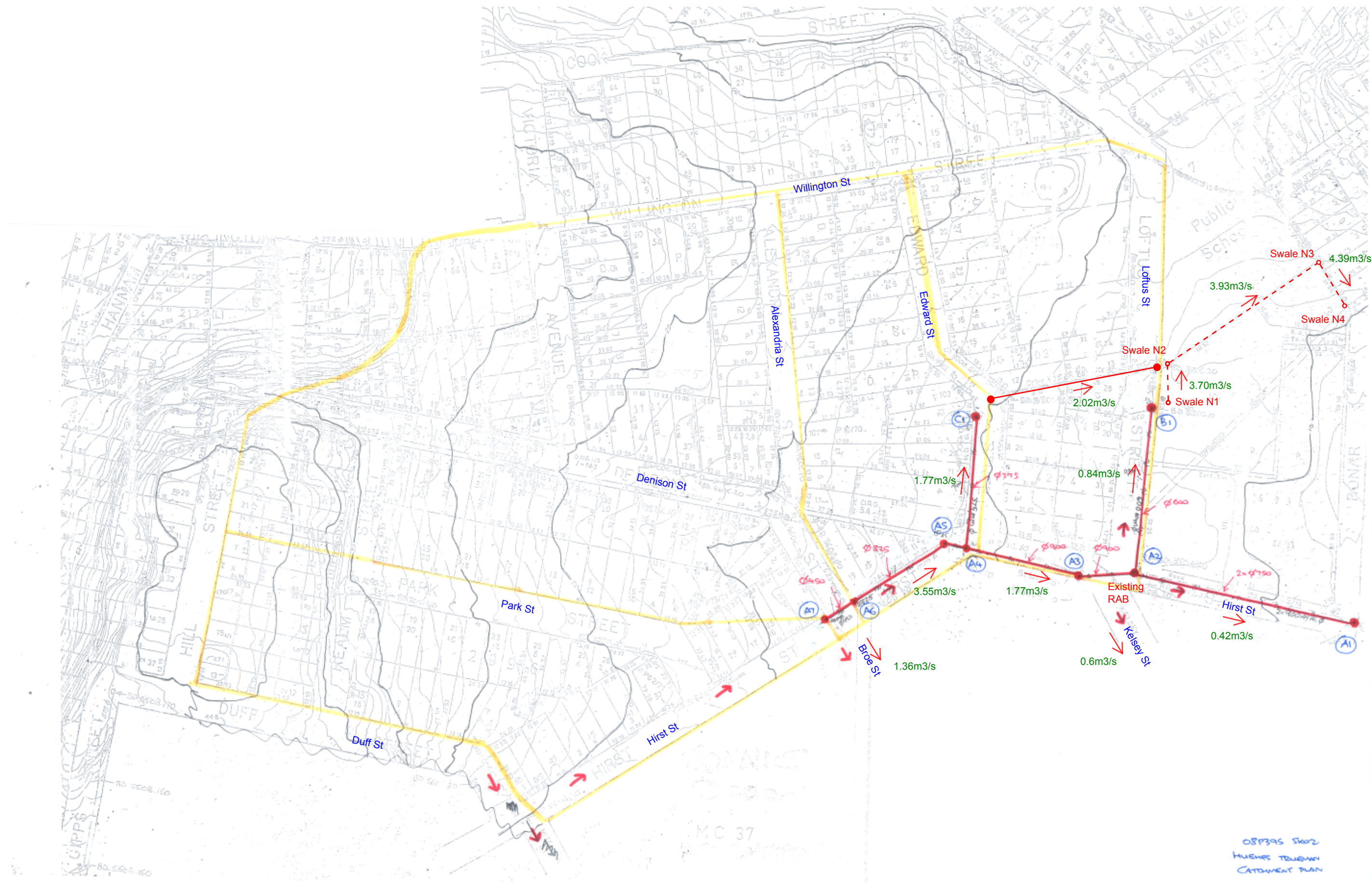




PIT / NODE DETAILS			Version 9																			
Name	Type	Family	Size	Ponding Volume (cu.m)	Pressure Change Coeff. Ku	Surface Elev (m)	Max Pond Depth (m)	Base Inflow (cu.m/s)	Blocking Factor	x	y	Bolt-down lid	id	Part Full Shock Loss								
A7	OnGrade	Special Inlet Pits	Pit A7		0.5	18.5		0	0	170	-404	No		1 1 x Ku								
A6	OnGrade	Special Inlet Pits	Pit A6		2	18		0	0	230	-380	No		3 1 x Ku								
A5	OnGrade	Kerb Inlet Pit - DOH RM10	1.8 m lintel (all grades)		0.8	16		0	0.5	369.167	-319.167	No		5 1 x Ku								
A4	OnGrade	Kerb inlet Pit - DOH RM10	1.8 m lintel (all grades)		0.8	15.6		0	0.5	407.5	-338.333	No		7 1 x Ku								
A3	OnGrade	Kerb inlet Pit - DOH RM10	1.8 m lintel (all grades)		0.8	13.15		0	0.5	589.167	-444.167	No		11 1 x Ku								
A2	OnGrade	Kerb inlet Pit - DOH RM10	1.8 m lintel (all grades)		0.5	12.53		0	0.5	657.5	-464.167	No		13 1 x Ku								
A1	Node					8.95		0		883.333	-610.833			17								
C1	OnGrade	NSW RTA SA Inlet, 3% crossfall, 3% grade	SA2		4	15.5		0	0.5	489.167	-230.833	No		9 1 x Ku								
BYPASS 1	Node					12		0		197.155	-449.534			33								
Bypass 2	Node					12.85		0		598.148	-534.491			330								
RAB Node 1	Node					12.84		0		623.48	-434.262			341								
RAB Node 2	Node					12.75		0		656.504	-436.821			352								
Swale N1	Node					10.45		0		833.488	-321.817			446								
Swale N2	Node					10.34		0		863.87	-284.684			59								
Swale N2a	Node					9.55		0		1048.13	-389.721			126167								
Swale N3	Node					9.26		0		1133.027	-439.509			574								
Swale N4	Headwall					0.2		0		1090.997	-515.643			46877								
Pit Bonar 4	OnGrade	Junction	JP			0.9	8.9	0	0	1096.356	-593.004	Yes		46868 1 x Ku								
Pit Bonar 3	OnGrade	Junction	JP			0.6	7.63	0	0	1069.564	-646.253	Yes		46870 1 x Ku								
Pit Bonar 2	Sag	Surface Inlet Grates	1200 x 1200 SI	5	0.1	7.5		0.15	0	1073.583	-659.314	No		46871 1 x Ku								
NBonar1	Node					6		0		1090.625	-698.843			46851								
Edward Node 1	Node					15.63		0		409.722	-299.306			2997								
B3	Sag	Kerb Inlet Pit - DOH RM10	1.8 m lintel (all grades)	40	1.5	15		0.15	0	540.278	-214.757	No		3001 1 x Ku								
B2	Sag	NSW RTA SA Inlet, 3% crossfall, 3% grade	SA2	3	4	11.73		0.15	0	1 734.917	-309.511	No		694 1 x Ku								
B1	Sag	NSW RTA SA Inlet, 3% crossfall, 3% grade	SA2	3	4	11.61		0.11	0	0.5 760.833	-320.833	No		15 1 x Ku								
NBonar7	Node					9.38		0		1128.506	-596.184			46934								
Pit Bonar 6	OnGrade	Special Inlet Pits	Pit A7			1	8.85	0	0	1107.008	-600.733	No		46955 1 x Ku								
DETENTION BASIN DETAILS																						
Name	Elev	Surf. Area	Init Vol. (cu.m)	Outlet Type	K	Dia(mm)	Centre RL	Pit Family	Pit Type	x	y	HED	Crest RL	Crest Leng	tid							
SUB-CATCHMENT DETAILS																						
Name	Pit or Node	Total Area (ha)	Paved Area %	Grass Area %	Supp Area %	Paved Time (min)	Grass Time (min)	Supp Time (min)	Paved Length (m)	Grass Length (m)	Supp Length (m)	Paved Slope(%)	Grass Slope %	Supp Slope %	Paved Rough	Grass Rough	Supp Rough	Lag Time or Factor	Gutter Length (m)	Gutter Slope %	Gutter FlowFactor	
C A7	A7	2.94	75	25	0	5		10	0										0			
C A6	A6	6.2	75	25	0	5		10	0										0			
C A5	A5	0.095	100	0	0	5		10	0										0			
C A3	A3	0.78	95	5	0	5		10	0										0			
C C1	C1	2.04	75	25	0	5		10	0										0			
C S2	Swale N2	0.458	10	90	0	5		8	0										0			
C S3	Swale N3	1.08	75	25	0	5		10	0										0			
CBonar2	Pit Bonar 2	0.75	100	0	0	5		0	0										0			
C B1	B1	2.01	75	25	0	5		10	0										0			
CBonar7	NBonar7	1.53	100	0	0	8		0	0										0			
PIPE DETAILS																						
Name	From	To	Length (m)	U/S IL (m)	D/S IL (m)	Slope (%)	Type	Dia (mm)	I.D. (mm)	Rough	Pipe Is	No. Pipes	Chg From	At Chg	Chg (m)	RI (m)	Chg (m)	RL (m)	etc (m)			
P A7	A7	A6	25.1	17.4	16.9	1.99	Concrete, under roads	450	450	0.3	Existing	1 A7		0								
P A6	A6	A5	62.2	16.47	14.47	3.22	Concrete, under roads	825	825	0.3	Existing	1 A6		0								
P A5	A5	A4	12.6	14.44	14.04	3.17	Concrete, under roads	825	825	0.3	Existing	1 A5		0								
P A4	A4	A3	67.3	13.7	11.64	3.06	Concrete, under roads	900	900	0.3	Existing	1 A4		0								
P A3	A3	A2	32.3	11.61	10.67	2.91	Concrete, under roads	900	900	0.3	Existing	1 A3		0								
P A2	A2	A1	131	9.69	7.3	1.82	Concrete, under roads	750	750	0.3	Existing	2 A2		0								
P C1	C1	A4	76.5	14.49	13.725	1	Concrete, under roads	375	375	0.3	Existing	1 C1		0								
Pipe103	Swale N4	Pit Bonar 4	24	8.3	7.18	4.67	Box Culverts	1.8W x 0.9H			0.3	Existing	1 Swale N4		0							
P110	Pit Bonar 4	Pit Bonar 3	37	7.15	5.559	4.3	Box Culverts	1.8W x 0.9H			0.3	Existing	1 Pit Bonar 4		0							
Pipe113	Pit Bonar 3	Pit Bonar 2	3	5.53	5.401	4.3	Box Culverts	1.8W x 0.9H			0.3	Existing	1 Pit Bonar 3		0							
Pipe114	Pit Bonar 2	NBonar1	15.5	5.37	4.3	6.9	Box Culverts	1.8W x 0.9H			0.3	Existing	1 Pit Bonar 2		0							
P94	B3	B2	88	14.1	10.83	3.72	Concrete, under roads	375	375	0.3	New	1 B3		0								
Pipe90	B2	B1	12	10.8	10.68	1	Concrete, under roads	375	375	0.3	New	1 B2		0								
P B1	B1	A2	93	10.65	9.72	1	Concrete, under roads	600	600	0.3	Existing	1 B1		0								
Pipe171	NBonar7	Pit Bonar 6	17	7.6	7.26	2	Concrete, under roads	750	750	0.3	New	1 NBonar7		0								
Pipe115	Pit Bonar 6	Pit Bonar 4	2.5	7.23	7.18	2	Concrete, under roads	750	750	0.3	New	1 Pit Bonar 6		0								
DETAILS of SERVICES CROSSING PIPES																						
Pipe	Chg (m)	Bottom Elev (m)	Height of Service (m)	Chg (m)	Bottom Elev (m)	Height of S'Chg (m)	Chg (m)	Bottom Elev (m)	Height of S' etc (m)	etc												
CHANNEL DETAILS																						
Name	From	To	Type	Length (m)	U/S IL (m)	D/S IL (m)	Slope (%)	Base (m)	Width (m)	L.B. Slope (1:?)	R.B. Slope (1:?)	Manning n	Depth (m)	Roofed								
Swale 1	Swale N1	Swale N2	Prismatic		11	10.45	10.34	1	1.2	0.1	0.1	0.015	1.2	No								
Swale 2	Swale N2	Swale N2a	Prismatic		79	10.34	9.55	1	5	0.1	2	0.05	0.7	No								
Swale 2a	Swale N2a	Swale N3	Prismatic		29	9.55	9.26	1	5	0.1	0.1	0.05	1	No								
Swale 3	Swale N3	Swale N4	Prismatic		26	9.26	8.3	3.69	5	0.1	0.1	0.05	1.7	No								
OVERFLOW ROUTE DETAILS																						
Name	From	To	Length (m)	Spill Level (m)	Crest Length (m)	Weir Coeff. C	Cross Section	Safe Major Stori (m)	Depth (m)	Safe Minor Stori (m)	Safe D/v (sq.m/sec)	Bed Slope (%)	D/S Area Contributing %	id	U/S IL (m)	D/S IL (m)						
OFA7-1	A7	BYPASS 1		130			Hirst St (type 2 - existing)	0.2	0.2	0.6	3.58	0	36	18.66	14	130						
OFA7-2	A7	A6		25.1			Hirst St (type 2 half road)	0.1	0.1	0.6	1.99	0	37	18.5	18	25.1						
OFA6-2	A6	A5		62.2			Hirst St (type 2 - existing)	0.2	0.2	0.6	3.22	0	40	18	16	62.2						
OFA5	A5	Edward Node 1		12.6			Hirst St (type 2 - existing)	0.2	0.2	0.6	2.94	0	41	16	15.63	12.6						
OFA4	A4	A3		67.3			Hirst St (type 2 - existing)	0.2	0.2	0.6	3.64	0	48	15.6	13.15	67.3						
Oflow 1B	A3	Bypass 2		25.5			Section 1B (Hirst St half road directed to Kelsey)	0.1	0.1	0.6	2.63	0	331	13.52	12.85	25.5						
Oflow 1A	A3	RAB Node 1		13			Section 1A (Hirst st half road)	0.3	0.3	0.6	2.38	0	51	13.15	12.84	13						
Oflow 5	A2	A1		131			Hirst St (type 1- widened to 16.34m)	0.2	0.2	0.6	2.73	0	217	12.53	8.95	131						
Oflow 6	A2	B1		93			Section 6 (Loftus bottom half road to sag)	0.1	0.1	0.6	0.99	0	56	12.53	11.61	93						
OF331	C1	B3		12			Pathway 4 m wide	0.3	0.15	0.6	2.5	0	3018	15.5	15.2	12						
Oflow 2	RAB Node 1	RAB Node 2		3.2			Section 2 (Hirst St RAB Section)	0.1	0.1	0.4	2.81	0	353	12.84	12.75	3.2						
Oflow 3	RAB Node 1	Bypass 2		12			Section 3 (Kelsey bypass)	0.1	0.1	0.6	1.42	0	345	13.02	12.85	12						
Oflow 4B	RAB Node 2	A2		6.6			Section 4B (Loftus Int Split along Hirst)	0.05	0.05	0.6	3.64	0	367	12.77	12.53	6.6						
Oflow 4A	RAB Node 2	B2		93			Section 4A (Loftus half road to sag)	0.1	0.1	0.6	1.1	0	359	12.75	11.73	93						
OFHeadwall	Swale N4	Pit Bonar 6		25.5	10.1	5	1.7 Dummy used to model flow across road low points	0.2	0.05	0.6	5.1	0	46960	10.1	8.8	25.5						
OF414	Pit Bonar 2	NBonar1		15.5			Dummy used to model flow across road low points	0.2	0.05	0.6	4	0	46965	7.62	7	15.5						
OF387	Edward Node 1	B3		1			Hirst St (type 2 - existing)	0.2	0.2	0.6	3	0	8934	15.63	15.6	1						
OF348	Edward Node 1	A4		1			Hirst St (type 2 - existing)	0.2	0.2	0.6	3	0	3035	15.63	15.6	1						
OFC1	B3	B2		88			Pathway 4 m wide	0.3	0.15	0.6	3.72	0	46	15	11.73	88						
Oflow crest	B2	B1		6.2			Crest across loftus	0.2	0.2	0.4	7.58	0	687	12.08	11.61	6.2						
OF Sag-Swale	B1	Swale N1		4		</																

DRAINS results prepared 01 September, 2009 from Version 2009.05

PIT / NODE DETAILS

Name	Max HGL	Max Pond HGL	Max Surface Flow Arriving (cu.m/s)	Version 8 Max Pond Volume (cu.m)	Min Freeboard (m)	Overflow (cu.m/s)	Constraint
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SUB-CATCHMENT DETAILS

Outflow Volumes for Total Catchment (13.9 impervious + 4.02 pervious = 17.9 total ha)

Storm	Total Rainfall cu.m	Total Runoff cu.m (Runoff %)	Impervious Runoff cu.m (Runoff %)	Pervious Runoff cu.m (Runoff %)
AR&R 100 year, 5 minutes storm, average 264 mm/h, Zone 1		3934.26 3408.72 (86.6%)	2911.50 (95.5%)	497.22 (56.2%)
AR&R 100 year, 10 minutes storm, average 207 mm/h, Zone 1		6169.63 5562.92 (90.2%)	4644.54 (97.1%)	918.38 (66.2%)
AR&R 100 year, 15 minutes storm, average 178 mm/h, Zone 1		7957.93 7282.80 (91.5%)	6030.98 (97.8%)	1251.82 (70.0%)
AR&R 100 year, 20 minutes storm, average 159 mm/h, Zone 1		9477.99 8743.31 (92.2%)	7209.44 (98.1%)	1533.87 (72.0%)
AR&R 100 year, 25 minutes storm, average 144 mm/h, Zone 1		10729.8 9932.08 (92.6%)	8179.95 (98.3%)	1752.14 (72.7%)
AR&R 100 year, 30 minutes storm, average 132 mm/h, Zone 1		11802.78 10952.28 (92.8%)	9011.80 (98.5%)	1940.49 (73.2%)
AR&R 100 year, 45 minutes storm, average 107.6 mm/h, Zone 1		14431.58 13451.82 (93.2%)	11049.84 (98.8%)	2401.98 (74.1%)
AR&R 100 year, 1 hour storm, average 91.7 mm/h, Zone 1		16398.71 15316.79 (93.4%)	12574.91 (98.9%)	2741.88 (74.4%)
AR&R 100 year, 1.5 hours storm, average 71.7 mm/h, Zone 1		19233.16 17987.15 (93.5%)	14772.10 (99.1%)	3215.04 (74.4%)
AR&R 100 year, 2 hours storm, average 59.6 mm/h, Zone 1		21316.54 19933.04 (93.5%)	16387.45 (99.2%)	3545.60 (74.0%)
AR&R 100 year, 3 hours storm, average 45.4 mm/h, Zone 1		24356.64 22731.28 (93.3%)	18745.76 (99.3%)	3985.53 (72.8%)

PIPE DETAILS

Name	Max Q (cu.m/s)	Max V (m/s)	Max U/S HGL (m)	Max D/S HGL (m)	Due to Storm
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CHANNEL DETAILS

Name	Max Q (cu.m/s)	Max V (m/s)	Chainage (m)	Max HGL (m)	Due to Storm
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DETENTION BASIN DETAILS

Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level
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CONTINUITY CHECK for AR&R 100 year, 5 minutes storm, average 264 mm/h, Zone 1

Node	Inflow (cu.m)	Outflow (cu.m)	Storage Change (cu.m)	Difference %
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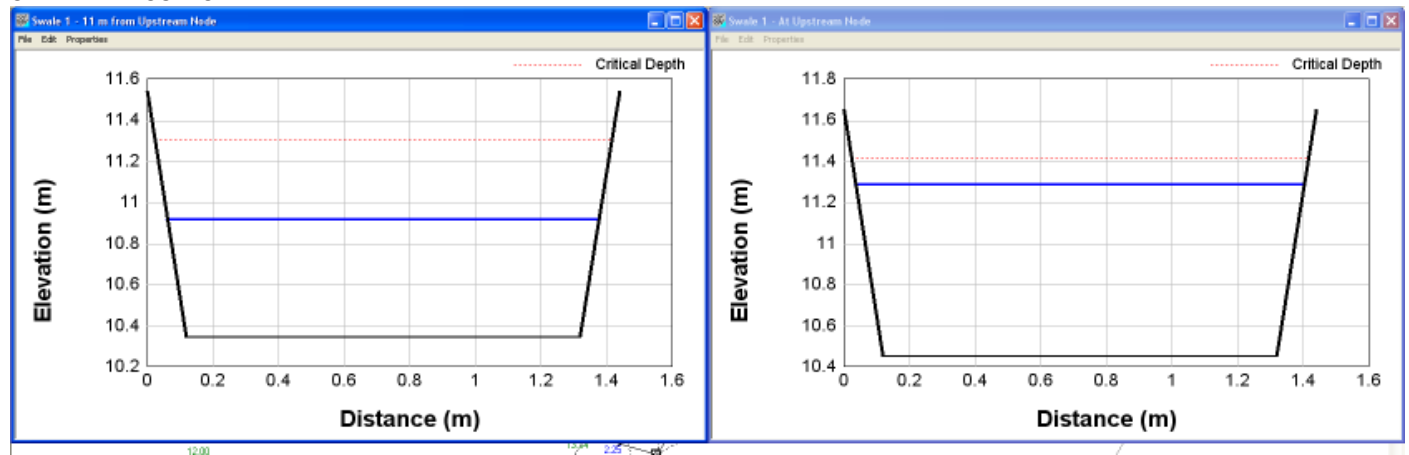
Run Log for 090828 run at 15:36:10 on 31/8/2009

Upwelling occurred at Pit Bonar 6, B2, A3, C1

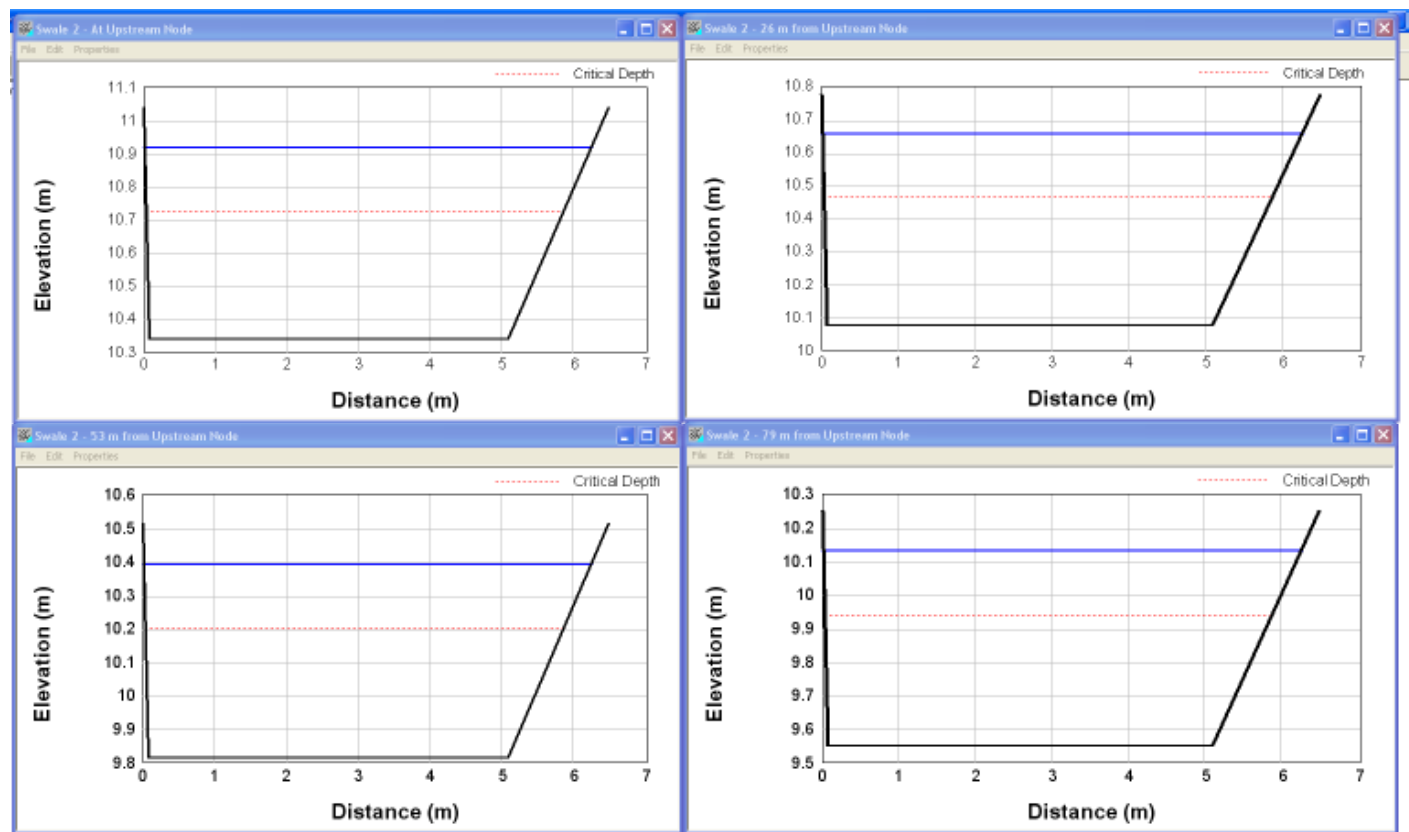
Freeboard was less than 0.15m at B3, B1, A6

The maximum flow exceeded the safe value in the following overflow routes: Oflow 4B, Oflow 2, Oflow 3, Oflow 1A, OFC1, OFA5, OFA6-2, OFA7-2

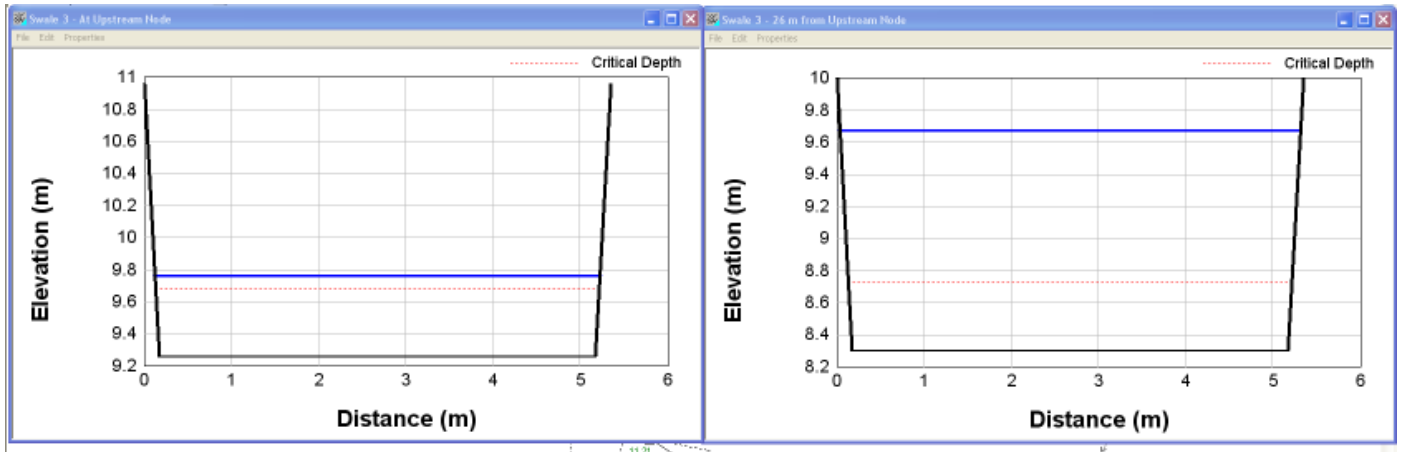
SWALE 1 RESULTS

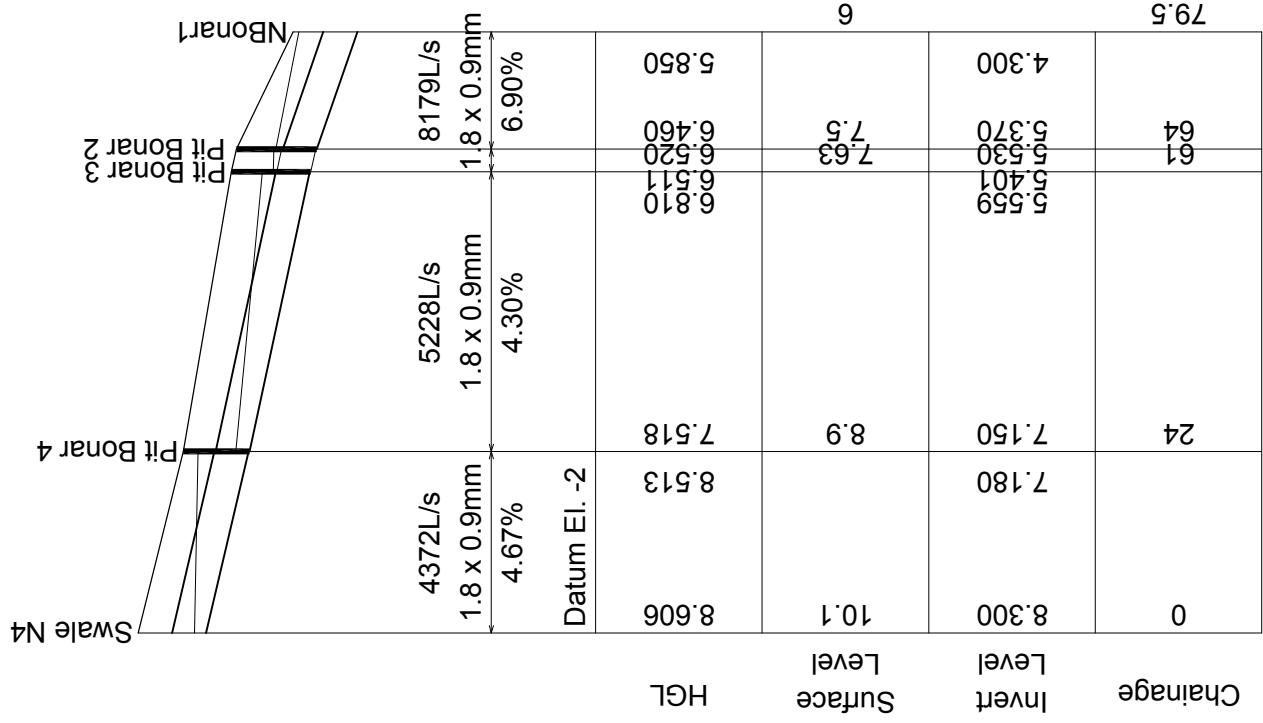


SWALE 2 RESULTS



SWALE 3 RESULTS





APPENDIX B

ROCKDALE CITY COUNCIL

OSD CALCULATION SHEETS

DETENTION DESIGN CALCULATION CHECKLIST
TANK #1

Site Details

Address	Bonar Street, Arncliffe		
Catchment Name	Bonnie Doon		
50 year ARI data	SSR	285 m ³ /ha PSD	210 l/s/ha
Site Area (A)	0.681		
	By-pass Area	0.067 (ha)/A	0.681 (ha) x 100 = 9.8%
HGL at connection to system	8.70	AHD	
Q ₅₀ Top Water Level	11.10	AHD	
Q ₂ Top Water Level	9.59	AHD	
Tank Base Level	8.70	AHD	
Orifice centre RL	8.70	AHD	

0%

Designers Details

Designers Name	Chris Avis
Company Name	Hughes Trueman
Contact Phone Number	(02) 9891 5044

Design Volumes

Total Design Storage (V _t)	194.1 m ³
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Adjusted Design 50 Year ARI Storage Volume for by-pass

Adjusted Design Storage (V _a)	203.6 m ³
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Adjusted Design 50 Year ARI Storage Volume for drowned outlet

Adjusted Design Storage (V ₅₀)	203.6 m ³
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Adjusted Design 2 year ARI Storage Volume

2 year Design Storage (V ₂)	91.6 m ³
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Permissible Site Discharges (PSD)

Design Permitted Site Discharge (Q _d)	143.0 l/s
Adjusted PSD ₅₀	107.8 l/s
Adjusted PSD ₂	37.7 l/s

Outlet Control for 50 year ARI storm

Height from Q ₅₀ TWL to 50 yr orifice centre	1.51 m
50 year orifice diameter (D ₅₀)	203.3 mm

Outlet Control for 2 year ARI storm

Height from TWL to orifice centre	0.89 m
2 year orifice diameter (D ₂)	137.3 mm

DETENTION DESIGN CALCULATION CHECKLIST
TANK #2

Site Details

Address	Bonar Street, Arncliffe		
Catchment Name	Bonnie Doon		
50 year ARI data	SSR	285 m ³ /ha PSD	210 l/s/ha
Site Area (A)	0.46		
	By-pass Area	0.045 (ha)/A	0.46 (ha) x 100 = 9.8%
HGL at connection to system	8.70 AHD		
Q ₅₀ Top Water Level	10.10 AHD		
Q ₂ Top Water Level	9.24 AHD		
Tank Base Level	8.70 AHD		
Orifice centre RL	8.70 AHD		

0%

Designers Details

Designers Name	Chris Avis
Company Name	Hughes Trueman
Contact Phone Number	(02) 9891 5044

Design Volumes

Total Design Storage (V _t)	131.1 m ³
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Adjusted Design 50 Year ARI Storage Volume for by-pass

Adjusted Design Storage (V _a)	137.5 m ³
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Adjusted Design 50 Year ARI Storage Volume for drowned outlet

Adjusted Design Storage (V ₅₀)	137.5 m ³
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Adjusted Design 2 year ARI Storage Volume

2 year Design Storage (V ₂)	61.9 m ³
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Permissible Site Discharges (PSD)

Design Permitted Site Discharge (Q _d)	96.6 l/s
Adjusted PSD ₅₀	73.0 l/s
Adjusted PSD ₂	25.5 l/s

Outlet Control for 50 year ARI storm

Height from Q ₅₀ TWL to 50 yr orifice cer	0.86 m
50 year orifice diameter (D ₅₀)	192.5 mm

Outlet Control for 2 year ARI storm

Height from TWL to orifice centre	0.54 m
2 year orifice diameter (D ₂)	127.9 mm

DETENTION DESIGN CALCULATION CHECKLIST

TANK #3

Site Details

Address	Bonar Street, Arncliffe		
Catchment Name	Bonnie Doon		
50 year ARI data	SSR	285 m ³ /ha PSD	210 l/s/ha
Site Area (A)	0.429		
	By-pass Area	0.07 (ha)/A 0.429 (ha) x 100 = 16.3%	
HGL at connection to system	7.50 AHD		
Q ₅₀ Top Water Level	9.10 AHD		
Q ₂ Top Water Level	8.15 AHD		
Tank Base Level	7.50 AHD		
Orifice centre RL	7.50 AHD		

0%

Designers Details

Designers Name	Chris Avis
Company Name	Hughes Trueman
Contact Phone Number	(02) 9891 5044

Design Volumes

Total Design Storage (V _t)	122.3 m ³
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Adjusted Design 50 Year ARI Storage Volume for by-pass

Adjusted Design Storage (V _a)	132.2 m ³
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Adjusted Design 50 Year ARI Storage Volume for drowned outlet

Adjusted Design Storage (V ₅₀)	132.2 m ³
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Adjusted Design 2 year ARI Storage Volume

2 year Design Storage (V ₂)	59.5 m ³
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Permissible Site Discharges (PSD)

Design Permitted Site Discharge (Q _d)	90.1 l/s
Adjusted PSD ₅₀	53.3 l/s
Adjusted PSD ₂	18.7 l/s

Outlet Control for 50 year ARI storm

Height from Q ₅₀ TWL to 50 yr orifice centre	0.95 m
50 year orifice diameter (D ₅₀)	160.5 mm

Outlet Control for 2 year ARI storm

Height from TWL to orifice centre	0.65 m
2 year orifice diameter (D ₂)	104.4 mm

8.0 STORMWATER CONCEPT PLAN CERTIFICATION

For all types of development a person with qualifications eligible under section 3.4 is to complete the following certification for the Stormwater Concept Plan (Concept Drainage Design). The information requested on this form is required to be submitted to Council with the drainage plans when lodging the Development Application. Please tick and sign the appropriate box and attach the information as requested.

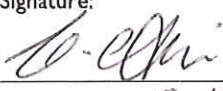
Property Details

No.	Street <i>BONAR STREET</i>	Suburb <i>ARNcliffe</i>
Postcode <i>2205</i>	Type of Development <i>RESIDENTIAL APARTMENTS</i>	

Designer Details

Ms/Mr/Mrs/Other (please state) <i>Mr</i>	Family Name <i>AVIS</i>	Given Name <i>CHRISTOPHER</i>	
No. <i>3/91</i>	Street <i>PHILIP STREET</i>	Suburb <i>PARRAMATTA</i>	Postcode <i>2150</i>
Company Name (if applicable) <i>HUGHES TRUEMAN</i>			
Mailing Address (if different) <i>PO Box 163 PARRAMATTA NSW 2124</i>			
Tel (Work/Mobile) <i>9891 5044</i>		Fax (Work) <i>9891 5386</i>	
Email Address: <i>cavis@hughes-trueman.com.au</i>			

I certify that the drainage design is in accordance with the DCP 78 Stormwater Management and I am practising in my area of competence and have the accreditation required in section 3.4. I acknowledge that where I am not competent Council has the right to recover from me the reasonable costs of the time spent assessing this design.

Design Certifiers Signature: 	Design Certifiers Name: <i>CHRIS AVIS</i>
Professional Qualifications: Date: <i>10/10/10</i>	
Accreditation Organisation: <i>IE Aust.</i>	Accreditation Reference: <i>2420236</i>
Contact Details if Different to Designer Above <i>AS ABOVE</i>	

I the applicant authorise Rockdale City Council to release a copy of the approved Concept Drainage Plan and any relevant conditions to the designer indicated above.

..... Date:/...../.....
Applicant's Signature Applicant's Name (block letters)

Please note that the personal information required on this form may be available for public access under various legislation.

STORMWATER CONCEPT PLAN CHECKLIST

Property Address: **Date:**/...../.....

Tick table section as appropriate ✓. Where a requirement does not apply to this design place an ✕ to indicate that this has been considered. Where the designer is unable to comply with a DCP requirement additional information is to be provided to Council to justify the non compliance.

DCP Requirements	Is require- ment Applicable ?	Designer Complies with DCP	Designer Does Not Comply with DCP	Reason for Variation
Site	✓	✓		
• Contours and Spot Levels	✓	✓		
• Building envelope	✓	✓		
• Floor Levels (Habitable & Garage/parking)	✓	✓		
• Trees/Landscaping	✓	✓		
• Easements/Major Services	✓	✓		
Roof Drainage Systems	✓			
• Downpipe location & spacing	✕	✕		Refer arch plans for details
Surface Drainage Systems	✓			
• Pipe size	✓	✓		
• Pipe grade	✕	✕		To be confirmed w/ Flood study
• Kerbs provided along boundary	✓	✓		
• Overland flow path location	✓	✓		
• Overland flow path flow	✓	✓		
• Overland flow path depth	✓	✓		
• Overland flow path velocity	✓	✓		
• Overland flow path detail/section	✓	✓		
• Flow through fence location shown	✕	✕		
• Pit location	✓	✓		
• Pit size	✕	✕		} To be confirmed w/ Flood study
• Pit invert levels	✕	✕		
• Pit surface levels	✕	✕		
• Pit detail/section	✕	✕		to be provided at cc.
• Driveway trench grates	✕	✕		"
Subsoil drainage				
• Subsoil drain location	✕			
On-site Detention (OSD)				
• OSD location	✓	✓		
• OSD volume	✓	✓		
• OSD discharge rate	✓	✓		
• Detention Design Calculation Checklist from App M attached.	✓	✓		
• OSD detail/section	✓	✓		
• OSD discharge control detail	✓	✓		
On-site Retention (OSR)				
• OSR location	✕			

• Absorption rate from Council	x			
• OSR absorption test and rate	x			
• OSR volume	x			
• Absorption Design Calculation Checklist from App L attached.	x			
• OSR detail/section	y			
• Special requirements for Atlantis Cells called up	x			
Pumped discharge systems				
• Pump storage location	y			
• Pump storage volume	f			
• Pump discharge	x			
• Pump storage detail/section	y			
Ancillary (where applicable)				
• Reflux valves	x			
• Connection to Council pipes	✓			
• BASIX or rainwater tank requirements	BASIX	details shown on arch plans.		
• Rainwater tank offset from Council claimed - section 7.2.2.	x			
• Rainwater tank location	Refer	arch plans.		
• Rainwater tank overflow detail	Refer	arch plans.		
• Freeboard to habitable floor levels	x			
• Drainage of Low Level Properties Procedure followed.	x			
• Council advice letter for Drainage of Low Level Properties attached	x			
• Protection of Low Level Driveways procedure followed	x			
• Groundwater Recharge Trench	x			
• Silt/litter arrestor pit provided C.1	x			
• Stormwater Reuse System	Refer	arch for BASIX.		
• Carpark water treatment provided	x			
• Car wash areas provided	x			
• Other WSUD Requirements	x	In accordance with Master Plan.		
• Flood Advice Requirements	2-d flood model to be undertaken prior to C.C.			

APPENDIX C

MINUTES OF MEETING