

Pre Development Catchment Properties

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

STORMWATER ATTENUATION CALCULATIONS

1 in 10 Year Storm

Runoff - Pre-Development = $30 \times 60 \times 0,5 \times 1,68 \text{m}^3/\text{s}$
= 1512m³

Runoff - Post-Development = $30 \times 60 \times 0,5 \times 2,80 \text{m}^3/\text{s}$
= 2520m³

Retention Required = 1008m³

1 in 50 Year Storm

Runoff - Pre-Development = $30 \times 60 \times 0,5 \times 2,90 \text{m}^3/\text{s}$
= 2610m³

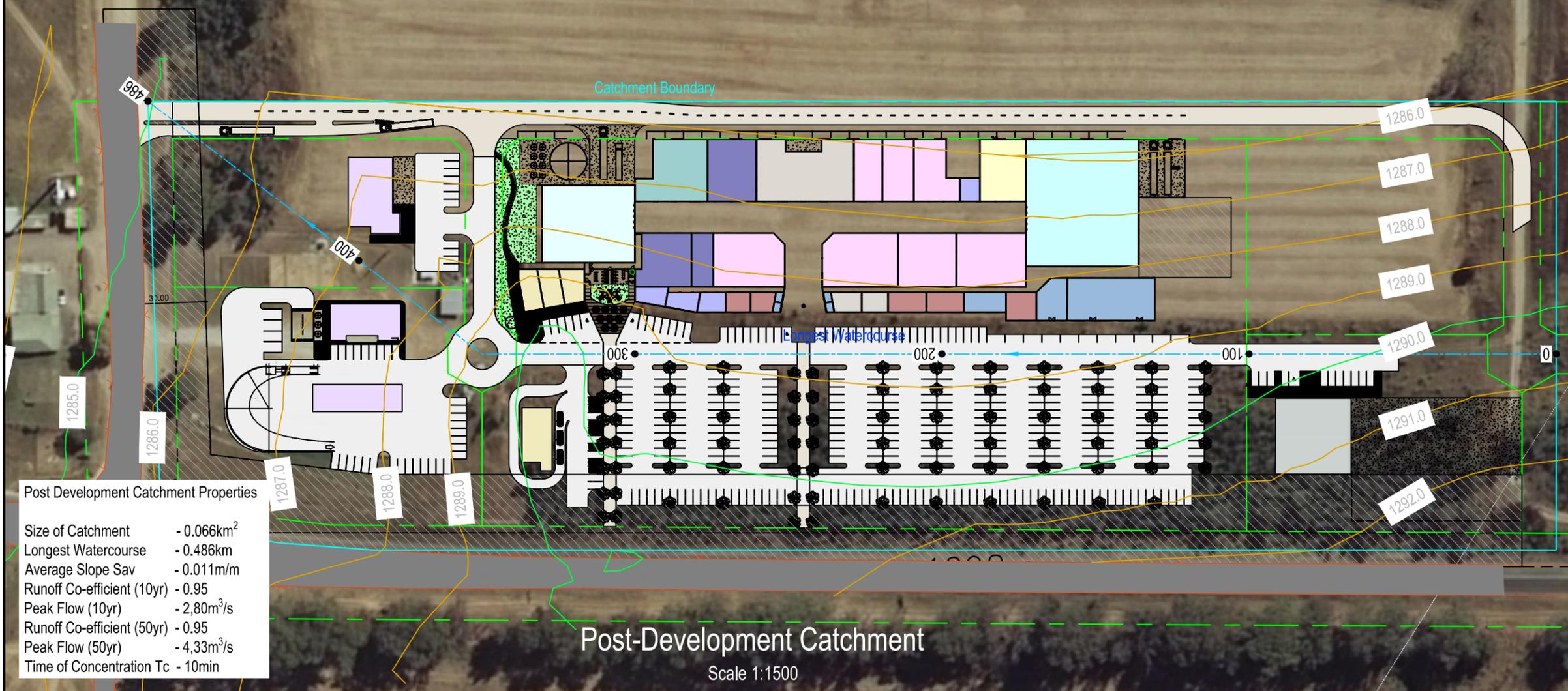
Runoff - Post-Development = $30 \times 60 \times 0,5 \times 4,33 \text{m}^3/\text{s}$
= 3897m³

Retention Required = 1287m³

Check

Rule of Thumb -

1m³ Attenuation for 59m² Hardened Area
 Hardened Area = 66000m^2 Thus $\frac{66000}{59} = 1119 \text{m}^2$



Post Development Catchment Properties

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

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.	Designer	J.S.M.		
Check	M.S.H.	Tech Check	M.S.H.	Date	21-03-2022
Project Number	21006	Drawing Number	C01	Revision	A