

DRAFT FOR COMMENT	1 OCTOBER 2019
REVISION	DATE

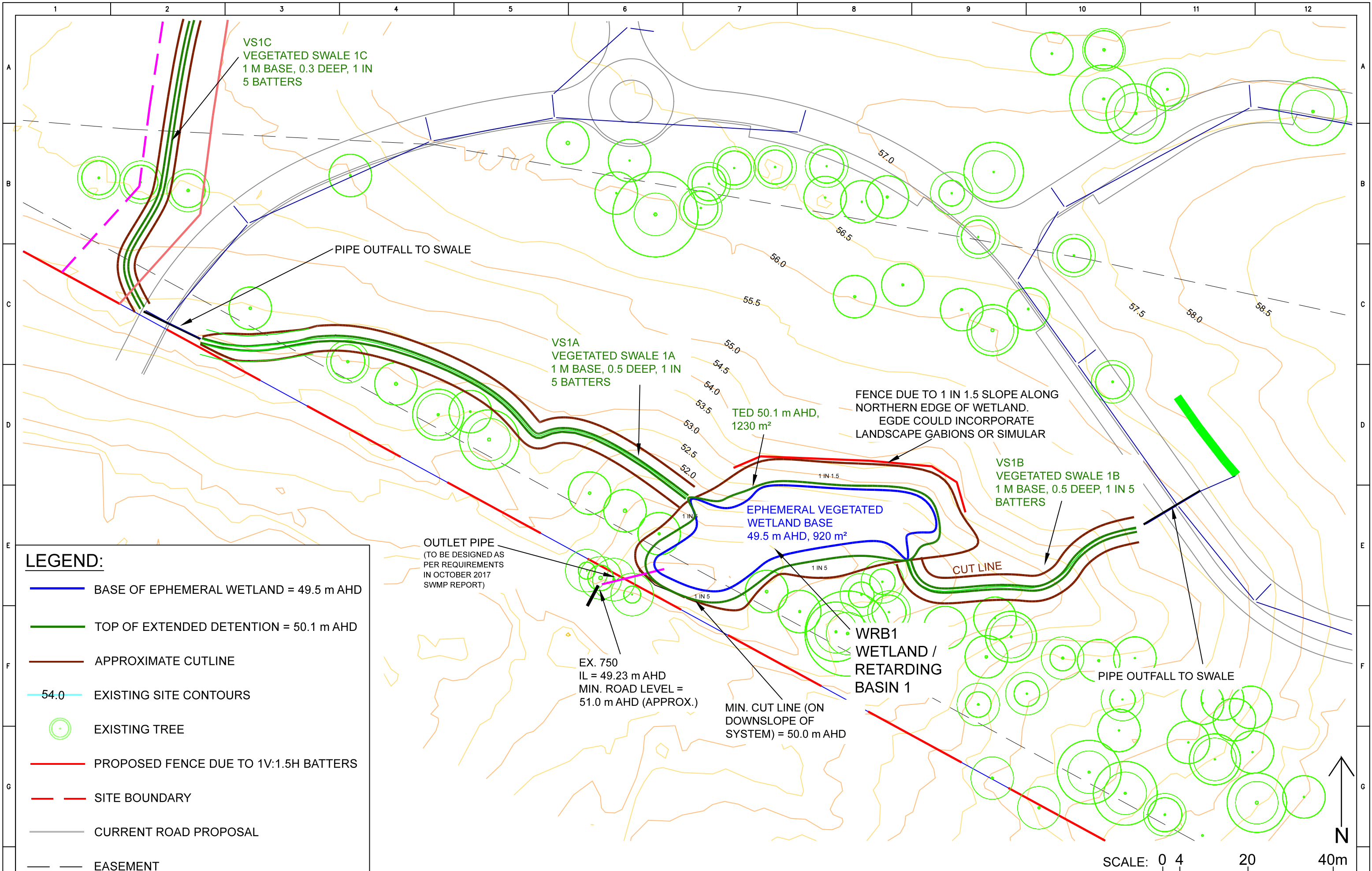


DESIGNED	Michael Mag	PLAN REF.	#
CHECKED	Valerie Mag		
AUTHORISED BY		PROJECTION	MGA94/Z56

Website: [www.stormywater.com.au](http://www.stormywater.com.au)  
 Email: [stormywater@optusnet.com.au](mailto:stormywater@optusnet.com.au)  
 Phone: (03) 8555 9669  
 ABN: 95 656 703 998

**NEPEAN MEMORIAL PARK**  
**STORMWATER MANAGEMENT PLAN**  
**OVERVIEW**

SCALE: AS SHOWN
SHEET 1 OF 4
DRAWING No.
1954/SWS/1



**LEGEND:**

- BASE OF EPHEMERAL WETLAND = 49.5 m AHD
- TOP OF EXTENDED DETENTION = 50.1 m AHD
- APPROXIMATE CUTLINE
- 54.0 EXISTING SITE CONTOURS
- EXISTING TREE
- PROPOSED FENCE DUE TO 1V:1.5H BATTERS
- - - SITE BOUNDARY
- CURRENT ROAD PROPOSAL
- - - EASEMENT

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**NEPEAN MEMORIAL PARK**  
 STORMWATER MANAGEMENT PLAN  
 CATCHMENT 1 DRAINAGE ELEMENTS  
 CONCEPT DESIGN

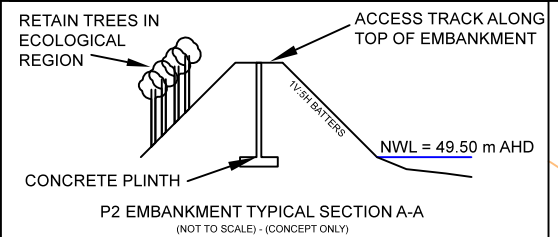
SCALE: AS SHOWN
SHEET 2 OF 4
DRAWING No. 1954/SWS/2

SCALE: 0 4 20 40m



**LEGEND:**

- NORMAL WATER LEVEL
- VEGETATED SWALE BASE
- EXTENT OF SWALE BATTER
- EXISTING SITE CONTOURS (1m)
- EXISTING TREE
- SITE BOUNDARY
- ▨ EXISTING EPHEMERAL WETLAND (TO BE RETAINED)
- EASEMENT



**RBP2**  
**RETARDING BASIN / POND P2**  
 FORMALISE EXISTING POND AS A RETARDING BASIN.  
 NWL = 49.50 m AHD  
 AREA = 3,750 m<sup>2</sup>

**VS2E**  
**VEGETATED SWALE 2E**  
 RETAIN EXISTING VALLEY FORM. VEGETATED 2 m BASE WITH DENSE SEDGES AND RUSHES. 1 m DEEP (MIN). EXISTING BATTERS (1 IN 8 TYPICALLY). PLANTED IN LINE WITH RIPARIAN ZONE REQUIREMENTS TO A TOTAL SWALE WIDTH OF 10 METRES.

WEIR TO CONTROL DETENTION WITHIN W2B. TO BE DESIGNED

**VS2C**  
**VEGETATED SWALE 2C** FROM EXTERNAL CATCHMENT  
 1 m BASE, 0.5 DEEP, 1 IN 5 BATTERS  
 40 m LONG

**VS2D**  
**VEGETATED SWALE 2D**  
 RETAIN EXISTING VALLEY FORM. VEGETATED 2 m BASE WITH DENSE SEDGES AND RUSHES. 0.5m DEEP (MIN) EXISTING BATTERS (1 IN 8 TYPICALLY) PLANTED IN LINE WITH RIPARIAN ZONE REQUIREMENTS TO A TOTAL SWALE WIDTH OF 10 METRES.

**W2**  
**WETLAND W2**  
 VEGETATE AS EPHEMERAL MARSH - NO PERMANENT WATER  
 BASE LEVEL = 50.50 m AHD  
 AREA = 1000 m<sup>2</sup>  
 0.5 m ED, 48 HOURS  
 1V:5H GRASSED BATTERS TO CUTLINE

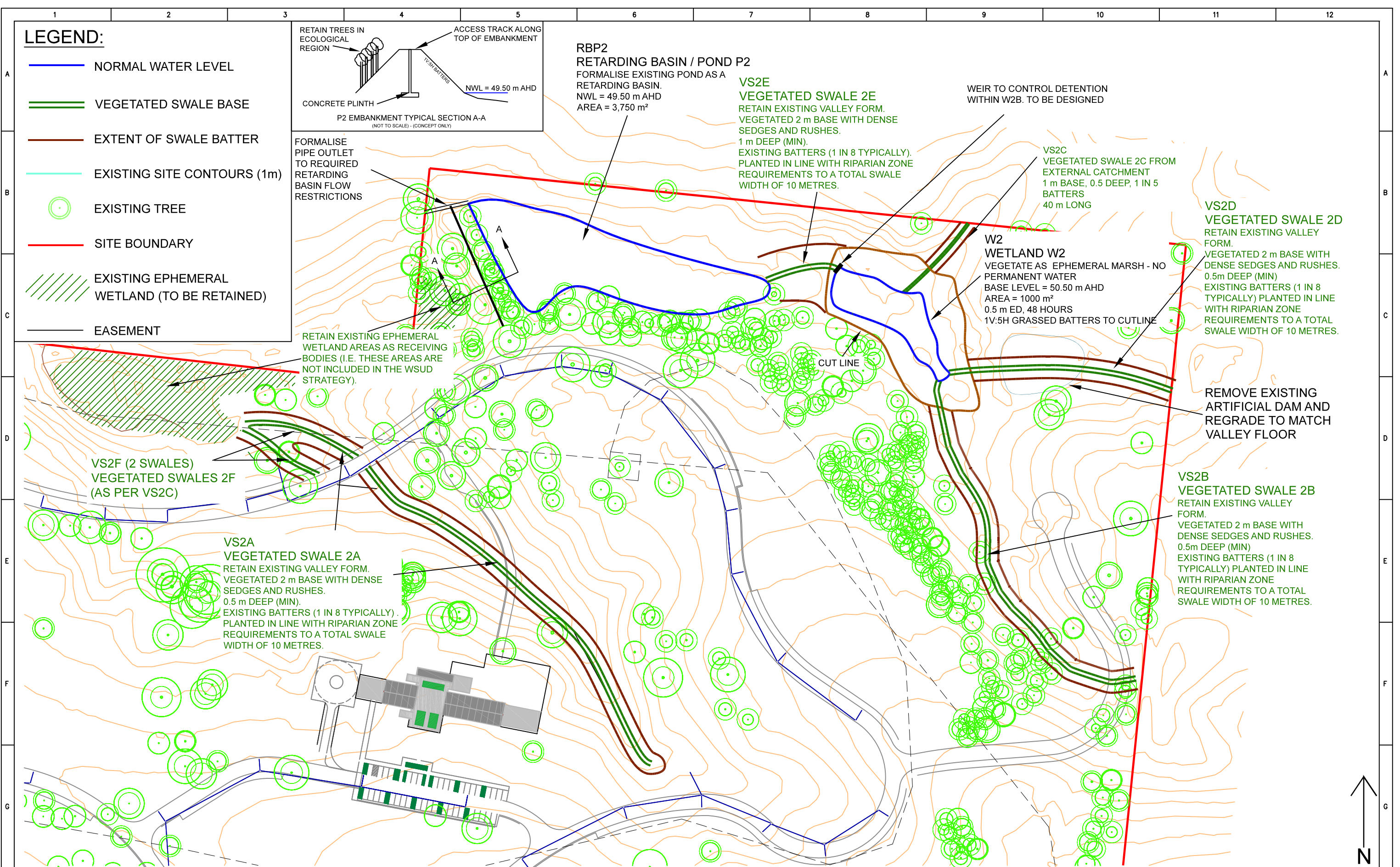
REMOVE EXISTING ARTIFICIAL DAM AND REGRADE TO MATCH VALLEY FLOOR

**VS2B**  
**VEGETATED SWALE 2B**  
 RETAIN EXISTING VALLEY FORM. VEGETATED 2 m BASE WITH DENSE SEDGES AND RUSHES. 0.5m DEEP (MIN) EXISTING BATTERS (1 IN 8 TYPICALLY) PLANTED IN LINE WITH RIPARIAN ZONE REQUIREMENTS TO A TOTAL SWALE WIDTH OF 10 METRES.

**VS2A**  
**VEGETATED SWALE 2A**  
 RETAIN EXISTING VALLEY FORM. VEGETATED 2 m BASE WITH DENSE SEDGES AND RUSHES. 0.5 m DEEP (MIN). EXISTING BATTERS (1 IN 8 TYPICALLY). PLANTED IN LINE WITH RIPARIAN ZONE REQUIREMENTS TO A TOTAL SWALE WIDTH OF 10 METRES.

**VS2F (2 SWALES)**  
**VEGETATED SWALES 2F**  
 (AS PER VS2C)

RETAIN EXISTING EPHEMERAL WETLAND AREAS AS RECEIVING BODIES (I.E. THESE AREAS ARE NOT INCLUDED IN THE WSUD STRATEGY).



SCALE: 0 8 40 80m



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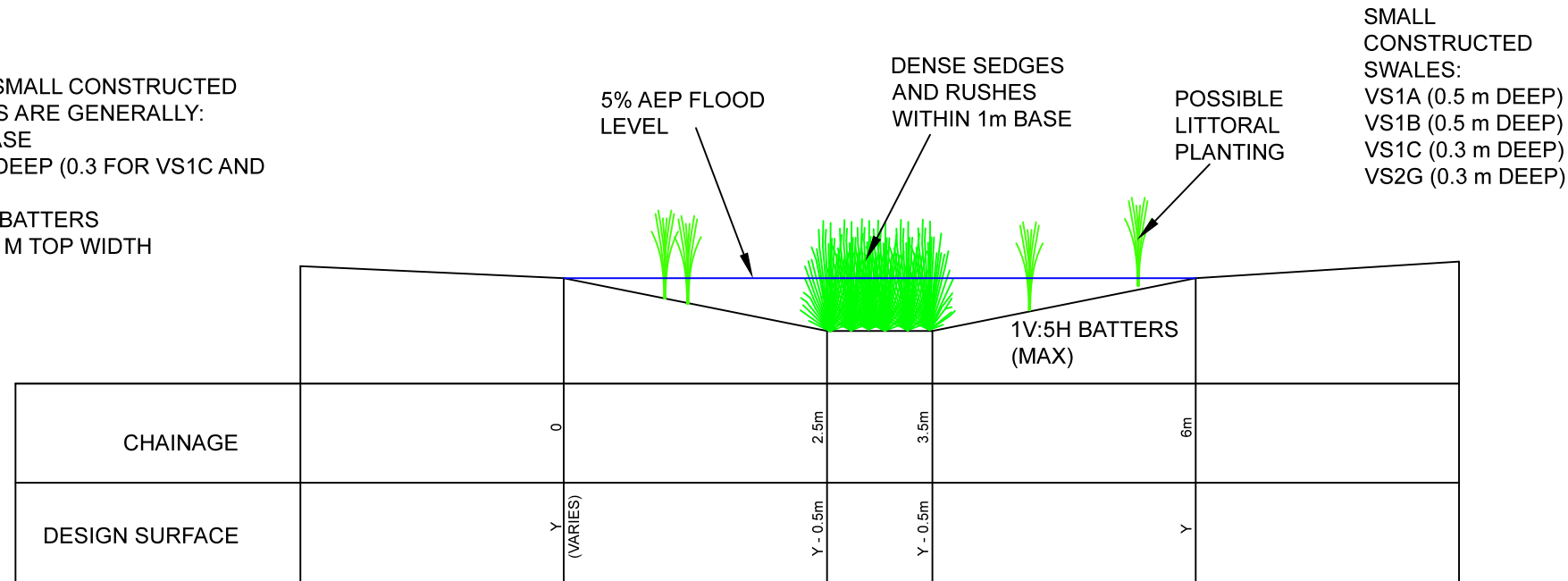
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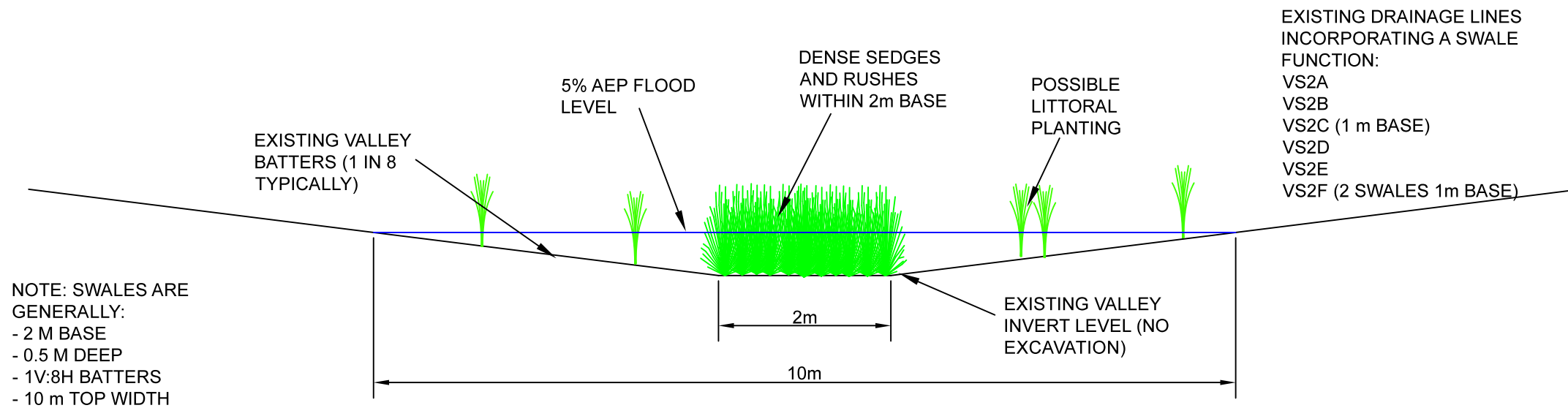
**NEPEAN MEMORIAL PARK**  
**STORMWATER MANAGEMENT PLAN**  
**CATCHMENT 2 ASSETS**  
**CONCEPT DESIGN**

SCALE: AS SHOWN
SHEET 3 OF 4
DRAWING No.
1954/SWS/3

NOTE: SMALL CONSTRUCTED SWALES ARE GENERALLY:  
 - 1 M BASE  
 - 0.5 M DEEP (0.3 FOR VS1C AND VS2G)  
 - 1V:5H BATTERS  
 - 4 TO 6 M TOP WIDTH



TYPICAL SWALE SECTION FOR SMALL CONSTRUCTED SWALES



NOTE: SWALES ARE GENERALLY:  
 - 2 M BASE  
 - 0.5 M DEEP  
 - 1V:8H BATTERS  
 - 10 m TOP WIDTH

TYPICAL SWALE SECTION FOR EXISTING DRAINAGE LINES INCORPORATING A SWALE FUNCTION

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NEPEAN MEMORIAL PARK  
 STORMWATER MANAGEMENT PLAN  
 TYPICAL SWALE  
 CROSS SECTIONS

SCALE: AS SHOWN  
 SHEET 4 OF 4  
 DRAWING No.  
 1954/SWS/4