

Pre Development Catchment Properties	
Size of Catchment	- 0.066km <sup>2</sup>
Longest Watercourse	- 0.146km
Average Slope Sav	- 0.032m/m
Runoff Co-efficient (10yr)	- 0.3902
Peak Flow (10yr)	- 1,68m <sup>3</sup> /s
Runoff Co-efficient (50yr)	- 0.4361
Peak Flow (50yr)	- 2,90m <sup>3</sup> /s
Time of Concentration Tc	- 10min

STORMWATER ATTENUATION CALCULATIONS

1 in 10 Year Storm

Runoff - Pre-Development = 30x60x0,5x1,68m<sup>3</sup>/s  
= 1512m<sup>3</sup>  
Runoff - Post-Development = 30x60x0,5x2,80m<sup>3</sup>/s  
= 2520m<sup>3</sup>  
Retention Required = 1008m<sup>3</sup>

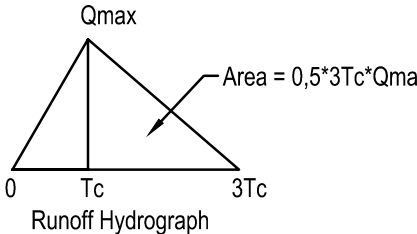
1 in 50 Year Storm

Runoff - Pre-Development = 30x60x0,5x2,90m<sup>3</sup>/s  
= 2610m<sup>3</sup>  
Runoff - Post-Development = 30x60x0,5x4,33m<sup>3</sup>/s  
= 3897m<sup>3</sup>  
Retention Required = 1287m<sup>3</sup>

Check

Rule of Thumb -

1m<sup>3</sup> Attenuation for 59m<sup>2</sup> Hardened Area  
Hardened Area = 66000m<sup>2</sup> Thus  $\frac{66000}{59} = 1119m^2$



Client

DLM Africa Trading cc

Approved On Behalf Of Client

By:

Signature:

HEMINGWAY AND ASSOCIATES cc  
Consulting Engineers

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Approved On Behalf Of Hemingway And Associates

By:

(Pr. No.)

Signature:

Date:

Project

Wembezi JunXION

Title

Stormwater Management Plan

Scale  
1:1500 (For A3 Plot)

Drawn

J.S.M.

Check

M.S.H.

Project Number

21006

Designer

J.S.M.

Tech Check

M.S.H.

Drawing Number

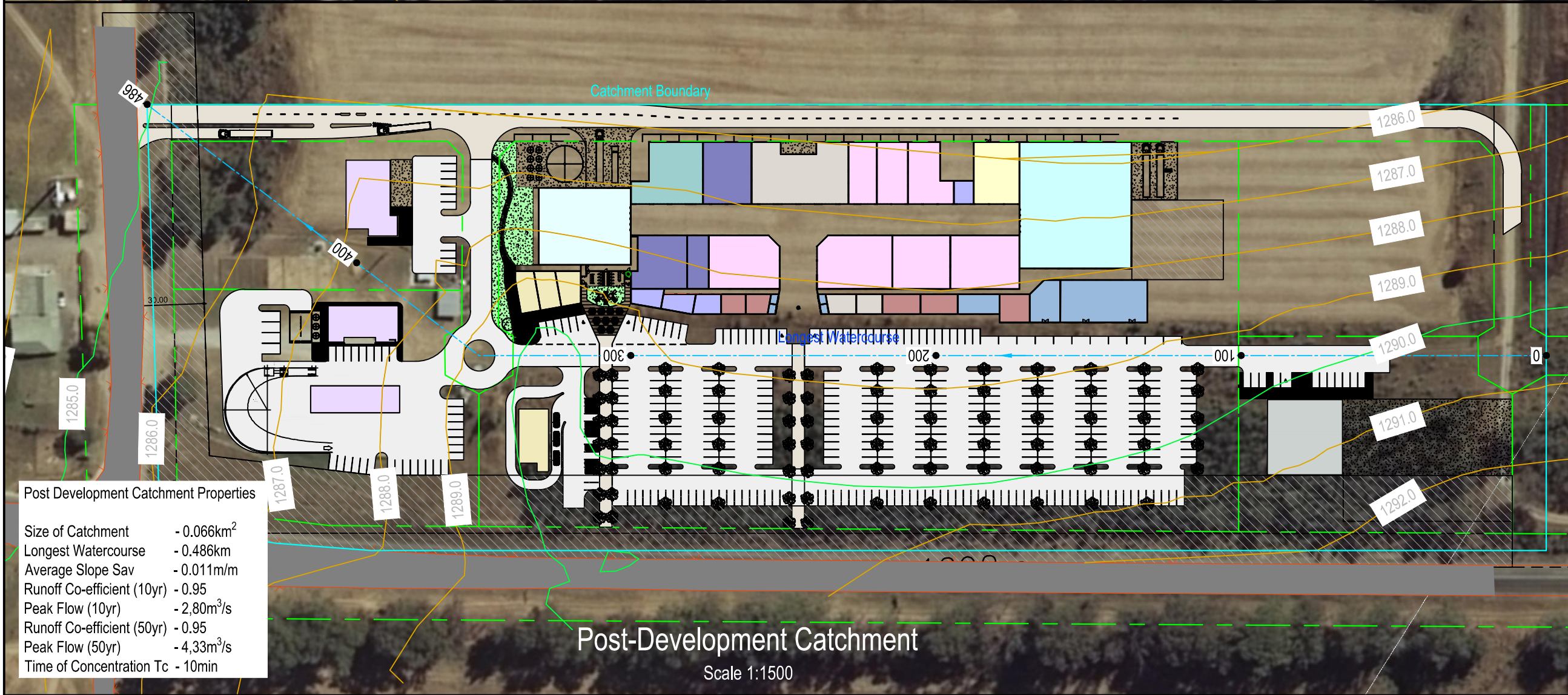
C01

Date

21-03-2022

Revision

A



Post Development Catchment Properties	
Size of Catchment	- 0.066km <sup>2</sup>
Longest Watercourse	- 0.486km
Average Slope Sav	- 0.011m/m
Runoff Co-efficient (10yr)	- 0.95
Peak Flow (10yr)	- 2,80m <sup>3</sup> /s
Runoff Co-efficient (50yr)	- 0.95
Peak Flow (50yr)	- 4,33m <sup>3</sup> /s
Time of Concentration Tc	- 10min

Post-Development Catchment

Scale 1:1500