Appendix 1

Kurri Kurri TAFE

Pre Development Condition

Total Catchment

L = 0.210 km

S_e = 36.000 m/km

t_c = $0.76\ A^{0.38}$

Area A = 0.170 ha

t_c = 0.07 hr

= 0.00170 Km^2

t_c = 4.20 min

t_c = 11.25 min [using $t_c = 58*L/(S_e\text{^}0.2* A\text{^}0.1)$]

Catchment Characteristic

Zone: B (Below 500m AHD)

Impervious % = 6%

C_{10} = 0.35

Pervious % = 94%

Say 0.35

ARI	FF_Y	$C_Y = C_{10}* FF_Y$	I (mm/hr)	Q (m^3/s)
1	0.62	0.22	53.44	0.005
2	0.74	0.26	68.93	0.008
5	0.88	0.31	88.81	0.013
10	1.00	0.35	100.54	0.017
20	1.12	0.39	116.07	0.022
50	1.19	0.42	136.57	0.027
100	1.28	0.45	152.30	0.032

Kurri Kurri TAFE

Post Development Condition

Total Catchment

L = 0.210 km

S_e = 36.000 m/km

Area A = 0.170 ha

= 0.00170 Km^2

t_c = 0.76 A $^{0.38}$

t_c = 0.07 hr

t_c = 4.20 min

t_c = 11.25 min [using tc = 58*L/(s^0.2* A^0.1)]

Catchment Characteristic

Zone: B (Below 500m AHD

Impervious % = 100%

C_{10} = 0.90

Pervious % = 0%

Say 0.90

ARI	FF_Y	$C_Y = C_{10} * FF_Y$	I (mm/hr)	Q (m^3/s)
1	0.62	0.56	53.49	0.014
2	0.74	0.67	69.00	0.022
5	0.88	0.79	88.92	0.033
10	1.00	0.90	100.65	0.043
20	1.12	1.01	116.20	0.055
50	1.19	1.07	136.73	0.069
100	1.28	1.15	152.48	0.083

Appendix 2

H500 (BLOCK PP)
A
H500 (BLOCK PP)
TW100
TW100 @ 1.65%
SW150
CONNECT TO CIVIL SWP
SW150
SW150
SMH RL 17.70 IL 16.70
A1
A1
B1
C1
D1
E1
A
B
C
D
E
F
G
H
I
J
EXISTING TRADE WASTE SERVICE TO BE DISUSED
RL 17.75
CAP OFF SERVICE
eIL 17.200 (APPROX)
eSMH
eIL 16.735
eTW
eTW
eTW
eTW
IL 17.20 (APPROX)
DP150
DP150
eDP
eDP
eDP
eDP
eDP
eDP
eIL 17.300
eFW TO BE REMOVED
eTWV 100 TO BE DISUSED
AUTOMOTIVE ELECTRICAL WORKSHOP
PG.36
RL 17.80
FALL 1 in 250
WORKSHOP
PG.33
RLX 17.80
TW100 @ 1.65%
TW100
RELOCATE FROM PG.10
RELOCATE FROM PG.2
IL 17.350
TW100 @ 1.65%
SMH RL 17.700 IL 17.060
FHR
DF
WT
FDB
TWV 100
LABORATORY
PG.34
LABORATORY
PG.35
FFD TO DISCHARGE OVER 150 GRATED DRAIN
DISCHARGE OVER RWT FILTER BASKET WITH A 150mm AIR GAP
PG.24
F
FHR
LABORATORY
PG.38
LABORATORY
PG.37
C1
FIRST FLUSH DEVICE
SW150
eDP
LOCATE & CONNECT TO 150 eSW
150 O/F DROPS IN GROUND
PROVIDE A 20 KL RWT TO SPECIFICATION DETAILS
20KL RWT
eSW150
DP150
DPO 150
DPO 150
IL 17.20 (APPROX)
SW150
eSW450
eSW450
LOCATE & CONNECT TO eSWP @ IL 17.08 (APPROX)
eSWP eRL 17.630 eIL CTC
eSVP 50
CHASE IN SLAB
GPO
W
W
W
VP
eDP DISCHARGES OVER RWT FILTER BASKET WITH A 150mm AIR GAP
MODIFY EXISTING 150 DP WITH 90mm FIRST FLUSH DEVICE TO DISCHARGE OVER NEW 150 GRATED DRAIN.
150 O/F DROPS IN GROUND TO CONNECT TO eSW 150.
LOCATE & CONNECT TO 150 eSW
CONNECT TO eSWP
DP150
20KL RWT
eSW150
eSW450
eSWP eRL 17.670 eIL 16.300
PROVIDE A 20 KL RWT TO SPECIFICATION DETAILS
eSWP eRL 17.510 eIL 16.190
JOINS TO DRAWING H401

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GOVERNMENT ARCHITECT'S OFFICE
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MECHANICAL
ARUP
T 9320 9320 F 9320 9321

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PROJECT MANAGEMENT GROUP
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PRINCIPAL ENGINEER, BUILDING ENGINEERING SERVICES

NSW GOVERNMENT
Public Works
Government Architect's Office

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A division of the Department of Finance & Services
LAURIE GLANFIELD
Director General

TAFE KURRI KURRI CAMPUS PLANT & HEAVY VEHICLE TRAINING CENTRE

HYDRAULIC SERVICES BLOCK P GROUND FLOOR PLAN DRAINAGE LAYOUT SHEET 1

PLAN RM NO	
CONTRACT NUMBER	1301026
SCALES	1:100@A1
SHEET NO	H400
DESIGNED	R.Young
PLOT DATE	9/08/2013
DRAFTED	J.Lu
VERIFIED	J.Critoph
REVISION	

A1 0 10 20 30 40 50 60 70 80 90 100
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALING
CHECK ALL DIMENSIONS ON SITE
200MM
300MM ON ORIGINAL

9/08/2013 11:09:01 AM G:\Projects\EDUCTAFE\Kurri_PHV\6_doc\hydr\kurriPHV_H400_P_GND_SHT1_DRAIN.dgn
$NODES$ LuJ

RL 17.69

K L M N O P Q R S T U V1

eTW eTW eTW eTW

eSMH eSMH eSMH

eIL 15.935 eIL 15.650 eIL 15.350

RL 17.76

H104

JOINS TO DRAWING H400

RWPX BOLLARD BOLLARD BOLLARD RWPX

SCX SCX

PG.14

EDB

PG.4

LAB
PG.11

EDB

MODIFY EXISTING 150 DP WITH 90mm FIRST FLUSH DEVICE TO DISCHARGE OVER NEW 150 GRATED DRAIN.

eDP DISCHARGES OVER RWT FILTER BASKET WITH A 150mm AIR GAP.

LOCATE & CONNECT TO 150 eSW

SW 150 eDP

150 150 SW 150 eSW150

CONNECT TO eSWP

DP150 SW150

eSWP
eRL 17.370
eIL 16.020

20KL RWT

eSW450 eSW450

eSWP
eRL 17.510
eIL 16.190

150 O/F DROPS IN GROUND TO CONNECT TO eSW 150.

PROVIDE A 20 KL RWT TO SPECIFICATION DETAILS

RL 17.72

RL 17.74

RL 17.70

STAIR 03

17.55 17.54 16.66

17.64 16.87

17.69

eS150 eSW750

eS150 eSW750

+ 17.27

RL 17.77

H300 (BLOCK O)

H300 (BLOCK O)

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A division of the Department of Finance & Services

LAURIE GLANFIELD
Director General

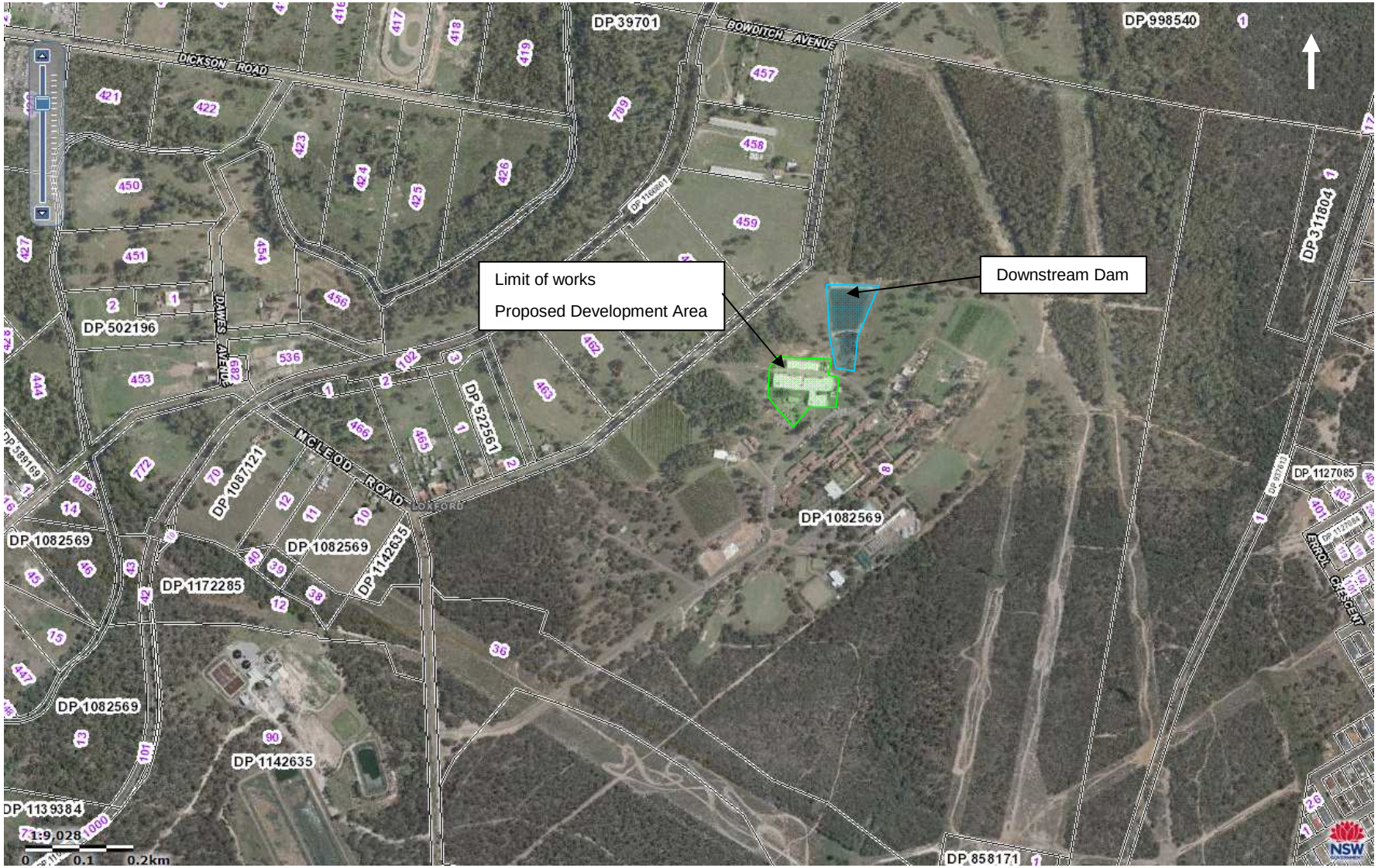
PRINCIPAL ENGINEER, BUILDING ENGINEERING SERVICES

TAFE KURRI KURRI CAMPUS PLANT & HEAVY VEHICLE TRAINING CENTRE

HYDRAULIC SERVICES BLOCK P GROUND FLOOR PLAN DRAINAGE LAYOUT SHEET 2

PLAN RM NO		CONTRACT NUMBER
		1301026
SCALES		SHEET NO
1:100@A1		H401
DESIGNED	PLOT DATE	
R.Young	9/08/2013	
DRAFTED	VERIFIED	REVISION
J.Lu	J.Critoph	

A1 0 10 20 30 40 50 60 70 80 90 100 USE FIGURED DIMENSIONS IN PREFERENCE TO SCALING CHECK ALL DIMENSIONS ON SITE 200MM 300MM ON ORIGINAL


Limit of works
Proposed Development Area
Downstream Dam
DP 39701
DP 998540
DP 311804
DP 502196
DP 522561
DP 1082569
DP 1087121
DP 1172285
DP 1142635
DP 1139384
DP 1127085
DP 858171
DICKSON ROAD
BOWDITCH AVENUE
MCLEOD ROAD
DAWES AVENUE
ERROL CRESCENT
1:9,028
0 0.1 0.2km

REFER TO STRUCTURAL PLANS FOR GABION RETAINING WALL DETAILS

EXISTING HEAD WALL - APPROX. IL 15.91
CONTRACTOR TO CONFIRM SIZE OF EXISTING HEADWALL. IF REQUIRED, UPGRADE HEADWALL TO ACCOMODATE ADDITIONAL PIPELINE.

DECOMMISSION EXISTING DRAINAGE LINE

BLOCK PP

BLOCK PP

ABUT & ALIGN NEW THICKENED EDGE CONCRETE PAVING WITH EXISTING CONCRETE PAVING.

MAINTAIN EXISTING SW PIPE

REFER TO DRG. C05 - DETAIL 4, FOR CONCRETE PAVEMENT TYPE 1 DETAILS.

DECOMMISSION EXISTING DRAINAGE LINE

BLOCK P EXTENSION

BLOCK P (EXISTING)

(CP1)

ABUT & ALIGN NEW THICKENED EDGE CONCRETE PAVING WITH EXISTING ROAD, CONCRETE PAVING & GRASS SURFACES.
REFER TO DRG. C05 - DETAIL 4, FOR TYPICAL CONCRETE PAVEMENT DETAIL.

DECOMMISSION EXISTING DRAINAGE LINE

REFER TO DRG. C04 - DETAIL A, FOR GRASS SWALE DETAILS

REFER TO STRUCTURAL PLANS FOR GABION RETAINING WALL DETAILS

2.4m WIDE GRASS SWALE

BLOCK Q4 (NEW)

REFER TO DRG. C05 - DETAIL 5, FOR CONCRETE PAVEMENT TYPE 2 DETAILS.

REFER TO DRG. C04 FOR SUB SOIL DRAINAGE DETAILS

BLOCK O (REFURB)

CONNECT TO EXISTING SW PIPE IL 16.90

CONNECT TO EXISTING SW PIT

MAINTAIN EXISTING SW DRAINAGE

REMOVE EXISTING SW GRATE

CONNECT TO EXISTING SW PIT. CONTRACTOR TO CONFIRM PIT INVERT LEVEL AND PIPE DIAMETER.

1m WIDE CONCRETE DISH DRAIN

MARRY NEW KERB INTO EXISTING AND MAKE SMOOTH CONNECTION

REFER TO STRUCTURAL PLANS FOR STAIR DETAILS

INSTALL NEW PITS. INVERT LEVELS TO BE CONFIRMED ON SITE. MAINTAIN MINIMUM 1% GRADE FOR SW. PIPE.

REFER TO STRUCTURAL PLANS FOR STAIR DETAILS

REFER TO DRG. C04 - DETAIL A, FOR GRASS SWALE DETAILS

2.4m WIDE GRASS SWALE

NOTES:
1. REFER TO DRG. C01 FOR GENERAL NOTES
2. REFER TO DRG. C03 FOR PIT SCHEDULE.
3. REFER TO DRG. C04 FOR STORMWATER PIT AND PIPE DETAILS.
4. REFER TO DRG. C05 FOR CONCRETE PAVEMENT AND ASPHALT DETAILS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR THE DESIGN LEVELS AND SET OUT POINTS.

1:250 0 5 10 15 20 25m

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LEGEND

- PROPOSED SW GRATED PIT
- KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD
- ØDIA. PROPOSED SW PIPE (DIA. INDICATED ON PLAN)
- 1m WIDE DISH DRAIN (DD)
- (N.K.G) NEW KERB AND GUTTER
- (E.K.G) EXISTING KERB AND GUTTER
- GRASS SWALE
- OF OVERLAND FLOW
- SSD 100mm DIA. SUB-SOIL DRAINAGE / FLUSH POINT
- ASPHALT CONCRETE (AC)
- CONCRETE PAVEMENT (CP1)
- CONCRETE PAVEMENT (CP2)

A1 0 10 20 30 40 50 60 70 80 90 100
USE FIGURED DIMENSIONS IN PREFERENCE TO SCALING
CHECK ALL DIMENSIONS ON SITE
200MM
300MM ON ORIGINAL

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Director General

TAFE KURRI KURRI CAMPUS PLANT AND HEAVY VEHICLE TRAINING CENTRE

PROPOSED SITE LAYOUT SHEET 1 OF 2

PLAN RM NO	CONTRACT NUMBER 1301026
SCALES 1:250@A1	SHEET NO C02
DESIGNED E. LIN / PLOT DATE 18/07/2013	
DRAFTED D. LAM / VERIFIED J. GAN	REVISION -

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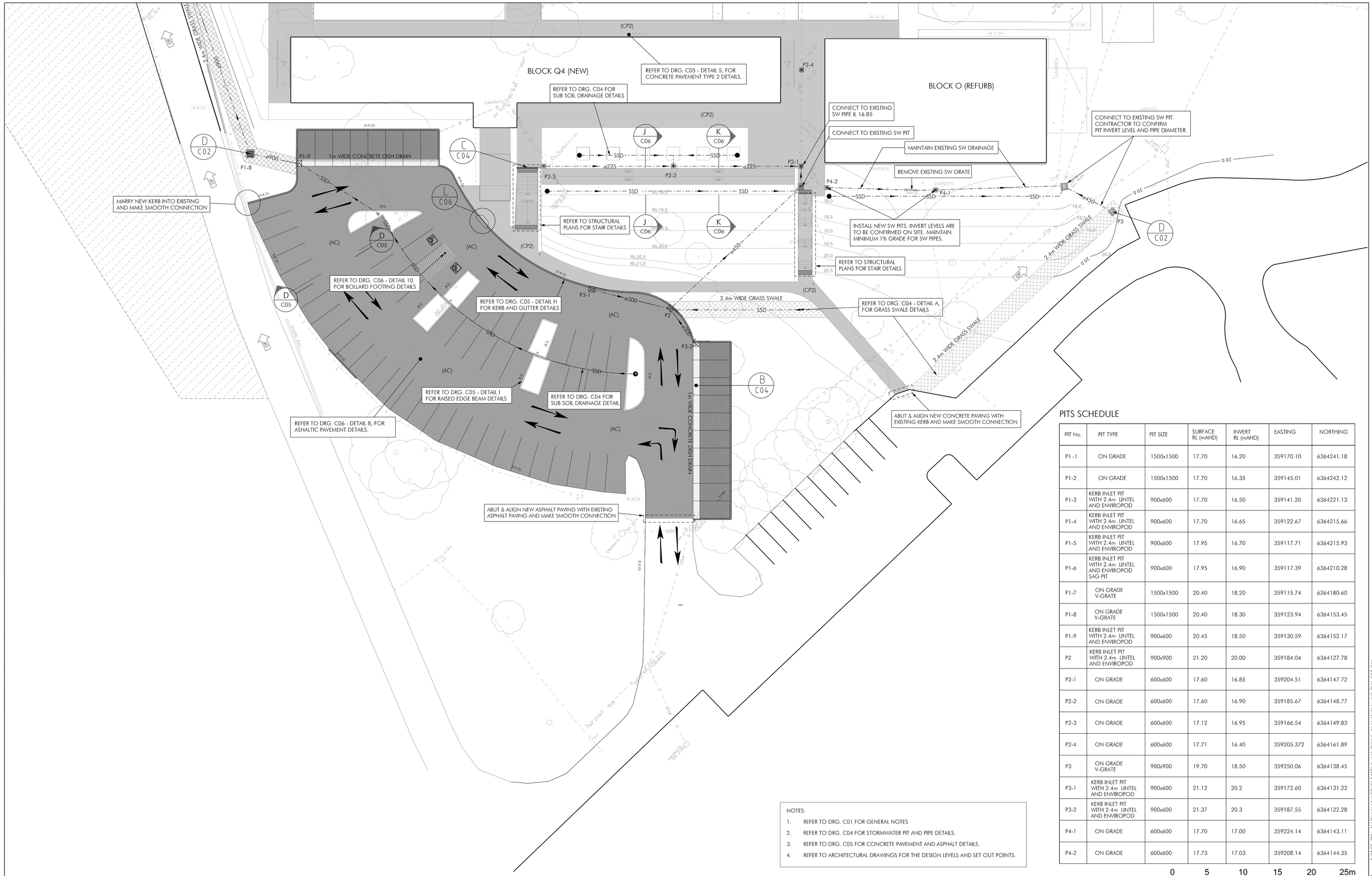

PITS SCHEDULE

PIT No.	PIT TYPE	PIT SIZE	SURFACE RL (mAHD)	INVERT RL (mAHD)	EASTING	NORTHING
P1 -1	ON GRADE	1500x1500	17.70	16.20	359170.10	6364241.18
P1-2	ON GRADE	1500x1500	17.70	16.35	359145.01	6364242.12
P1-3	KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD	900x600	17.70	16.50	359141.20	6364221.13
P1-4	KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD	900x600	17.70	16.65	359122.67	6364215.66
P1-5	KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD	900x600	17.95	16.70	359117.71	6364215.93
P1-6	KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD SAG PIT	900x600	17.95	16.90	359117.39	6364210.28
P1-7	ON GRADE V-GRATE	1500x1500	20.40	18.20	359115.74	6364180.60
P1-8	ON GRADE V-GRATE	1500x1500	20.40	18.30	359123.94	6364153.45
P1-9	KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD	900x600	20.45	18.50	359130.59	6364152.17
P2	KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD	900x900	21.20	20.00	359184.04	6364127.78
P2-1	ON GRADE	600x600	17.60	16.85	359204.51	6364147.72
P2-2	ON GRADE	600x600	17.60	16.90	359185.67	6364148.77
P2-3	ON GRADE	600x600	17.12	16.95	359166.54	6364149.83
P2-4	ON GRADE	600x600	17.71	16.40	359205.372	6364161.89
P3	ON GRADE V-GRATE	900x900	19.70	18.50	359250.06	6364138.45
P3-1	KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD	900x600	21.12	20.2	359172.60	6364131.22
P3-2	KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD	900x600	21.37	20.3	359187.55	6364122.28
P4-1	ON GRADE	600x600	17.70	17.00	359224.14	6364143.11
P4-2	ON GRADE	600x600	17.73	17.03	359208.14	6364144.35

1:250 0 5 10 15 20 25m

NOTES:

1. REFER TO DRG. C01 FOR GENERAL NOTES
2. REFER TO DRG. C04 FOR STORMWATER PIT AND PIPE DETAILS.
3. REFER TO DRG. C05 FOR CONCRETE PAVEMENT AND ASPHALT DETAILS.
4. REFER TO ARCHITECTURAL DRAWINGS FOR THE DESIGN LEVELS AND SET OUT POINTS.

LEGEND

- PROPOSED SW GRATED PIT
- KERB INLET PIT WITH 2.4m LINTEL AND ENVIROPOD
- -·-ØDIA.-·- PROPOSED SW PIPE (DIA. INDICATED ON PLAN)
- 1m WIDE DISH DRAIN (DD)
- (N.K.G) / (E.K.G) NEW KERB AND GUTTER / EXISTING KERB AND GUTTER
- (R.E) RAISED EDGE BEAM
- GRASS SWALE
- OF OVERLAND FLOW
- SSD 100mm DIA. SUB-SOIL DRAINAGE / FLUSH POINT
- ASPHALT CONCRETE (AC)
- CONCRETE PAVEMENT (CP1)
- CONCRETE PAVEMENT (CP2)

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TAFE KURRI KURRI CAMPUS PLANT AND HEAVY VEHICLE TRAINING CENTRE

PROPOSED SITE LAYOUT SHEET 2 OF 2

PLAN RM NO	
CONTRACT NUMBER	1301026
SCALES	1:250@A1
SHEET NO	C03
DESIGNED	E. LIN
PLOT DATE	18/07/2013
DRAFTED	D. LAM
VERIFIED	J. GAN
REVISION	-

A1 0 10 20 30 40 50 60 70 80 90 100 USE FIGURED DIMENSIONS IN PREFERENCE TO SCALING CHECK ALL DIMENSIONS ON SITE 200MM 300MM ON ORIGINAL

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