
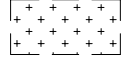



RAINGARDEN 6
 RAINGARDEN BED AREA = 1760m²
 EDL 45.30
 RAINGARDEN BED RL 45.00

-  EXTENT OF CUT - 1100m³ (Approx) INCLUDING RAINGARDEN
-  EXTENT OF FILL - 970m³ (Approx)
-  APPROXIMATE EXTENT OF PROPOSED RAINGARDEN

100 yr ARI TWL 43.02 HEC-RAS SECTION AND 100 YEAR ARI FLOOD LEVEL (ULTIMATE SITE CONDITIONS)

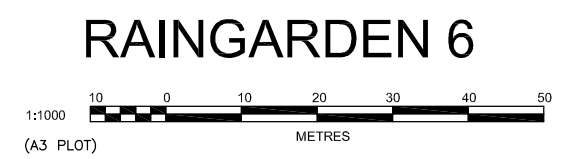
ALL BATTERS TO BE MAXIMUM 6:1

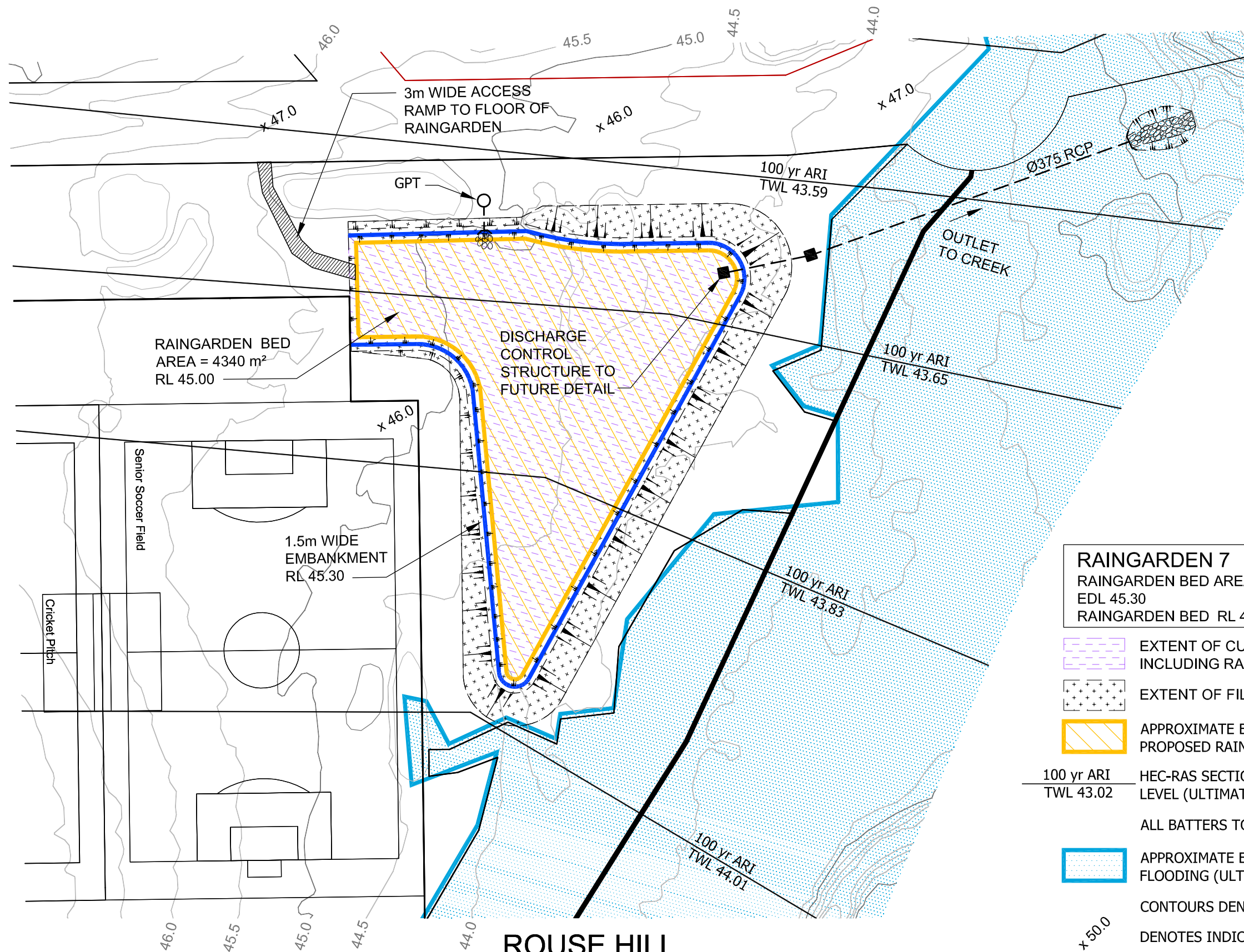
 APPROXIMATE EXTENT OF 100 YEAR ARI FLOODING (ULTIMATE SITE CONDITIONS)

CONTOURS DENOTE EXISTING GROUND LEVELS

 DENOTES INDICATIVE DESIGN ROAD LEVEL

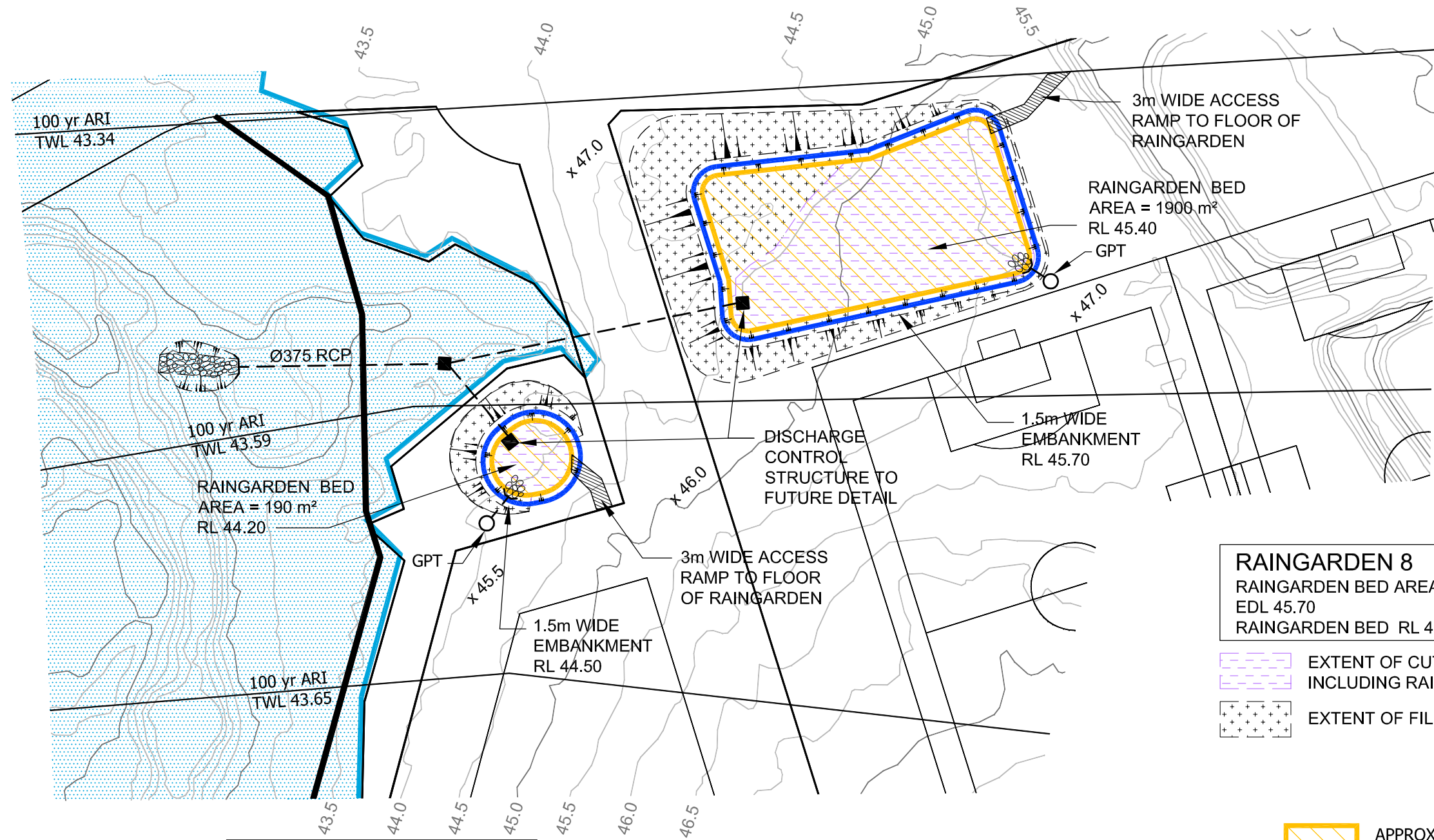
**ROUSE HILL
 AREA 20 PRECINCT
 WATER CYCLE MANAGEMENT STRATEGY
 RAINGARDEN CONCEPT DESIGNS - RAINGARDEN 6**





- RAINGARDEN 7**
 RAINGARDEN BED AREA = 4340m²
 EDL 45.30
 RAINGARDEN BED RL 45.00
- EXTENT OF CUT - 2170m³ (Approx) INCLUDING RAINGARDEN
 - EXTENT OF FILL - 1970m³ (Approx)
 - APPROXIMATE EXTENT OF PROPOSED RAINGARDEN
 - 100 yr ARI TWL 43.02 HEC-RAS SECTION AND 100 YEAR ARI FLOOD LEVEL (ULTIMATE SITE CONDITIONS)
 - ALL BATTERS TO BE MAXIMUM 6:1
 - APPROXIMATE EXTENT OF 100 YEAR ARI FLOODING (ULTIMATE SITE CONDITIONS)
 - CONTOURS DENOTE EXISTING GROUND LEVELS
 - DENOTES INDICATIVE DESIGN ROAD LEVEL

**ROUSE HILL
 AREA 20 PRECINCT
 WATER CYCLE MANAGEMENT STRATEGY
 RAINGARDEN CONCEPT DESIGNS - RAINGARDEN 7**



RAINGARDEN 9
 RAINGARDEN BED AREA = 190m²
 EDL 44.20
 RAINGARDEN BED RL 44.50

EXTENT OF CUT - 150m³ (Approx)
 INCLUDING RAINGARDEN
 EXTENT OF FILL - 240m³ (Approx)

RAINGARDEN 8
 RAINGARDEN BED AREA = 1900m²
 EDL 45.70
 RAINGARDEN BED RL 45.40

EXTENT OF CUT - 1120m³ (Approx)
 INCLUDING RAINGARDEN
 EXTENT OF FILL - 1180m³ (Approx)

APPROXIMATE EXTENT OF PROPOSED RAINGARDEN

100 yr ARI TWL 43.02 HEC-RAS SECTION AND 100 YEAR ARI FLOOD LEVEL (ULTIMATE SITE CONDITIONS)

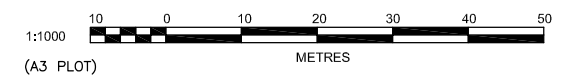
ALL BATTERS TO BE MAXIMUM 6:1

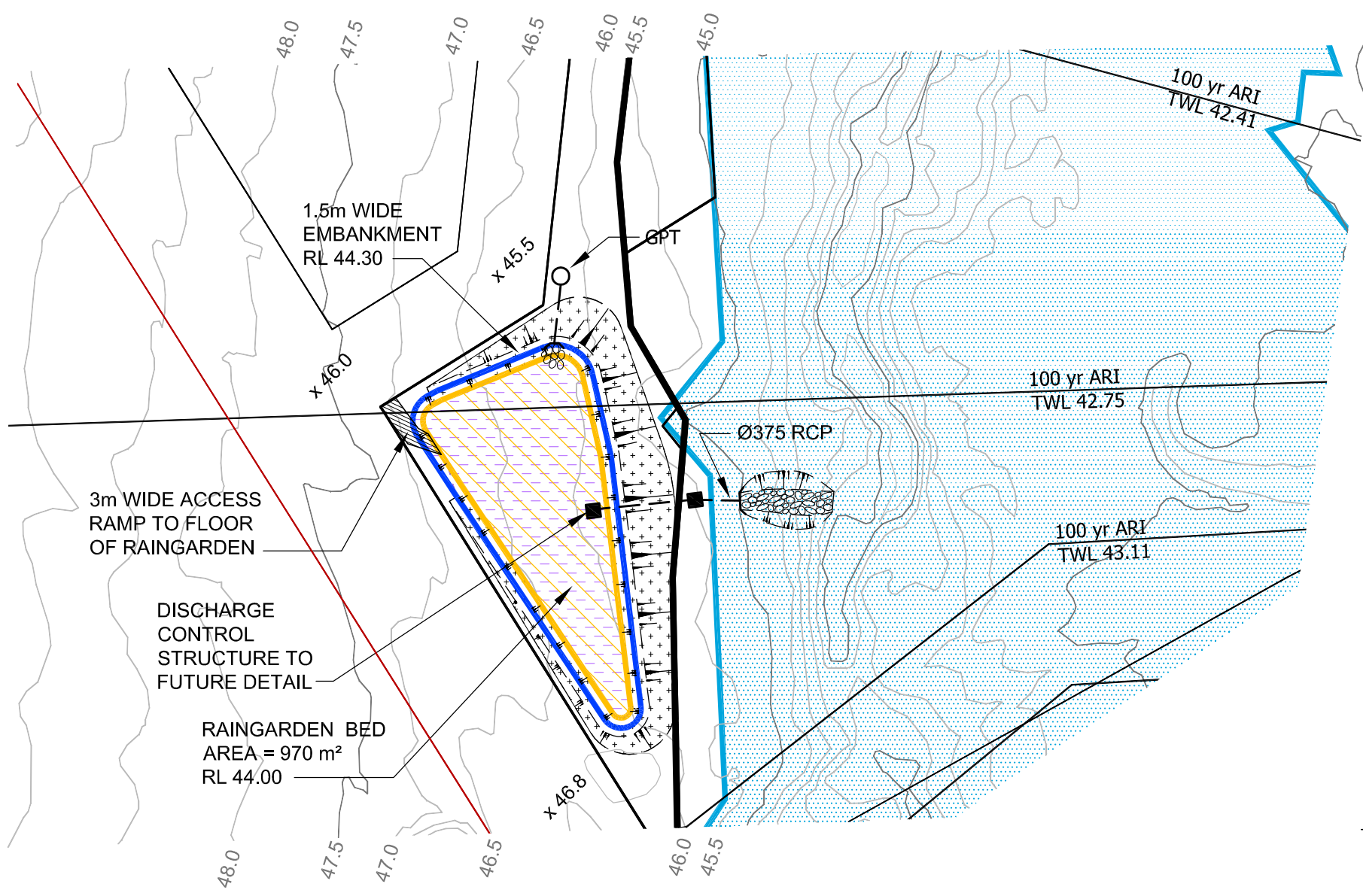
APPROXIMATE EXTENT OF 100 YEAR ARI FLOODING (ULTIMATE SITE CONDITIONS)

CONTOURS DENOTE EXISTING GROUND LEVELS


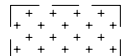

DENOTES INDICATIVE DESIGN ROAD LEVEL

**ROUSE HILL
 AREA 20 PRECINCT
 WATER CYCLE MANAGEMENT STRATEGY
 RAINGARDEN CONCEPT DESIGNS - RAINGARDENS 8 & 9**






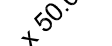
RAINGARDEN 10
 RAINGARDEN BED AREA = 970m²
 EDL 44.30
 RAINGARDEN BED RL 44.00

-  EXTENT OF CUT - 780m³ (Approx) INCLUDING RAINGARDEN
-  EXTENT OF FILL - 500m³ (Approx)
-  APPROXIMATE EXTENT OF PROPOSED RAINGARDEN

 100 yr ARI HEC-RAS SECTION AND 100 YEAR ARI FLOOD LEVEL (ULTIMATE SITE CONDITIONS)
 TWL 43.02

ALL BATTERS TO BE MAXIMUM 6:1

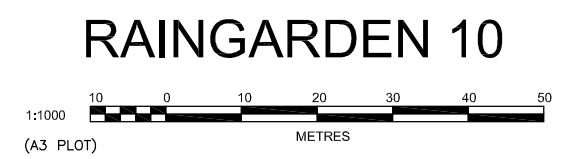
 APPROXIMATE EXTENT OF 100 YEAR ARI FLOODING (ULTIMATE SITE CONDITIONS)

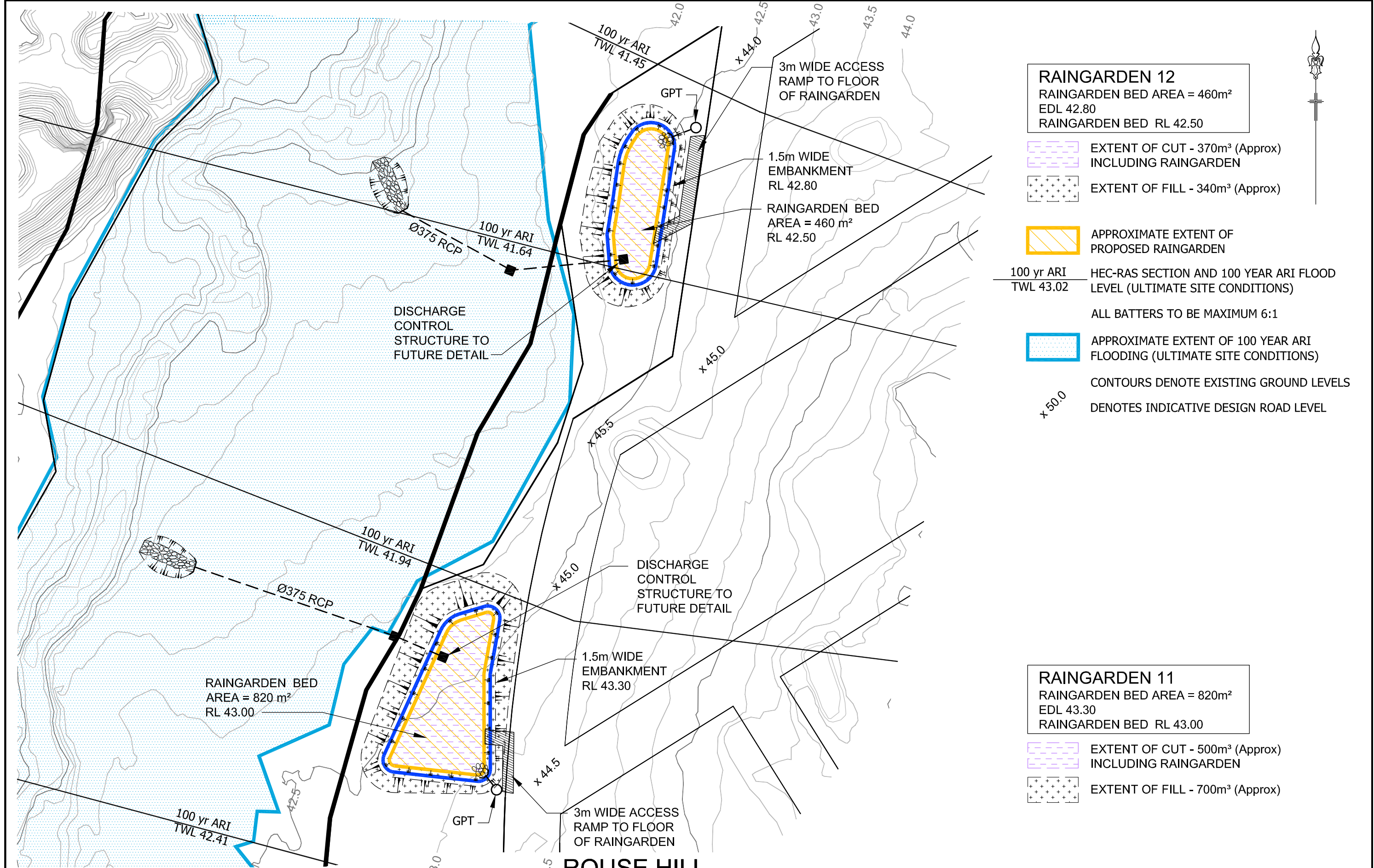
 CONTOURS DENOTE EXISTING GROUND LEVELS
 DENOTES INDICATIVE DESIGN ROAD LEVEL

**ROUSE HILL
 AREA 20 PRECINCT
 WATER CYCLE MANAGEMENT STRATEGY
 RAINGARDEN CONCEPT DESIGNS - RAINGARDEN 10**

J. WYNDHAM PRINCE
 CONSULTING CIVIL INFRASTRUCTURE ENGINEERS
 & PROJECT MANAGERS

PO Box 4366 PENRITH WESTFIELD 275 0 DX 8032 PENRITH 12/10/10 Issue: B
 P 02 4720 3300 W www.jwprince.com.au 8622_Raingardens_2 - RG_10
 F 02 4721 7638 E jwp@jwprince.com.au SHEET 9 OF 11





J. WYNDHAM PRINCE
 CONSULTING CIVIL INFRASTRUCTURE ENGINEERS
 & PROJECT MANAGERS

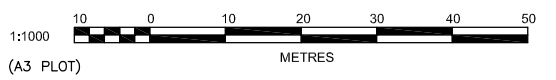
PO Box 4366 PENRITH WESTFIELD 275 0
 P 02 4720 3300
 F 02 4721 7638

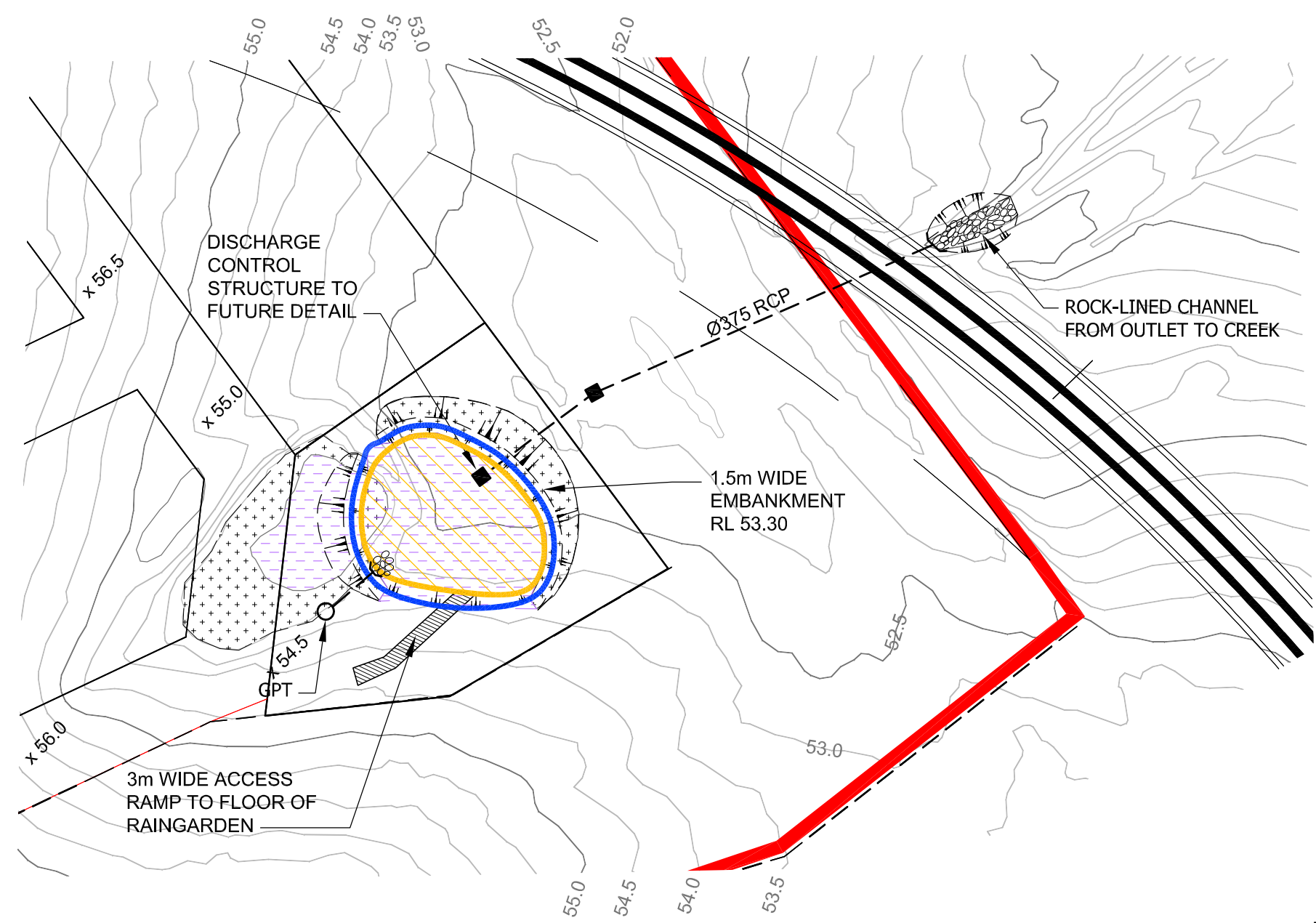
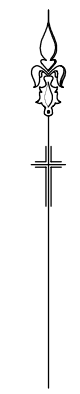
DX 8032 PENRITH
 W www.jwprince.com.au
 E jwp@jwprince.com.au

12/10/10 Issue: B
 8622_Raingardens_2 - RG_11+12
 SHEET 10 OF 11

**ROUSE HILL
 AREA 20 PRECINCT
 WATER CYCLE MANAGEMENT STRATEGY
 RAINGARDEN CONCEPT DESIGNS - RAINGARDENS 12 & 13**

RAINGARDENS 11 & 12





RAINGARDEN 13
 RAINGARDEN BED AREA = 720m²
 EDL 53.30
 RAINGARDEN BED RL 53.00

EXTENT OF CUT - 780m³ (Approx)
 INCLUDING RAINGARDEN

EXTENT OF FILL - 900m³ (Approx)

APPROXIMATE EXTENT OF PROPOSED RAINGARDEN

100 yr ARI TWL 43.02 HEC-RAS SECTION AND 100 YEAR ARI FLOOD LEVEL (ULTIMATE SITE CONDITIONS)

ALL BATTERS TO BE MAXIMUM 6:1

APPROXIMATE EXTENT OF 100 YEAR ARI FLOODING (ULTIMATE SITE CONDITIONS)

CONTOURS DENOTE EXISTING GROUND LEVELS

+ 50.0 DENOTES INDICATIVE DESIGN ROAD LEVEL

**ROUSE HILL
 AREA 20 PRECINCT
 WATER CYCLE MANAGEMENT STRATEGY
 RAINGARDEN CONCEPT DESIGNS - RAINGARDEN 13**

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622	RAINGARDEN 1
----------------------	--------------

NO.	ITEM	QTY.	UNIT	RATE		AMOUNT	
				Exc GST\$		Exc GST\$	
1	RAINGARDEN 1						
	Establishment (5%)	1	Item	\$40,000.00		\$40,000.00	
	Clearing (Allowance Only)	1	Item	\$5,000.00		\$5,000.00	
	Strip & stockpile topsoil	2,950	sq.m.	\$1.50		\$4,425.00	
	Respread topsoil	1,500	sq.m.	\$2.50		\$3,750.00	
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00			
	Earthworks - Cut to Fill On Site	770	cu.m.	\$5.00		\$3,850.00	
	Earthworks - Import material		cu.m.	\$30.00			
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	80	cu.m.	\$75.00		\$6,000.00	
	Trim and Compact	1,500	sq.m.	\$1.00		\$1,500.00	
	Planting (incl maintenance for 2 years)	1,420	sq.m.	\$9.50		\$13,490.00	
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	400	sq.m.	\$25.00		\$10,000.00	
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00		\$10,000.00	
				SUBTOTAL		\$99,000.00	
2	WATER QUALITY TREATMENT DEVICES						
	Raingarden (incl. media bed & subsoil drainage)	1,420	sq.m.	\$180.00		\$255,600.00	
	Raingarden Planting	1,420	sq.m.	\$45.00		\$63,900.00	
	GPT device and Associated Drainage Infrastructure	2	item	\$70,000.00		\$140,000.00	
				SUBTOTAL		\$460,000.00	
3	DRAINAGE / STRUCTURES						
	Raingarden Outlet Structure	1	each	\$2,000.00		\$2,000.00	
	375mm dia RCP Raingarden Outlet Pipe to Creek	80	lin.m.	\$130.00		\$10,400.00	
	Downstream Pit	1	each	\$2,000.00		\$2,000.00	
	Outlet Headwall Structure into Creek	1	each	\$2,000.00		\$2,000.00	
	Hardstand Maintenance Access to Raingarden	75	sq.m.	\$250.00		\$18,750.00	
	Rock Erosion Protection	150	sq.m.	\$250.00		\$37,500.00	
				SUBTOTAL		\$73,000.00	
TOTAL FOR ITEMS 1, 2 & 3						\$632,000.00	
4	PLANT & CONTINGENCIES						
	15% Plant & Contingency		item			\$95,000.00	
				SUBTOTAL WITH 15% CONTINGENCY		\$727,000.00	
5	ADMINISTRATION AND MANAGEMENT COSTS						
	Consultancy and Project Management Fees (6%)		item			\$44,000.00	
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item			\$10,000.00	
	Council DA Fees and planFIRST Levy		item			\$2,583.00	
	PCA Fees (Allowance Only)		item			\$10,000.00	
				SUBTOTAL		\$67,000.00	
TOTAL						\$794,000.00	

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 2

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 2				
	Establishment (5%)	1	Item	\$45,000.00	\$45,000.00
	Clearing (Allowance Only)	1	Item	\$25,000.00	\$25,000.00
	Strip & stockpile topsoil	4,500	sq.m.	\$1.50	\$6,750.00
	Respread topsoil	2,830	sq.m.	\$2.50	\$7,075.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	1,030	cu.m.	\$5.00	\$5,150.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	140	cu.m.	\$75.00	\$10,500.00
	Trim and Compact	2,830	sq.m.	\$1.00	\$2,830.00
	Planting (incl maintenance for 2 years)	1,670	sq.m.	\$9.50	\$15,865.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	750	sq.m.	\$25.00	\$18,750.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$147,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	1,670	sq.m.	\$180.00	\$300,600.00
	Raingarden Planting	1,670	sq.m.	\$45.00	\$75,150.00
	GPT device and Associated Drainage Infrastructure	2	item	\$70,000.00	\$140,000.00
				SUBTOTAL	\$516,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	50	lin.m.	\$130.00	\$6,500.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	75	sq.m.	\$250.00	\$18,750.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$47,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$710,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$107,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$817,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$50,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,788.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$73,000.00
TOTAL					\$890,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 3

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 3				
	Establishment (5%)	1	Item	\$30,000.00	\$30,000.00
	Clearing (Allowance Only)	1	Item	\$5,000.00	\$5,000.00
	Strip & stockpile topsoil	2,590	sq.m.	\$1.50	\$3,885.00
	Respread topsoil	1,340	sq.m.	\$2.50	\$3,350.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	760	cu.m.	\$5.00	\$3,800.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	120	cu.m.	\$75.00	\$9,000.00
	Trim and Compact	1,340	sq.m.	\$1.00	\$1,340.00
	Planting (incl maintenance for 2 years)	940	sq.m.	\$9.50	\$8,930.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	400	sq.m.	\$25.00	\$10,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$86,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	1,250	sq.m.	\$180.00	\$225,000.00
	Raingarden Planting	1,250	sq.m.	\$45.00	\$56,250.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$352,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	70	lin.m.	\$130.00	\$9,100.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	75	sq.m.	\$250.00	\$18,750.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$49,000.00
				TOTAL FOR ITEMS 1, 2 & 3	\$487,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$74,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$561,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$34,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,205.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$57,000.00
				TOTAL	\$618,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 4

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 4				
	Establishment (5%)	1	Item	\$20,000.00	\$20,000.00
	Clearing (Allowance Only)	1	Item	\$25,000.00	\$25,000.00
	Strip & stockpile topsoil	1,400	sq.m.	\$1.50	\$2,100.00
	Respread topsoil	915	sq.m.	\$2.50	\$2,287.50
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	380	cu.m.	\$5.00	\$1,900.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	20	cu.m.	\$75.00	\$1,500.00
	Trim and Compact	915	sq.m.	\$1.00	\$915.00
	Planting (incl maintenance for 2 years)	465	sq.m.	\$9.50	\$4,417.50
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	450	sq.m.	\$25.00	\$11,250.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$80,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	485	sq.m.	\$180.00	\$87,300.00
	Raingarden Planting	485	sq.m.	\$45.00	\$21,825.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$180,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	50	lin.m.	\$130.00	\$6,500.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	60	sq.m.	\$250.00	\$15,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$43,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$303,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$46,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$349,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$21,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,616.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$43,000.00
TOTAL					\$392,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 5

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 5				
	Establishment (5%)	1	Item	\$20,000.00	\$20,000.00
	Clearing (Allowance Only)	1	Item	\$25,000.00	\$25,000.00
	Strip & stockpile topsoil	1,180	sq.m.	\$1.50	\$1,770.00
	Respread topsoil	780	sq.m.	\$2.50	\$1,950.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	300	cu.m.	\$5.00	\$1,500.00
	Earthworks - Import material	50	cu.m.	\$30.00	\$1,500.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	780	sq.m.	\$1.00	\$780.00
	Planting (incl maintenance for 2 years)	380	sq.m.	\$9.50	\$3,610.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	400	sq.m.	\$25.00	\$10,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$77,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	400	sq.m.	\$180.00	\$72,000.00
	Raingarden Planting	400	sq.m.	\$45.00	\$18,000.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$160,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	60	lin.m.	\$130.00	\$7,800.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	60	sq.m.	\$250.00	\$15,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$44,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$281,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$43,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$324,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$20,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,541.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$42,000.00
TOTAL					\$366,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 6

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 6				
	Establishment (5%)	1	Item	\$55,000.00	\$55,000.00
	Clearing (Allowance Only)	1	Item	\$200,000.00	\$200,000.00
	Strip & stockpile topsoil	3,700	sq.m.	\$1.50	\$5,550.00
	Respread topsoil	1,940	sq.m.	\$2.50	\$4,850.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	970	cu.m.	\$5.00	\$4,850.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	150	cu.m.	\$75.00	\$11,250.00
	Trim and Compact	1,940	sq.m.	\$1.00	\$1,940.00
	Planting (incl maintenance for 2 years)	1,040	sq.m.	\$9.50	\$9,880.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	900	sq.m.	\$25.00	\$22,500.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$326,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	1,760	sq.m.	\$180.00	\$316,800.00
	Raingarden Planting	1,760	sq.m.	\$45.00	\$79,200.00
	GPT device and Associated Drainage Infrastructure	2	item	\$70,000.00	\$140,000.00
				SUBTOTAL	\$536,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	70	lin.m.	\$130.00	\$9,100.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	60	sq.m.	\$250.00	\$15,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$46,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$908,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$137,000.00
SUBTOTAL WITH 15% CONTINGENCY					\$1,045,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$63,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$3,349.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$87,000.00
TOTAL					\$1,132,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 7

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 7				
	Establishment (5%)	1	Item	\$85,000.00	\$85,000.00
	Clearing (Allowance Only)	1	Item	\$100,000.00	\$100,000.00
	Strip & stockpile topsoil	7,430	sq.m.	\$1.50	\$11,145.00
	Respread topsoil	3,090	sq.m.	\$2.50	\$7,725.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	1,970	cu.m.	\$5.00	\$9,850.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	200	cu.m.	\$75.00	\$15,000.00
	Trim and Compact	3,090	sq.m.	\$1.00	\$3,090.00
	Planting (incl maintenance for 2 years)	1,690	sq.m.	\$9.50	\$16,055.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	1,400	sq.m.	\$25.00	\$35,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$293,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	4,340	sq.m.	\$180.00	\$781,200.00
	Raingarden Planting	4,340	sq.m.	\$45.00	\$195,300.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$1,047,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	110	lin.m.	\$130.00	\$14,300.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	120	sq.m.	\$250.00	\$30,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$66,000.00
				TOTAL FOR ITEMS 1, 2 & 3	\$1,406,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$211,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$1,617,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$98,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$4,539.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$123,000.00
				TOTAL	\$1,740,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 8

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 8				
	Establishment (5%)	1	Item	\$45,000.00	\$45,000.00
	Clearing (Allowance Only)	1	Item	\$100,000.00	\$100,000.00
	Strip & stockpile topsoil	3,720	sq.m.	\$1.50	\$5,580.00
	Respread topsoil	1,820	sq.m.	\$2.50	\$4,550.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	1,200	cu.m.	\$5.00	\$6,000.00
	Earthworks - Import material	100	cu.m.	\$30.00	\$3,000.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	1,820	sq.m.	\$1.00	\$1,820.00
	Planting (incl maintenance for 2 years)	1,320	sq.m.	\$9.50	\$12,540.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	500	sq.m.	\$25.00	\$12,500.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$201,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	1,900	sq.m.	\$180.00	\$342,000.00
	Raingarden Planting	1,900	sq.m.	\$45.00	\$85,500.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$498,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	100	lin.m.	\$130.00	\$13,000.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	60	sq.m.	\$250.00	\$15,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$49,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$748,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$113,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$861,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$52,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,889.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$75,000.00
TOTAL					\$936,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 9

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 9				
	Establishment (5%)	1	Item	\$15,000.00	\$15,000.00
	Clearing (Allowance Only)	1	Item	\$50,000.00	\$50,000.00
	Strip & stockpile topsoil	600	sq.m.	\$1.50	\$900.00
	Respread topsoil	410	sq.m.	\$2.50	\$1,025.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	150	cu.m.	\$5.00	\$750.00
	Earthworks - Import material	100	cu.m.	\$30.00	\$3,000.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	410	sq.m.	\$1.00	\$410.00
	Planting (incl maintenance for 2 years)	210	sq.m.	\$9.50	\$1,995.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	200	sq.m.	\$25.00	\$5,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$89,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	190	sq.m.	\$180.00	\$34,200.00
	Raingarden Planting	190	sq.m.	\$45.00	\$8,550.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$113,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	20	lin.m.	\$130.00	\$2,600.00
	Downstream Pit		each	\$2,000.00	
	Outlet Headwall Structure into Creek		each	\$2,000.00	
	Hardstand Maintenance Access to Raingarden	50	sq.m.	\$250.00	\$12,500.00
	Rock Erosion Protection		sq.m.	\$250.00	
				SUBTOTAL	\$18,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$220,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$33,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$253,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$16,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,329.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$38,000.00
TOTAL					\$291,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 10

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 10				
	Establishment (5%)	1	Item	\$25,000.00	\$25,000.00
	Clearing (Allowance Only)	1	Item	\$5,000.00	\$5,000.00
	Strip & stockpile topsoil	2,300	sq.m.	\$1.50	\$3,450.00
	Respread topsoil	1,330	sq.m.	\$2.50	\$3,325.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	800	cu.m.	\$5.00	\$4,000.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	300	cu.m.	\$75.00	\$22,500.00
	Trim and Compact	1,330	sq.m.	\$1.00	\$1,330.00
	Planting (incl maintenance for 2 years)	630	sq.m.	\$9.50	\$5,985.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	700	sq.m.	\$25.00	\$17,500.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$99,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	970	sq.m.	\$180.00	\$174,600.00
	Raingarden Planting	970	sq.m.	\$45.00	\$43,650.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$289,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	30	lin.m.	\$130.00	\$3,900.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	50	sq.m.	\$250.00	\$12,500.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$38,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$426,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$64,000.00
SUBTOTAL WITH 15% CONTINGENCY					\$490,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$30,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,036.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$53,000.00
TOTAL					\$543,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 11

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 11				
	Establishment (5%)	1	Item	\$25,000.00	\$25,000.00
	Clearing (Allowance Only)	1	Item	\$50,000.00	\$50,000.00
	Strip & stockpile topsoil	2,150	sq.m.	\$1.50	\$3,225.00
	Respread topsoil	1,330	sq.m.	\$2.50	\$3,325.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	500	cu.m.	\$5.00	\$2,500.00
	Earthworks - Import material	200	cu.m.	\$30.00	\$6,000.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	1,330	sq.m.	\$1.00	\$1,330.00
	Planting (incl maintenance for 2 years)	830	sq.m.	\$9.50	\$7,885.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	500	sq.m.	\$25.00	\$12,500.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$122,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	820	sq.m.	\$180.00	\$147,600.00
	Raingarden Planting	820	sq.m.	\$45.00	\$36,900.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$255,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	75	lin.m.	\$130.00	\$9,750.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	75	sq.m.	\$250.00	\$18,750.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$50,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$427,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$65,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$492,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$30,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$2,042.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$53,000.00
TOTAL					\$545,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 12

NO.	ITEM	QTY.	UNIT	RATE	AMOUNT
				Exc GST\$	Exc GST\$
1	RAINGARDEN 12				
	Establishment (5%)	1	Item	\$20,000.00	\$20,000.00
	Clearing (Allowance Only)	1	Item	\$30,000.00	\$30,000.00
	Strip & stockpile topsoil	1,340	sq.m.	\$1.50	\$2,010.00
	Respread topsoil	880	sq.m.	\$2.50	\$2,200.00
	Earthworks - Excavate and Dispose of Unsound Material		cu.m.	\$200.00	
	Earthworks - Cut to Fill On Site	340	cu.m.	\$5.00	\$1,700.00
	Earthworks - Import material		cu.m.	\$30.00	
	Earthworks - Cut to Dispose off Site (incl. disposal fees)	50	cu.m.	\$75.00	\$3,750.00
	Trim and Compact	880	sq.m.	\$1.00	\$880.00
	Planting (incl maintenance for 2 years)	430	sq.m.	\$9.50	\$4,085.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	450	sq.m.	\$25.00	\$11,250.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$86,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	460	sq.m.	\$180.00	\$82,800.00
	Raingarden Planting	460	sq.m.	\$45.00	\$20,700.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$174,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	70	lin.m.	\$130.00	\$9,100.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	120	sq.m.	\$250.00	\$30,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$61,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$321,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$49,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$370,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$23,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,678.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$45,000.00
TOTAL					\$415,000.00

PRELIMINARY COST ESTIMATE

PROJECT: Rouse Hill Area 20 - Section 94 Raingardens

CLIENT: Department of Planning

JWP Job Number: 8622

RAINGARDEN 13

NO.	ITEM	QTY.	UNIT	RATE Exc GST\$	AMOUNT Exc GST\$
1	RAINGARDEN 13				
	Establishment (5%)	1	Item	\$25,000.00	\$25,000.00
	Clearing (Allowance Only)	1	Item	\$10,000.00	\$10,000.00
	Strip & stockpile topsoil	2,250	sq.m.	\$1.50	\$3,375.00
	Respread topsoil	1,530	sq.m.	\$2.50	\$3,825.00
	Earthworks - Excavate and Dispose of Unsound Material	200	cu.m.	\$200.00	\$40,000.00
	Earthworks - Cut to Fill On Site	580	cu.m.	\$5.00	\$2,900.00
	Earthworks - Import material	50	cu.m.	\$30.00	\$1,500.00
	Earthworks - Cut to Dispose off Site (incl. disposal fees)		cu.m.	\$75.00	
	Trim and Compact	1,530	sq.m.	\$1.00	\$1,530.00
	Planting (incl maintenance for 2 years)	1,130	sq.m.	\$9.50	\$10,735.00
	Reinforced Turfing on Weir and Spillway (incl 2 yr maint)	400	sq.m.	\$25.00	\$10,000.00
	Soil & Water Management (Allowance Only)	1	item	\$10,000.00	\$10,000.00
				SUBTOTAL	\$119,000.00
2	WATER QUALITY TREATMENT DEVICES				
	Raingarden (incl. media bed & subsoil drainage)	720	sq.m.	\$180.00	\$129,600.00
	Raingarden Planting	720	sq.m.	\$45.00	\$32,400.00
	GPT device and Associated Drainage Infrastructure	1	item	\$70,000.00	\$70,000.00
				SUBTOTAL	\$232,000.00
3	DRAINAGE / STRUCTURES				
	Raingarden Outlet Structure	1	each	\$2,000.00	\$2,000.00
	375mm dia RCP Raingarden Outlet Pipe to Creek	80	lin.m.	\$130.00	\$10,400.00
	Downstream Pit	1	each	\$2,000.00	\$2,000.00
	Outlet Headwall Structure into Creek	1	each	\$2,000.00	\$2,000.00
	Hardstand Maintenance Access to Raingarden	80	sq.m.	\$250.00	\$20,000.00
	Rock Erosion Protection	60	sq.m.	\$250.00	\$15,000.00
				SUBTOTAL	\$52,000.00
TOTAL FOR ITEMS 1, 2 & 3					\$403,000.00
4	PLANT & CONTINGENCIES				
	15% Plant & Contingency		item		\$61,000.00
				SUBTOTAL WITH 15% CONTINGENCY	\$464,000.00
5	ADMINISTRATION AND MANAGEMENT COSTS				
	Consultancy and Project Management Fees (6%)		item		\$28,000.00
	Government Agency Approvals (DSC, RTA, DECCW, etc - Allowance Only)		item		\$10,000.00
	Council DA Fees and planFIRST Levy		item		\$1,958.00
	PCA Fees (Allowance Only)		item		\$10,000.00
				SUBTOTAL	\$50,000.00
TOTAL					\$514,000.00