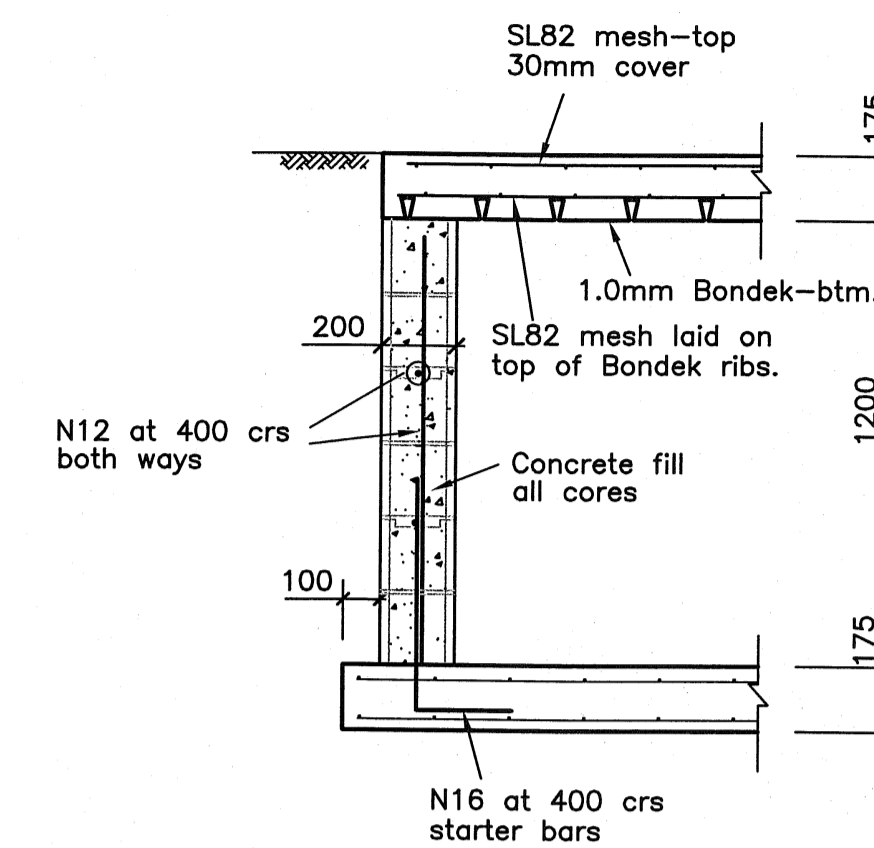
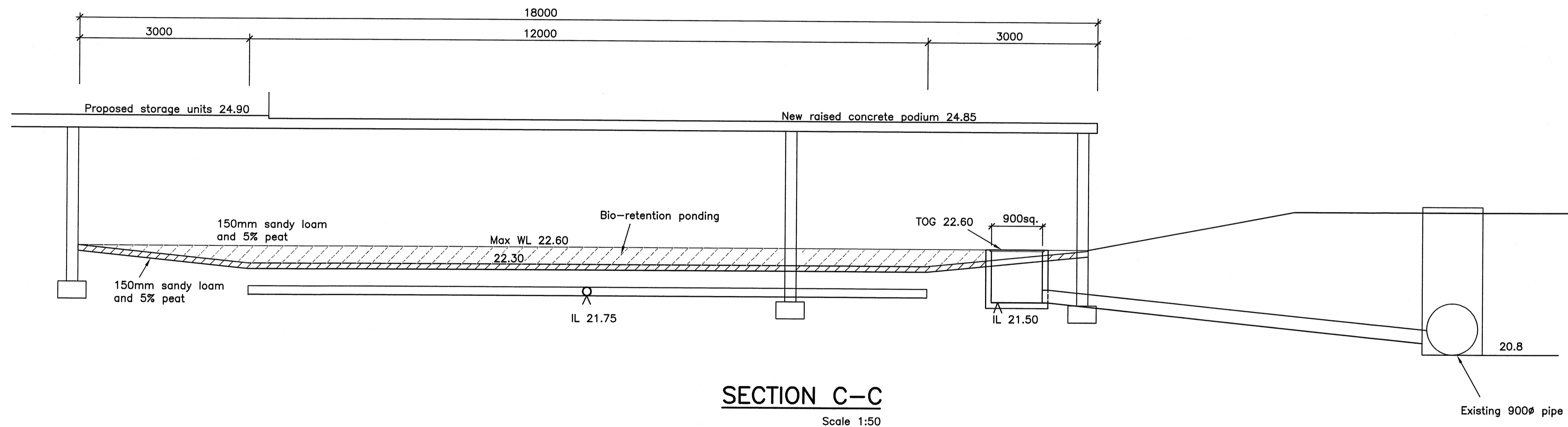


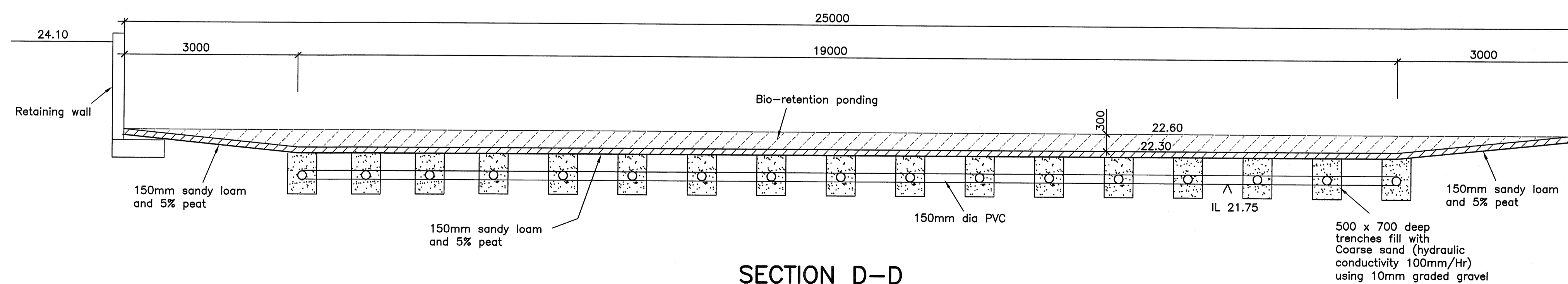
SECTION A-A



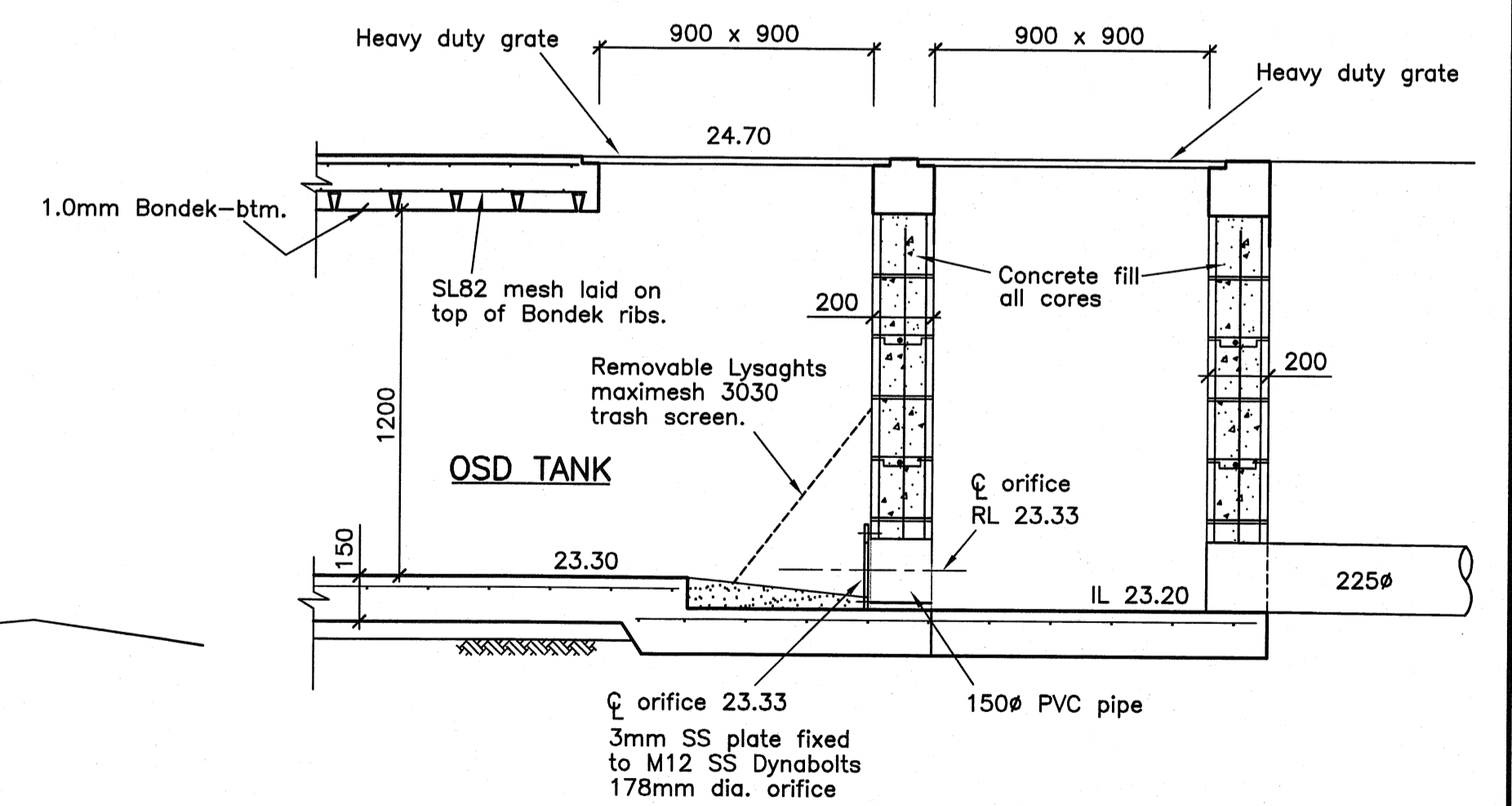
SECTION B-B



SECTION C-C
Scale 1:50

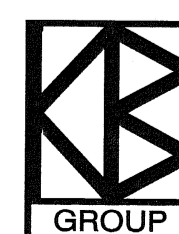


SECTION D-D
Scale 1:50



EXISTING PIT DETAIL

Issue	Date	App'd	DESCRIPTION
A	3.6.13	<i>[Signature]</i>	FOR DEVELOPMENT APPROVAL
REVISIONS			



KNEEBONE, BERETTA & HALL PTY LTD
 CONSULTING STRUCTURAL & CIVIL ENGINEERS
 4 MACQUARIE AVENUE, PENRITH NSW 2750
 PHONE: (02) 4731 3833 FACSIMILE: (02) 4721 5442
 WEBSITE: www.kneeboneandberetta.com
 E-MAIL ADDRESS: kneebone@pnc.com.au



SCALE 1:200 1:50 1:20
 DATE 30.5.13
 DRAWN C Liu
 DESIGNED TB Hall
 APPROVED *[Signature]*

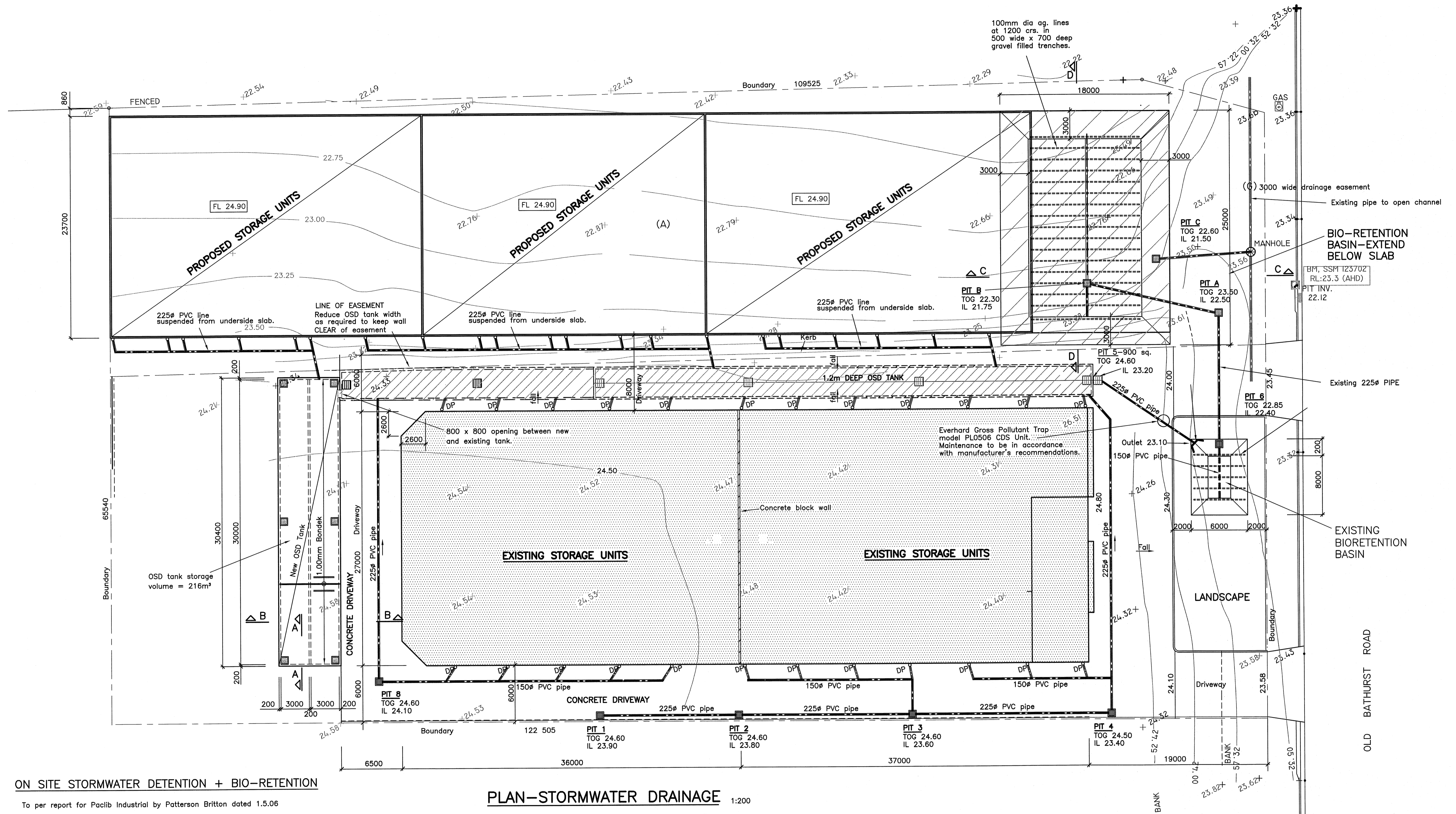
CLIENT: RYAN HITCHEN P/L

PROPOSED DEVELOPMENT AT
 LOT 8 OLD BATHURST ROAD, EMU PLAINS

OSD TANK AND DETAILS

DRAWING NUMBER
89967-2

ISSUE
A



ON SITE STORMWATER DETENTION + BIO-RETENTION

To per report for Paclib Industrial by Patterson Britton dated 1.5.06

SITE AREA = 7669 m²
 OSD required = 492 m³
 1 in 100 PSD = 74.1 l/sec

BIO-RETENTION
 Area required = 492 m²
 Ponding Vol. = 123 m³
 Filter area = 168.7 m²

Existing OSD Vol.
 Extra = 277 m³
 Extra Vol. required = 492-277 = 215 m³
 Extra vol. provided = 216 m³

BIO-RETENTION
 Existing area = 6.0 x 8.1 = 48.6 m²
 Existing vol. = 9.4 m³
 Required extra area = 443.4 m²
 Extra vol. = 113.6 m³

Calculation of orifice size
 PSD = 74.1 l/sec
 Head = 1.2 m

$$\text{Orifice area} = \frac{Q}{c\sqrt{2gh}}$$

$$= \frac{74.1 \times 10^{-3}}{0.61\sqrt{2 \times 9.8 \times 1.2}}$$

$$= 0.025 \text{ m}^2$$

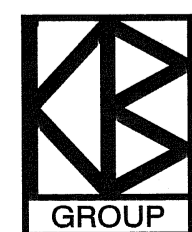
 Orifice diameter = 178 mm

PLAN-STORMWATER DRAINAGE

1:200

NEW ON SITE DETENTION TANK DETAILS

Issue	Date	App'd	DESCRIPTION
A	3.6.13	[Signature]	FOR DEVELOPMENT APPROVAL
REVISIONS			



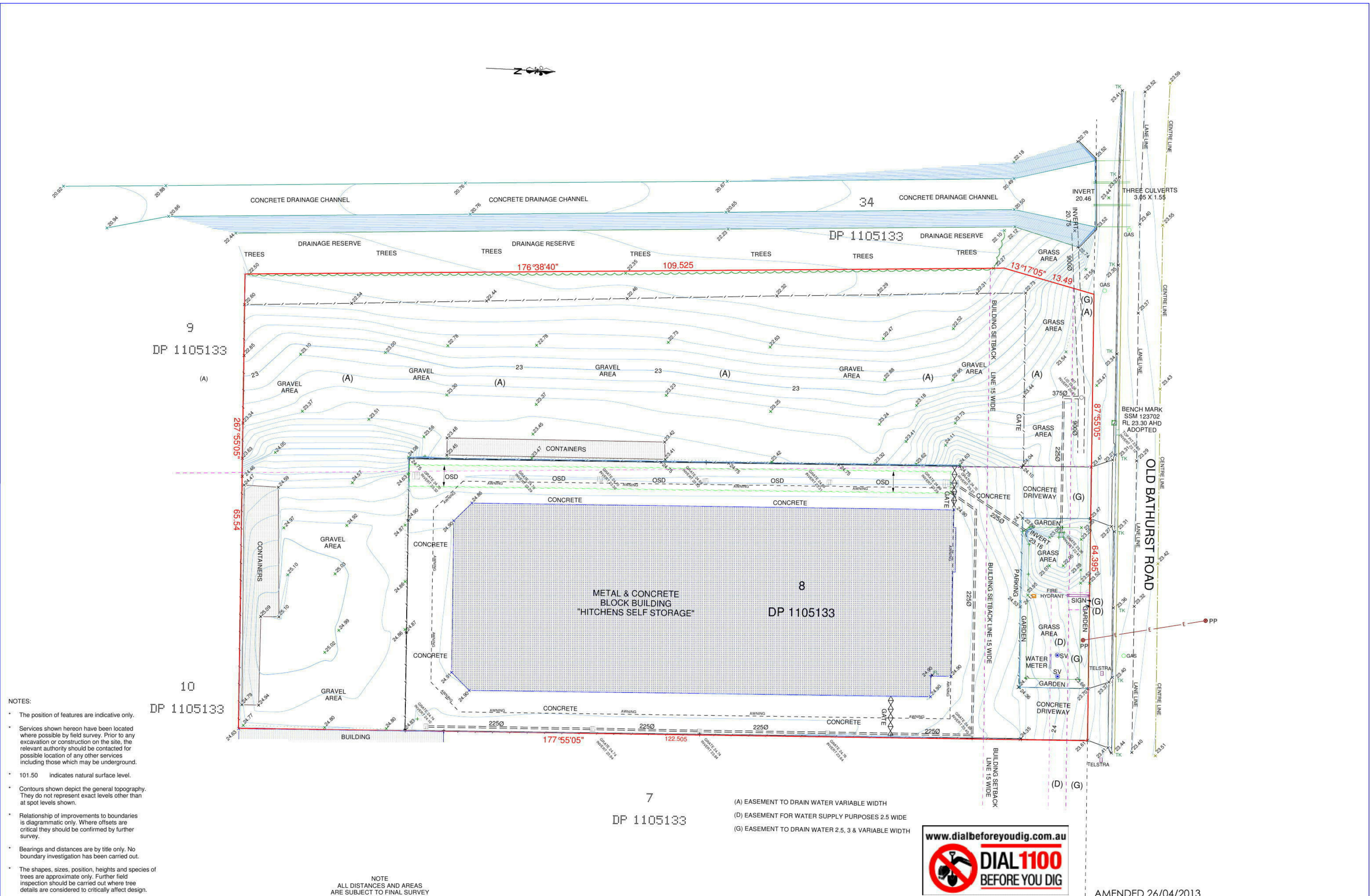
KNEEBONE, BERETTA & HALL PTY LTD
 CONSULTING STRUCTURAL & CIVIL ENGINEERS
 4 MACQUARIE AVENUE, PENRITH NSW 2750
 PHONE: (02) 4731 3833 FACSIMILE: (02) 4721 5442
 WEBSITE: www.kneeboneandberetta.com
 E-MAIL ADDRESS: kneebone@pnc.com.au



SCALE 1:200, 1:20
 DATE 30.5.13
 DRAWN C Liu
 DESIGNED TB Hall
 APPROVED [Signature]

CLIENT: RYAN HITCHEN P/L	DRAWING NUMBER
PROPOSED DEVELOPMENT AT LOT 8 OLD BATHURST ROAD, EMU PLAINS	89967-1
STORMWATER AND OSD TANK DETAILS	ISSUE A

NOTE:
 Location of Sydney Water's sewer main, sewer connection lines, water pipes, stormwater drains, underground electricity lines and other services must be obtained prior to commencement of any work on site.
DIAL BEFORE YOU DIG 1100



- NOTES:
- The position of features are indicative only.
 - Services shown hereon have been located where possible by field survey. Prior to any excavation or construction on the site, the relevant authority should be contacted for possible location of any other services including those which may be underground.
 - 101.50 indicates natural surface level.
 - Contours shown depict the general topography. They do not represent exact levels other than at spot levels shown.
 - Relationship of improvements to boundaries is diagrammatic only. Where offsets are critical they should be confirmed by further survey.
 - Bearings and distances are by title only. No boundary investigation has been carried out.
 - The shapes, sizes, position, heights and species of trees are approximate only. Further field inspection should be carried out where tree details are considered to critically affect design.

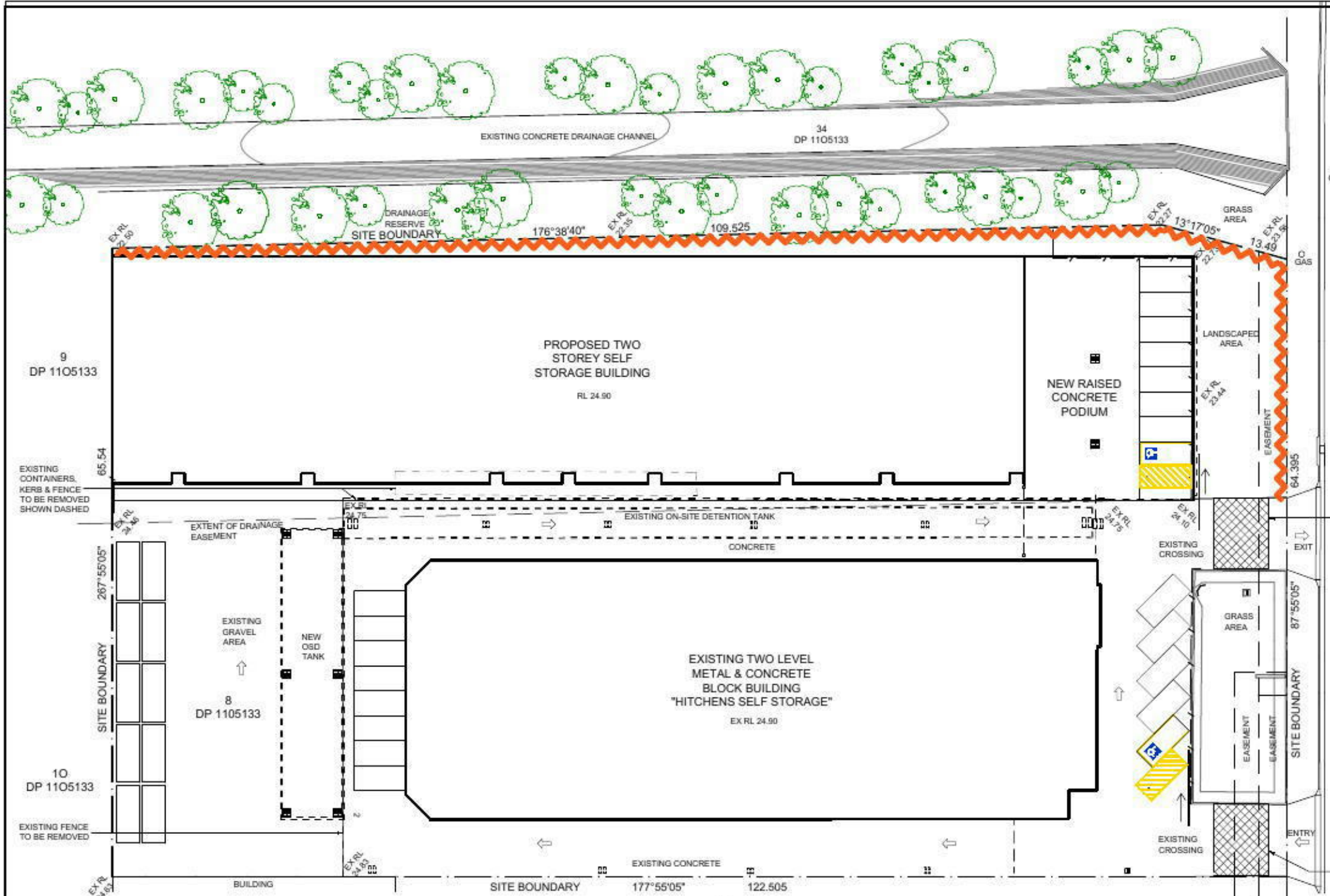
NOTE
ALL DISTANCES AND AREAS
ARE SUBJECT TO FINAL SURVEY

- (A) EASEMENT TO DRAIN WATER VARIABLE WIDTH
- (D) EASEMENT FOR WATER SUPPLY PURPOSES 2.5 WIDE
- (G) EASEMENT TO DRAIN WATER 2.5, 3 & VARIABLE WIDTH



AMENDED 26/04/2013

Client: Ryan Hitchen Pty Ltd	Project: PLAN SHOWING DETAIL, LEVELS & CONTOURS OVER LOT 8 IN DP 1105133 KNOWN AS "HINCHEMS SELF STORAGE" OLD BATHURST ROAD, EMU PLAINS	FREEBURN  SURVEYING	MATTHEW FREEBURN LAND, ENGINEERING & MINING SURVEYOR SUITE 2, FIRST FLOOR, "SURVEYOR HOUSE" 2 CASTLEREAGH STREET PENRITH 2750	Telephone 02 4721 2289 Fax 02 4721 5646 email matthew@freeburnsurveyors.com	Date: 23/04/2013 Scale 1: 250 Surveyor: DF/DC	Ref: 32006 Datum: AHD Drawn By: DF	Sheet 1 of 1 Contour: 0.1m Checked: MF
					CC7 - SURVEY 5 - DWG 32006APRIL2013		A1 SHEET



EROSION & SEDIMENT CONTROL PLAN



PROPOSED WORK UNDER COUNCIL APPROVAL

DEMOLISH & REMOVE FROM SITE EXCAVATION MATERIAL, KERBS & FENCING AS NOTED

PROVIDE EROSION CONTROL FOR THE FULL LENGTH OF THE PROPERTY'S LOW SIDE

LEGEND

- HATCHED AREA INDICATES SITE ENTRY/EXIT POINT. PROVIDE STABILISED ACCESS TREATMENT. ALL TRAFFIC TO ENTER OR EXIT THE SITE VIA OLD BATHURST ROAD DURING DEMOLITION PROCESS
- SEDIMENT FENCE
- SITE BOUNDARY
- DEMOLISHED ELEMENTS

NOTES

ALL WORK TO BE IN ACCORDANCE WITH PENRITH CITY COUNCIL'S REQUIREMENTS.
 NO PARKING OR STOCKPILING OF MATERIALS IS PERMITTED ON THE LOWER SIDE OF THE SEDIMENT FENCE OR ON VERGE.
 GRASS VERGES SHALL BE MAINTAINED AS MUCH AS PRACTICAL TO PROVIDE A BUFFER ZONE TO THE DEMOLITION SITE.
SEDIMENT FENCE
 DEMOLITION CONTRACTOR TO PROVIDE SEDIMENT FENCING TO THE LOW SIDE OF BOUNDARIES. SEDIMENT FENCE TO CONSIST OF AN APPROVED FILTER FABRIC ATTACHED TO WIRE OR WIRE MESH. THE LOWER END OF THE FABRIC & MESH IS TO BE EMBEDDED 200mm INTO THE GROUND. FENCES SHALL BE INSPECTED AT THE END OF EACH WORKING DAY FOR BREAKAGES, SAGGING, UNDERMINING ETC. SEDIMENT TO BE REMOVED BEFORE IT CLOGS THE FABRIC.
STABILISED ACCESS
 DEMOLITION CONTRACTOR TO PROVIDE STABILISED ACCESS CONTROL TO ALL ENTRANCE & EXIT POINTS. PROVIDE A SINGLE LAYER OF HIGH STRENGTH GEOTEXTILE UNDER A BED OF 30-75mm AGGREGATE. AGGREGATE LAID A MINIMUM OF 200mm THICK. FORM A HUMP JUST INSIDE THE PROPERTY BOUNDARY TO DIVERT RUNOFF TO SILT FENCE. ADD EXTRA AGGREGATE TO MAINTAIN HUMP AS NECESSARY.

DRAINAGE PIT CONTROL

ANY EXISTING DRAINAGE PITS ON THE SITE OR DIRECTLY ADJACENT THE SITE ARE TO BE COVERED OR PROTECTED WITH WIRE MESH & GRAVEL INLET FILTERS. REMOVE SEDIMENT AFTER EACH RAIN EVENT OR BUILD UP IN GUTTER.

STOCK PILE

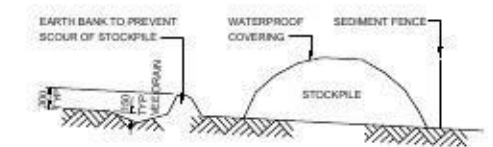
STOCK PILES TO BE LOCATED ON SITE IN A LOW FLAT AREA. PROVIDE SEDIMENT FENCE DOWN SLOPE & EARTH BANK UPSTREAM. COVER STOCKPILES THAT ARE TO REMAIN GREATER THAN 40 DAYS. ROUTINELY CHECK THAT THE SEDIMENT FENCE & OTHER CONTROLS ARE OPERATING EFFECTIVELY.

WASHING AREA

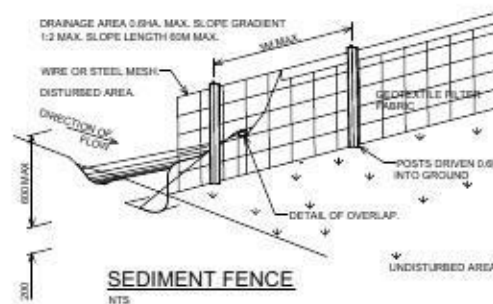
A WASHING/CLEANING AREA IS TO BE SET UP WITH APPROVED SEDIMENT CONTROL DEVICES IN A LOW FLAT AREA. CREATE A SLIGHT DEPRESSION TO COLLECT ANY WASTE MATERIAL. PROTECT WITH SEDIMENT FENCE DOWN SLOPE & EARTH BANK UPSTREAM.

DUST CONTROL

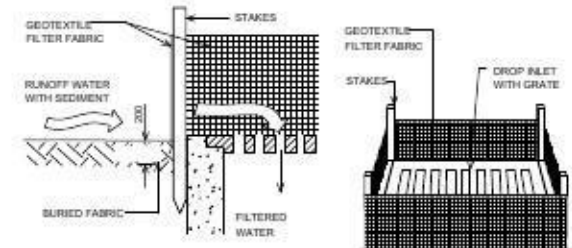
DUST CONTROL MEASURES SHOULD BE EMPLOYED WHERE NECESSARY INCLUDING: TEMPORARY BARRIERS CONSTRUCTED FROM TIMBER, SYNTHETIC FABRICS, JUTE, STRAW BALES, BRUSH OR SIMILAR MATERIALS PLACED AT RIGHT ANGLES TO THE PREVAILING WIND & SPACED AT INTERVALS EQUIVALENT TO ABOUT 15 TIMES THEIR HEIGHT. WETTING THE SITE SURFACE IS AN EMERGENCY TREATMENT. CONTROL OF SEDIMENT LADEN RUNOFF FROM OVER-WATERING SHOULD BE CLOSELY MONITORED.



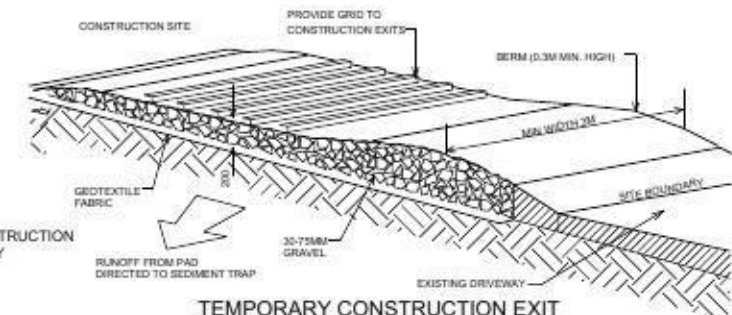
BUILDING MATERIAL STOCKPILES



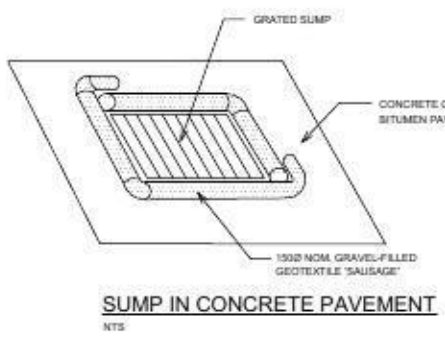
SEDIMENT FENCE



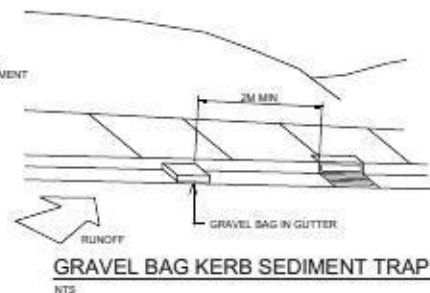
SEDIMENT TRAP TO STORMWATER SUMP



TEMPORARY CONSTRUCTION EXIT



SUMP IN CONCRETE PAVEMENT



GRAVEL BAG KERB SEDIMENT TRAP

FOR DEVELOPMENT APPROVAL

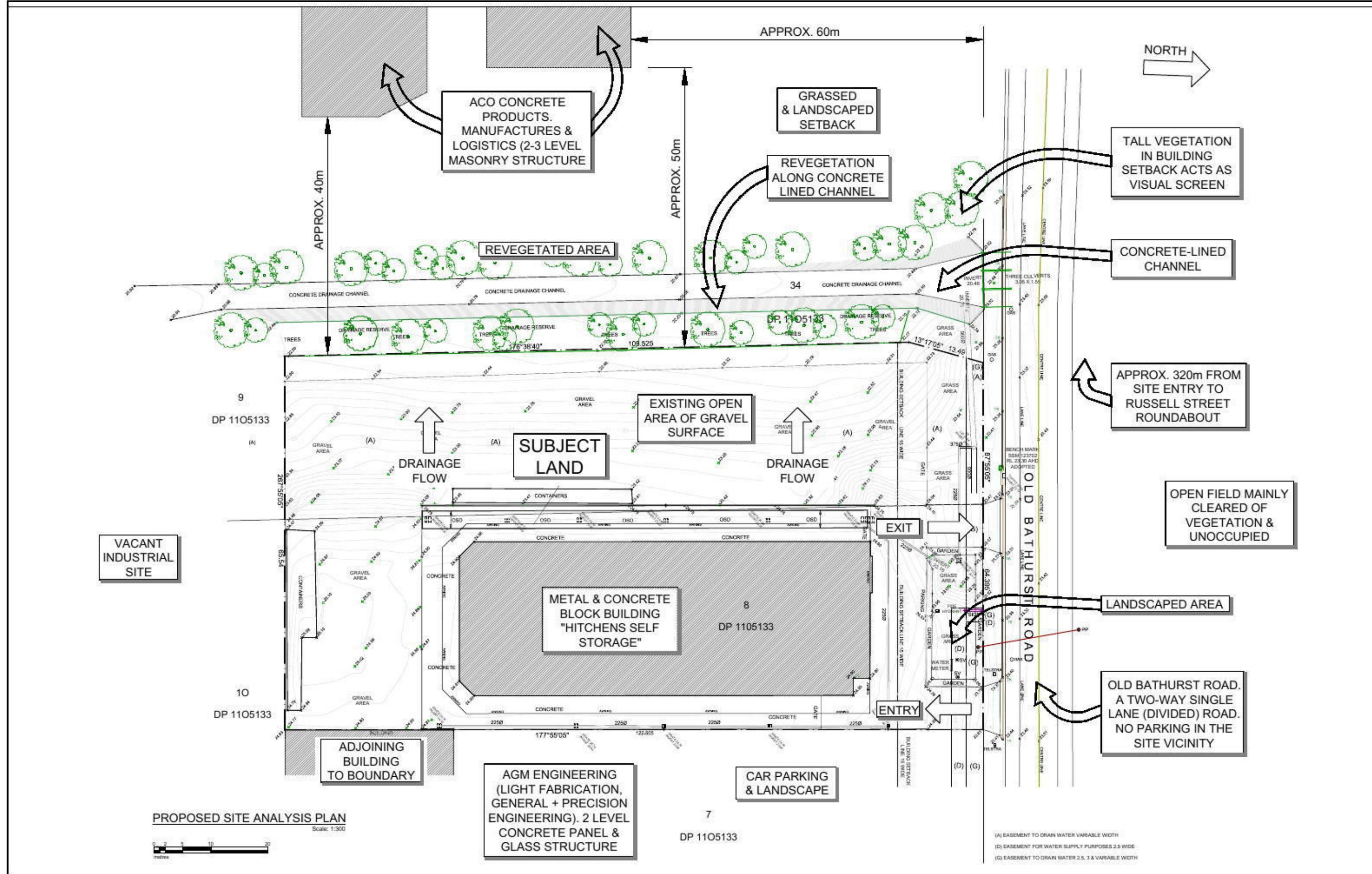
No.	Date	Description	By

MCHP
 28 CHANDOS STREET
 ST LEONARDS NSW 2065
 TELEPHONE: 02 9436 2222
 FACSIMILE: 02 9439 1340
 www.mchp.com.au

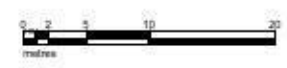
Client: **HITCHENS SELF STORAGE**
 Project: **PROPOSED SELF STORAGE BUILDING STAGE 2**
 LOT 8 DP 1105133
 142 OLD BATHURST ROAD, EMU PLAINS NSW 2750

Drawing Title: **EROSION AND SEDIMENT CONTROL PLAN**
 A1 Scale: 1:250
 A3 Scale: HALF A1 SCALE
 Date: 04.06.2013
 Drawing No: **13-018 DA09**
 CR
 Revision: **A**

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PROPOSED SITE ANALYSIS PLAN
Scale: 1:300



- (A) EASEMENT TO DRAIN WATER VARIABLE WIDTH
- (D) EASEMENT FOR WATER SUPPLY PURPOSES 2.5 WIDE
- (G) EASEMENT TO DRAIN WATER 2.5, 3 & VARIABLE WIDTH

FOR DEVELOPMENT APPROVAL

No.	Date	Description	By	Appr.

MCHP

28 CHANDOS STREET
ST LEONARDS NSW 2065

TELEPHONE: 02 9436 2222
FACSIMILE: 02 9439 1340

www.mchp.com.au

Client
HITCHENS SELF STORAGE

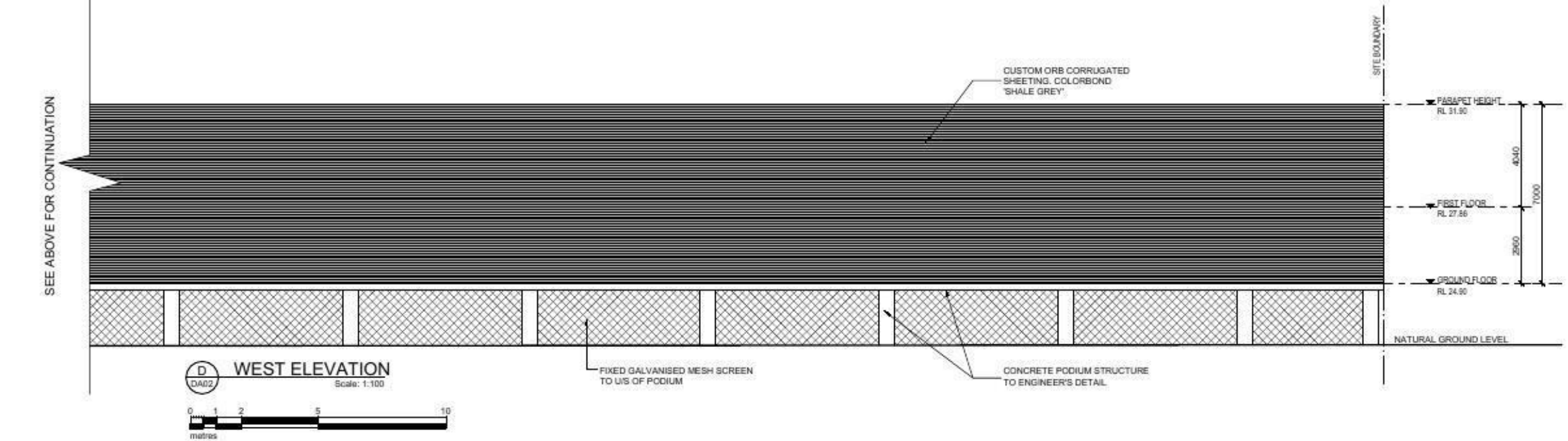
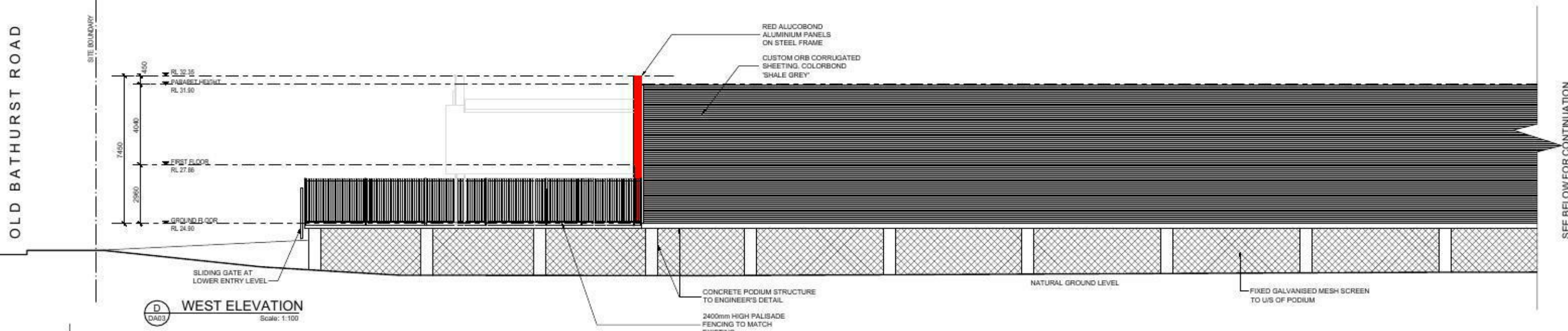
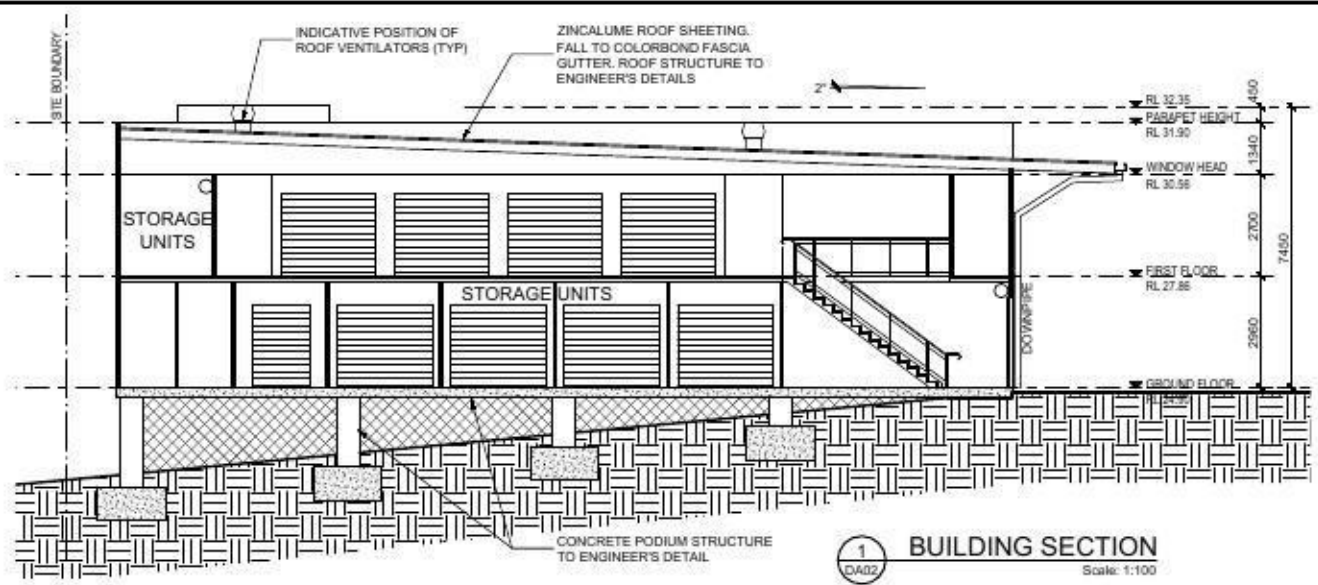
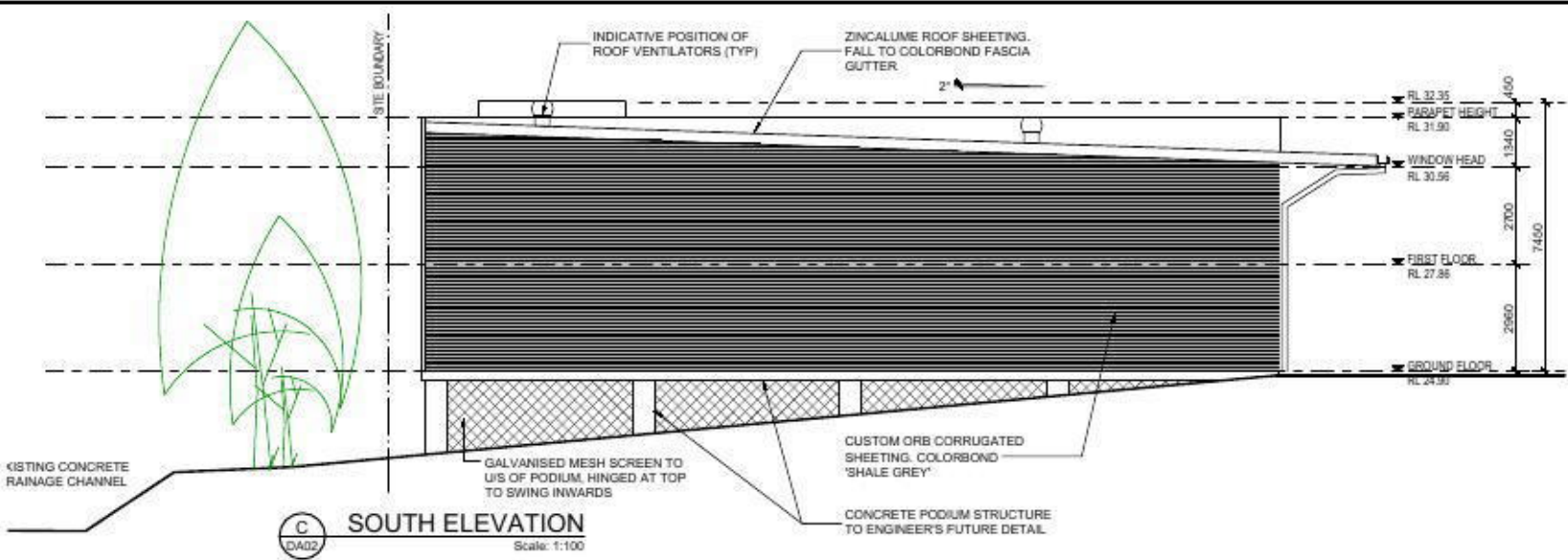
Project
PROPOSED SELF STORAGE BUILDING STAGE 2

LOT 8 DP 1105133
142 OLD BATHURST ROAD, EMU PLAINS NSW 2750

Drawing Title
SITE ANALYSIS PLAN

A1 Scale 1:300	A3 Scale HALF A1 SCALE	Date 03.06.2013	Drawn CR
Drawing No. 13-018 DA08			Revision A

H:\MCHP\Projects\Self Storage\13-018 DA07 - Stage 2 Building Elevation\13-018 DA07 - Stage 2 Building Elevation.dwg, 07/05/2013 10:42:26 AM, created by: DWG TO PDF v1.0.0, full based on: 13-018 DA07 - Stage 2 Building Elevation.dwg



SCHEDULE OF PROPOSED MATERIALS, FINISHES AND COLOURS

	External Feature Walls (Alucobond Aluminium Panels or Other Smooth Face Cladding or Paint Finish) Alucobond finish, "Solid Red 201"
	External Walls Custom orb Corrugated Sheet, Colorbond "Shale Grey" (with capping, flashing and trims to match)
	External Walls Custom orb Corrugated Sheet, Colorbond "Woodland Grey" (with capping, flashing and trims to match)
	External Walls (Paint Finish & Other External Materials) Concrete panel wall, smooth face finish



FOR DEVELOPMENT APPROVAL

No	Date	Description	By	Appr
1	11.08.2012	FOR DEVELOPMENT APPROVAL		
2	16.05.2013	ORIGINAL ISSUE		

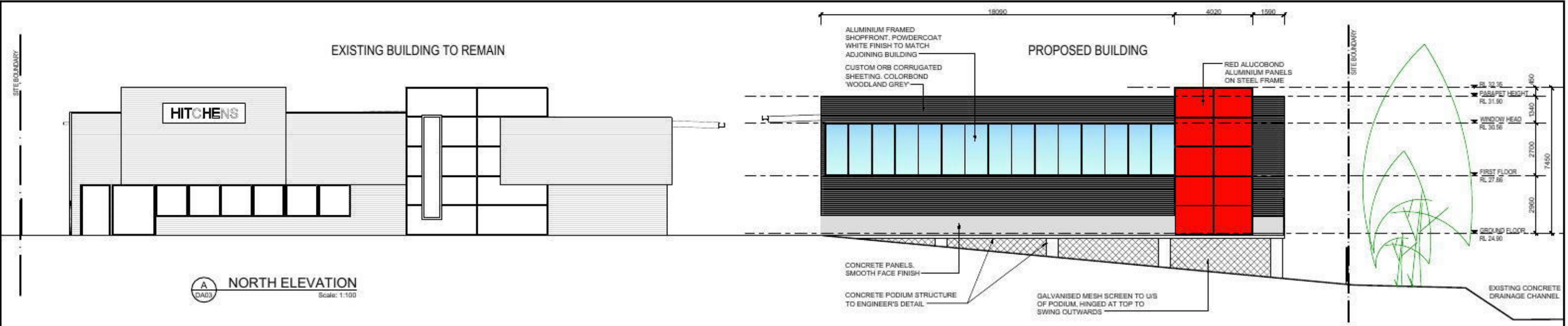
MCHP
28 CHANDOS STREET
ST LEONARDS NSW 2065
TELEPHONE: 02 9436 2222
FACSIMILE: 02 9439 1340
www.mchp.com.au

Client: **HITCHENS SELF STORAGE**
Project: **PROPOSED SELF STORAGE BUILDING STAGE 2**
LOT 8 DP 1105133
142 OLD BATHURST ROAD, EMU PLAINS NSW 2750

Drawing Title: **PROPOSED BUILDING ELEVATIONS - SHEET 2**

A1 Scale	A3 Scale	Date	Drawn
1:100	HALF A1 SCALE	01.05.2013	CR
Drawing No	Revision		
13-018 DA07	B		

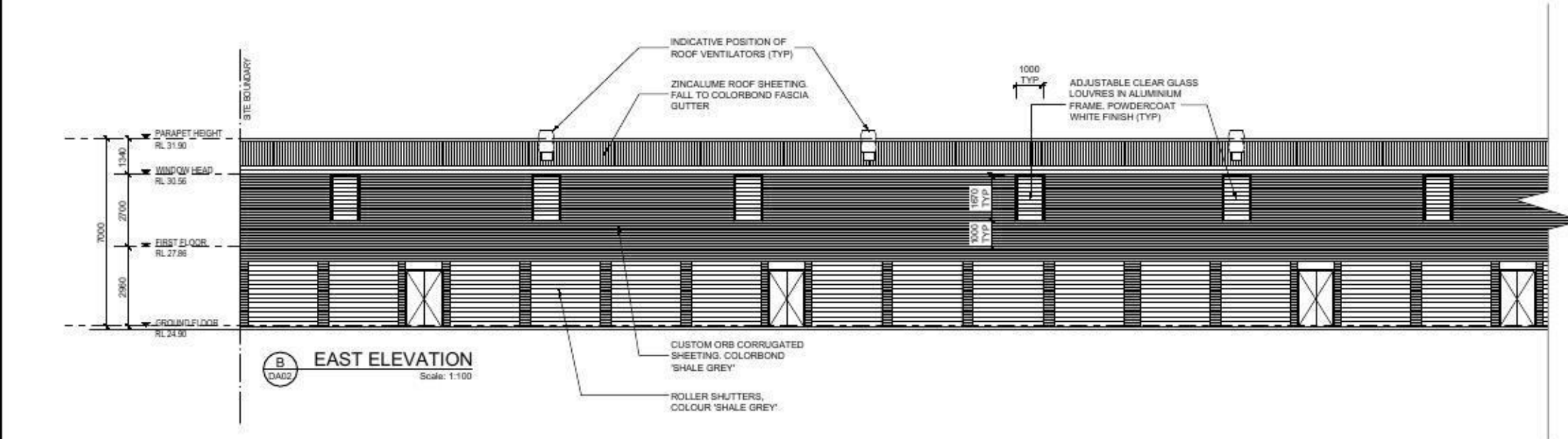
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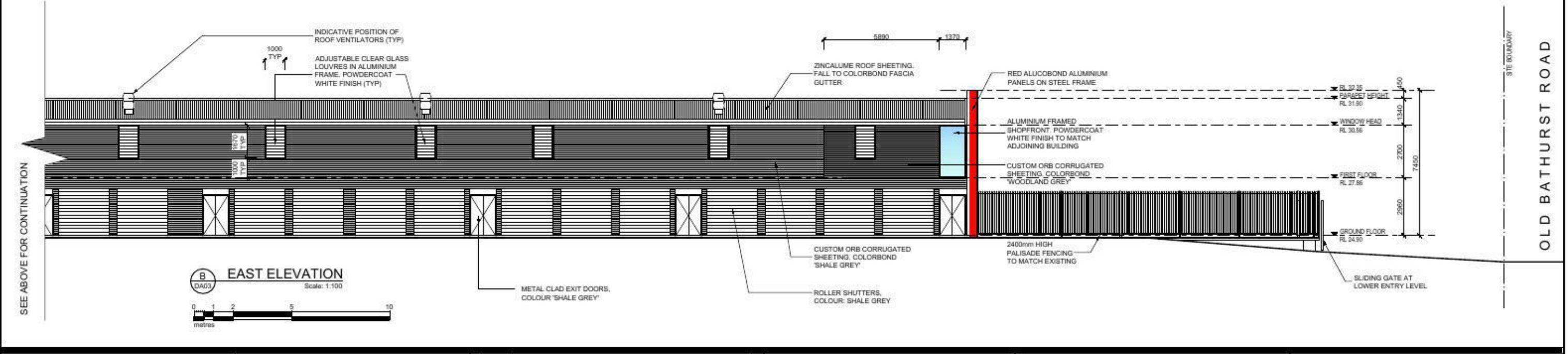
A NORTH ELEVATION
 Scale: 1:100

SCHEDULE OF PROPOSED MATERIALS, FINISHES AND COLOURS

	External Feature Walls (Alucobond Aluminium Panels or Other Smooth Face Cladding or Paint Finish) Alucobond finish, "Solid Red 201"
	External Walls Custom orb Corrugated Sheet: Colorbond "Shale Grey" (with capping, flashing and trims to match)
	External Walls Custom orb Corrugated Sheet: Colorbond "Woodland Grey" (with capping, flashing and trims to match)
	External Walls (Paint Finish & Other External Materials) Concrete panel wall, smooth face finish



B EAST ELEVATION
 Scale: 1:100



B EAST ELEVATION
 Scale: 1:100

FOR DEVELOPMENT APPROVAL

No.	Date	Description	By
1	11.08.2013	ISSUED FOR DA	CM
2	16.05.2013	2/13/2451_0001	CM
3			CM
4			CM

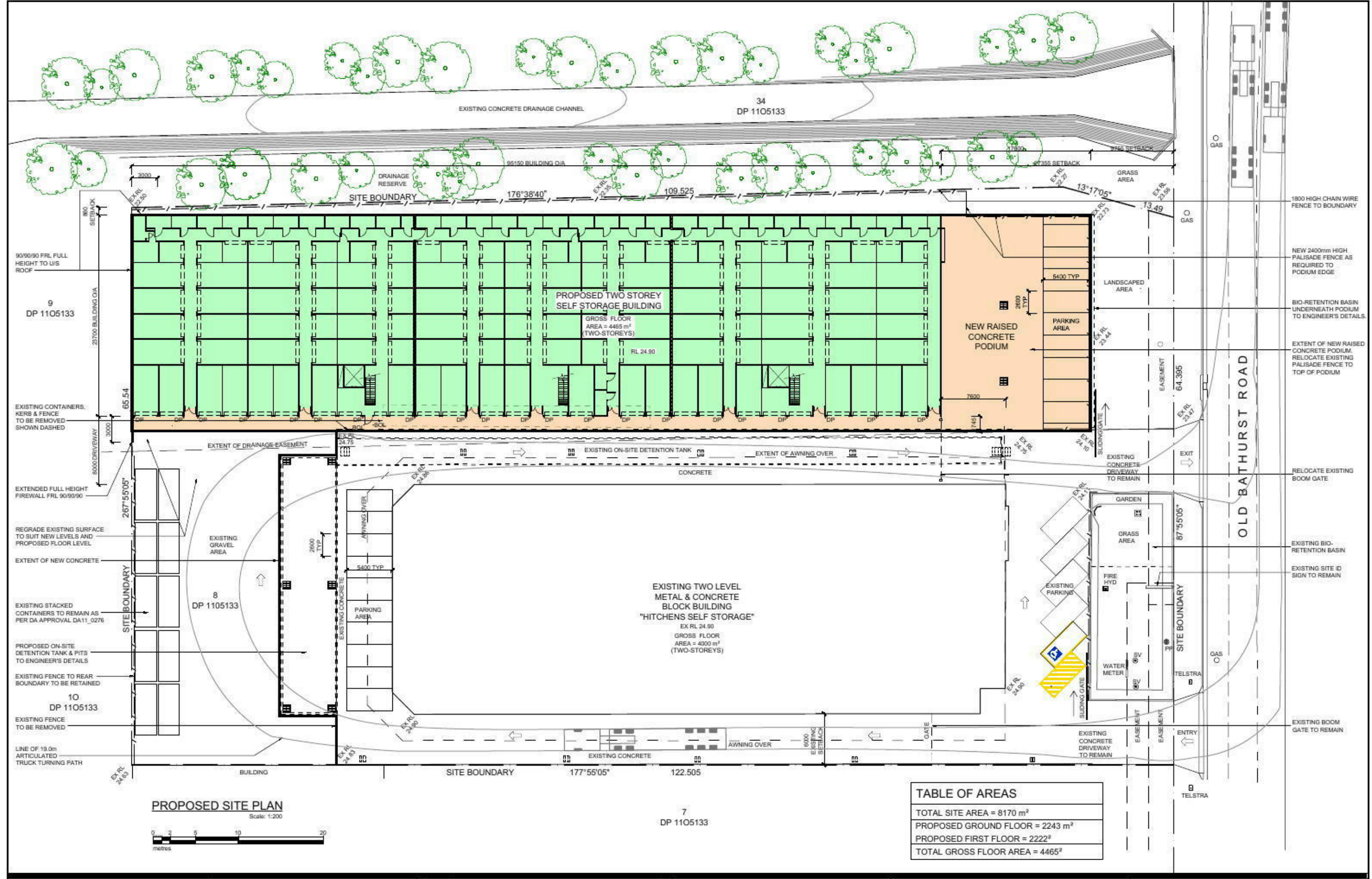
MCHP
 28 CHANDOS STREET
 ST LEONARDS NSW 2065
 TELEPHONE: 02 9436 2222
 FACSIMILE: 02 9439 1340
 www.mchp.com.au

Client: **HITCHENS SELF STORAGE**
 Project: **PROPOSED SELF STORAGE BUILDING STAGE 2**
 LOT 8 DP 1105133
 142 OLD BATHURST ROAD, EMU PLAINS NSW 2750

Drawing Title: **PROPOSED BUILDING ELEVATIONS - SHEET 1**

A1 Scale	A3 Scale	Date	Drawn
1:100	HALF A1 SCALE	01.05.2013	CM
Drawing No.	Revision		
13-018 DA06			B

M:\03-Projects\13-018 DA\13-018 DA-01\13-018 DA-01.dwg 13/04/2013 1:25:31 PM h:\users\cwo\p\d\13-018 DA-01.dwg 13/04/2013 1:25:31 PM



PROPOSED SITE PLAN
Scale: 1:200

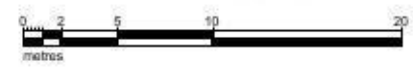


TABLE OF AREAS	
TOTAL SITE AREA	= 8170 m ²
PROPOSED GROUND FLOOR	= 2243 m ²
PROPOSED FIRST FLOOR	= 2222 m ²
TOTAL GROSS FLOOR AREA	= 4465 m ²

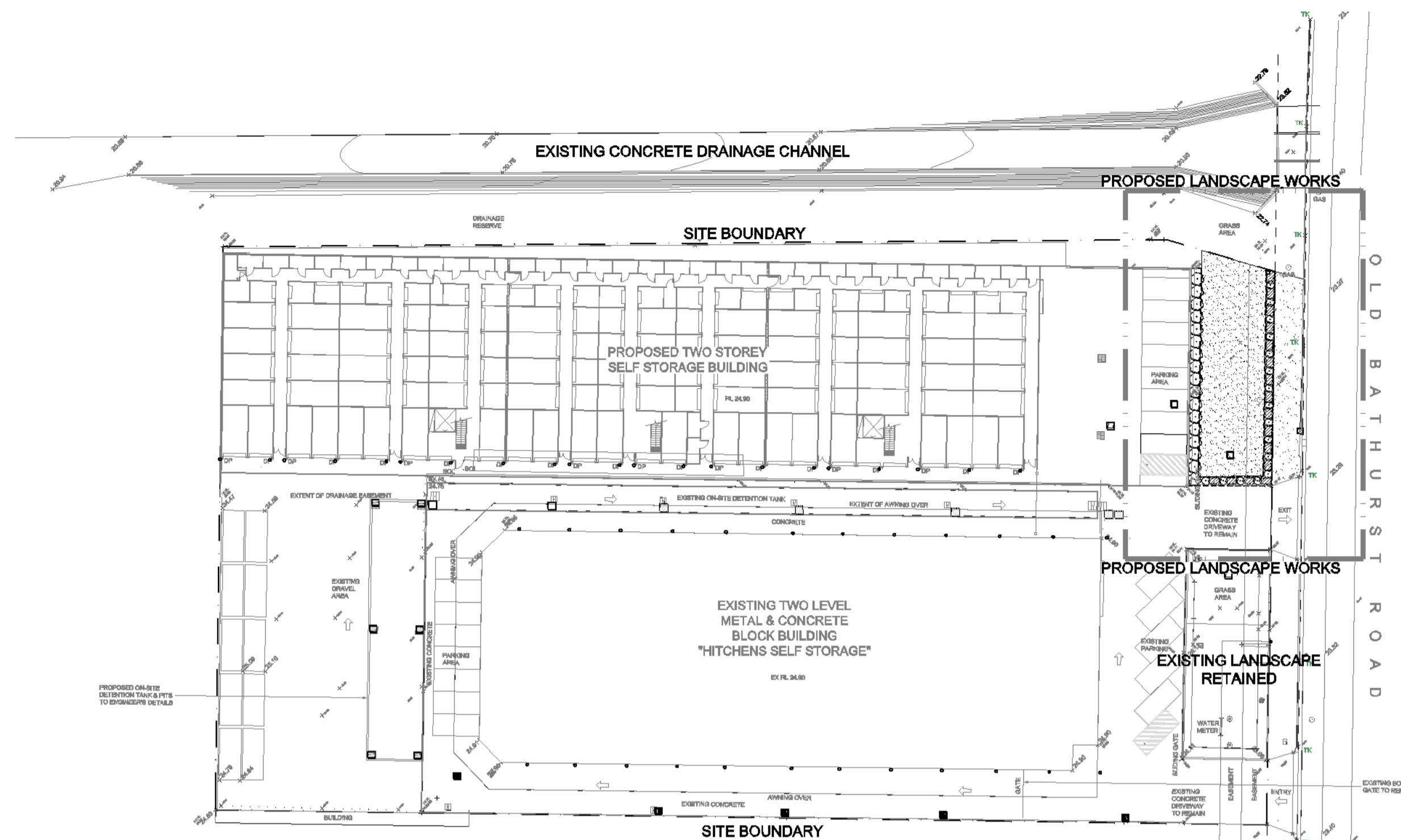
FOR DEVELOPMENT APPROVAL

No	Date	Description	By
C	11.06.2013	STORMWATER INFO ADDED. ISSUED FOR DA	CW
B	16.05.2013	REVISIONS TO SITE PLAN TO SUIT NEW BUILDING LAYOUT	CW
A	08.05.2013	ORIGINAL ISSUE	CW

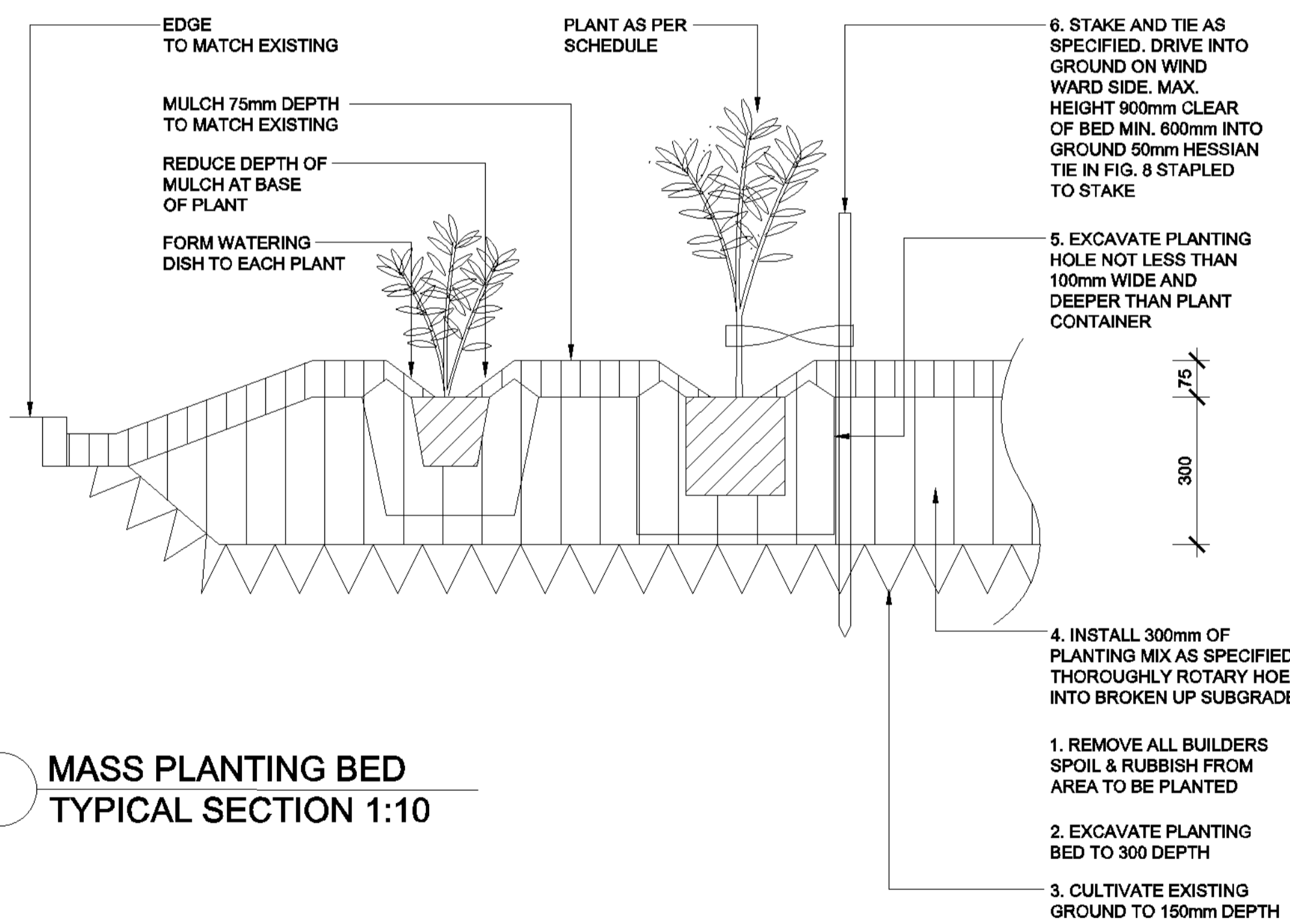
MCHP
28 CHANDOS STREET
ST LEONARDS NSW 2065
TELEPHONE: 02 9436 2222
FACSIMILE: 02 9439 1340
www.mchp.com.au

Client: **HITCHENS SELF STORAGE**
Project: **PROPOSED SELF STORAGE BUILDING STAGE 2**
LOT 8 DP 1105133
142 OLD BATHURST ROAD, EMU PLAINS NSW 2750

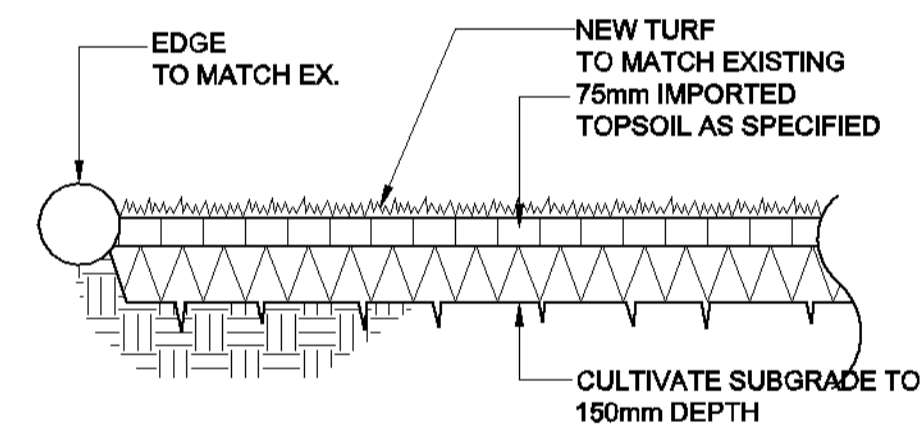
Drawing Title: **PROPOSED SITE PLAN**
A1 Scale: 1:200
A3 Scale: HALF A1 SCALE
Date: 29.04.2013
Drawing No: **13-018 DA01**
Drawn: CR
Revised: C



SITE PLAN
SCALE 1:500



MASS PLANTING BED
TYPICAL SECTION 1:10



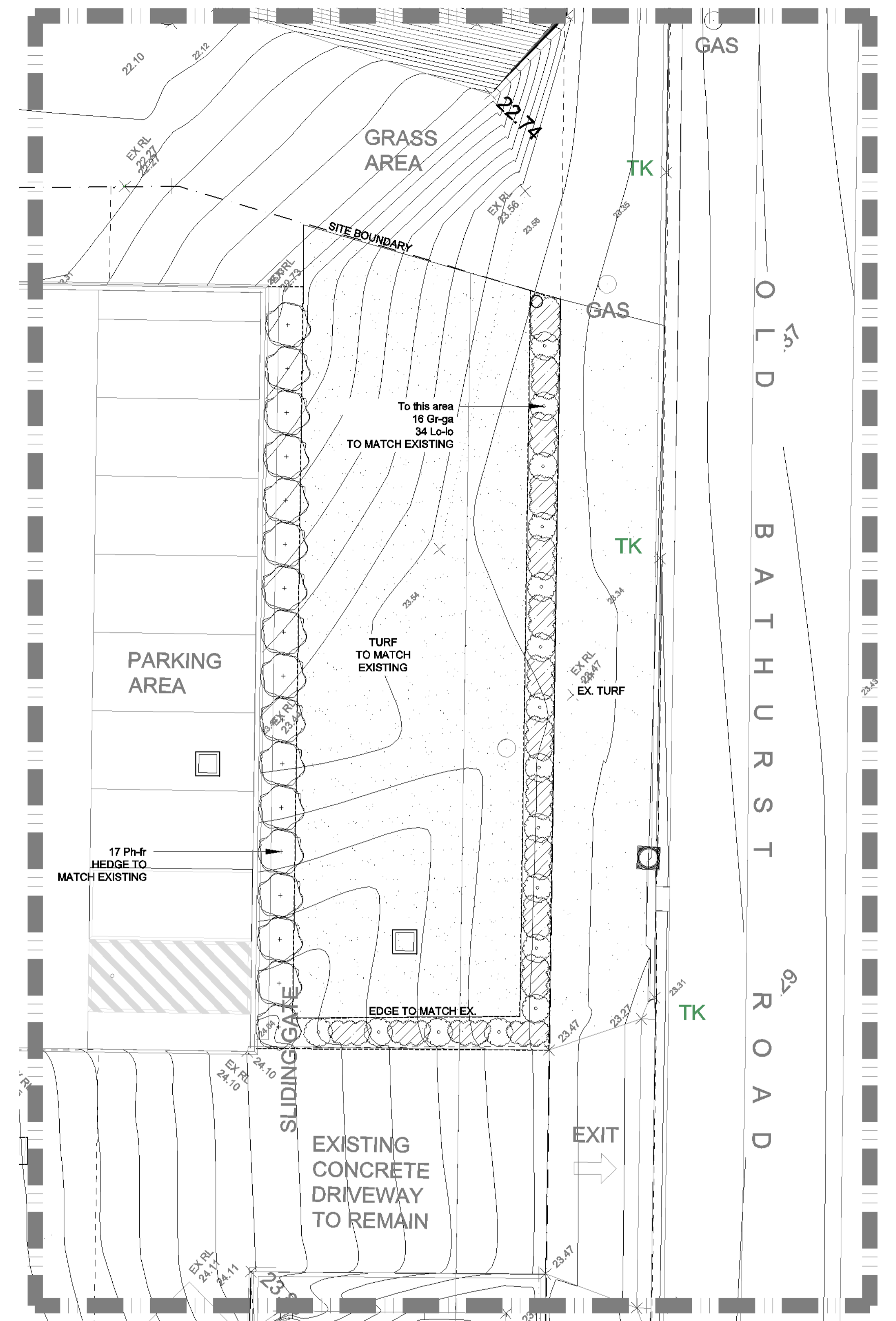
TURF SECTION
SCALE 1:20

PLANT SCHEDULE

ID	BOTANICAL NAME	COMMON NAME	MAT HEIGHT (m)	SIZE	QTY
SHRUBS					
Pn-fr	<i>Photinia fraseri</i> 'Red Robin'	Red Robin	3m	300mm	17
GROUNDCOVERS					
Gr-ga	<i>Grevillea gaudichaudii</i> x <i>longifolia</i>	Prostrate Grevillea	1m	200mm	16
Lo-lo	<i>Lomandra longifolia</i> 'Tanika'	Tanika	0.5m	200mm	34

NOTE:
* Plant quantities on planting plan take precedence over quantities identified in this schedule.

NOTES:
PLANTING TO EXTENT OF NEW DA TO MATCH EXISTING LANDSCAPE TO FRONTAGE OF EXISTING STORAGE UNITS.



DETAIL LANDSCAPE PLAN
SCALE 1:100