LOT A BURLEY ROAD, HORSLEY PARK EMPLOYMENT PRECINCT

CIVIL ENGINEERING WORKS FOR DEVELOPMENT APPLICATION



LOCALITY PLAN N.T.S. LGA PENRITH COUNCIL DP 392643

JACFIN PTY LTD

DRAWING LIST

GENERAL				
000	COVER SHEET			
001	GENERAL LAYOUT PLAN			
ENGI	NEERING PLANS			
101	ENGINEERING PLAN SHEET 1 OF 2			
102	ENGINEERING PLAN SHEET 2 OF 2			
ROAD	ROADWORKS			
201	ROAD No.01 LONGITUDINAL SECTION			
202	ROAD No.02 LONGITUDINAL SECTION			
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LOT A BURLEY ROAD, HORSLEY PARK EMPLOYMENT PRECINCT CIVIL ENGINEERING WORKS FOR DEVELOPMENT APPLICATION

JOB No: X10135

DRAWING

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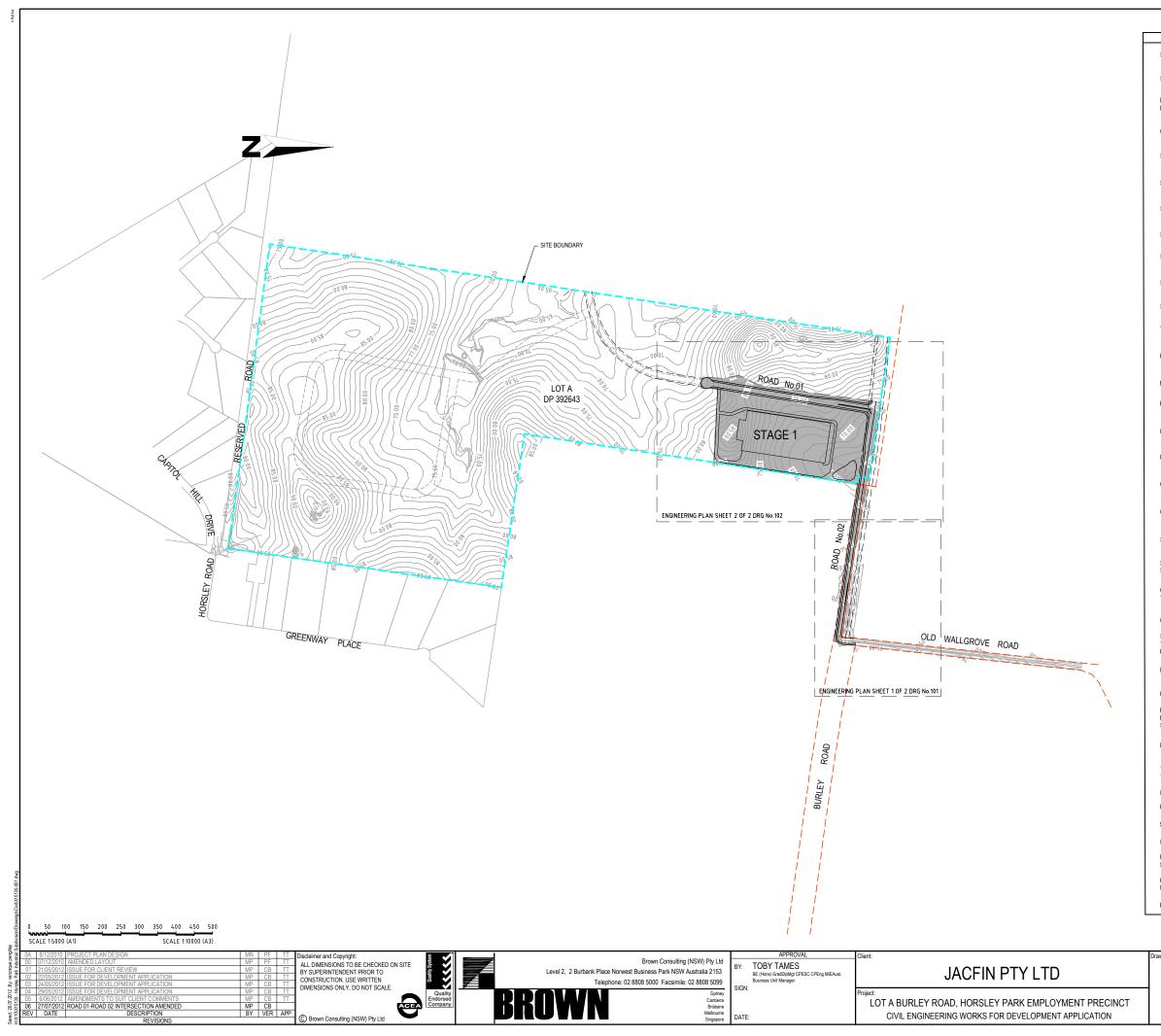
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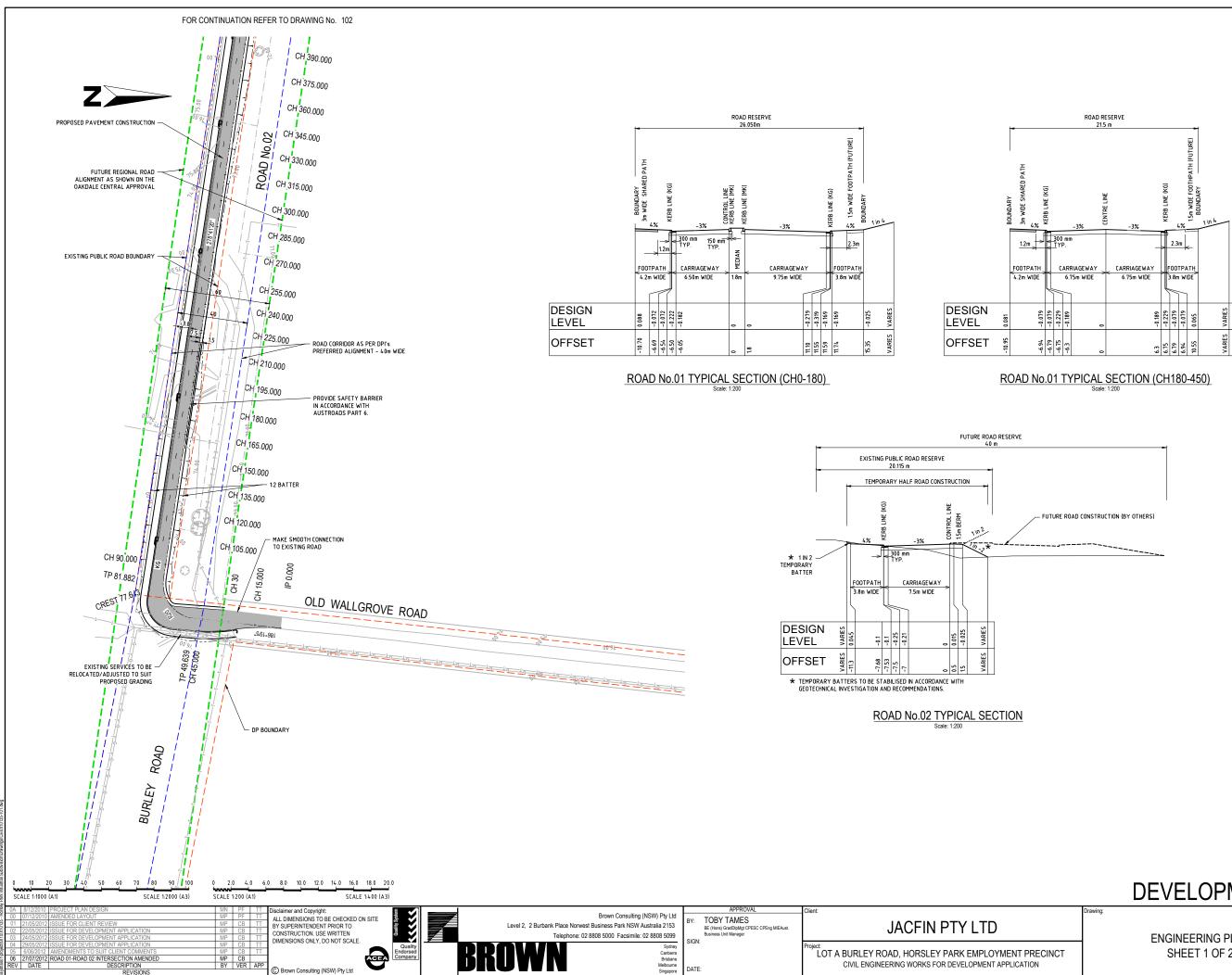
Brown Consulting (NSW) Pty Ltd

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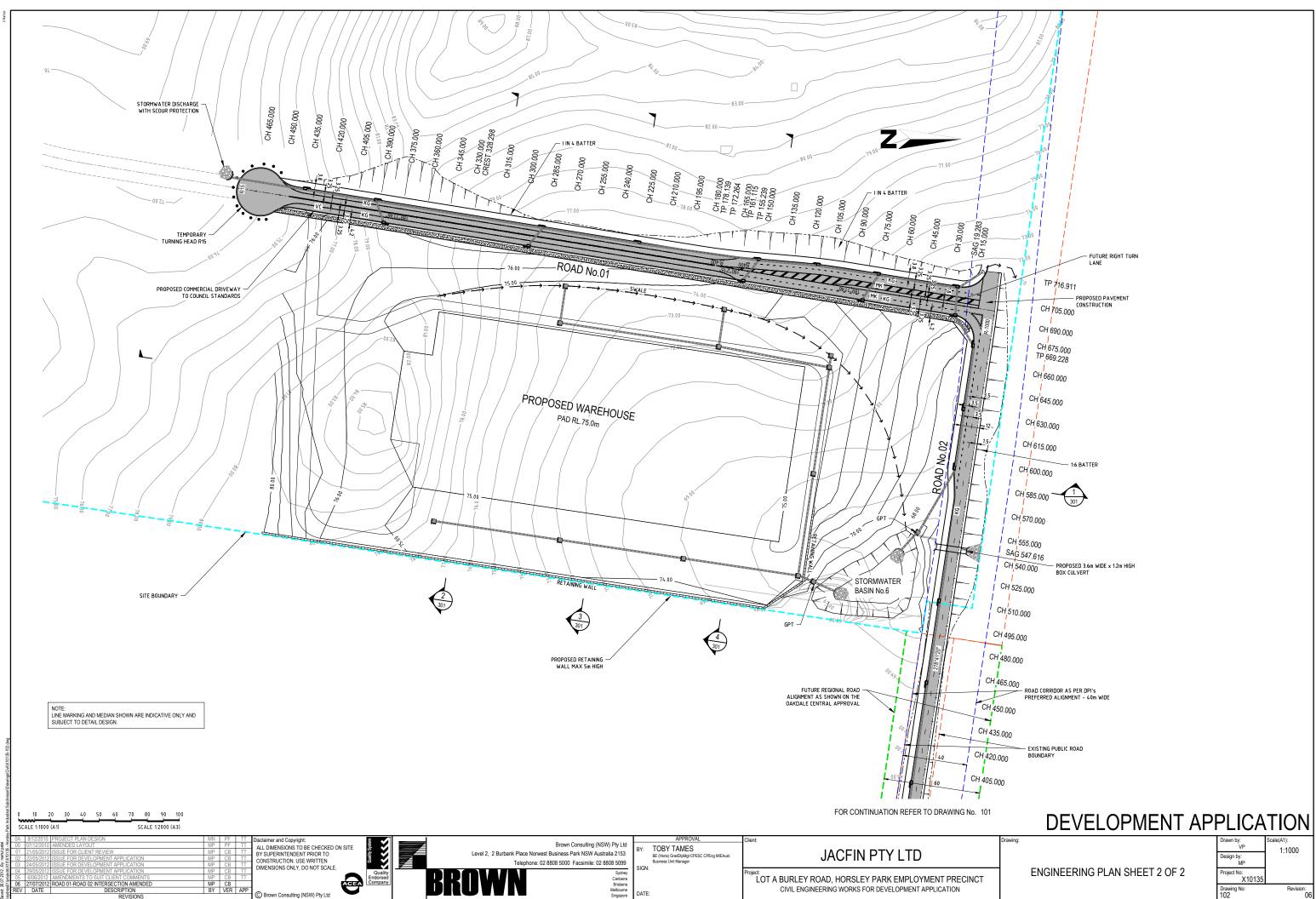


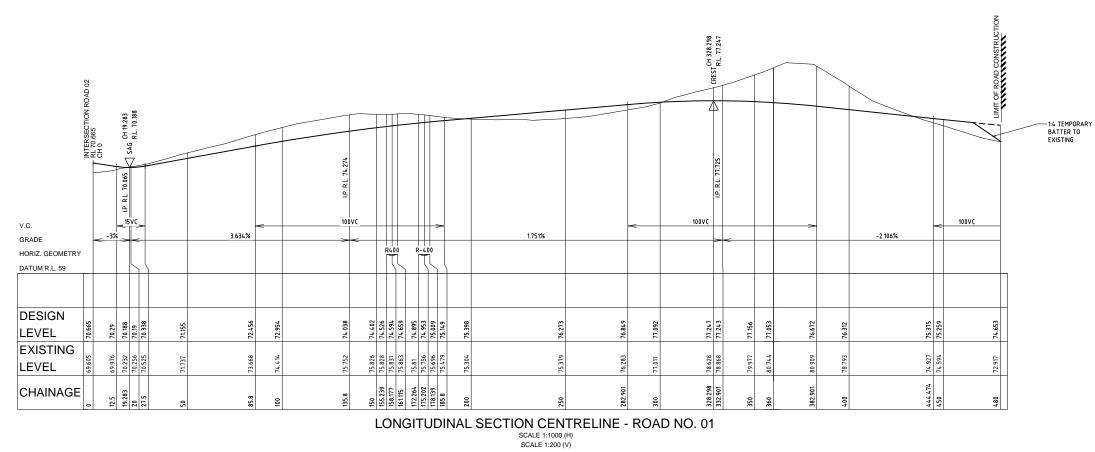
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DRAINAGE PIT No. 10 (3/10) (3/10)			
CONCRETE HEADWALL			
SUBSOIL DRAIN			
STANDARD 150mm KERB AND GUTTER K&G EXIST. K&G FUT. K&G =====			
STANDARD ROLL KERB AND GUTTER RK EXIST. RK FUT. RK			
STANDARD KERB ONLY <u>K0</u> EXIST. K0 FUT. K0			
STANDARD EDGE STRIP			
STANDARD MOUNTABLE KERB <u>MK</u> EXIST. MK _ FUT. MK_			
STANDARD DISH CROSSING			
VEHICULAR CROSSING	<u></u>		
PEDESTRIAN RAMP	:=		
EDGE OF BITUMENEOB			
ROAD PAVEMENT			
BENCHMARK BM: 115 RL: 165.332			
BATTERS	-		
CONCRETE PATHWAY			
CONTOURS			
SITE REGRADING AREA			
SERVICE LINES SEWER, GAS, WATER, ELECTRICITY	-		
COMMUNICATION LINES	_		
OVER HEAD LINES AND POLES	~		
SERVICE PITS TELECOM PIT. ACCESS CHAMBER, HYDRANT, STOP VALVE, AIR VALVE			
LIMIT OF STAGE			
FENCE	-		
LOT NUMBERS D-LOTNO E-LOTNO F-LOTNO			
TREES TO RETAIN TREES TO REMOVE			
RETAINING WALL			
ROCK WALL			
SITE BOUNDARY			
FUTURE REGIONAL ROAD ALIGNMENT AS SHOWN ON OAKDALE CENTRAL APPROVAL			
ROAD CORRIDOR AS PER DPI'S PREFERRED ALIGNMENT - 40m WIDE			
EXTENT OF STAGE 1 CONSTRUCTION			
DEVELOPMENT APPLICATION			
ving: Drawn by: VP	Scale(A1): 1:5000		
Design by: MP	1.0000		
GENERAL LAYOUT PLAN Project No: X10135			
Drawing No: 001	Revision: 06		



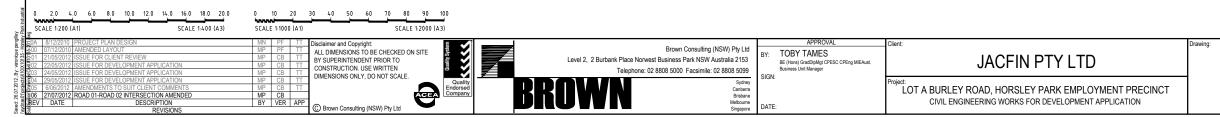
DEVELOPMENT APPLICATION

ENGINEERING PLA SHEET 1 OF 2	N	VP Design by: MP Project No: X10135	1:1000 1:200
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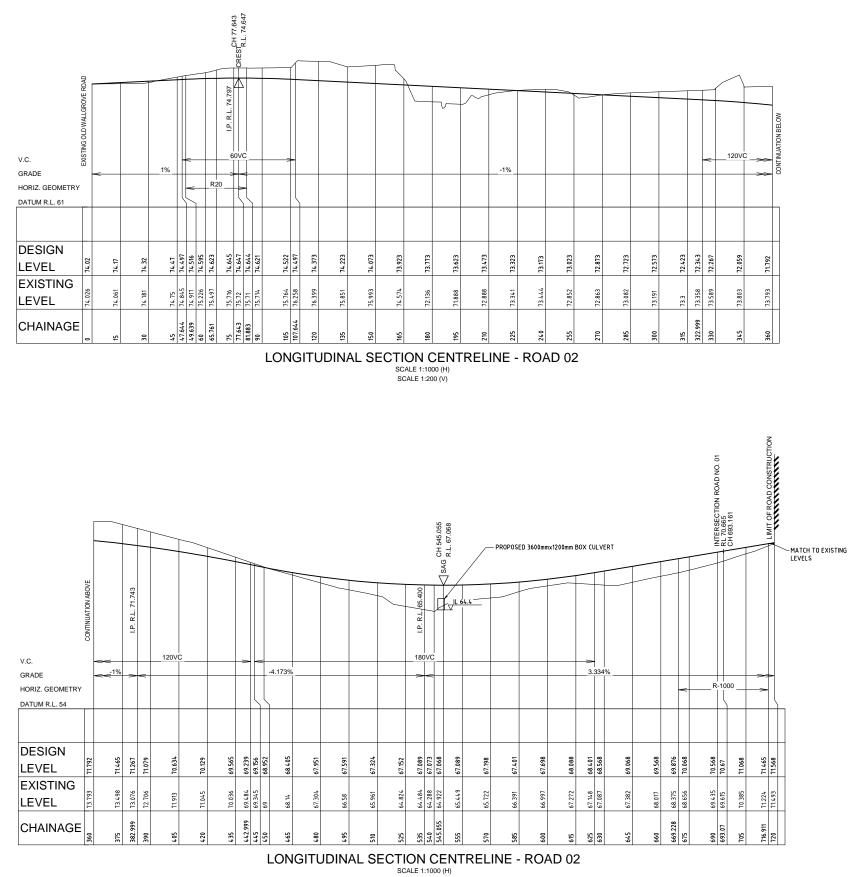






DEVELOPMENT APPLICATION Scale(A1): Drawn by:

ROAD No.01 LONGITUDINAL	A.Mc Design by: M.N. Project No:	AS NOTED	
SECTION		X10135 Drawing No: 201	Revision: 06
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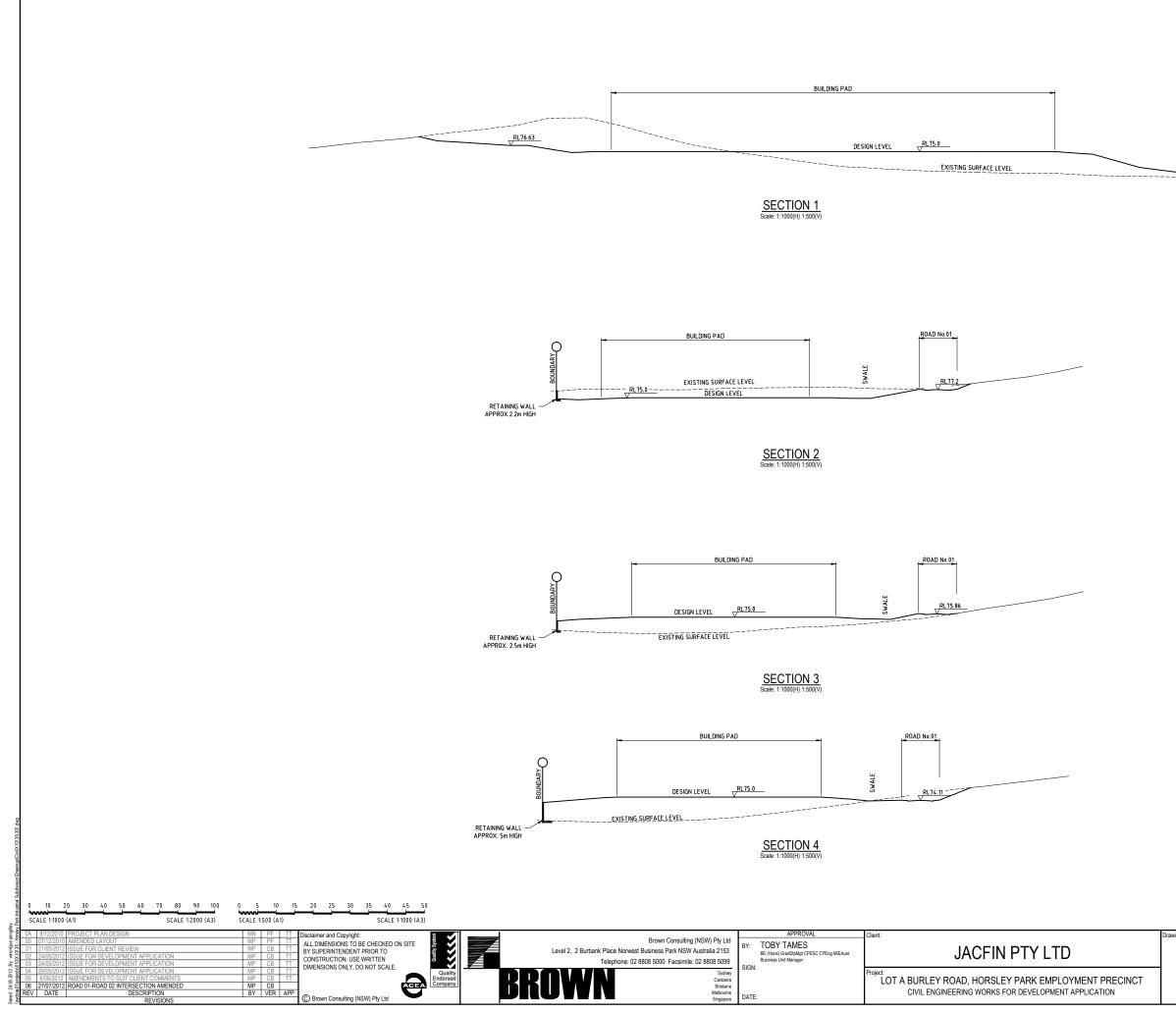


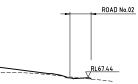
SCALE 1:1000 (H) SCALE 1:200 (V)

lley y Park Industri	0 2.0 4.0 6.0 8.0 10.0 12.0 14.0 16.0 18.0 20.0 SCALE 1:200 (A1) SCALE 1:400 (A3)	0 10 20 30 40 50 60 70 80 90 100 SCALE 1:1000 (A1) SCALE 1:2000 (A3)		
By: veronique pengi X10/X10135 - Horsle		MN PF TT Disclaimer and Copyright: MP PF TT ALL DIMENSIONS TO BE CHECKED ON SITE MP CB TT SUPERINTENDENT PRIOR TO MP CB TT CONSTRUCTION. USE WRITTEN MP CB TT CONSTRUCTION, USE WRITTEN	Brown Consulting (NSW) Pty Ltd Level 2, 2 Burbank Place Norwest Business Park NSW Australia 2153 Telephone: 02 8808 5000 Facsimile: 02 8808 5099 Business Unit Manager	Client: JACFIN PTY LTD Drawing:
Saved: 24.05.2012, Visydnas01/projects/	204 29062012 ISSUE FOR DEVELOPMENT APPLICATION 5 60692102 AMENDMENTS TO SUIT CLEMENT COMMENTS 66 27/07/2012 IROAD 01-ROAD 02 INTERSECTION AMENDED REV DATE DESCRIPTION REVENDATE REVISIONS REVISIONS	MP CB TT Outling Outling	Srder: BROWN Brisbare Melcome Singapore DATE:	Project: LOT A BURLEY ROAD, HORSLEY PARK EMPLOYMENT PRECINCT CIVIL ENGINEERING WORKS FOR DEVELOPMENT APPLICATION

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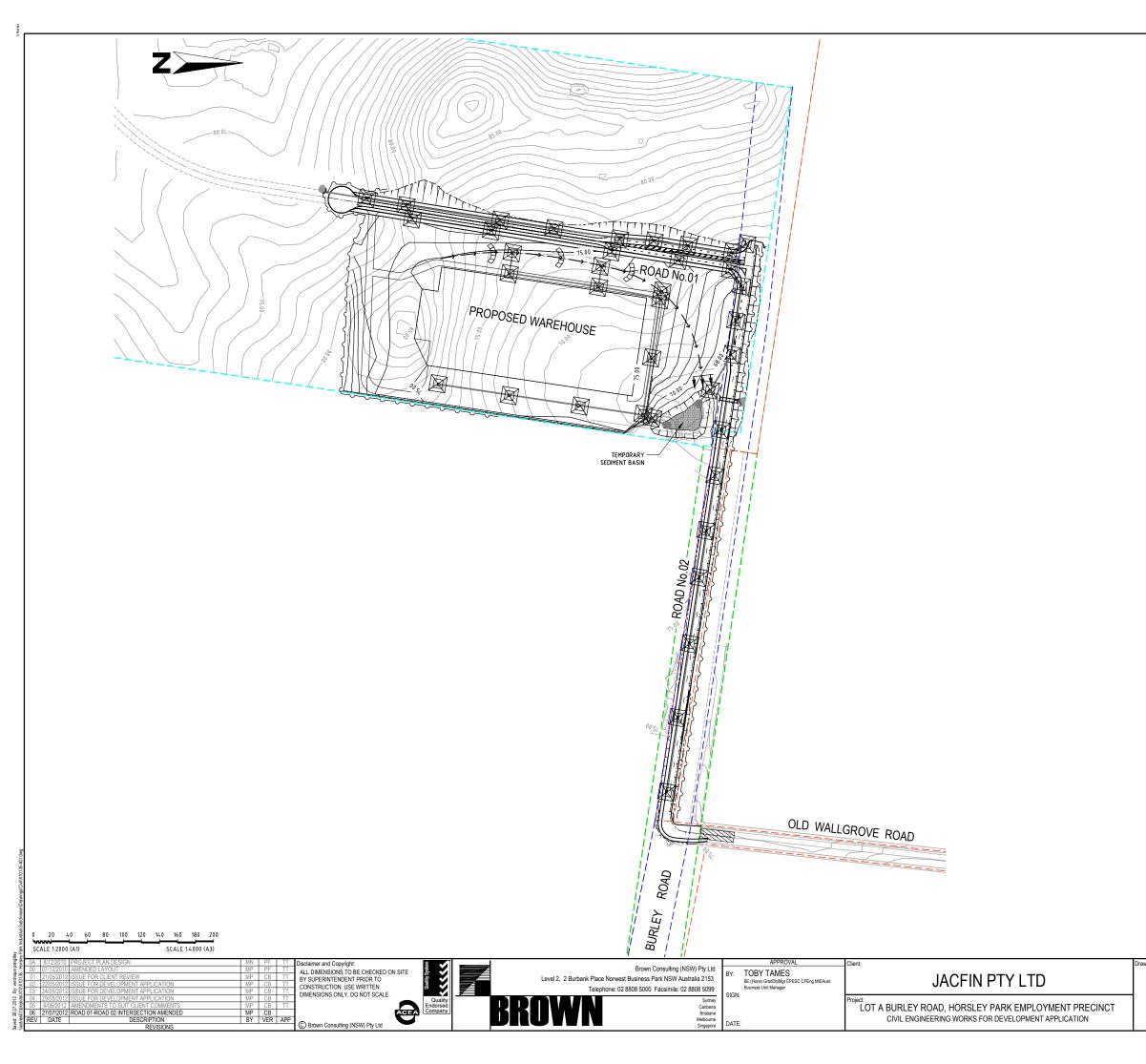
ROAD No.02 LONGITUDINAL SECTION	A.Mc Design by: M.N. Project No: X10135	AS NOTED
	Drawing No: 202	Revision: 06
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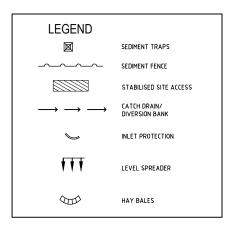




DEVELOPMENT APPLICATION

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		Drawing No: 301	Revision: 06
S	SITE REGRADING SECTIONS		1:1000 (H) 1:500 (V)
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DEVELOPMENT APPLICATION wn by: VP

	Design by: MP
SEDIMENT & EROSION CONTROL PLAN	Project No: X10135
	Drawing No: 401

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Revision: 06

SEDIMENT & EROSION CONTROL NOTES

- 1 THE CONTRACTOR SHALL IMPLEMENT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE COMMENCEMENT OF ANY WORKS BEING CARRIED OUT, ALL SOIL AND EROSION MEASURES SHALL BE MAINATAINED AND CARRIED OUT, ALL SOLL AND EROSION PEASORES SHALL DE PHANNA I AINED AN KEPT IN PLACE FOR THE FULL DURATION OF THE WORKS. AND SHALL ONLY BE REMOVED AT FINAL STABILISATION OF THE WORKS. WHERE IT IS NECESSARY TO UNDERTAKE STRIPPING IN ORDER TO CONSTRUCT A SEDIMENT CONTROL DEVICE ONLY CLEFFORT CONSTRUCT A SEDIMENT CONTROL DEVICE ONLY SUFFICIENT GROUND SHALL BE STRIPPED TO ALLOW CONSTRUCTION.
- 2. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES. SHALL BE CONSTRUCTED AND MAINTAINED AS INDICATED ON THESE DRAWINGS. LOCATION AND EXTENT OF SOIL AND WATER MANAGEMENT DEVICES IN DIAGRAMMATIC ONLY AND THE ACTUAL REQUIREMENTS SHALL BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT
- 3 CONFORMITY WITH THIS PLAN SHALL IN NO WAY REDUCE THE RESPONSIBILITY OUTSTATE THE TEAM STALL IN NO WAL REDUCE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AGAINST WATER DAMAGE DURING THE COURSE OF THE CONTRACT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ANY NECESSARY CONTROL IS IN PLACE EVEN THOUGH SUCH CONTROL MAY NOT BE SHOWN ON THE PLAN.
- 4. THE CONTRACTOR SHALL INFORM ALL SUBCONTRACTORS AND ALL EMPLOYEES OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSTREAM AREAS
- 5. APART FROM SEDIMENT BASINS, THE CONTRACTOR SHALL REGULARLY MAINTAIN SEDIMENT AND EROSION CONTROL STRUCTURES AND DESILT SUCH STRUCTURES PRORT OT THE REDUCTION IN CAPACITY OF 30% DUE TO ACCUMULATED SEDIMENT. THE SEDIMENT SHALL BE DISPOSED OF ON SITE IN A MANNER APPROVED BY THE ENGINEER.
- 6 THE CONTRACTOR SHALL TEMPORARILY REHABILITATE WITHIN TEN (10) DAYS ANY DISTURBED AREAS PROVIDING A MINIMUM 60% COVER. FINA REHABILITATION IS TO BE PROVIDED WITHIN A FURTHER 60 DAYS WITH A MINIMUM 70% COVER.
- 7. ALL BATERS AND DISTURBED LAND TO BE REVEGETATED AS SPECIFIED IN THE LANDSCAPE DRAWINGS. LANDSCAPE DESIGN PROPOSED THE HYDROMULCHING WITH SELECTED LOCAL NATIVE SEEDS, DROUGHT RESISTANT, AS AGREED WITH THE LOCAL COUNCIL AND ADDITIONAL TEMPERATURE QUICK GROW SEED. COVER CROP MIX

JAPANESSE MILLET – 35KG/HA (SEP–MAR) ECLIPSE RYE – 25 KG/HA RED CLOVER 5KG/HA AND LATER RYE CORN 35KG/HA (FROM APRIL TO AUGUST ONLY) ADDITIVES FERTILISER - POULTRY MANURE PELLETS 300KG/HA

WOOD FIBRE MULCH - 2T/HA BINDER - GRANULAR GUAR GUM - 40KG/HA

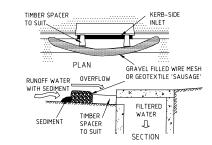
- 8. THE CONTRACTOR SHALL PROVIDE WATERING OF THE VEGETATED BATTERS FOR MAINTENANCE PERIOD, TO LANDSCAPE ARCHITECT SPECIFICATIONS. PLANT, MACHINERY AND VEHICLES SHALL NOT BE DRIVEN OVER GRASSED AREAS UNLESS ON AN APPROVED HAULAGE ROUTE.
- 9. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS QUICKLY AS POSSIBLE TO MINIMISE RISK OF EROSION.
- 10, SITE ACCESS SHALL BE RESTRICTED TO THE NOMINATED POINTS 11 DUST AND SITE DISTURBANCE MUST BE KEPT TO A MINIMUM ALWAYS, DURING WINDY WEATHER LARGE UNPROTECTED AREAS MUST BE KEPT MOIST (NOT WIND THEATHER, LANGE, UNFROIDE JED AREAS HUST DE REFINOST WET) BY SPRINKLING WITH WATER TO REDUCE WIND ERSON. ERECT DARRIER FENCING TO MINIMISE LAND DISTURBANCE BY PREVENTING VEHICULAR AND PEDESTRIAN ACCESS TO AREAS BEING REHABILATATED AND LANDS THAT DO NOT NEED TO BE DISTURBED BY THIS PROJECT.
- 12.STOCKPILE TOPSOILS, SUBSOILS AND OTHER MATERIALS SEPARATELY.
- 13.TOPSOIL SHALL BE STORED IN LOW MOUNDS NO MORE THAN 2 METRES HIGH AND RE-USED WITHIN TWO MONTHS TO MAINTAIN ACTIVE POPULATIONS OF BENEFICIAL SOIL MICROBES AND SEED.
- 14.PLACE ALL STOCKPILES AT LEAST FIVE METRES FROM AREAS OF LIKEL CONCENTRATED OR HIGH VELOCITY FLOWS, ESPECIALLY EARTH BANKS AND ROADS. IF NECESSARY, EARTH BANKS OR DRAINS WILL BE CONSTRUCTED TO DIVERT LOCALISED RUN-ON.
- 15. TURN TOPSOIL STOCKPILES OVER TO AERATE THEM AT MONTHLY INTERVALS. ENSURE VEGETATION IS NOT INCORPORATED INTO THE SOIL. 16 AVOID REVERSING THE SOIL PROFILE MATERIALS DURING FILL OPERATIONS -
- REPLACE DISTURBED SOILS IN THEIR ORIGINAL ORDER.
- 17. ON COMPLETION OF MAJOR EARTHWORKS AND BEFORE ADDING TOPSOIL, LEAVE DISTURBED LANDS WITH A LOOSE SURFACE. ALTERNATELY, DISTURBED AREAS PREVIOUSLY COMPACTED BY CONSTRUCTION WORKS WILL BE RIPPED TO MORE THAN 200-MM ALONG THE CONTOUR BEFORE APPLYING TOPSOIL (REFER REPLACING TOPSOIL STANDARD DETAIL).
- 18. PROVIDING MATERIALS ARE AVAILABLE, SPREAD TOPSOIL TO A MINIMUM D OF 75mm IN REVEGETATION AREAS ON SLOPES OF 4(H):1(V) OR LESS AND TO A DEPTH OF 40 TO 60mm IN REVEGETATION AREAS STEEPER THAN 4:1.
- 19. LEAVE TOPSOIL IN A SCARIFIED OR ROUGH CONDITION ONCE REPLACED TO HELP MOISTURE INFILTRATION AND REDUCE SOIL EROSION.
- 20.ENSURE SOIL IS THOROUGHLY SOAKED TO A DEPTH OF 75mm (RAIN OR IRRIGATION) IMMEDIATELY BEFORE PLANTING.
- 21. HANDLE TOPSOIL ONLY WHEN IT IS MOIST (NOT WET OR DRY) TO AVOID DECLINE OF SOIL STRUCTURE
- 22. SEDIMENT BASINS SHALL BE MAINTAINED FOR THE ENTIRE DURATION OF THE PROJECT OR UNTIL SUCH TIME AS ALL DISTURBED AREAS ARE HYDROMUL CHED
- 23 WHERE FLOCCULATION OF BASINS IS REQUIRED UNLESS OTHERWISE SPECIFIED THE RECOMMENDED INITIAL DOSING IS 30KG OF GYPSUM PER 100 CUBIC METRES OF BASIN VOLUME. THE CONTRACTOR MAY VARY THIS RATE SUBJECT TO TESTING OF PREVIOUS WATER SAMPLES AND THE ACHIEVEMENTS OF THE REQUIRED WATER QUALITY STANDARDS.
- 24.ANY DAMS TO BE DESILTED SHALL BE FLOCCULATED TO SETTLE AN SUSPENDED SOLIDS CLEAR WATER SHALL THEN BE PUMPED OUT IN A MANNER THAT WILL NOT CAUSE DOWNSTREAM EROSION. THE DAM WALL SHALL THEN BE BREACHED AND ANY SILT REMOVED AND PLACED IN A SUITABLY CONSTRUCTED DRYING BASIN. WHEN DRY, THE SILT SHALL BE REMOVED FROM SITE OR MIXED WITH TOP SOIL FOR FUTURE SPREADING.

25. THE CONTRACTOR SHALL MAINTAIN A LOG BOOK DETAILING: THE CONTRACTOR SHALL MAINTAIN A LOG BOOK DE TALING: - RECORDS OF ALL RAINFALL - CONDITION OF SOIL AND WATER MANAGEMENT STRUCTURES - ANY APPLICATION OF FLOCCULATING AGENTS TO SEDIMENT BASIN - VOLUMES OF ALL WATER DISCHARGEO FROM SEDIMENT BASINS - ANY ADDITIONAL REMEDIAL WORKS REQUIRED.

2 ROAD 01-ROAD 02 INTERSECTION AMENDED

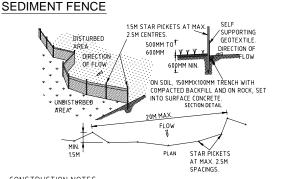
- 26. THE LOG BOOK SHALL BE MAINTAINED ON A WEEKLY BASIS AND BE MADE AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. THE ORIGINAL LOG BOOK SHALL BE ISSUED TO THE PROJECT MANAGER AT THE COMPLETION OF WORKS 27. A SELF AUDITING PROGRAM SHOULD BE ESTABLISHED BASED ON A CHECK SHEET DEVELOPED FOR THE SITE. A SITE INSPECTION USING THE CHECK SHEET SHOULD BE MADE BY THE SITE MANAGER AT LEAST WEEKLY.
- IMMEDIATELY BEFORE SITE CLOSURE AND IMMEDIATELY FOLLOWING RAINFALL EVENTS THAT CAUSE RUNOFF. 28.UNDERTAKE THE SELF AUDIT BY
- a) WALKING AROUND THE SITE SYSTEMATICALLY (E.G. CLOCKWISE b) RECORDING THE CONDITION OF EVERY BEST MANAGEMENT PRACTISE EMPLOYED) RECORDING MAINTENANCE REQUIREMENTS (IF ANY) FOR EACH BEST MANAGEMENT PRACTISE
- d) RECORDING THE VOLUMES OF SEDIMENT REMOVED FROM THE SEDIMENT e) RETENTION SYSTEMS WHERE APPLICABLE
- F) RECORDING THE SITE WHERE SEDIMENT IS DISPOSED () FORWARDING A SIGNED DUPLICATE OF THE COMPLETED CHECK SHEET TO THE () FORWARDING A SIGNED DUPLICATE OF THE COMPLETED CHECK SHEET TO THE) PROJECT MANAGER/DEVELOPER/SITE OPERATOR FOR THEIR INFORMATION
- 29.IN PARTICULAR, INSPECT: LOCATIONS WHERE VEHICLES ENTER AND LEAVE THE SITE ALL INSTALLED EROSION AND SEDIMENT CONTROL MEASURES, ENSURING THEY
- ARE OPERATING CORRECTLY AREAS THAT MIGHT SHOW WHETHER SEDIMENT OR OTHER POLLUTANTS ARE LEAVING THE SITE OR HAVE POTENTIAL TO DO SO
- ALL DISCHARGE POINTS TO ASSESS WHETHER THE EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO THE RECEIVING WATERS
- 30. A SITE INSPECTION USING THE CHECK SHEET WILL BE MADE BY THE SITE MANAGER AT LEAST WEEKLY, IMMEDIATELY BEFORE SITE CLOSURE, AND IMMEDIATELY FOLLOWING RAINFALL EVENTS GREATER THAN 5mm IN 24 HOURS.

MESH AND GRAVEL INLET FILTER



CONSTRUCTION NOTES

- INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
- FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25MM TO 50MM GRAVEL.
- FORM AN ELLIPTICAL CROSS SECTION ABOUT 150MM HIGH X 400MM WIDE 4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100MM SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
- FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
- 5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT LADEN WATERS CANNOT PASS BETWEEN.



CONSTRUCTION NOTES

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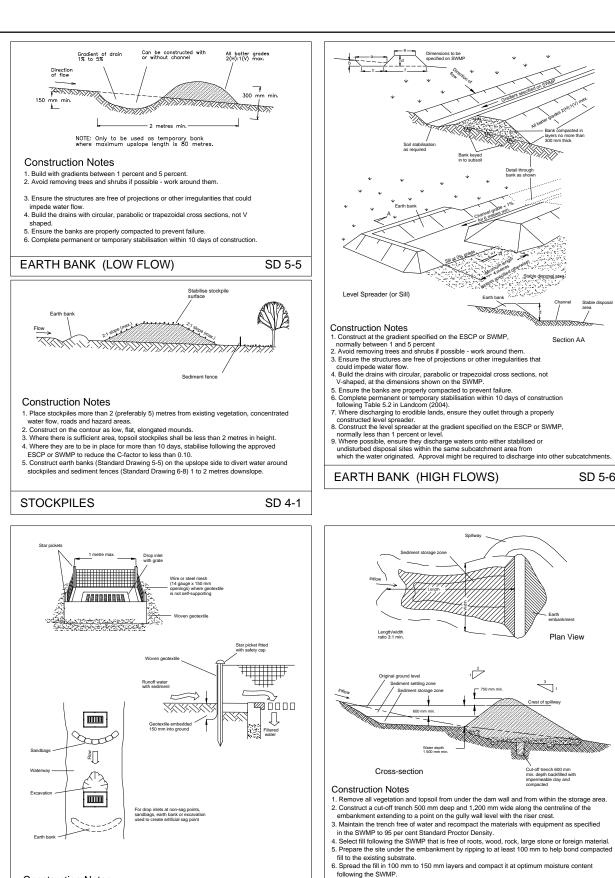
MP CB BY VER APP

ALL DIMENSIONS TO BE CHECKED ON SITE BY SUPERINTENDENT PRIOR TO CONSTRUCTION. USE WRITTEN

DIMENSIONS ONLY, DO NOT SCALE

Brown Consulting (NSW) Pty Ltd

- . CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENDUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE ON CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE
- .: CUT A 150MM DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
- : DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOP EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
- 4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
- 5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150MM OVERLAP
- BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



Construction Notes

Level 2, 2 Burbank Place Norwest Business Park NSW Australia 2153

Telephone: 02 8808 5000 Facsimile: 02 8808 5099

- 1. Fabricate a sediment barrier made from geotextile or straw bales Follow Standard Drawing 6-7 and Standard Drawing 6-8 for installation procedures for the straw bales or geofabric. Reduce the picket spacing to 1 metre centres.
 In waterways, artificial sag points can be created with sandbags or earth banks as shown in the drawing attrificial sag points can be created with sandbags or earth banks as shown
- in the drawing.
- Do not cover the inlet with geotextile unless the design is adequate to allow for all waters to bypass it.

SIGN

DATE

TOBY TAMES

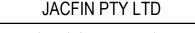
Business Unit Manage

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GEOTEXTILE INLET FILTER

Brisbane Melbourne

Brown Consulting (NSW) Pty Ltd



Construct the emergency spillway

SD 6-12

EARTH BASIN - WET

8. Rehabilitate the structure following the SWMP

Water depth 1 500 mm min.

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LOT A BURLEY ROAD, HORSLEY PARK EMPLOYMENT PRECINCT CIVIL ENGINEERING WORKS FOR DEVELOPMENT APPLICATION

