REFER INSET FOR CONTINUATION

INSET

PRECINCT 11

PRECINCT BOUNDARY

PRECINCT 10

PRECINCT 9

PRECINCT 12

PRECINCT 6

PRECINCT 7

PRECINCT 8

FUTURE MINOR DRAIN 1

FUTURE MINOR DRAIN 2

SANDY ROAD

STAGE 1

STAGE 2

UTIL.

COMM.

SCHOOL

COBAKI CREEK

COBAKI PARKWAY

ENVIRONMENTAL RESERVE

LIMIT OF EARTHWORKS

NO EARTHWORKS TO BE UNDERTAKEN IN THE ENVIRONMENTAL PROTECTION AREA. EXTENT OF THE PROTECTION AREA TO BE CLEARLY MARKED/SURVEYED ON SITE PRIOR TO EARTHWORKS CONSTRUCTION COMMENCING.

FILLING OF EXISTING DRAIN TO BE UNDERTAKEN ONCE DRAIN DIVERSION WORKS ARE COMPLETED (EXTERNAL LOW FLOW CHANNEL - SOUTH OF SANDY ROAD) AND APPROVAL OF APPLICABLE MANAGEMENT PLANS (ie. SITE REGENERATION & REVEGATION PLAN).

CONNECT MAJOR CENTRAL OPEN DRAIN AND LOW FLOW CHANNEL TO EXISTING DUNN'S DRAIN TEMPORARILY UNTIL SANDY ROAD BOX CULVERTS ARE CONSTRUCTED AND OPERATIONAL.

LEGEND

- FILL
- CUT
- EXISTING DUNN'S DRAIN
- CENTRELINE OF OPEN DRAIN
- CENTRELINE OF LOW FLOW CHANNEL
- STATE BORDER
- CENTRAL OPEN SPACE BOUNDARY
- STAGE BOUNDARY
- 1000.000 ROAD CHAINAGES
- *1000.000* DRAINAGE CHAINAGES

FOR EARTHWORKS SECTIONS REFER DRAWING YC0229-1E1-ES01 & ES02

STATUS	CONSTRUCTION CERTIFICATE	FOR APPROVAL	
F	PRECINCT 9 AND PRECINCT 11 BORROW AREAS ADDED	M.B.	11.12.13
E	MINOR OPEN DRAIN 5 ADDED TO DRAWING SET	T.W.	02.10.13
D	BULK EARTHWORKS CONSTRUCTION CERTIFICATE	M.G.	15.02.13
C	RESPONSE TO 3rd PARTY SWMP REVIEW	H.W.	18.10.12
B	RESPONSE TO TSC REQUEST FOR INFORMATION (RFI)	H.W.	04.05.12
A	ORIGINAL ISSUE	G.S.	18.03.11
REV	DESCRIPTION	DRAWN	DATE

DRAWING IS NOT TO BE SCALED

SCALE (AT ORIGINAL SHEET SIZE) 50 0 50 100 SCALE 1:2500

ORIGINAL SHEET SIZE A1

CLIENT: LEDA MANORSTEAD Pty Ltd

PROJECT: COBAKI, TWEED HEADS WEST
CENTRAL OPEN SPACE
BULK EARTHWORKS
CONSTRUCTION CERTIFICATE
CIVIL ENGINEERING DRAWINGS

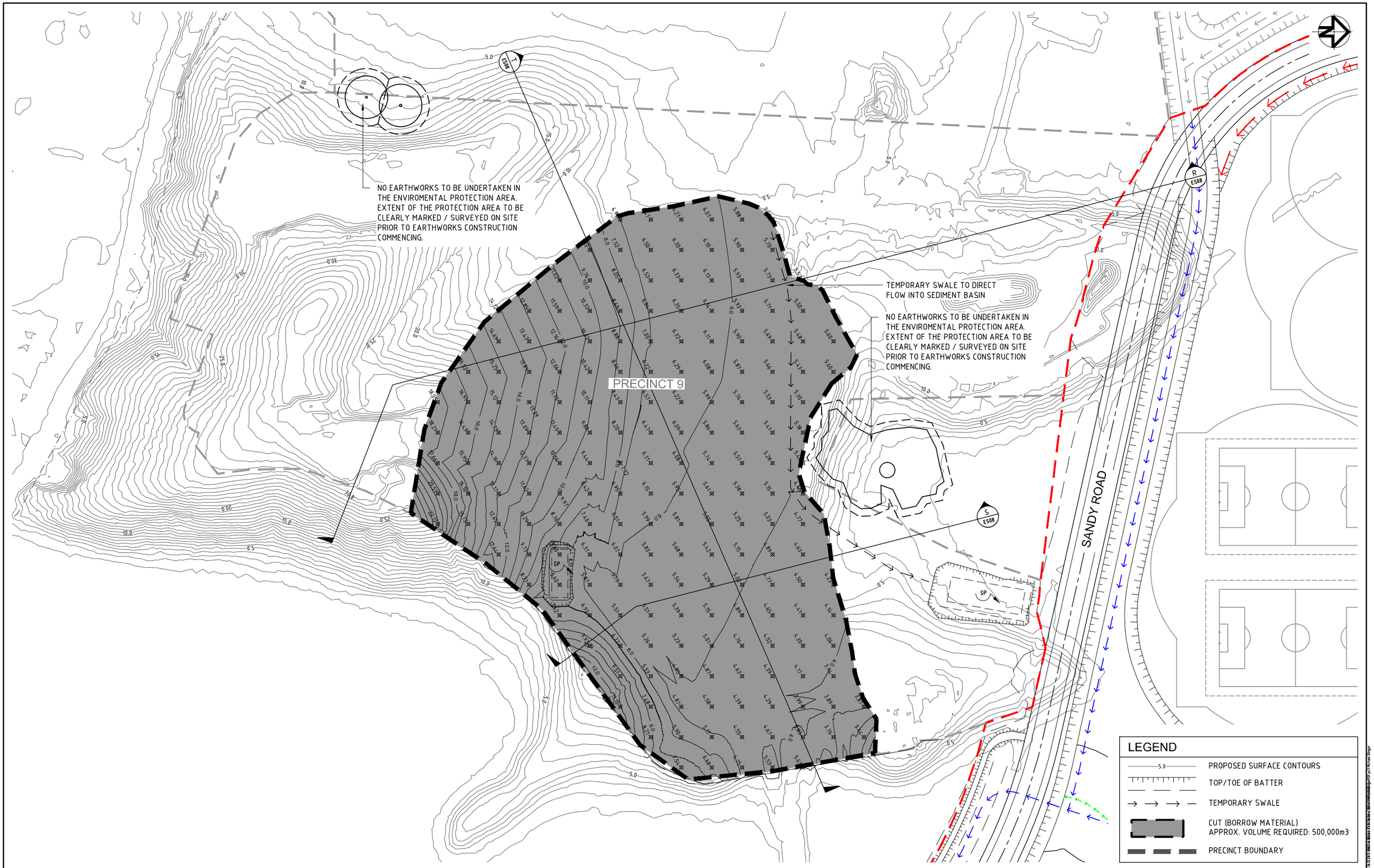
SEDGMAN YEATS
LEVEL 1, 193 FERRY ROAD SOUTHPORT QLD 4215 AUSTRALIA
T 07 5558 4200 F 07 5503 1672 info@yeats.com.au www.yeats.com.au

TITLE: BULK EARTHWORKS CUT & FILL PLAN
SHEET 1 OF 2

TASK	BY	INITIAL	DATE
REVIEW	CS		18.03.11
DESIGN	CJE		18.03.11
DRAWN	GS		18.03.11

APPROVED RPEQ No 7817

DRAWING NUMBER YC0229-1E1-EC01 REVISION F



STATUS	CONSTRUCTION CERTIFICATE		FOR APPROVAL
A	ORIGINAL ISSUE	G.S.	11.12.13
REV	DESCRIPTION	DRAWN	DATE

DRAWING IS NOT TO BE SCALED

SCALE (AT ORIGINAL SHEET SIZE) — SCALE 10 0 10 20 30 40 50 1:1000

ORIGINAL SHEET SIZE: A1

CLIENT: LEDA MANORSTEAD Pty Ltd

PROJECT: COBAKI, TWEED HEADS WEST
CENTRAL OPEN SPACE
BULK EARTHWORKS
CONSTRUCTION CERTIFICATE
CIVIL ENGINEERING DRAWINGS

SEDGMAN YEATS
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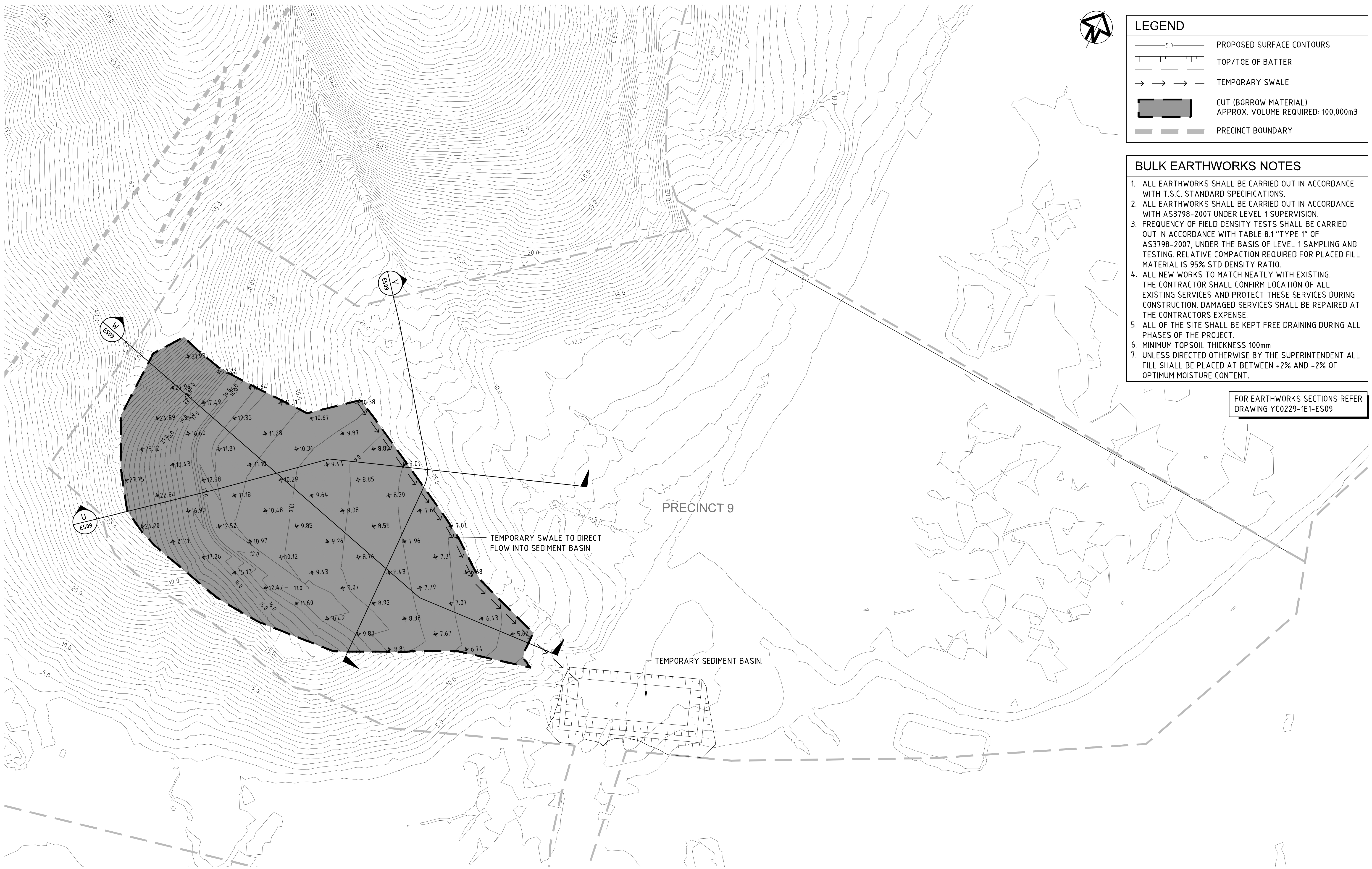
TITLE: PRECINCT 9
BORROW AREA EARTHWORKS PLAN

TASK	BY	INITIAL	DATE
REVIEW	CS		11.12.13
DESIGN	CJE		11.12.13
DRAWN	GS		11.12.13

APPROVED — RPEQ No 7817

DRAWING NUMBER: YC0229-1E1-EW13 — REVISION: A



LEGEND

- PROPOSED SURFACE CONTOURS
- TOP/TOE OF BATTER
- TEMPORARY SWALE
- CUT (BORROW MATERIAL) APPROX. VOLUME REQUIRED: 100,000m3
- PRECINCT BOUNDARY

BULK EARTHWORKS NOTES

1. ALL EARTHWORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH T.S.C. STANDARD SPECIFICATIONS.
2. ALL EARTHWORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS3798-2007 UNDER LEVEL 1 SUPERVISION.
3. FREQUENCY OF FIELD DENSITY TESTS SHALL BE CARRIED OUT IN ACCORDANCE WITH TABLE 8.1 "TYPE 1" OF AS3798-2007, UNDER THE BASIS OF LEVEL 1 SAMPLING AND TESTING. RELATIVE COMPACTION REQUIRED FOR PLACED FILL MATERIAL IS 95% STD DENSITY RATIO.
4. ALL NEW WORKS TO MATCH NEATLY WITH EXISTING. THE CONTRACTOR SHALL CONFIRM LOCATION OF ALL EXISTING SERVICES AND PROTECT THESE SERVICES DURING CONSTRUCTION. DAMAGED SERVICES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
5. ALL OF THE SITE SHALL BE KEPT FREE DRAINING DURING ALL PHASES OF THE PROJECT.
6. MINIMUM TOPSOIL THICKNESS 100mm
7. UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT ALL FILL SHALL BE PLACED AT BETWEEN +2% AND -2% OF OPTIMUM MOISTURE CONTENT.

FOR EARTHWORKS SECTIONS REFER DRAWING YC0229-1E1-ES09

STATUS: CONSTRUCTION CERTIFICATE — FOR APPROVAL

REV	DESCRIPTION	DRAWN	DATE
A	ORIGINAL ISSUE	G.S.	11.12.13

DRAWING IS NOT TO BE SCALED

SCALE (AT ORIGINAL SHEET SIZE) 1:1000 — ORIGINAL SHEET SIZE A1

CLIENT: LEDA MANORSTEAD Pty Ltd

PROJECT: COBAKI, TWEED HEADS WEST CENTRAL OPEN SPACE BULK EARTHWORKS CONSTRUCTION CERTIFICATE
CIVIL ENGINEERING DRAWINGS

SEDGMAN YEATS
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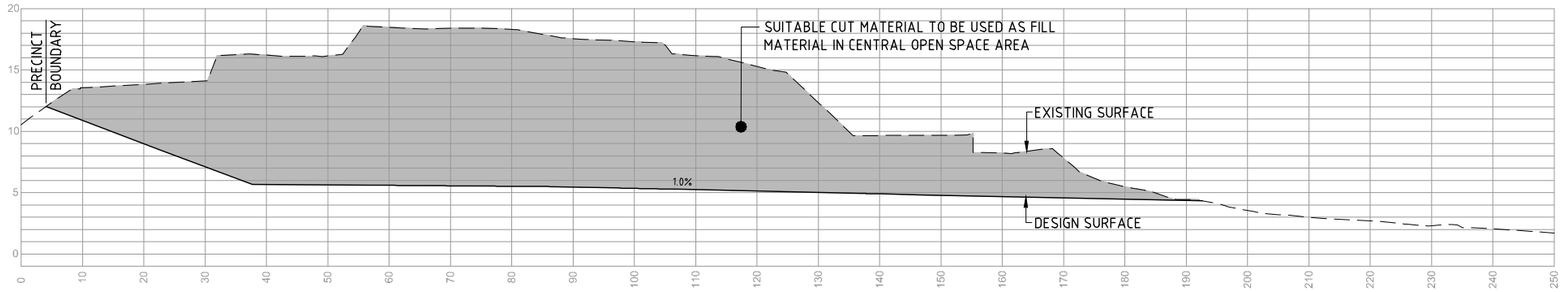
TITLE: PRECINCT 11 BORROW AREA EARTHWORKS PLAN

TASK	BY	INITIAL	DATE
REVIEW	CS		11.12.13
DESIGN	CJE		11.12.13
DRAWN	GS		11.12.13

APPROVED — RPEQ No 7817

DRAWING NUMBER: YC0229-1E1-EW14 — REVISION: A



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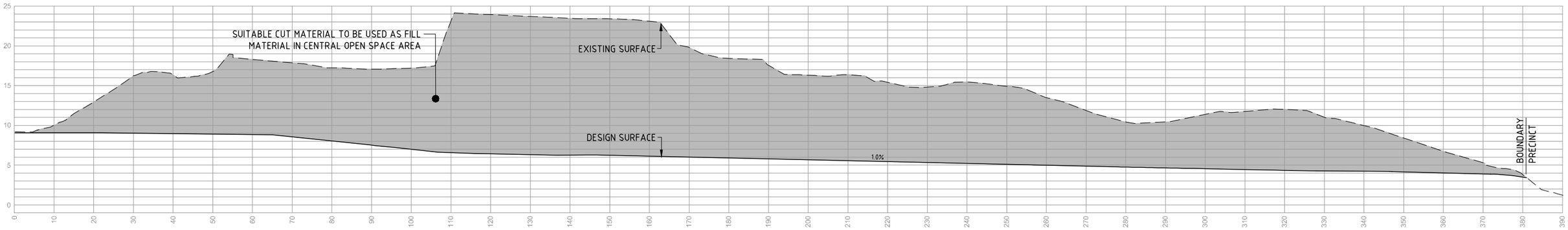
SCALE 1:500 h
SCALE 1:250 v



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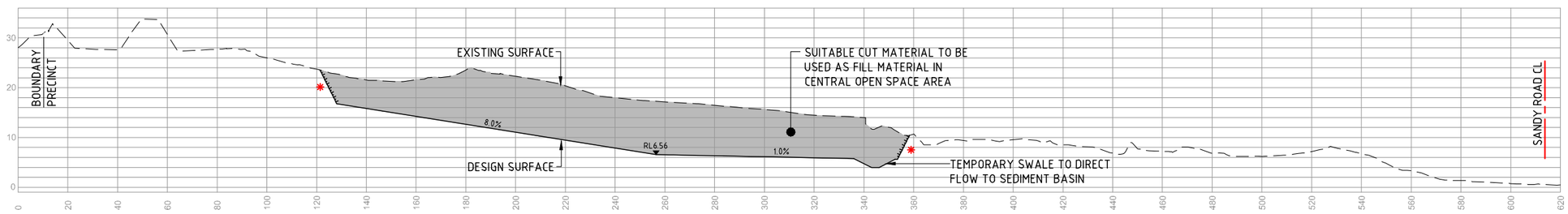

SECTION R EC01
SCALE 1:1000 h
SCALE 1:500 v

NOTE

✳ CONTRACTOR TO APPLY A TEMPORARY 1 in 2 BATTER AT THIS LOCATION DURING BULK EARTHWORKS PHASE. LANDFORMING OF FUTURE EARTHWORKS IS TO BE UNDERTAKEN AS PART OF FUTURE WORKS OF PRECINCT 11 AND SHALL NOT BE INCLUDED IN THE BORROW AREAS FOR THE CENTRAL OPEN SPACE.

LEGEND

- FINAL DESIGN SURFACE
- EXISTING DESIGN SURFACE
- TEMPORARY 1 in 2 BATTER
- CUT (BORROW MATERIAL)

STATUS	CONSTRUCTION CERTIFICATE	FOR APPROVAL	
A	ORIGINAL ISSUE	G.S.	11.12.13
REV	DESCRIPTION	DRAWN	DATE

SCALE (AT ORIGINAL SHEET SIZE): AS SHOWN

ORIGINAL SHEET SIZE: A1

CLIENT: LEDA MANORSTEAD Pty Ltd

PROJECT: COBAKI, TWEED HEADS WEST
CENTRAL OPEN SPACE
BULK EARTHWORKS
CONSTRUCTION CERTIFICATE
CIVIL ENGINEERING DRAWINGS

SEDGMAN YEATS
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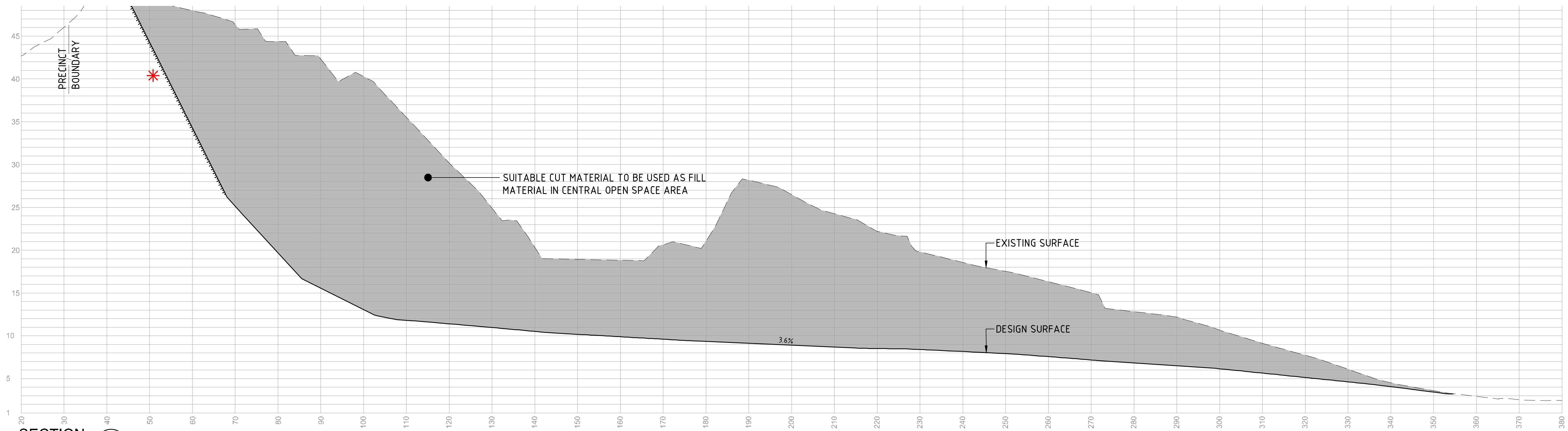
TITLE: PRECINCT 9
BORROW AREA EARTHWORKS SECTIONS

TASK	BY	INITIAL	DATE
REVIEW	CS		11.12.13
DESIGN	MB		11.12.13
DRAWN	GS		11.12.13

APPROVED RPEQ No 7817

DRAWING NUMBER: YC0229-1E1-ES08 REVISION: A



SECTION W (EC01)
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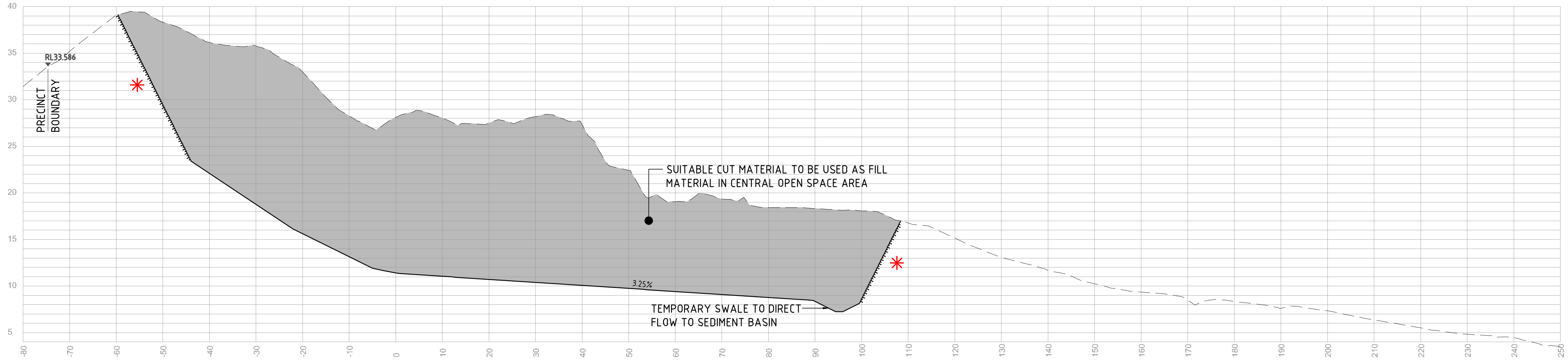

SECTION U (EC01)
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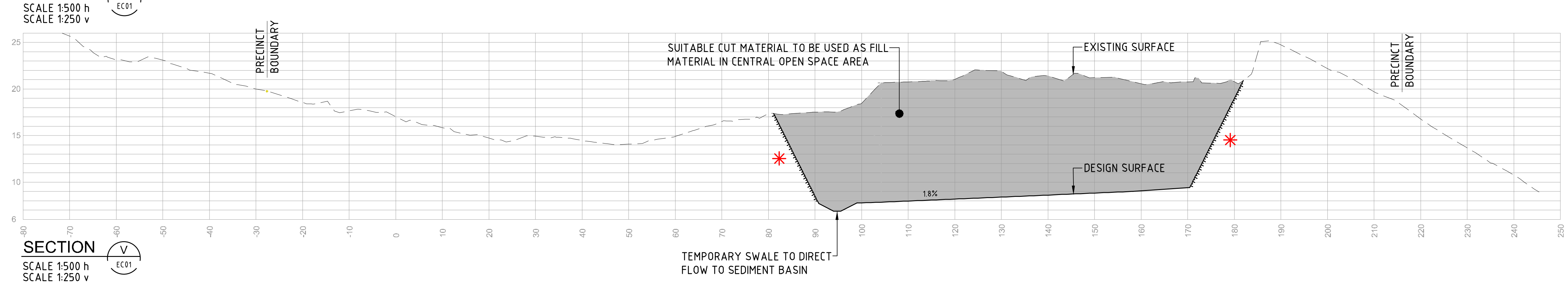

SECTION V (EC01)
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SCALE 1:250 v

NOTE

* CONTRACTOR TO APPLY A TEMPORARY 1 in 2 BATTER AT THIS LOCATION DURING BULK EARTHWORKS PHASE. LANDFORMING OF FUTURE EARTHWORKS IS TO BE UNDERTAKEN AS PART OF FUTURE WORKS OF PRECINCT 11 AND SHALL NOT BE INCLUDED IN THE BORROW AREAS FOR THE CENTRAL OPEN SPACE.

LEGEND

- FINAL DESIGN SURFACE
- EXISTING DESIGN SURFACE
- TEMPORARY 1 in 2 BATTER
- CUT (BORROW MATERIAL)

STATUS: CONSTRUCTION CERTIFICATE — FOR APPROVAL

REV	DESCRIPTION	DRAWN	DATE
A	ORIGINAL ISSUE	G.S.	11.12.13

DRAWING IS NOT TO BE SCALED

SCALE (AT ORIGINAL SHEET SIZE): AS SHOWN — ORIGINAL SHEET SIZE: A1

CLIENT: LEDA MANORSTEAD Pty Ltd

PROJECT: COBAKI, TWEED HEADS WEST CENTRAL OPEN SPACE BULK EARTHWORKS CONSTRUCTION CERTIFICATE
CIVIL ENGINEERING DRAWINGS

SEDGMAN YEATS
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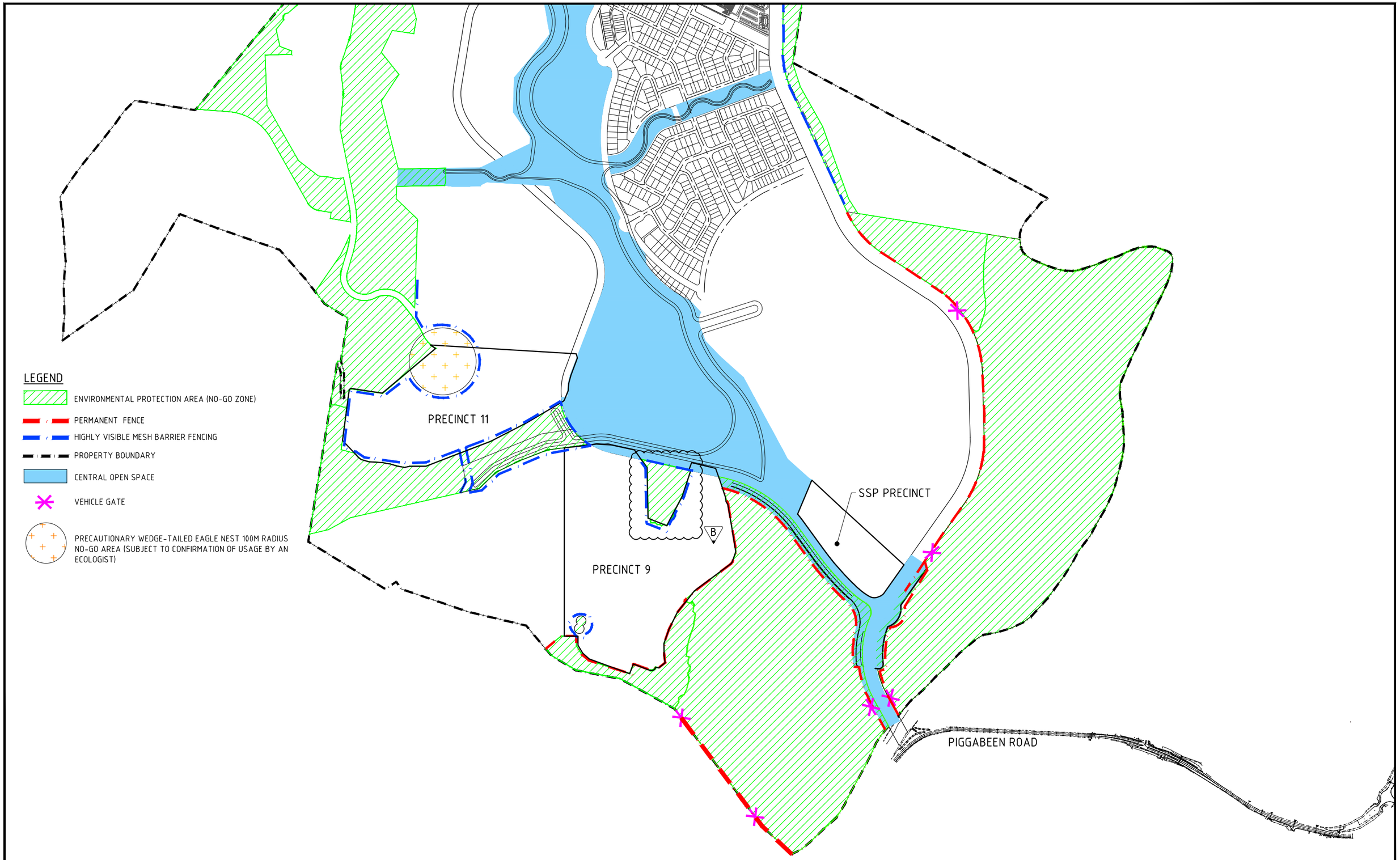
TITLE: PRECINCT 11 BORROW AREA EARTHWORKS SECTIONS

TASK	BY	INITIAL	DATE
REVIEW	CS		11.12.13
DESIGN	CJE		11.12.13
DRAWN	GS		11.12.13

APPROVED — RPEQ No 7817

DRAWING NUMBER: YC0229-1E1-ES09 — REVISION: A

APPENDIX B – EARTHWORKS FENCING PLAN



REVISION		DATE	DES/DFT	APP'D
B	Barrier Fencing Amended	10.12.13	SS/DK	
A	Issued for Approval	24.10.13	SS/JF	

LEDA

Principal
Leda Developments
Suite 14, Level 1, 46 Cavill Avenue
Surfers Paradise

Project Leader
S.Sandford
Designed
S.Sandford
Drawn
J.Flynn
Checked

Authorised

Date
September 2011

N

Scale @ A1

smec urban consulting group

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COBAKI ESTATE
OVERALL
Tweed Shire Council

Fencing Plan Precinct 9,11 and SSP
Drawing No. 3310071E-044 **Rev B**

Sheet No. 1 of 1

Subject to Approval
Not to be used for construction

APPENDIX C – NON-COMPLIANCE AND CORRECTIVE ACTION REGISTER

Non Conformance Number	Date	Location	Description	Works required	Allowance of action (days)	Photo log number	Date closed out	Closed out by (name and signature)
								Name: Signature:
								Name: Signature:
								Name: Signature:
								Name: Signature:
								Name: Signature:
								Name: Signature:
								Name: Signature:
								Name: Signature:
								Name: Signature:
								Name: Signature:
								Name: Signature:
								Name: Signature:

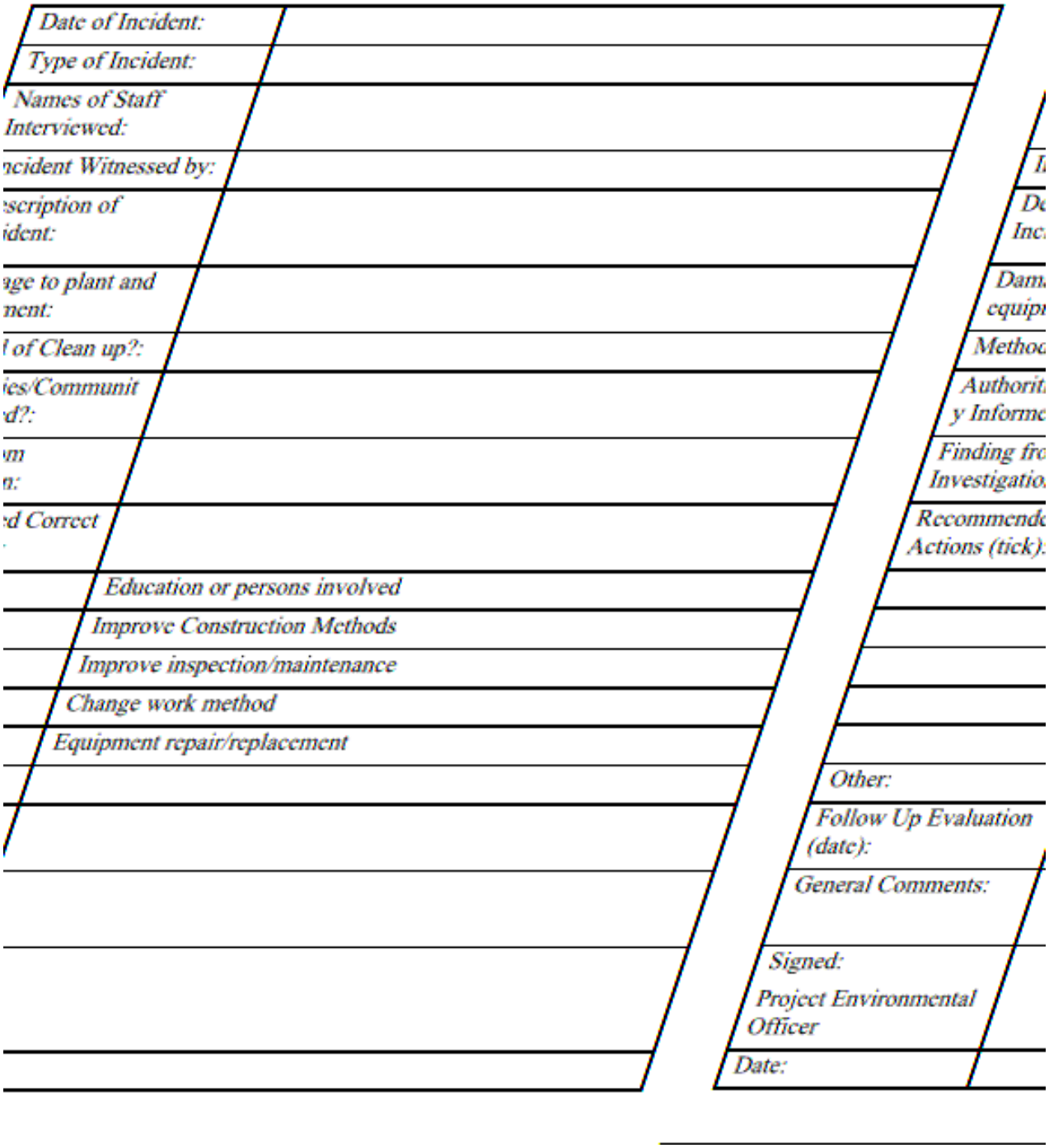
APPENDIX D – COMPLAINTS REGISTER

COMPLAINTS REGISTER

Complainants Name	Address	Contact Phone Number	Brief Description of Complaint	Resolved (Date)

APPENDIX E – ENVIRONMENTAL INCIDENT REGISTER

ENVIRONMENTAL INCIDENT REPORT



APPENDIX F – ENVIRONMENTAL TRAINING REGISTER

Name	Company	Position on Project	Site Induction	Training Details	CEMP Version

APPENDIX G – SITE INSPECTION CHECKLISTS

Project:	
Inspection Date:	**Area:**

PRE-CLEARING CHECKLIST

#	Control Measure	Yes	No	N/A	Comment/Corrective Action
1	Has the boundary of the clearing zone been fenced/delineated				
2	Has the ecologist marked the communities and or individuals of threatened plants?				
3	Has the seed and plant material collection been undertaken?				
4	Has the in situ significant plants been fenced?				
5	Have habitat trees been identified?				
6	Has weed mapping and eradication been completed?				
7	Have areas of weed infected topsoil been separated/removed?				
8	Has vegetation and topsoil to be salvaged been identified?				
9	Mulching and chipping plant established?				
10	Have clearing contractors been educated on the no-go/ environmental protection areas?				
11	Have heritage items been identified and protected?				
12	Have permits to remove saltmarsh been gained from Fisheries?				
13	Have threatened fauna surveys been undertaken?				
14	Have all sediment control measures been installed?				
15	Have habitat trees been flagged for removal as stage 2 of the clearing works?				
16	Are WIRES and the spotter/catcher organised for clearing/				
17	Any other issues to add or delete from the checklist?				
Completed by:			**Signature:**		

Project:	COBAKI ESTATE
Inspection Date:	Area/Precinct:

WEEKLY CONSTRUCTION CHECKLIST

#	Control Measure	Yes	No	N/A	Comments/Corrective Action
1	Is drainage from the project site being directed through necessary controls prior to entering any watercourse?				
2	Is vegetation being protected with Environmental Protection Zones?				
3	Is the integrity of the delineation fencing along the Environmental Protection Zone buffer satisfactory?				
4	Are fauna structures (koala posts and nest boxes) in place?				
5	Have hollows been salvaged for re-use?				
6	Have hollows been inspected by the fauna specialist?				
7	Has the area been inspected for threatened fauna?				
8	Has flora monitoring been undertaken?				
9	Is monitoring of water quality being undertaken?				
10	Is riparian and wetland monitoring being undertaken?				
11	Are disturbed areas being rehabilitated as soon as practical?				
12	Are suitable sedimentation and erosion control devices in place where necessary?				
13	Are protected areas being protected from sediment and erosion impacts?				
14	Are areas surrounding waterways satisfactorily stable?				
15	Is there evidence to suggest changes should be made to the site induction relating to flora and fauna aspects? (i.e. reoccurring issues, prevention measures, etc)				
16	Have any injuries or death to wildlife been identified or reported?				
17	Have any weed infestations been identified?				
18	Any other issues to add to the checklist?				
Completed by:		**Signature:**			

HOLLOW INSPECTION CHECKLIST	
Part 1 (To be completed prior to clearing)	
Inspection Date:	Location:
Project Ecologist:	
Tree Number:	Tree Location:
Tree species:	
Size of entrance: (Small: ≤5cm; Medium: 5-15cm; Large: 15-30cm; Extra Large: >30cm)	
Height of hollow from ground:	
Are there any additional hollows on same tree:	
Fauna species inhabiting hollow (if present) or species most likely to utilize the hollow:	
Can the hollow be soft-felled and relocated? If so, provide recommended GPS location for relocation:	
Part 2 (To be completed during clearing of the identified hollow)	
If an animal was present in the hollow, is it injured?	
Does it require immediate attention?	
Can it be released and, if so, where will it be released?	
If not, what time was the fauna rescue agency called?	
What was the outcome of the fauna rescue?	
Will a compensatory nest box be required? If so, specify the type/size and recommended GPS location:	
Additional Notes/Comments:	
Completed By:	Signed:

APPENDIX H – EROSION AND SEDIMENT CONTROL DRAWINGS

Within Appendix A

APPENDIX I – WASTE REGISTER

Date	Type of Waste	Destination			Contractor
		Recycle		Disposal	
		Onsite	Offsite		

APPENDIX J – MONITORING CHECKLIST

Monitoring Issue	Location	Frequency	Activity	Action Completed?	Signature
Pre- Construction					
Fauna	Precincts 9 & 11	Within one week prior to the commencement of clearing.	Inspection of fauna protection/exclusion fencing and erosion and sediment controls.		
		During all clearing activities.	Inspection of clearing area and habitat features for the presence of fauna.		
Flora	Precincts 9 & 11	Once	Inspection of all construction environmental controls.		
		During Clearing	Inspection for integrity of construction environmental controls		
		Every 6 months	Inspection for the presence of weeds		
Baseline Water Quality Monitoring	Sediment Basins	Monthly	Data collected for pH, turbidity, suspended solids, salinity, dissolved oxygen, dissolved organic compounds, magnesium and calcium hardness and temperature in accordance with the Groundwater Management Plan (SMEC, 2012f).		
Construction					
Fauna	Work areas	Daily	Inspection of fauna protection/exclusion fencing		
		Weekly general inspection	A general inspection completed for fencing associated with fauna. Rectifications reported and completed.		
		Monthly monitoring of Boyd Street, Cobaki Parkway and the Pacific Highway Tugun	Monitoring for road strike		

Monitoring Issue	Location	Frequency	Activity	Action Completed?	Signature
		Bypass on road strike.			
Surface Water Quality	Boards 1 to 4	Monthly	Water quality monitoring and sampling		
Storm Water	Stormwater retention basis	Weekly/ 12 hourly during rainfall events (>25 mm)/ when pH is recorded < 6.5	Water quality monitoring and sampling		
Contaminated Lands	Where potential for contamination is identified	Weekly	Inspection and sampling for potential contamination		
Noise	Nearest possible location to likely affected residence or boundary of.	Reactive (complaint based)	Noise monitoring		
Cultural Heritage	Entire site	As detected	Detection of Aboriginal objects or Aboriginal human remains reported and addressed.		
Erosion and Sediment Control	Work Areas	Daily	Inspection of erosion and sediment controls		
Air Quality	Work Areas	Daily	Visual observations for dust assessed, reported and managed		
Waste	Work Areas	Daily Monthly	Inspection of receptacles Monitoring of monthly volumes of waste streams		
Traffic and Pedestrian	Work Areas	Daily	Inspection of washing facilities, road traffic and public access roads.		

Monitoring Issue	Location	Frequency	Activity	Action Completed?	Signature
Management					
Biting Midge and Mosquito Control	Surface waters	Weekly	Inspection for presence of mosquito larvae undertaken in accordance with the Biting Midge and Mosquito Control Management Plan (McGinn, 2008).		

Comments:

Signed:

APPENDIX K – ENVIRONMENTAL MANAGEMENT PLANS

- Fauna Management Plan (K1);
- Vegetation Management Plan (K2);
- Cultural Heritage Management Plan (K3);
- Environmental Noise Impact Report (K4)

K1 - Fauna Management Plan