WOOD & GRIEVE ENGINEERS

ENQUIRIES: OLIVER WALSH
PROJECT NO: 30916-4-SYD-C

18 December 2018

AGED CARE FACILITY – CLOSEBOURNE HOUSE, MORPETH
SITE STORMWATER MANAGEMENT

Wood & Grieve Engineers have been engaged by Lend Lease to provide stormwater management design in support of the Development Application associated with the proposed construction of a new aged care facility in Morpeth, NSW.

This report discusses the proposed stormwater management for the development which has been prepared in accordance with Council's Development Control guidelines.

1.1 The Development Site

The development sites address is part of Lot 3 on DP270740 in the vicinity of Tank Street, Morpeth. The site area is 2.04 Ha however only a portion of this will be developed.

The site is currently developed as 'Closebourne House' and it is proposed to maintain certain significant heritage structures on the site. The site generally falls to the south east and north east, with a ridge running through the site in the east-west direction.

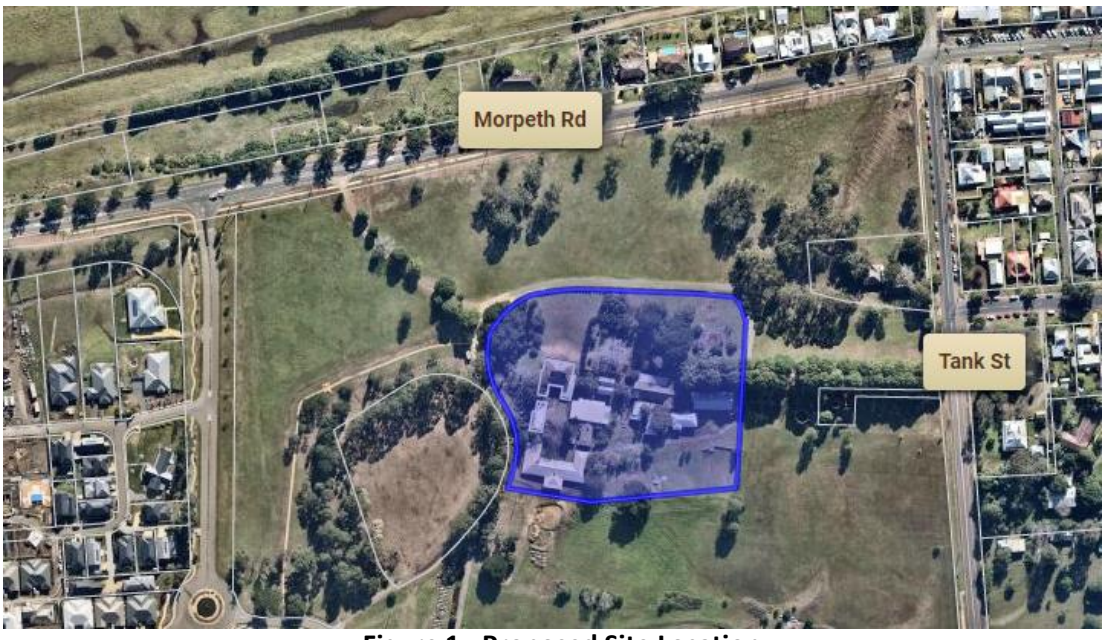

Figure 1 - Proposed Site Location

1.2 Flooding

Referencing the flood inundation mapping available on council's website has confirmed that the site is not subject to flood related controls.

Figure 2 - Existing 100 Year Flood Extent (Source: Maitland Council Mapping)

As the development site will not be flood impacted there are no flood protection measures proposed for the development.

1.3 Stormwater Conveyance

All roof areas will be drained through a gravity system. The drainage system will be designed in accordance with AS3500.3 to convey the minor design storm runoff from the roof to the in ground drainage system. Flows in excess of the design flows will surcharge the roof drainage system and discharge onto the surrounding ground where it will then be conveyed overland to the surrounding in ground drainage network.

The surface runoff will be drained through a combination of in ground gravity drainage system and infiltration through the landscaping to a subsoil drainage system which will convey the runoff to the in ground drainage system.

The in ground drainage will be designed to meet the following criteria:

- In the minor design storm event (10 year) there will be no surcharging of the in ground drainage system and;

- In the major design storm event (100 year) there will be no uncontrolled discharge from the site onto the residential properties surrounding the site.

1.4 Stormwater Detention

In line with Maitland Council's DCP:

"Detention of stormwater flows that mimics natural, pre-developed flows for all storm events up to and including the 100 year ARI event."

We refer to the Lindsay Dynan report entitled 'Tank Street Basin – Drainage Analysis – Morpeth House Heritage Estate' dated 11 October 2018. A copy of the report is enclosed. The Lindsay Dynan report covers a large area that includes the Site. The report outlines that the proposed aged care development has been considered in the design of regional infrastructure. 'OSD Basin 3', as defined in Lindsay Dynan's report, provides sufficient detention such that no on-site detention is required for the proposed aged care development.

1.5 Legal Point of Discharge

The legal point of discharge for the development will be to a proposed headwall within the existing site. The headwall to be located along the southern side of the proposed development. The proposed headwall to include riprap to prevent erosion.

1.6 Stormwater Treatment

There are a wide range of potential stormwater pollutant sources which occur from urbanised catchments, many which can be managed through appropriate stormwater quality treatment. Typical urban pollutants may include:

- Atmospheric deposition
- Erosion (including that from subdivision and building activities)
- Litter and debris
- Traffic emissions and vehicle wear
- Animal droppings
- Pesticides and fertilisers
- Application, storage and wash-off of car oil, detergents and other household and commercial solvents and chemicals
- Solids accumulation and growth in stormwater systems
- Weathering of buildings

These pollutants in urban stormwater can be placed into various categories as follows. The pollutants underlined below are able to be readily modelled:

- Suspended Solids
- Litter
- Nutrients such as Nitrogen and Phosphorous
- Biological oxygen demand (BOD) and chemical oxygen demand (COD) materials
- Micro-organisms
- Toxic organics
- Trace metals
- Oils and surfactants

Similar to the stormwater detention section above, stormwater quality controls for the proposed aged care development have been satisfied by a combination of regional infrastructure and an on-site rainwater tank. As detailed in the Lindsay Dynan report, a 200m long grass lined swale from the proposed aged care facility to OSD Basin 3 (refer to WGE drawings for details) and a 12kL rainwater tank is proposed to achieve the pollutant reduction targets specified by Maitland Council.

1.7 Sediment & Erosion Control

The control of erosion and sedimentation describes the measures incorporated during and following construction of a new development to prevent the pollution and degradation of the downstream watercourse.

A Soil and Water Management Plan has prepared as part of the development application documentation.

Common control measures adopted are:

- Sedimentation fences;
- Sedimentation basins;
- Stormwater drainage inlet protection;
- Overland flow diversion swales;
- Shaker Grids and wash downs for vehicles leaving the construction site;
- Dust control measures.

The maintenance of these control measures throughout their intended lifespan will ensure that the risk of erosion and sedimentation pollution of the downstream watercourse will be minimised.

We trust that this information is sufficient for your purposes, however should you have any queries in regards to this report please feel free to contact the undersigned.

Yours faithfully

Oliver Walsh
for **Wood & Grieve Engineers**

(Enclosed – Lindsay Dynan Report)

11 October 2018

Project No. 00012607

Lend Lease - Retirement Living
30 The Bond
30 Hickson Road
MILLERS POINT NSW 2000

ATTENTION Mr Bruce Gould
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TANK STREET BASIN – DRAINAGE ANALYSIS
MORPETH HOUSE HERITAGE ESTATE

1.0 Introduction

Lend Lease Retirement Living (LLRL) are currently constructing works within a parcel of land described as Morpeth House Heritage Estate (the Site), located in Morpeth, NSW.

Lindsay Dynan Consulting Engineers Pty Ltd (Lindsay Dynan) have been engaged by LLRL to undertake an assessment of the current as built drainage capacity and water quality capacity for areas of the Site draining east towards Tank Street.

The purpose of this assessment is to understand the following:

- Water quality improvement devices previously constructed and currently in operation;
- Stormwater detention methods previously constructed and currently in operation;
- Existing redundancy within the constructed system;
- Potential shortfalls within the current system; and
- Required works to accommodate future development within the Site.

In undertaking the above review, Lindsay Dynan completed the following key tasks:

- Developed a catchment plan of the current approved construction works (See Section 2.1)
- Developed a DRAINS analysis to determine the current basin performance against the current approved construction works (See Section 2.1);
- Determined the current water quality improvement measures for the current approved construction works (see Section 2.2);
- Modified the current catchment plan to include all potential future development opportunities as proposed by LLRL (See Section 3.1);

- Modified the previously developed DRAINS analysis to include all potential future development opportunities as proposed by LLRL. This data was used to determine current basin performance and therefore potential upgrade works that would be required to achieve Maitland City Council (Council) Development Control Plan (DCP) compliance (See Section 3.1); and
- Developed a MUSIC model to include all potential future development opportunities as proposed by LLRL. This data was used to determine additional water quality improvement devices that would be required to achieve Council DCP compliance (See Section 3.2).

2.0 Current Approved Construction Works

2.1 DRAINS

A catchment plan detailing the current site conditions was prepared to facilitate construction of the DRAINS and MUSIC model. The plan is included in Appendix A, with the following key area distribution:

Land Type	% Impervious	Area (ha)
Basin 01	0	1.03
Basin 02	0	1.64
Basin 03	5	9.11
Farmlets	50	3.19
Stage 3 Villas	85	4.07
Stage 5 Villas	85	1.33
Stage 6 Villas	85	0.95
Robinson House	20	0.27
Total Area to Stage 3 Basin	**-**	**21.59**
Future Villa/Oval Catchment Bypassing Stage 3 Basin	0	0.42

Table 1: Current Development Catchment Data

The pre-developed conditions are based on a previous study undertaken during Stage 3, to inform the original design of the Tank Street OSD. The report was undertaken by Consulting Engineers Mott MacDonald in February 2011 (Ref: 08s196-110218-Stormwater Management report Stage 3). The key details extracted from this report include:

Land Type	Area (ha)	10yr Discharge (m^3/s)	100yr Discharge (m^3/s)
Pre-development (Greenfield site)	**13.9**	**1.402**	**2.558**
Current development	13.5	1.273	2.542

Table 2: Discharge Rates from Mott MacDonald Report

The above discharge rates were used as an initial basis for reviewing pre to post discharge performance of the current onsite detention system. However, the current developed catchments and impervious

percentages have been calculated based on data as calculated by Lindsay Dynan. The results of the pre-development (greenfield site) conditions modelled are shown in Table 3:

Land Type	Area (ha)	10yr Discharge (m^3/s)	100yr Discharge (m^3/s)
Pre-Development (Greenfield site)	**13.9**	**1.41**	**2.90**

Table 3: Pre-Development Catchment Inflow and Site Discharge

The basin outlet configurations were then modelled in DRAINS using a combination of:

- Survey supplied by Duggan Mather Surveyors to determine:
  - Current as built pipe inlet and outlet levels;
  - Current as built basin topography;
  - Crest heights; and
  - Weir invert levels.

- Design details from the original Stage 3 to determine:
  - Weir cross section; and
  - Weir construction material.

The results of the current development conditions modelled discharging to Tank Street are shown in Table 4:

Land Type	10yr Inflow (m^3/s)	100yr Inflow (m^3/s)
Basin 01	0.154	0.329
Basin 02	0.183	0.384
Basin 03	0.972	2.08
Farmlets	0.941	1.43
Stage 3 Villas	1.43	2.07
Stage 5 Villas	0.513	0.813
Stage 6 Villas	0.352	0.507
Robinson House	0.084	0.127
Total Inflow to Stage 3 Basin	**4.629**	**7.74**
Discharge to Tank Street	**1.46**	**3.09**
Future Villa/Oval Catchment Bypassing Stage 3 Basin	0.124	0.185

Table 4: Current Development Catchment Inflow and Site Discharge

As shown in Table 3, Lindsay Dynan analysed the pre-development conditions for the 10yr and 100yr ARI in isolation and determined suitable pre-development flow rates of 1.41 m^3/s and 2.90 m^3/s respectively. These results for the 10yr and 100yr ARI were 0.6% and 13.4% higher respectively for the design durations when compared to the original pre-development flow rates produced in the Mott MacDonald Stage 3 Report.

There are a number of variables that affect the output, including changes to rainfall data, allocation of impervious percentages, flow path lengths, retardance factors, design vs as-built pipe invert levels etc.

A significant variable between the models is that the Mott MacDonald report numbers are based on a DRAINS software version dated back to 2011. The model produced by Lindsay Dynan is based on the DRAINS Version 2018.06 – 6 September 2018.

In light of these variables, it was considered that taking the original pre-development results was not suitable to establish a bench mark for determining required basin upgrades to suit future works. Hence, Lindsay Dynan have adopted the modelled pre-development flow rates of 1.41 m^3/s and 2.90 m^3/s for the 10yr and 100yr ARI to base our pre to post developed requirements for the site.

2.2 MUSIC

The catchment areas discussed in the above DRAINS analysis where used to determine the footprint of each applicable development type, in order to produce a MUSIC model simulation to determine current water quality.

Primary treatment methods incorporated into the modelling included:

- Rainwater re-use tanks for all Villas within the 85% impervious zones;
- Rainwater re-use tanks for all Farmlets;
- Grassed buffer strips along footpaths and roadways where applicable;
- Grassed swale from the Villa development to the above-mentioned OSD basin; and
- Grassed swales from the outlet of the Farmlets to the above-mentioned OSD basin.

Council's pollutant reduction targets are as follows:

- 70% reduction in litter from typical urban loads;
- 80% reduction in total suspended solids from typical urban loads;
- 45% reduction in total phosphorus from typical urban loads; and
- 45% reduction in total nitrogen from typical urban loads.

The results of the MUSIC model indicate that the current development is in line with the current Council DCP requirements. The only identified departure was a minor non-conformance with the Total Nitrogen numbers (43.9% Reduction). However, the analysis performed for this preliminary stage was focused on capturing the high level works within the current approved development in order to create the benchmark for future performance targets. Therefore, any identified discrepancies for the current configurations was not analysed further.

3.0 Future Construction Works

The following options were tabled for consideration by Lend Lease in order to determine potential development options and futureproof the site in respect to achieving OSD and Water Quality Targets:

- Aged Care Facility within the existing Closebourne House Lot (367 Morpeth Road);
- Resident RV storage compound;
- Additional retirement living villa stage and oval; and
- Associated access road to accommodate above works.

3.1 DRAINS

The updates to current catchments to include the potential development options mentioned above were modelled and are shown in Appendix B. A summary of the proposed development catchments and impervious percentages is shown in Table 5:

Land Type	Current Development % Impervious	Post-Development % Impervious	Area (ha)
Basin 01	0	0	1.03
Basin 02	0	0	1.64
Basin 03	5	5	6.6
Farmlets	50	50	3.19
Stage 3 Villas	85	85	4.07
Stage 5 Villas	85	85	1.33
Stage 6 Villas	85	85	0.95
Robinson House	20	50	0.27
Aged Care Facility	30	55	1.22
Resident RV Storage	0	20	0.52
Retirement Living Villas	0	70	0.60
Access Road	0	90	0.12
Total Area to Stage 3 Basin	-	-	**21.54**
Oval Bypassing Stage 3 Basin	0	10	0.46

Table 5: Summary of Current to Post-Developed Catchment Data

The post-development conditions are based on the combination of the current developments and the proposed new developments, along with modifications to the Basin 03 catchment. The catchment that Mott MacDonald used as the basis of their report was based on the natural catchment for the pre-development catchment hence only being 13.9 hectares. The current development summary and inflow rates are shown in Section 2 of this report. The total catchment area draining to the Stage 3 basins is 21.54 hectares. This catchment area is 55% larger compared to the pre-development (greenfield site) catchment area. The significant difference in catchment area is a result of the redirection of water for portions of the Farmlets, Robinson House, Stage 3, 5 and 6 Villas from their pre-development catchment toward the Stage 3 basins, ultimately discharging at Tank Street.

The proposed development catchments and impervious percentages have been determined based on data as calculated by Lindsay Dynan. The results of the proposed conditions are as shown in Table 6:

Land Type	10yr Inflow (m^3/s)	100yr Inflow (m^3/s)
Basin 01	0.154	0.329
Basin 02	0.183	0.384
Basin 03	0.704	1.51
Farmlets	0.941	1.43
Stage 3 Villas	1.43	2.07
Stage 5 Villas	0.513	0.813
Stage 6 Villas	0.352	0.507
Robinson House	0.084	0.127
Aged Care Facility	0.435	0.625
Resident RV Storage	0.169	0.247
Retirement Living Villas	0.210	0.303
Access Road	0.045	0.066
Total Inflow to Stage 3 Basin	**5.22**	**8.411**
Discharge to Tank Street	**1.19**	**2.82**
Oval Bypassing Stage 3 Basin	0.123	0.199

Table 6: Post-Developed Catchment Inflow

As shown in Table 6, the post-developed discharge rates calculated for the 10yr and 100yr ARI are lower for the design durations when compared to the adopted pre-development flows discussed in Section 2.1. These results for the 10yr and 100yr ARI were 15.6% and 2.8% lower respectively for the design durations when compared to the original pre-development (greenfield site) flow rates.

The OSD performance targets were met and reduce the post-development flows to the pre-development flow rates by increasing the storage capacity of Basin 03. The storage capacity of Basin 03 was increased from the current volume of 3,315m^3 to 5,480m^3. The increase in volume is enabled through an increase in the footprint of the basin from the current basin area of 3,360m^2 to a proposed surface area of 4,385m^2. The overflow structure for Basin 03 was modified by increasing the level at which the spillway operates from the current as built RL 17.00 to the proposed RL 17.30. The extent and width of the current spillway for Basin 03 are to remain.

The current stormwater pipes laid under the overflow structures for Basin 03 are to remain. The current Basin 02 and Basin 01 inclusive of overflow structures and piped networks are to remain.

The 100 yr top water level (TWL), as modelled in DRAINS, is approximately RL 18.09. This estimated TWL allows a freeboard of 300mm to the minimum top of embankment level, RL 18.40.

The catchment area bypassing the Stage 3 basins has increased from 0.42 hectares to 0.46 hectares. The model indicates that the bypass flow rate for the 10yr ARI is 0.8% lower for the design durations when compared to the original pre-development (greenfield site) flow rates. For the 100yr ARI the bypass generates an additional 14 litres per second flow rate compared to the pre-development flows.

This additional 14 litres per second is compensated for by the 80 litres per second reduction in discharges to Tank Street during the 100yr ARI compared to the pre-development flow rates to Tank Street.

3.2 MUSIC

The catchment areas discussed in the above DRAINS analysis where used to determine the footprint of each applicable development type, in order to produce a MUSIC model simulation to determine current water quality.

Primary treatment methods incorporated into the modelling included:

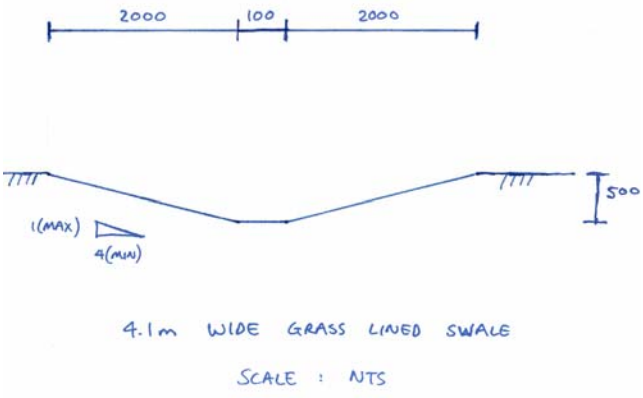
- Grassed swale from the Aged Care Facility to the above mentioned OSD basin;
- Rainwater re-use tanks for all Villas;
- Grassed swale from the outlet of the Retirement Living Villas and oval to the above-mentioned OSD basin; and
- Grassed swales from the outlet of the Resident RV Storage to the above-mentioned OSD basin.

The works are required to demonstrate achievement of the following pollutant reduction targets:

- 90% reduction in litter from typical urban loads;
- 85% reduction in total suspended solids from typical urban loads;
- 45% reduction in total phosphorus from typical urban loads; and
- 45% reduction in total nitrogen from typical urban loads.

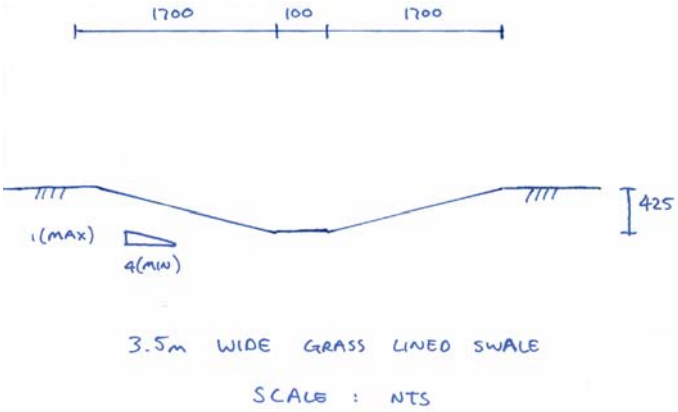
3.2.1 Aged Care Facility

The proposed re-development of the aged care facility will meet the pollutant reduction targets by means of supplying a 12,000L rainwater tank to collect roof water. The expected daily re-use for irrigation is 0.5kL/day. The aged care facility catchment will drain through a 4.1-metre-wide grass lined swale to OSD Basin 03, as shown on drawing 12607-CI-5000. The required gradient along the extent of the grass lined swale is approximately 5%. The swale has been sized to cater for the 100yr ARI storm event. A typical section of the 4.1-metre-wide grass lined swale is shown below.



3.2.2 Resident RV Storage

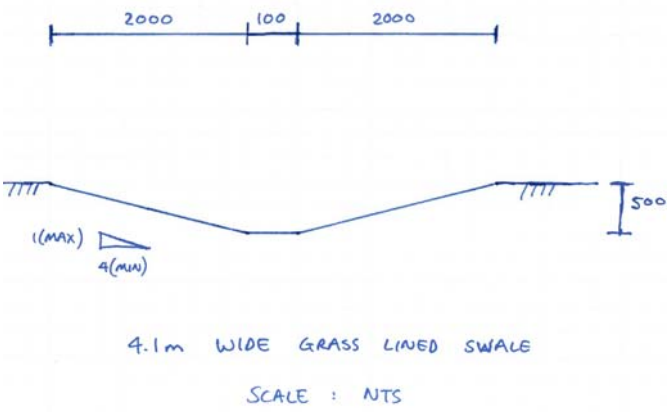
The proposed development of the resident RV Storage area will meet the pollutant reduction targets by means of treatment through a 3.5-metre-wide grass lined swale. The swale will treat and convey stormwater to the OSD Basin 03, as shown on drawing 12607-CI-5000. The required gradient along the extent of the grass lined swale is approximately 5%. The swale has been sized to cater for the 100yr ARI storm event. A typical section of the 3.5-metre-wide grass lined swale is shown below.



3.3.3 Retirement Living Villas and Oval

The proposed development of the retirement living villas will meet the pollutant reduction targets by means of a 2,000L rainwater tank for each villa. The expected daily water re-use is 0.218 kL/day per dwelling, with a combined daily re-use of 3.05 kL/day for the proposed 14 dwellings.

The villa catchment will drain through a 3.5-metre-wide grass lined swale. The swale will treat and convey stormwater to the OSD Basin 03, as shown on drawing 12607-CI-5000. The required gradient along the extent of the grass lined swale is approximately 5%. The swale has been sized to cater for the 100yr ARI storm event. A typical section of the 4.1-metre-wide grass lined swale is shown below.



The catchment for the oval development will bypass the Stage 3 basins and will sheet flow toward Morpeth Road via the current catchment drainage path. The post-developed catchment for the oval is similar to the current catchment bypassing the Stage 3 basins. The current catchment is 0% impervious with a proposed impervious percentage of 10% in line with Section 3.4 of the Maitland City Council Manual of Engineering Standards - Stormwater.

4.0 Summary

Lindsay Dynan have undertaken an assessment of the pre-development catchment, current catchment and drainage capacity for areas of the site draining east towards Tank Street. An analysis of the proposed developments regarding on-site detention capacity and water quality measures requirements for the proposed and current areas of the site draining east towards Tank Street was undertaken.

4.1 DRAINS

The results of the DRAINS model analysis for the discharge flow rates to Tank Street are as follows:

Land Type	Area (ha)	10yr Discharge (m^3/s)	100yr Discharge (m^3/s)
Pre-Development (Greenfield site)	**13.9**	**1.41**	**2.90**
Current Development	**21.59**	**1.46**	**3.09**
Post-Development	**21.54**	**1.19**	**2.82**

Table 7: DRAINS Model Results Comparison Table

The post-development discharge flow rates have been reduced to less than the pre-development (greenfield site) discharge flow rates. This was achieved through the following measures:

- Increasing the storage capacity of Basin 03 from the current volume of 3,315m^3 to 5,480m^3,
- Increasing the invert height of the spillway from Basin 01 to 02 from the current as built RL 17.00 to the proposed RL 17.30.

4.2 MUSIC

The results of the MUSIC model analysis for the site are as follows:

Land Type	% Source Gross Pollutant Reduction	% Source TSS Reduction	% Source Nitrogen Reduction	% Source Phosphorous Reduction
Maitland City Council Requirements	**70**	**80**	**45**	**45**
Current Development	**100**	**87.8**	**43.9**	**66.5**
Post-Development	**95.9**	**89.3**	**46.2**	**67.5**

Table 8: MUSIC Model Results Comparison Table

The post-development pollutant targets have met the Maitland City Council requirements. This was achieved through the following measures:

- Providing a 4.1-metre-wide grass lined swale for 200 metres at 5% grade to OSD Basin 03 to treat the aged care facility and main access road,
- Providing a 12,000L rainwater re-use tank for the aged care facility,
- Providing a 3.5-metre-wide grass lined swale for 180 metres at 5% grade to OSD Basin 03 to treat the resident RV storage and retirement living villas including the associated access road,
- Providing a 2,000L rainwater tank for each proposed villa.

5.0 Appendices

Appendix A - Current Development Catchment Masterplan

DO NOT SCALE - THIS DRAWING MAY BE A REDUCED COPY

LOCATION	AREA (ha)	% IMPERVIOUS	DISCHARGE
STAGE 3	4.07	85	BASIN 3
STAGE 5	1.33	85	BASIN 3
STAGE 6	0.95	85	BASIN 3
FARMLETS	3.19	50	BASIN 3
BASIN 01	1.03	0	TANK STREET
BASIN 02	1.64	0	BASIN 1
BASIN 03 (OPEN)	9.11	5	BASIN 2
ROBINSON HOUSE	0.27	20	BASIN 3
FUTURE VILLA/OVAL	0.42	0	BYPASS

CURRENT DEVELOPMENT CATCHMENT MASTER PLAN

SCALE 1:1500

NOT FOR CONSTRUCTION

REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
A	11/10/18	T.O.	C.D.	C.D.	ISSUED FOR INFORMATION

SUSTAINABLE CERTIFICATION
ISO 9001
AS/NZS 4801
ISO 14001
Endorsed
Integrated Management System

Member of CONSULT AUSTRALIA

Lindsay Dynan

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Sydney I Perth I Newcastle I Central Coast

CLIENT
LEND LEASE PRIMELIFE RETIREMENT VILLAGE (CLOSEBOURNE) PTY LTD

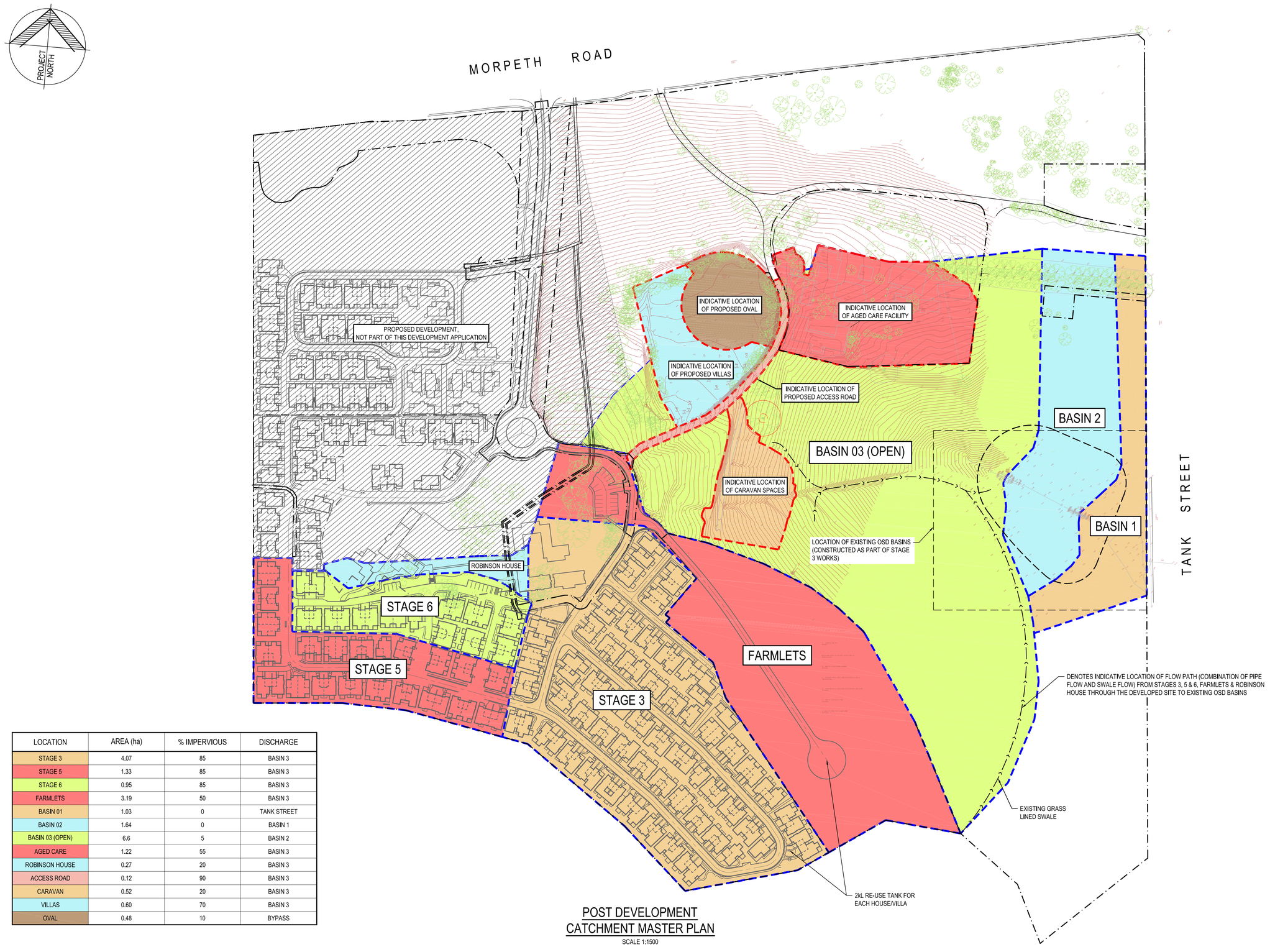
TITLE
CURRENT DEVELOPMENT CATCHMENT MASTER PLAN

PROJECT
MORPETH HOUSE HERITAGE ESTATE
MORPETH ROAD, MORPETH, NSW

DRAWING STATUS			SHEET SIZE
DRAFT COPY			A1
DRAFTSMAN	DESIGNER	PROJ MANAGER	SCALE
T.O.	C.D.	C.D.	1:1500
PROJECT REF No.	DRAWING No.		REVISION
12607	CI-5000		A

Appendix B - Post Development Catchment Masterplan

DO NOT SCALE - THIS DRAWING MAY BE A REDUCED COPY



LOCATION	AREA (ha)	% IMPERVIOUS	DISCHARGE
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STAGE 5	1.33	85	BASIN 3
STAGE 6	0.95	85	BASIN 3
FARMLETS	3.19	50	BASIN 3
BASIN 01	1.03	0	TANK STREET
BASIN 02	1.64	0	BASIN 1
BASIN 03 (OPEN)	6.6	5	BASIN 2
AGED CARE	1.22	55	BASIN 3
ROBINSON HOUSE	0.27	20	BASIN 3
ACCESS ROAD	0.12	90	BASIN 3
CARAVAN	0.52	20	BASIN 3
VILLAS	0.60	70	BASIN 3
OVAL	0.48	10	BYPASS

POST DEVELOPMENT CATCHMENT MASTER PLAN

SCALE 1:1500

NOT FOR CONSTRUCTION

REVISIONS

REV	DATE	DRN	CHK	APP	DRAWING STATUS
A	11/10/18	T.O.	C.D.	C.D.	ISSUED FOR INFORMATION

SUSTAINABLE CONSTRUCTION
ISO 9001
AS/NZS 4801
ISO 14001
Endorsed
Integrated Management System

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CLIENT
LEND LEASE PRIMELIFE RETIREMENT VILLAGE (CLOSEBOURNE) PTY LTD

TITLE
POST DEVELOPMENT CATCHMENT MASTER PLAN

PROJECT
MORPETH HOUSE HERITAGE ESTATE
MORPETH ROAD, MORPETH, NSW

DRAWING STATUS			SHEET SIZE
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