
7.1.2.1	Foundations for retaining wall 01 & 02	1,031	m	\$282.00	\$290,742.00
7.1.2.2	190 thick core filled concrete block retaining wall [Type 01 - Avg. height 4.5m]	2,199	m2	\$180.00	\$395,820.00
7.1.2.3	190 thick core filled concrete block retaining wall [Type 02 - Avg. height 2.0m]	1,085	m2	\$180.00	\$195,300.00
7.1.2.4	Allow for ag line drain to back of retaining walls	1,031	m	\$65.00	\$67,015.00
7.1.3	Noise Walls				\$934,904.00
7.1.3.1	Foundations for concrete block wall	372	m	\$282.00	\$104,904.00
7.1.3.2	3000mm high concrete block wall for noise attenuation inside site	1,115	m2	\$180.00	\$200,700.00
7.1.3.3	Allowance for 5000mm high 150 thick precast concrete panel wall fixed to top of blockwork retaining wall	2,170	m2	\$290.00	\$629,300.00
7.1.4	Fencing and Gates				\$30,758.99
7.1.4.1	2000mm high security fence along boundary, open type picket fence [Assumed to be included in Stage 1]	1,078	m		EXCL
7.1.4.2	Allowance for swimming pool compliant fencing around OSD pong	94.727	m	\$150.00	\$14,208.99
7.1.4.3	Sliding entry gate [Assumed to be included in Stage 1]	1	No		EXCL
7.1.4.4	Extra over for 6000mm wide double gate for maintenance access [Assumed to be included in Stage 1]	1	Pr		EXCL
7.1.4.5	10000mm wide double gate for maintenance access	1	Pr	\$2,550.00	\$2,550.00
7.1.4.6	Boom gate	4	No	\$3,500.00	\$14,000.00
7.1.5	External Structures				\$264,800.00
7.1.5.1	Demountable building weighbridge office	36	m2	\$1,800.00	\$64,800.00
7.1.5.2	Weighbridge				\$200,000.00
7.1.5.2.1	Proposed weighbridge	1	Item	\$200,000.00	\$200,000.00
7.1.5.2.2	Outbound weighbridge to be installed once facility reaches 100KTPA	1	Item		EXCL
7.1.6	Signage and Linemarking				\$15,040.00

18230 90 Gindurra Rd, Somersby CIV Estimate 03-02-20

		Quantity	Unit	Rate	Total
7.1.6.1	Allowance for miscellaneous metalwork	1	item		EXCL
7.1.6.2	Waste skip bins / receptables	1	item		EXCL
7.1.6.3	1200mm wide pedestrian path	96	m2	\$50.00	\$4,800.00
7.1.6.4	Allowance for linemarking	48	m	\$5.00	\$240.00
7.1.6.5	Allowance for signage to the site [Provisional Sum]	1	item	\$10,000.00	\$10,000.00
7.1.6.6	Allowance for directional arrow linemarking to storage area	1	item		EXCL
7.1.6.7	Line marking to waiting area	1	item		EXCL
7.1.7	Soft Landscaping				\$194,040.00
7.1.7.1	Irrigated landscaped buffer (5m wide)	4,185	m2	\$15.00	\$62,775.00
7.1.7.2	Melaleuca Biconvexa buffer area	1,057	m2	\$25.00	\$26,425.00
7.1.7.3	Irrigation	5,242	m2	\$20.00	\$104,840.00
7.1.7.4	Maintenance	1	item		EXCL
7.2	EXTERNAL SERVICES				\$1,141,394.00
7.2.1	External Stormwater Services				\$884,129.00
7.2.1.1	Trench Excavation				\$78,055.00
7.2.1.1.1	Assumed no change from previous report				
7.2.1.1.2	Allowance for trench excavation to drainage lines	703	m3	\$55.00	\$38,665.00
7.2.1.1.3	Ditto backfilling to drainage lines	606	m3	\$65.00	\$39,390.00
7.2.1.1.4	Disposal of excess material	1	item		EXCL
7.2.1.2	Pipework				\$207,365.00
7.2.1.2.1	Assumed no change from previous report				
7.2.1.2.2	Supply and install 300mm dia RCP	263	m	\$259.00	\$68,117.00
7.2.1.2.3	Ditto 375mm dia RCP	113	m	\$261.00	\$29,493.00
7.2.1.2.4	Ditto 450mm dia RCP	67	m	\$345.00	\$23,115.00
7.2.1.2.5	Ditto 525mm dia RCP	70	m	\$438.00	\$30,660.00
7.2.1.2.6	Ditto 750mm dia RCP	90	m	\$622.00	\$55,980.00
7.2.1.3	Pits				\$23,100.00
7.2.1.3.1	Assumed no change from previous report				
7.2.1.3.2	Allowance for 900x900 reinforced concrete pits	14	No	\$1,650.00	\$23,100.00
7.2.1.4	OSD Pond				\$499,179.00
7.2.1.4.1	Excavation - Assumed part of cut to fill	1	item		EXCL
	Excavation - Assumed part of cut	1 916	item m2	\$270.00	EXCL \$247,320.00

	1	Quantity	Unit	Rate	Total
7.2.1.4.4	Cast in-situ or precast reinforced concrete wall [Headwall] with scour protection	89	m2	\$471.00	\$41,919.00
7.2.1.4.5	Floating wetlands [Provisional Cost]	1,502	m2	\$22.50	\$33,795.00
7.2.1.4.6	Outlets with watertight penstocks [Included within Headwall cost]	3	No	\$150.00	\$450.00
7.2.1.4.7	Barramy gross pollutant trap	4	No	\$25,000.00	\$100,000.00
7.2.1.4.8	Dish drain with minimum 1% fall	219	m	\$75.00	\$16,425.00
7.2.1.4.9	Rock apron	192	m2	\$50.00	\$9,600.00
7.2.1.4.10	Level spreader [Assumed part of cut to fill]	50	m		INCL
7.2.1.4.11	Bioswale including waterproof liner 1.5mm HDPE or GCL, 100mm Vinidex slotted subsoil (SN6) no sock, 5mm gravel drainage layer, 100mm transition layer and 400mm sand media layer	328	m	\$140.00	\$45,920.00
7.2.1.5	Pipework				\$11,430.00
7.2.1.5.1	Assumed no change from previous report				
7.2.1.5.2	Supply and install 300mm dia RCP	18	m	\$259.00	\$4,662.00
7.2.1.5.3	Ditto 675mm dia RCP	12	m	\$564.00	\$6,768.00
7.2.1.6	18kL rainwater tanks (for dust suppression inside tip and spread building)	10	No	\$5,000.00	\$50,000.00
7.2.1.7	Min. 20kL rainwater tank for wash bay	1	No	\$5,000.00	\$5,000.00
7.2.1.8	Pumps, etc	1	item	\$10,000.00	\$10,000.00
7.2.1.9	OSD tank (approved under Stage 1)	1	item		EXCL
7.2.2	External Sewer Services				\$2,500.00
7.2.2.1	Connection into existing supply	1	item	\$2,500.00	\$2,500.00
7.2.3	External Water Supply				\$1,000.00
7.2.3.1	Connection into existing supply	1	item	\$1,000.00	\$1,000.00
7.2.4	External Gas Supply				
7.2.4.1	External Gas Supply	1	item		EXCL
7.2.5	External Fire Protection				\$228,765.00
7.2.5.1	Proposed dust suppression [45No oulets] - Provisional allowance	15,251	m2	\$15.00	\$228,765.00
7.2.6	External Electrical				\$25,000.00
7.2.6.1	Amplification of services	1	item		EXCL
7.2.6.2	Substation	1	item		EXCL
7.2.6.3	Traffic Lights (2 sets) Access control & communications system to weigh bridge (Provisional Sum)	1	item	\$25,000.00	\$25,000.00
7.2.6.4	Allowance for CCTV security system [Provisional]	1	item		EXCL

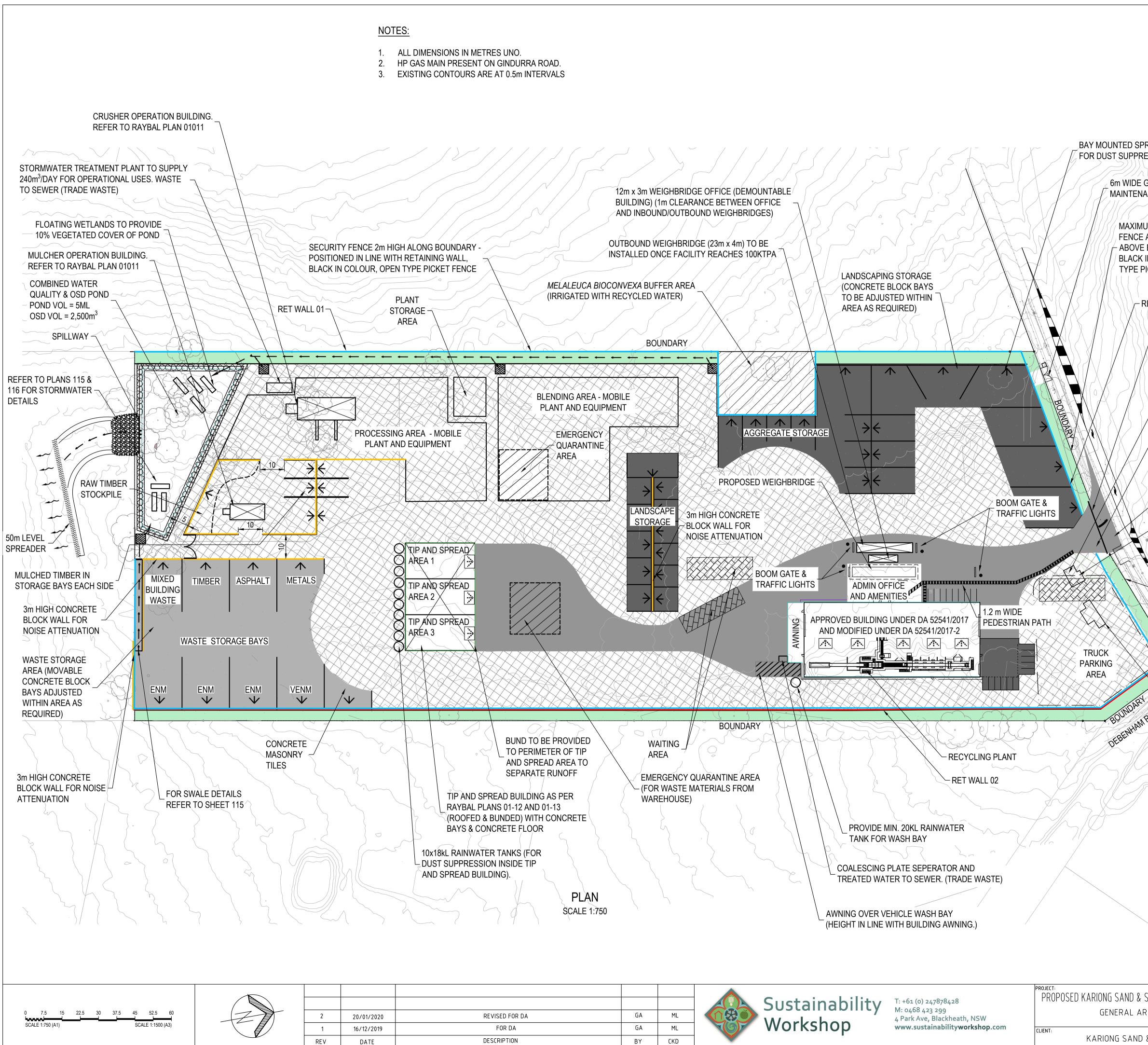
		Quantity	Unit	Rate	Total
8	WORKS OUTSIDE BOUNDARY				\$59,005.00
8.1	General				\$34,800.00
8.1.1	Site establishment and demobilisation	1	item	\$2,500.00	\$2,500.00
8.1.2	Contractors supervision	1	wks	\$10,000.00	\$10,000.00
8.1.3	Survey and set out of works by registered surveyor	3	days	\$1,800.00	\$5,400.00
8.1.4	Location of services	1	item	\$2,000.00	\$2,000.00
8.1.5	Protection of services [Provisional]	1	item	\$5,000.00	\$5,000.00
8.1.6	Traffic control	1	wks	\$1,900.00	\$1,900.00
8.1.7	Extra over for out of hours work	1	item	\$3,000.00	\$3,000.00
8.1.8	Work as executed drawings	1	item	\$5,000.00	\$5,000.00
8.2	Concrete Works				\$17,005.00
8.2.1	New asphalt pavement comprising 200mm thick DGB20 subbase, 200mm thick DGS20 base course, 7mm primer seal and 40mm thick AC layer	179	m2	\$95.00	\$17,005.00
8.3	Linemarking				\$7,200.00
8.3.1	New centre line markings	180	m2	\$40.00	\$7,200.00
9	MOBILE PLANT/ EQUIPMENT				\$3,622,000.00
9.1	Rubber tyred loader - Volvo L150 [NB: Adopted value as per Jackson Environment & Planning advice]	1	item	\$400,000.00	\$400,000.00
9.2	Picking Station / Trommel / Blower / Magnetic [Kiverco]	1	item	\$1,100,000.00	\$1,100,000.00
9.3	Bagging Plant - Rotto Chopper [Ditto]	1	item	\$100,000.00	\$100,000.00
9.4	Crushing Plant - Metso 1213S [Ditto]	1	item	\$1,022,000.00	\$1,022,000.00
9.5	Waste Handler - Liebherr LH24 [Ditto]	1	item	\$440,000.00	\$440,000.00
9.6	Screening Plant - Metso ST3.5 [Ditto]	1	item	\$260,000.00	\$260,000.00
9.7	Excavator 30 Tonne - Cat 330 [Ditto]	1	item	\$300,000.00	\$300,000.00
10	DESIGN DEVEOPMENT ALLOWANCE				
10.1	Design development allowance (%)	1	item		EXCL
11	PRELIMINARIES & MARGIN				\$972,533.39
11.1	Allowance for Builders preliminaries, overhead & margin (7%)	1	item	\$972,533.39	\$972,533.39
12	CONSTRUCTION CONTINGENCY				
12.1	Construction contingency allowance	1	item		EXCL
13	IDENTIFIED RISK ITEMS				
13.1	Identified Risks	1	Item		EXCL
14	PROFESSIONAL FEES				

18230 90 Gindurra Rd, Somersby CIV Estimate 03-02-20

		Quantity	Unit	Rate	Total
14.1	Professional Fees	1	item		EXCL
15	CONSULTANT FEES				
15.1	Consultant Fees	1	item		EXCL
16	AUTHORITY FEES AND CONTRIBUTIO	NS			
16.1	Authority Fees and Contributions	1	item		EXCL
17	ESCALATION				
17.1	Escalation	1	item		EXCL
				Subtotal	\$14,865,867.50
				Adjustment	\$0.00
				Total	\$14,865,867.50

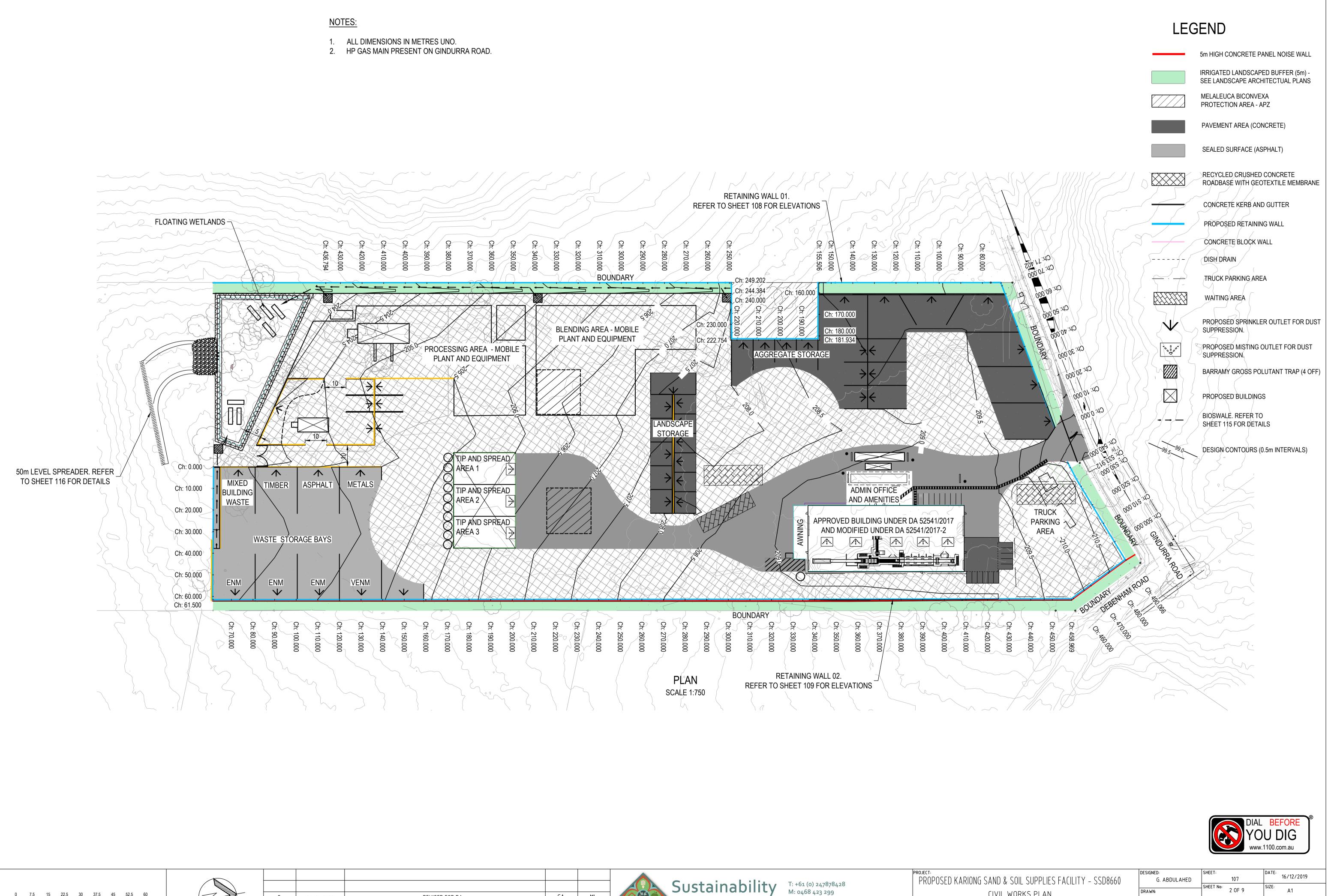
APPENDIX B - SUPPORTING DOCUMENTS





	LEG	SEND	
		5m HIGH CONCRETE P	ANEL NOISE WALL
		IRRIGATED LANDSCAF SEE LANDSCAPE ARC	. ,
SPRINKLERS PRESSION		MELALEUCA BICONVE PROTECTION AREA - /	XA
E GATE FOR NANCE ACCESS		PAVEMENT AREA (CO	
		SEALED SURFACE (A	SPHALT)
MUM HEIGHT OF SECURITY CE AND GATES TO BE 2m		RECYCLED CRUSHED	
VE EXISTING GROUND LEVEL, CK IN COLOUR AND OPEN E PICKET FENCE			DTEXTILE MEMBRANE
		CONCRETE KERB AN	D GUTTER
- RET WALL 01		PROPOSED RETAININ 3m HIGH CONCRETE WALL FOR NOISE AT DISH DRAIN	BLOCK
	·	TRUCK PARKING ARI	EA
EX STRUCTURE TO BE DEMOLISHED		WAITING AREA	
	\checkmark	PROPOSED SPRINKLI SUPPRESSION.	ER OUTLET FOR DUST
MODIFY SITE ENTRANCE & LAYBACKS AS PER SECA SOLUTIONS DESIGN		PROPOSED MISTING SUPPRESSION.	OUTLET FOR DUST
(KERBING TO PREVENT RIGHT HAND TURN INTO GINDURRA ROAD)		BARRAMY GROSS PC	DLUTANT TRAP (4 OFF)
BE REMOVED	\square	PROPOSED BUILDING	S
EX TREE TO BE REMOVED	• - -	BIOSWALE. REFER TO SHEET 115 FOR DETA	
NEW CENTRE LINE MARKINGS			
FENCE A ABOVE I BLACK II	M HEIGHT OF SI AND GATES TO E EXISTING GROU N COLOUR AND CKET FENCE	3E 2m ND LEVEL,	
& SOIL SUPPLIES FACILITY - SSD8660	SIGNED: G. ABDULAHED	DIAL VOICE WWW	BEFORE DUDIG 1100.com.au

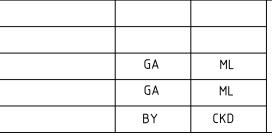
& SOIL SUPPLIES FACILI		designed: G. ABDULAHED	SHEET:	106	DATE: 16/12/2019
ARANGEMENT PLAN				OF 9	SIZE: A1
	JOB REF No:	CHECKED:	SCALE: 1:	:750	DATUM: AHD
D & SOIL SUPPLIES	197	M. LIEBMAN	Coord. Origin:		



7.5 15 22.5 30 37.5 45 52.5 60 SCALE 1:1500 (A3) SCALE 1:750 (A1)



REVISED FOR DA 2 20/01/2020 FOR DA 16/12/2019 1 DESCRIPTION REV DATE





T: +61 (0) 247878428 M: 0468 423 299 4 Park Ave, Blackheath, NSW **www.sustainabilityworkshop.com**

CIVIL CLIENT:

KARIONG SAND

& SOIL SUPPLIES FACILI	TY - SSD8660	G. ABDULAHED	107	DATE: 16/12/2019
WORKS PLAN			2 OF 9	SIZE: A1 DATUM: AHD
D & SOIL SUPPLIES	JOB REF No: 197	CHECKED: M. LIEBMAN	COORD. ORIGIN:	

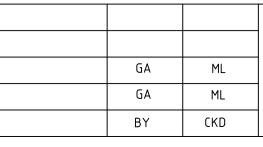
R.L. 195 Wall Height	.700 26:0-	-0.641	+0.318	+0.664	+1.059	+1.434	+1.844	+2.145 +2.316	+2.336 +2.368	+2.273	+3.263	+3.864	+4.460	+5.057	+5.345	+5.568	+5.708 +5.515 +5.476	+5.169	+4.697 +4.623	+4.705	+5.298	+5.933	+6.202 +6.203 +5.789	+6.023	+6.467 +6.578	+6.728 +6.704	+6.774 +6.946	+7.856	+7.726	+7.746	+7.838	+7.713	+7.624	+7.733	+7.643
Design Levels	210.000	209.961	209.922	209.883 209.872	209.844	209.805	209.766	209.744 209.744	209.744 209.666	209.576	209.485	209.395	209.304	209.214	209.123	209.033	208.983 208.983 208.983 208.983	208.892	208.792 208.773	208.661	208.523	208.384	208.245 208.210 207.793	207.647	207.447 207.360	207.400 207.345	206.850 206.803	206.632	206.462	206.292	206.121	205.951	205.780	205.610	205.439
Existing Levels	210.937	210.602	209.604	209.219 209.083	208.785	208.371	207.922	207.599 207.428	207.408 207.298	207.303	206.222	205.531	204.844	204.157	203.778		203.275 203.468 203.468		204.095 204.150	203.956	203.225	202.451	202.043 202.007 202.004	201.624	200.980 200.782		200.076 199.857	198.776	198.736	198.546	198.283	198.238	198.156	197.877	197.796
Chainage	0.000	10.000	20.000	30.000 32.682	40.000	50.000	60.000	65.570 70.000	71.402 80.000	000.06	100.000	110.000	120.000	130.000	140.000	150.000	155.506 160.000 160.000	170.000	180.000 181.934	190.000	200.000	210.000	220.000 222.563 222.754	230.000	240.000 244.384	249.202 250.000	257.234 260.000	270.000	280.000	290.000	300.000	310.000	320.000	330.000	340.000

WALL01 ELEVATION (CH0.000 - CH340.000) SCALES H 1:500 V 1:200

	2	20/01/2020	REVISED FOR DA
	1	16/12/2019	FOR DA
	REV	DATE	DESCRIPTION

R.L. 195.100											
Wall Height	+7.643	+7.461	+7.337	+7.391	+7.336	+7.280	+7.225	+6.262	+6.751	+6.356	+5.983
Design Levels	205.439	205.269	205.099	204.928	204.758	204.587	204.417	204.247	204.076	203.906	203.790
Existing Levels	197.796	197.808	197.762	197.537	197.422	197.307	197.192	197.985	197.325	197.550	197.807
Chainage	340.000	350.000	360.000	370.000	380.000	390.000	400.000	410.000	420.000	430.000	436.794

WALL01 ELEVATION (CH340.000 - CH436.794) SCALES H 1:500 V 1:200





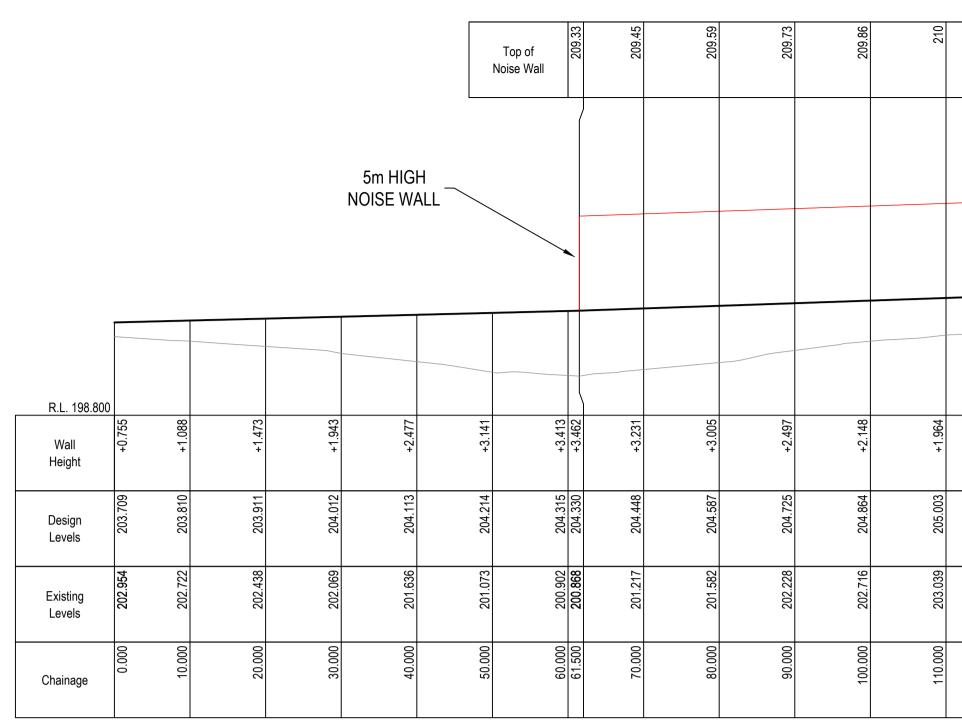
T: +61 (0) 247878428 M: 0468 423 299 4 Park Ave, Blackheath, NSW **www.sustainabilityworkshop.com**

PROPOSED KARIONG SAND & (RETAINING WALL LON

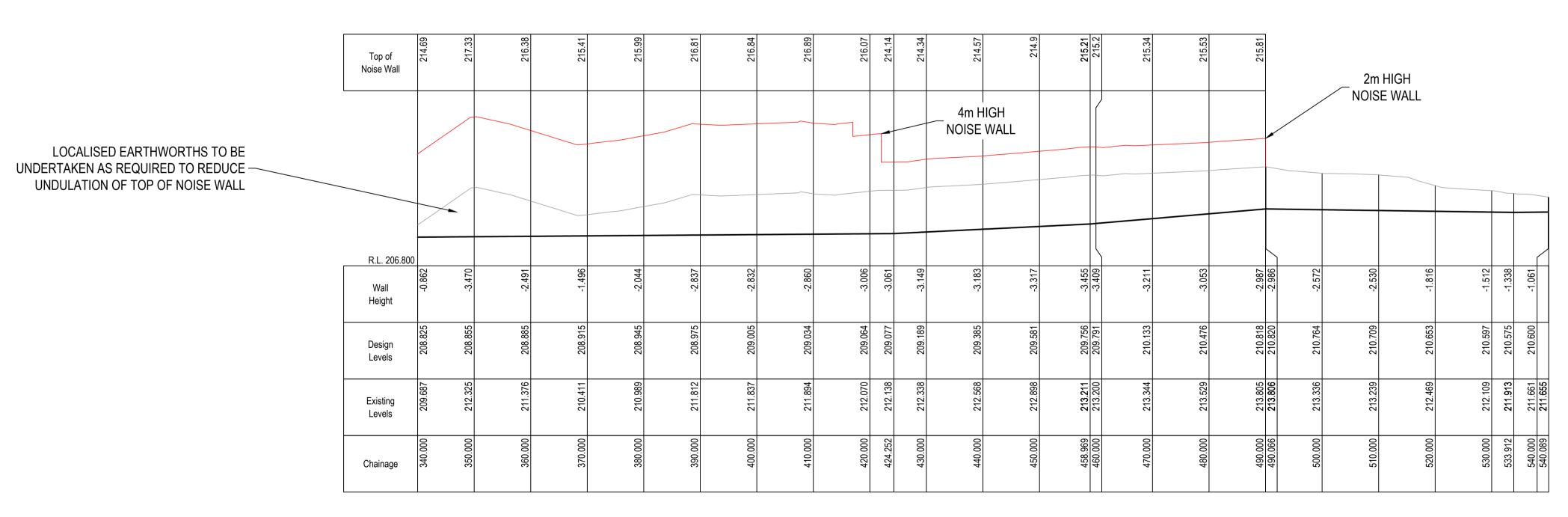
CLIENT:



& SOIL SUPPLIES FACILI		designed: G. ABDULAHED	SHEET: 108	DATE: 16/12/2019
ONG SECTIONS - SHEET		drawn: G. ABDULAHED	3 OF 9	SIZE: A1
ID & SOIL SUPPLIES	JOB REF No: 197	CHECKED: M. LIEBMAN	COORD. ORIGIN:	AHD



WALL02 ELEVATION (CH0.000 - CH340.000) SCALES H 1:500 V 1:200



WALL02 ELEVATION (CH340.000 - CH540.089) SCALES H 1:500 V 1:200

	2	20/01/2020	REVISED FOR DA
	1	16/12/2019	FOR DA
	REV	DATE	DESCRIPTION

214.09	/				340.000
213.82		-0.012	208.816	208.828	336.801
213.81 213.8		+0.540 +0.404	208.812 208.801	208.272 208.397	330.000 331.801
213.87		+1.246	208.873	207.627	320.000
213.9		+1.557	208.900	207.343	315.592
213.86		+1.737	208.859	207.122	310.000
213.79		+1.889	208.786	206.897	300.000
213.71		+2.170	208.713	206.543	290.000
213.64		+2.631	208.640	206.009	280.000
213.6		+2.807	208.600	205.793	274.498
213.5		+2.812	208.495	205.683	270.000
213.26		+2.829	208.263		260.000
213.03		+2.849	208.030		250.000
212.8		+2.784	207.798	205.014	240.000
212.57		+2.737	207.565		230.000
212.33		+2.610	207.333		220.000
212.1		+2.586	207.100	204.514	210.000
211.87		+2.465	206.868	204.403	200.000
211.64		+2.153	206.635		190.000
211.4		+2.071	206.403		180.000
210.94		+1./34 +1.991			160.000
210.91		+1.706			158.987
210.71		+1.585	205.705	204.120	150.000
210.47		+1.534	205.472		140.000
210.20 210.34		+1.486	205.340	203.854	134.304
210.28		+1 500	205 280		130,000
210.14		+1.717	205.142	203.425	120.000

ML GA ML GΑ CKD ΒY



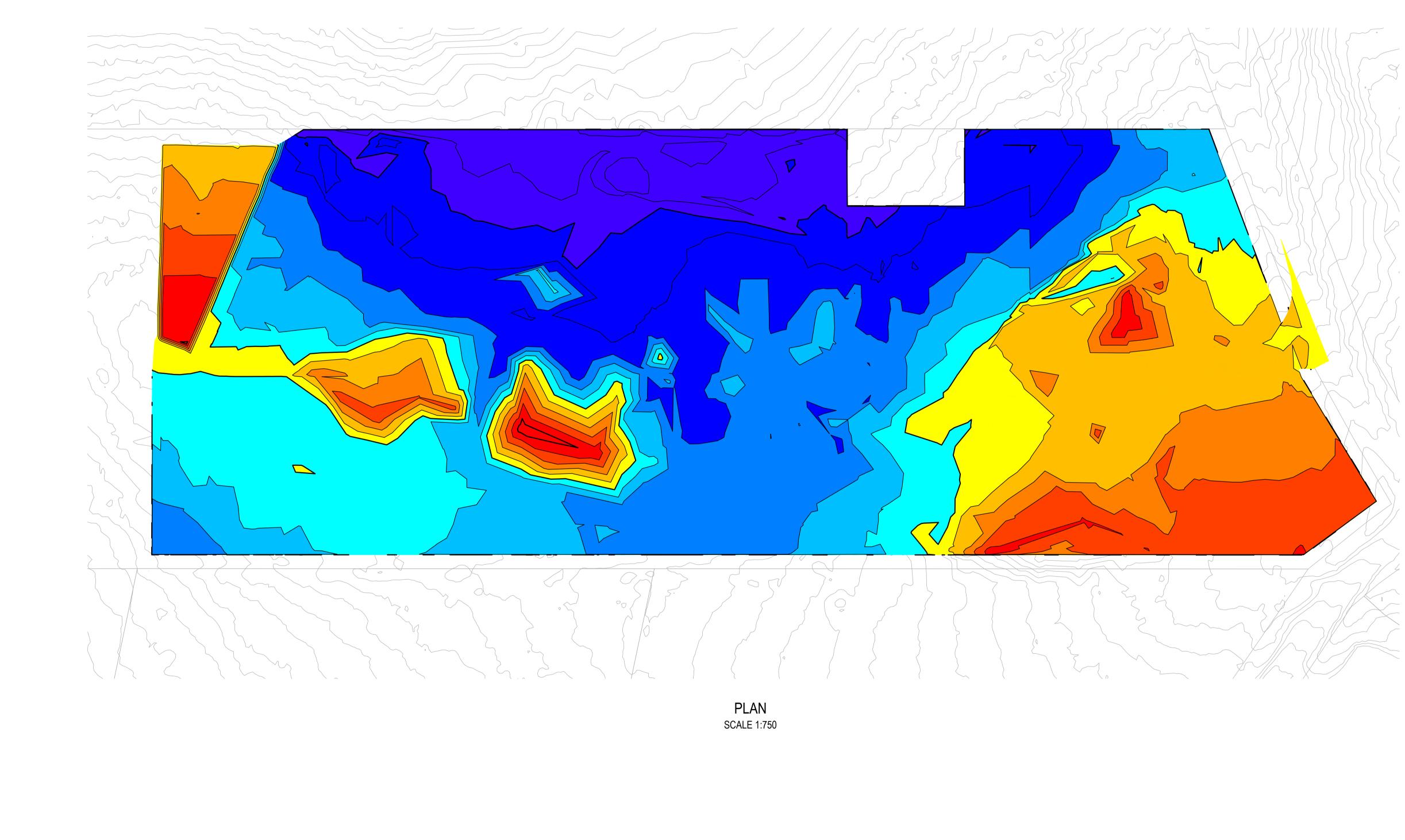
T: +61 (0) 247878428 M: 0468 423 299 4 Park Ave, Blackheath, NSW **www.sustainabilityworkshop.com**

PROPOSED KARIONG SAND & ' RETAINING WALL LON

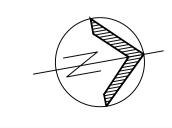
CLIENT:



& SOIL SUPPLIES FACILI		designed: G. ABDULAHED	109	DATE: 16/12/2019
ING SECTIONS – SHEET	2 OF 2		SHEET No: 4 OF 9 SCALE:	SIZE: A1 DATUM: AHD
ID & SOIL SUPPLIES	JOB REF No: 197	CHECKED: M. LIEBMAN	Coord. Origin:	



0 7.5 15 22.5 30 37.5 45 52.5 60 SCALE 1:750 (A1) SCALE 1:1500 (A3)



2	20/01/2020	REVISED FOR DA
1	16/12/2019	FOR DA
REV	DATE	DESCRIPTION
	2 1 REV	1 16/12/2019

NOTES:

1.	NET FILL
2.	NET CUT
3.	BALANCE
	REQUIRE
4.	PAVEME
5.	DRAINAG
6.	CONCRE
7.	ASPHAL 1
8.	UNSEALE
<u>^</u>	

GA ML ML GΑ CKD ΒY



Sustainability Workshop

T: +61 (0) 247878428 M: 0468 423 299 4 Park Ave, Blackheath, NSW **www.sustainabilityworkshop.com**

PROPOSED KARIONG SAND & BULK EAR CLIENT:

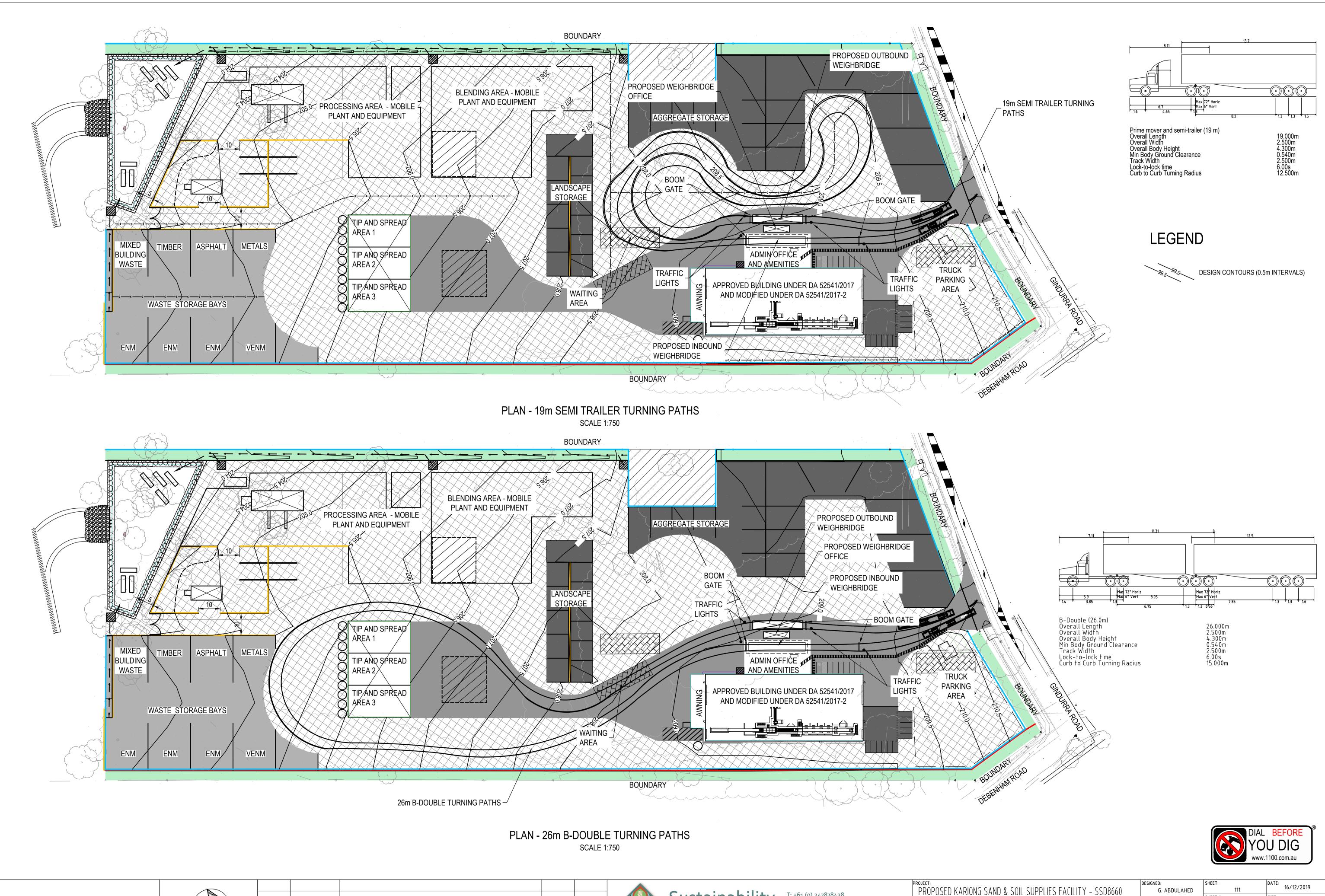
L VOLUME ABOVE EXISTING SURFACE = 107,200m³ T VOLUME BELOW EXISTING SURFACE = 35,900m³ CE OF CUT : FILL = (107,200m³ - 35,900m³) = 71,300m³ FILL RED MENT VOLUME = $25,200m^3$ IAGE LAYER VOLUME = $8,400m^3$ RETE AREA = $6,600m^2$ ALT AREA = $11,500m^2$

LED PAVEMENT AREA = 30,500m² 9. ALL ABOVE AREAS ARE EXCLUDING BUILDINGS

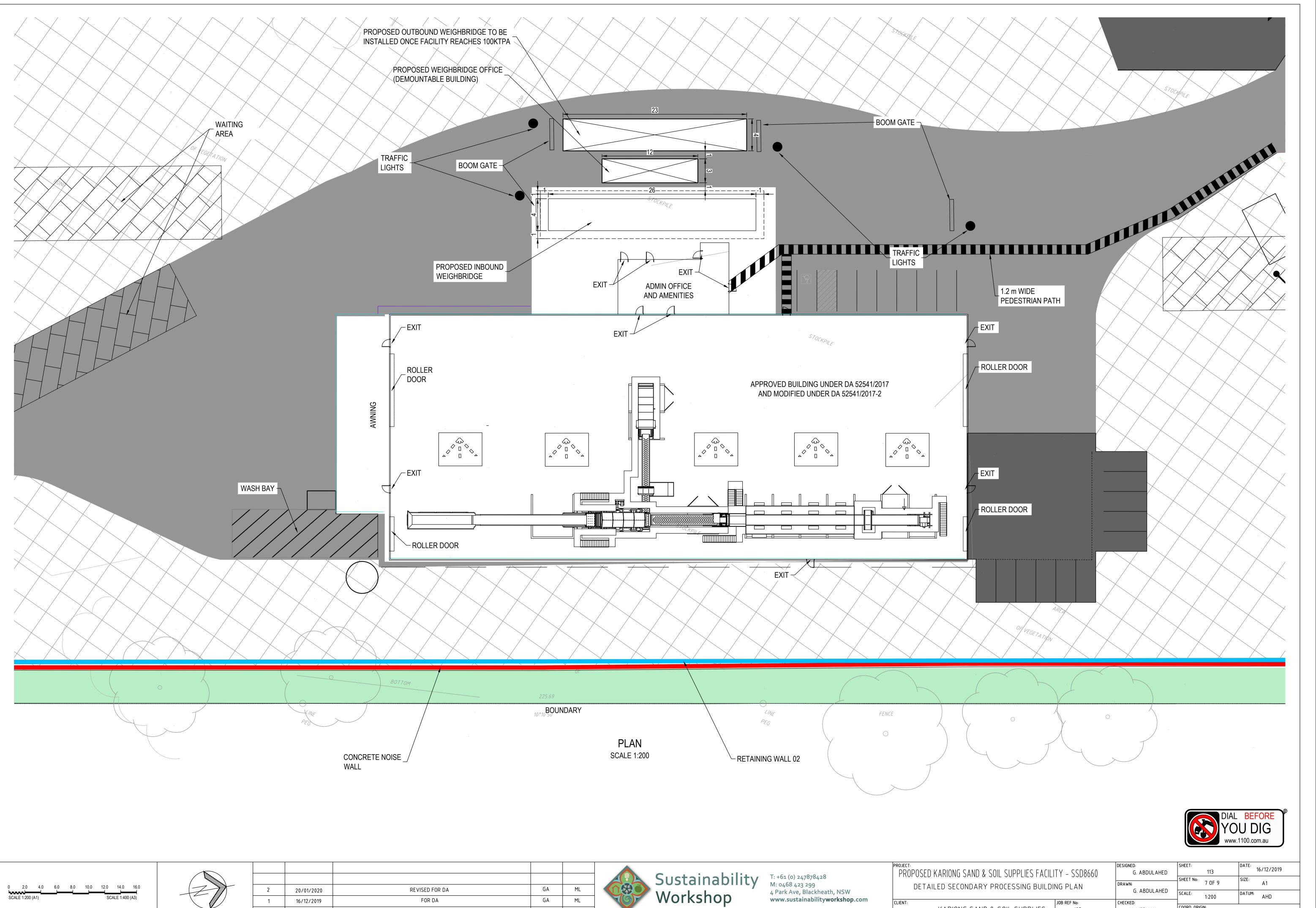
Levels Table					
Number	Minimum Level	Maximum Level	Colour		
1	-6.000	-4.000			
2	-4.000	-3.000			
3	-3.000	-2.000			
4	-2.000	-1.000			
5	-1.000	0.000			
6	0.000	1.000			
7	1.000	2.000			
8	2.000	3.000			
9	3.000	5.000			
10	5.000	8.000			



& SOIL SUPPLIES FACILI	TY - SSD8660	DESIGNED: G. ABDULAHED	SHEET: 110		DATE: 16/12/2019	
RTHWORKS PLAN	DRAWN:	SHEET No: 5 O)F 9	SIZE: A1		
		G. ABDULAHED	SCALE: 1:75	50	DATUM: AHD	
D & SOIL SUPPLIES	JOB REF No: 197	CHECKED: M. LIEBMAN	Coord. Origin:			



							Sustainability	7 T: +61 (0) 247878428 M: 0468 423 299	project: PROPO	SED KARIONG SAND & SOIL SUPPLIES FACILITY – SSD8660	DESIGNED: G. ABDULAHED	SHEET: 111 SHEET No: 6 DE 9	DATE: 16/12/2019 SIZE: A1
	(2)	2	20/01/2020	REVISED FOR DA	GA	ML		4 Park Ave, Blackheath, NSW		TURNING MOVEMENTS PLAN	G. ABDULAHED	SCALE: 1.750	
SCALE 1:750 (A1) SCALE 1:1500 (A3)		1	16/12/2019	FOR DA	GA	ML	Workshop	www.sustainabilityworkshop.com	CLIENT:		CHECKED:		
		REV	DATE	DESCRIPTION	BY	CKD				KARIONG SAND & SOIL SUPPLIES 197	M. LIEBMAN	Coord. Origin:	



DESCRIPTION

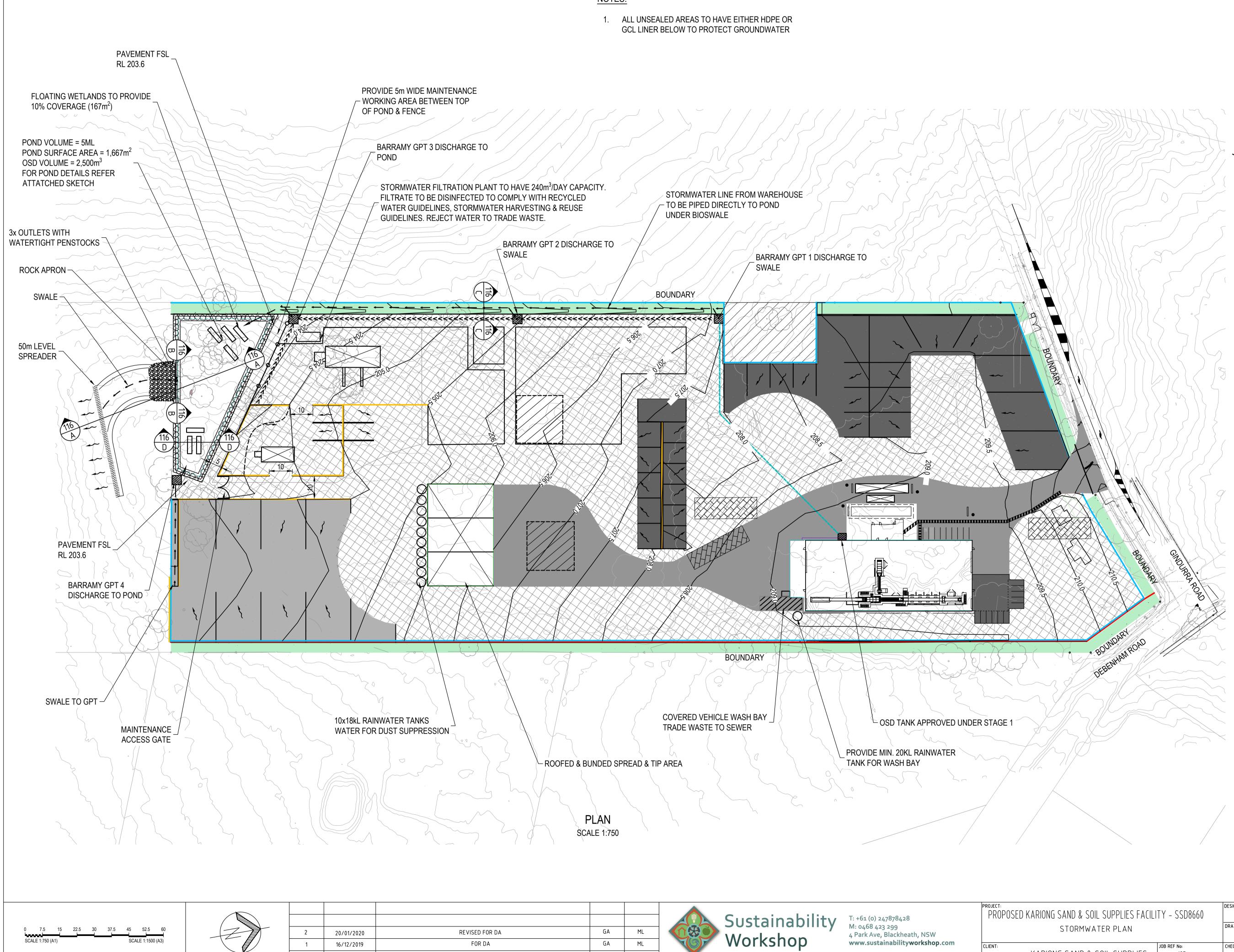
ΒY

CKD

REV

DATE

		DESIGNED:		DATE: 16/12/2019	
D KARIONG SAND & SOIL SUPPLIES FACILI		G. ABDULAHED	113 SHEET No: 7 OF 9	SIZE: A1	
AILED SECONDARY PROCESSING BUILDI	NG PLAN			DATUM: AHD	
KARIONG SAND & SOIL SUPPLIES	ARIONG SAND & SOIL SUPPLIES 197				



ΒY

CKD

DESCRIPTION

REV

DATE

NOTES:

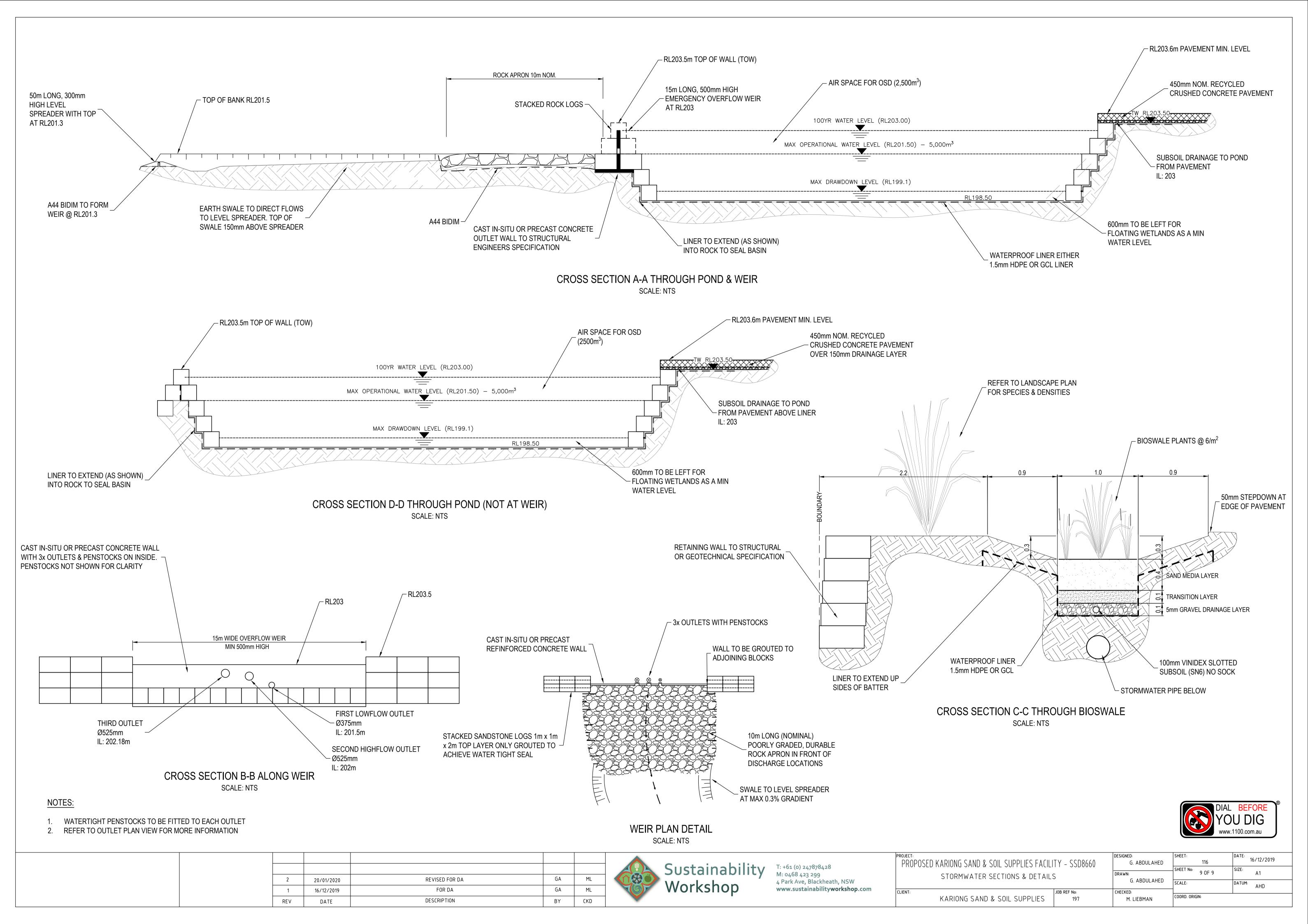
KARIONG SAND

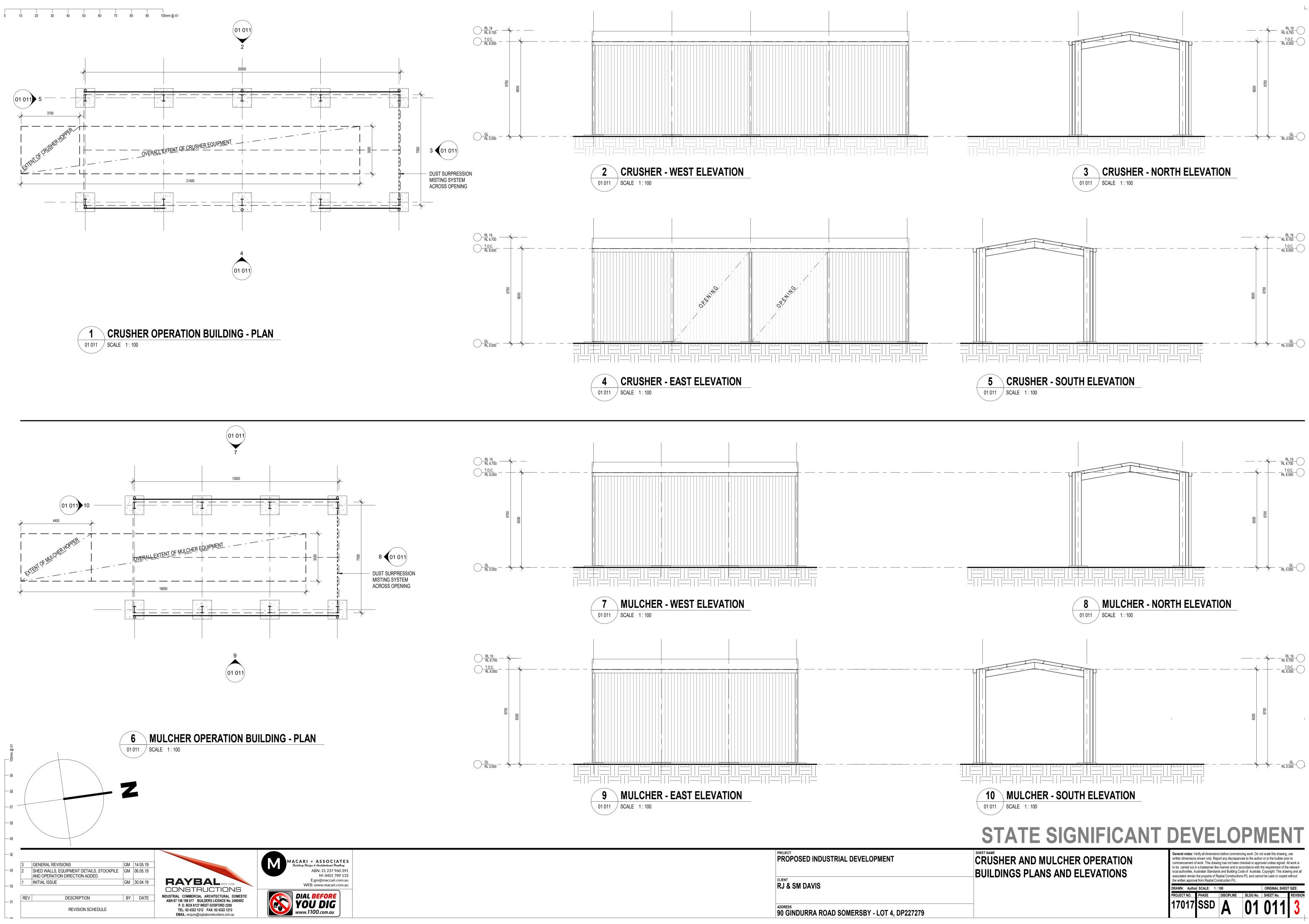
LEGEND

·>>>>	DISH DRAIN
-0	2m HIGH CHAIN WIRE FENCE WITH FAUNA FRIENDLY "FLOPPY TOP" AROUND POND
~~	DIRECTION OF FALL
99.5 99.0	DESIGN CONTOURS (0.5m INTERVALS)
	RCP AT 1% MIN. GRADE
	BARRAMY GROSS POLUTANT TRAP (4 OFF)

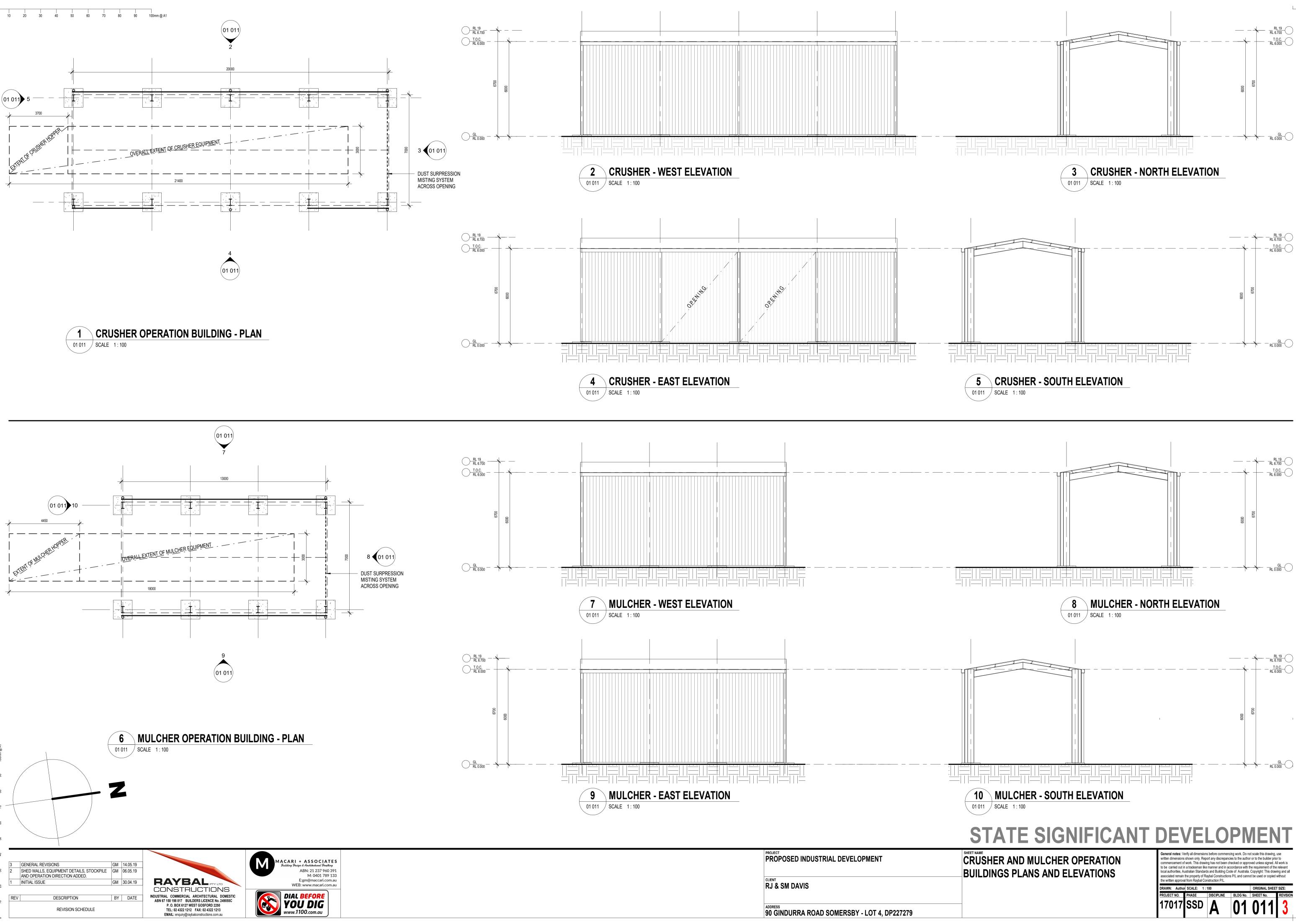


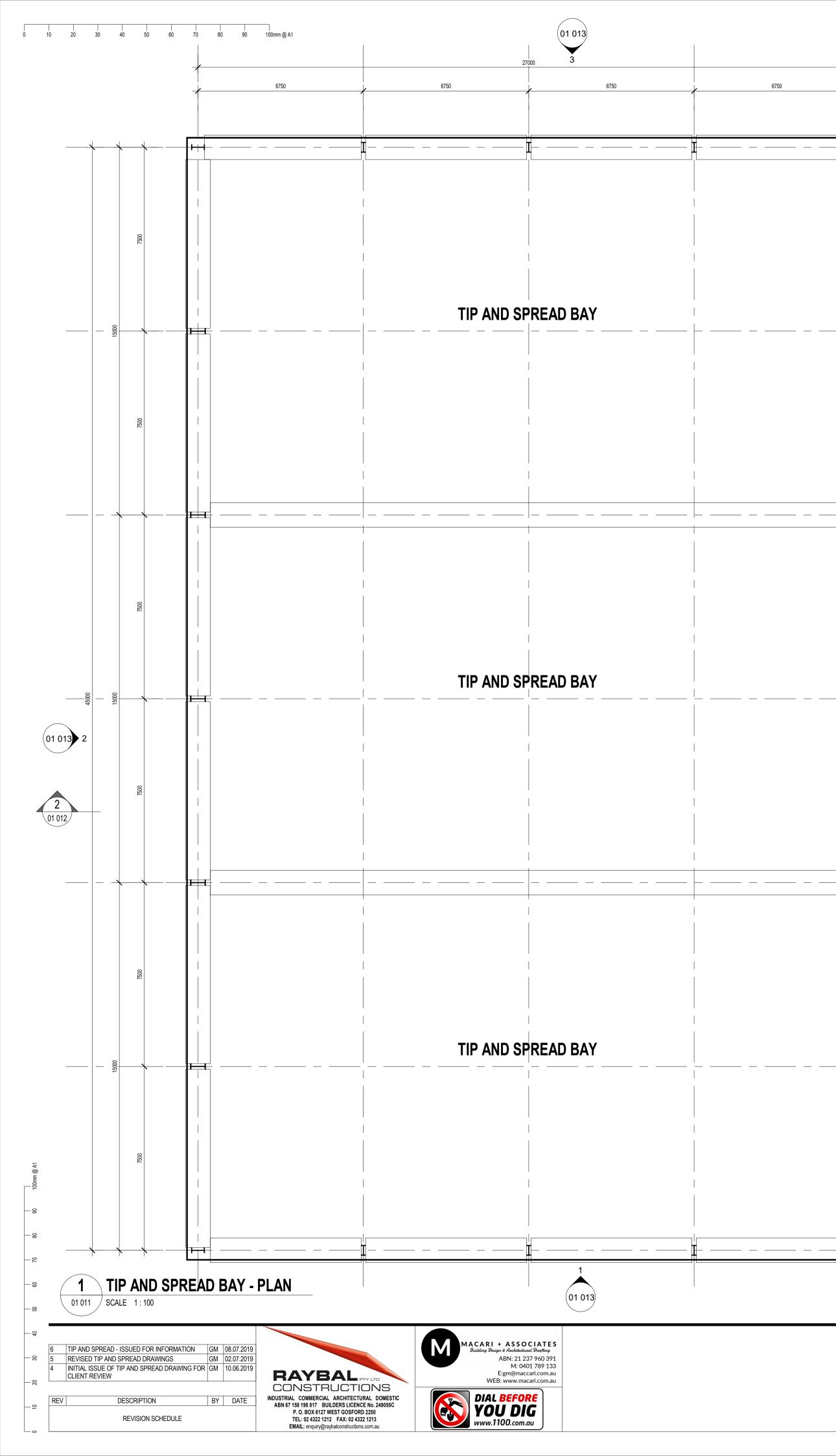
designed: G. ABDULAHED	sheet: 115	DATE: 16/12/2019		
	SHEET No:	SIZE: A1		
	8 OF 9			
G. ABDULAHED	SCALE: 1:750	DATUM: AHD		
CHECKED:				
M. LIEBMAN	COORD. ORIGIN:			
D	G. ABDULAHED RAWN: G. ABDULAHED HECKED:	G. ABDULAHED 115 RAWN: G. ABDULAHED SCALE: 1:750 HECKED: COOPD. OBJGIN:		











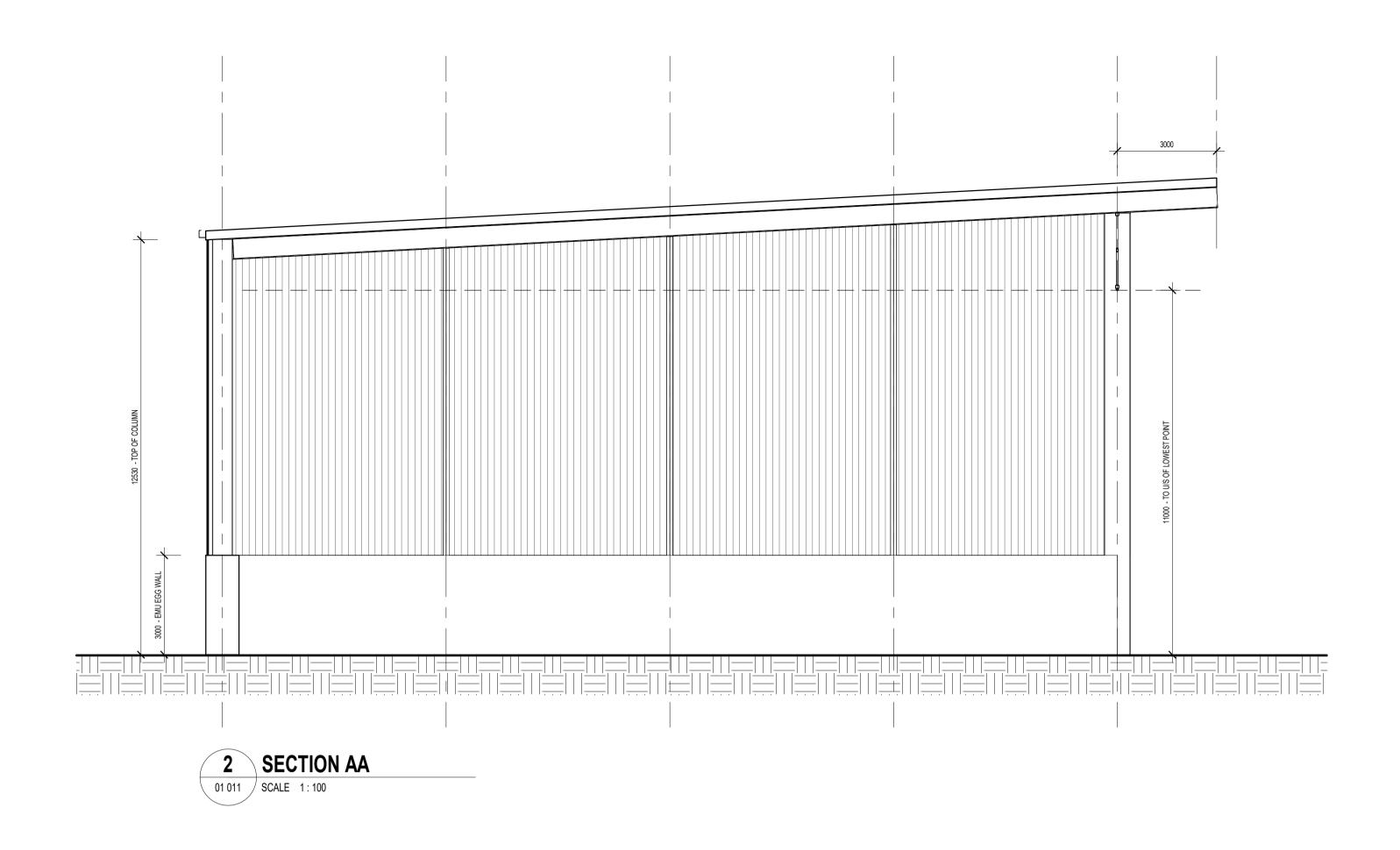
┢╾┽╼┫╵

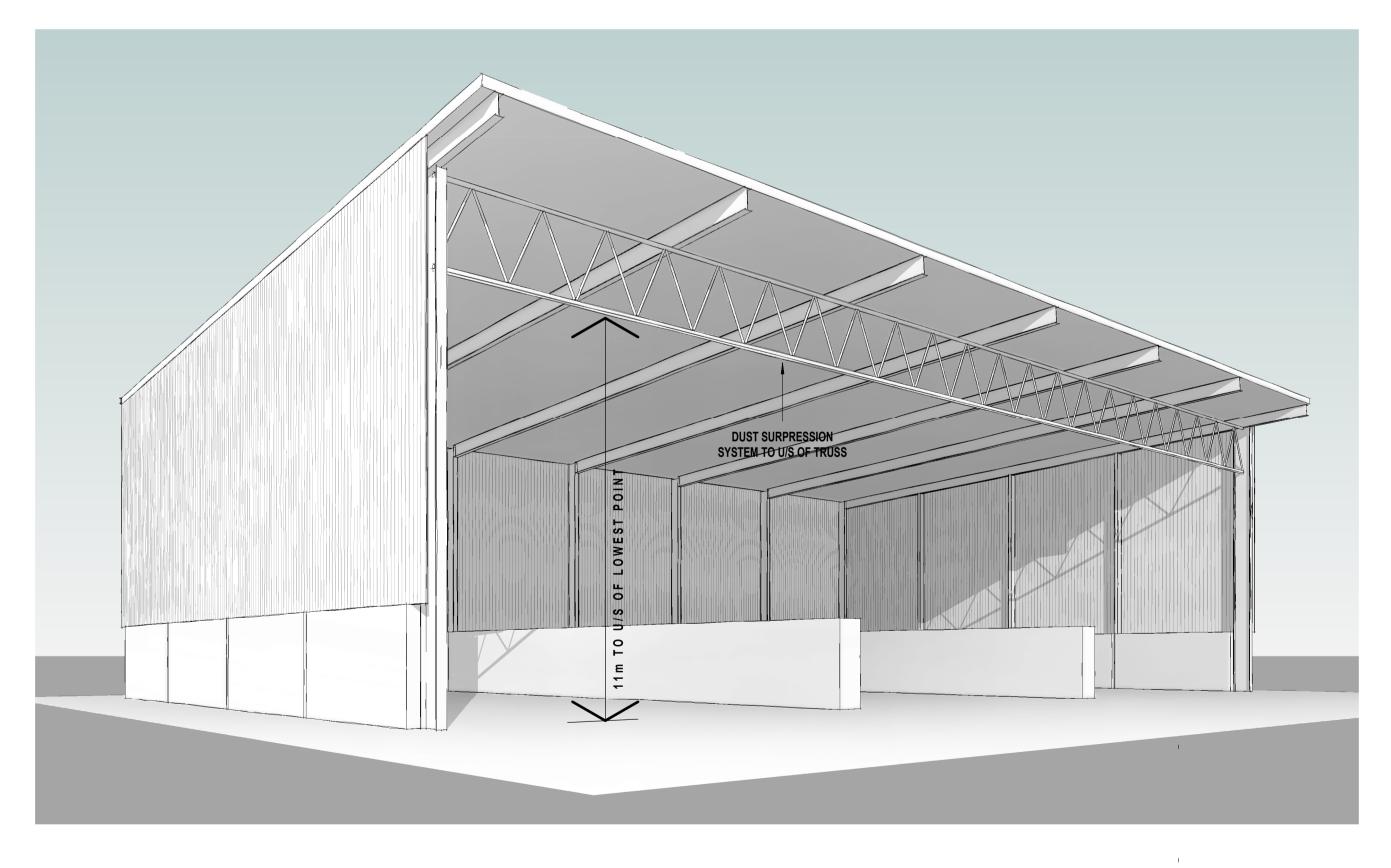
4 (01 013)

2 01 012

┝─┬─┨

____ ___





CLIENT RJ & SM DAVIS

PROJECT

ADDRESS 90 GINDURRA ROAD SOMERSBY - LOT 4, DP227279

STATE SIGNIFICANT DEVELOPMENT

SHEET NAME TIP AND SPREAD BAYS - PLAN AND SECTION

eneral notes: Verify all dimensions before commencing work. Do not scale this drawing, use written dimensions shown only. Report any discrepancies to the author or to the builder prior to commencement of work. This drawing has not been checked or approved unless signed. All work is to be carried out in a tradesman like manner and in accordance with the requirement of the relevant local authorities, Australian Standards and Building Code of Australia. Copyright: This drawing and all associated remain the property of Raybal Constructions P/L and cannot be used or copied without the written approval from Raybal Construction P/L. DRAWN: GM SCALE: 1:100

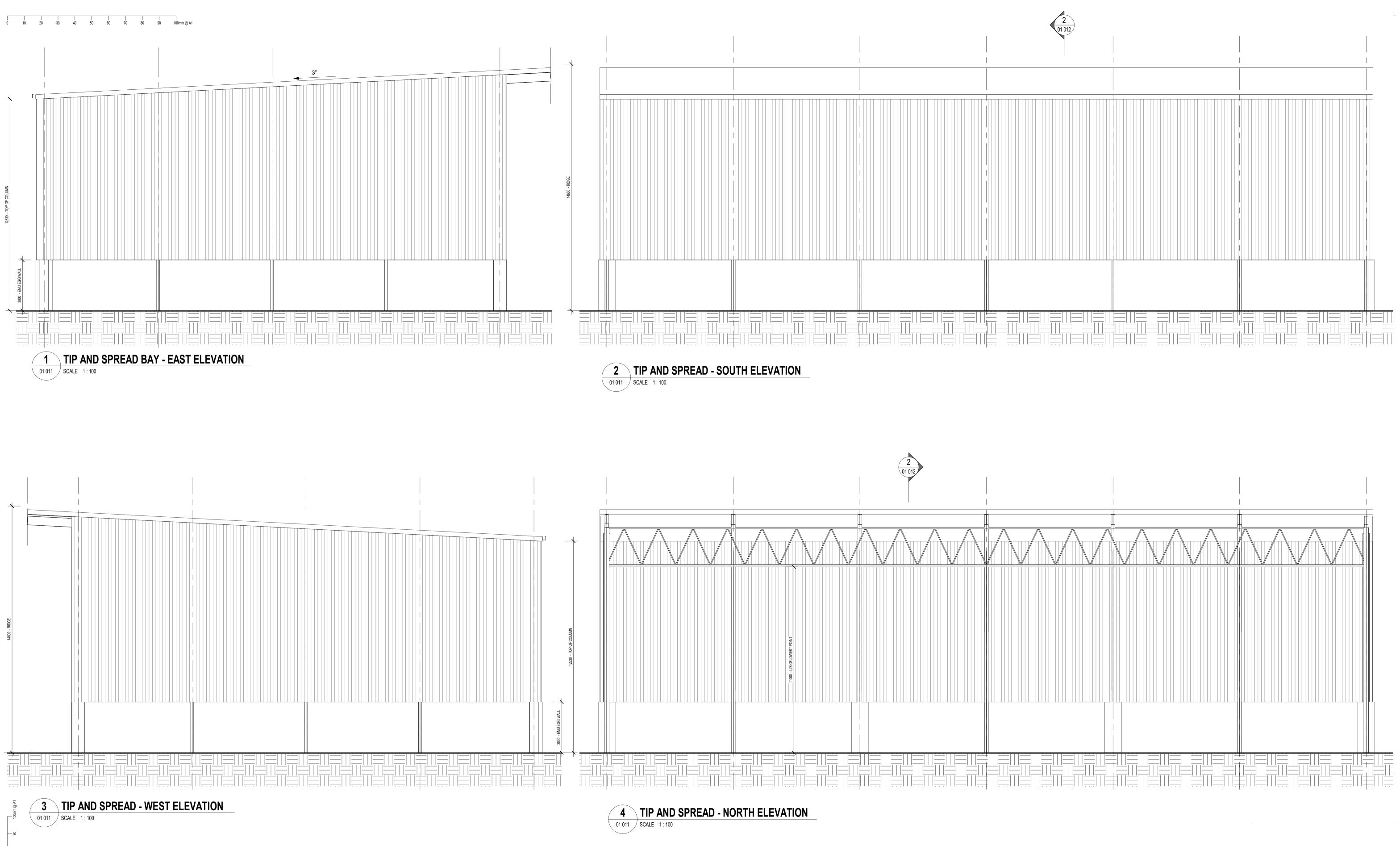
DISCIPLINE

PROJECT NO. PHASE

17017 SSD 🛕

ORIGINAL SHEET SIZE: A1

BLDG No. SHEET No.





PROJECT	
PROPOSED INDUSTRIAL	DEVELOPMENT

RJ & SM DAVIS

90 GINDURRA ROAD SOMERSBY - LOT 4, DP227279

STATE SIGNIFICANT DEVELOPMENT

TIP AND SPREAD BAYS - ELEVATIONS

eneral notes: Verify all dimensions before commencing work. Do not scale this drawing, use written dimensions shown only. Report any discrepancies to the author or to the builder prior to ommencement of work. This drawing has not been checked or approved unless signed. All work is to be carried out in a tradesman like manner and in accordance with the requirement of the relevant local authorities, Australian Standards and Building Code of Australia. Copyright: This drawing and all ssociated remain the property of Raybal Constructions P/L and cannot be used or copied without e written approval from Raybal Construction P/L.

ORIGINAL SHEET SIZE:

AWN: Author SCALE: 1:100

17017 SSD

PROJECT NO.