CITY OF MORETON BAY

Enquiries: Xavier Dubreuil
Direct 07 5433 2739
Our Ref: DA/2024/1094
Your Ref: 22-000082_3
Date: 20 June 2024

Foreverlen Pty Ltd
c/- Egis Consulting Pty Ltd - Max Hooper
Level 3, 545 Queen Street
BRISBANE QLD 4000

Dear Applicant,

Re: DEVELOPMENT APPROVAL
Planning Act 2016

Development Application No.:	**DA/2024/1094**
Property Location:	**409-423 Caboolture River Road LILYWOOD**
Property Description:	**Lot 1 and 12 RP 866105**
Development Type:	**Operational Works - Development Permit for Roadworks and Stormwater (Lilywood Landings, Stage 3)**

Please be advised that on 20 June 2024 the above development application was approved by Council's Delegate as the Assessment Manager in accordance with section 63 of the *Planning Act 2016* subject to conditions.

The following type of approval has been issued:

- **Development Permit - Operational Works for Roadworks and Stormwater (Lilywood Landings, Stage 3)**

The development allowed by this approval must be carried out in accordance with the attached Decision package.

Attached is an extract from the *Planning Act 2016* which details your appeal rights and the appeal rights of any submitters, if applicable, regarding this decision.

Should you require any further information about this matter, please contact Xavier Dubreuil as referenced above.

Yours faithfully

X. Dubreuil

Xavier Dubreuil
Senior Engineer
Development Services

Enclosures: Attachment 1 - Decision Notice
Attachment 2 - Assessment Manager Conditions
Attachment 3 - Approved Plans / Documents
Attachment 4 - Appeal Rights
Attachment 5 - Infrastructure Charges

Cc Unitywater
Development.Services@Unitywater.com

ATTACHMENT 1

Decision Notice

Decision Notice

Planning Act 2016, section 63

APPLICATION DETAILS

Application No:	**DA/2024/1094**
Applicant:	**Foreverlen Pty Ltd**
Street Address:	**409-423 Caboolture River Road LILYWOOD QLD 4513**
Real Property Description:	**Lot 1 RP 866105** **Lot 12 RP 866105**
Planning Scheme:	**Moreton Bay Regional Council Planning Scheme**

APPROVAL DETAILS

Date of Decision: **20 June 2024**

The development application was approved by Council's Delegate as the Assessment Manager subject to conditions (refer Attachment 2).

Application Type	Development Permit	Preliminary Approval
Operational Works for **Roadworks and Stormwater (Lilywood Landings, Stage 3)**	☑	☐

OTHER NECESSARY PERMITS

Not applicable.

In addition to this approval, you may also be required to obtain a water approval from the Northern SEQ Distributor Retailer, trading as Unitywater. To engage a Registered Certifier to lodge your connection application, go to Unitywater's website www.unitywater.com/certifier

CURRENCY PERIOD OF APPROVAL

The currency period stated in section 85 of the *Planning Act 2016* applies to this approval as outlined below:

- Operational Works - 2 years from the date of this approval starts to have effect.

DEEMED APPROVAL

Not applicable.

VARIATION APPROVAL

Not applicable.

INFRASTRUCTURE

Unless otherwise specified, all assessment manager conditions of this development approval relating to the provision of infrastructure are non-trunk infrastructure conditions under Chapter 4, section 145 of the *Planning Act 2016*.

ASSESSMENT MANAGER CONDITIONS

The Conditions relevant to this development approval are listed in Attachment 2 of the Decision package.

APPROVED PLANS / DOCUMENTS

The approved plans and/or documents as listed below for this development approval are included in Attachment 3 of the Decision package.

The approved plans/documents for this development approval are listed below.

Approved Plans and Documents			
Plan / Document Name	**Reference Number**	**Prepared By**	**Dated**
Title Sheet and Locality Plan	22-000082.03 Dwg. 1000 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Site Layout Plan	22-000082.03 Dwg. 1100 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Control Line Setout Plan Sheet 1 of 2	22-000082.03 Dwg. 1300 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Control Line Setout Plan Sheet 2 of 2	22-000082.03 Dwg. 1301 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Control Line Setout Plan Details	22-000082.03 Dwg. 1302 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Roadworks Layout Plan Sheet 1 of 2	22-000082.03 Dwg. 1310 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Roadworks Layout Plan Sheet 2 of 2	22-000082.03 Dwg. 1311 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Intersection Details Sheet 1 of 2	22-000082.03 Dwg. 1320 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Intersection Details Sheet 2 of 2	22-000082.03 Dwg. 1321 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Road 7 Longitudinal Section	22-000082.03 Dwg. 1330 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Road 7 Cross Section	22-000082.03 Dwg. 1331 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Road 10 Longitudinal Section Sheet 1 of 2	22-000082.03 Dwg. 1332 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Road 10 Longitudinal Section Sheet 2 of 2	22-000082.03 Dwg. 1333 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Road 10 Cross Section Sheet 1 of 2	22-000082.03 Dwg. 1334 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Road 10 Cross Section Sheet 2 of 2	22-000082.03 Dwg. 1335 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Road 11 Long & Cross Section	22-000082.03 Dwg. 1336 Rev. A	Egis Consulting Pty Ltd	12/03/2024

Approved Plans and Documents			
Plan / Document Name	**Reference Number**	**Prepared By**	**Dated**
Road 12 Long and Cross Sections	22-000082.03 Dwg. 1337 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Road 21 Long and Cross Sections	22-000082.03 Dwg. 1338 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Signage & Linemarking Plan	22-000082.03 Dwg. 1340 Rev. A	Egis Consulting Pty Ltd	21/05/2024
Stormwater Layout Plan Sheet 1 of 2	22-000082.03 Dwg. 1400 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Stormwater Layout Plan Sheet 2 of 2	22-000082.03 Dwg. 1401 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Stormwater Notes and Details	22-000082.03 Dwg. 1402 Rev. A	Egis Consulting Pty Ltd	12/03/2024
Stormwater Catchment Plan	22-000082.03 Dwg. 1410 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Stormwater Longitudinal Sections Sheet 1 of 2	22-000082.03 Dwg. 1420 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Stormwater Longitudinal Sections Sheet 2 of 2	22-000082.03 Dwg. 1421 Rev. A	Egis Consulting Pty Ltd	21/05/2024
Stormwater Calculations Table Minor	22-000082.03 Dwg. 1430 Rev. B	Egis Consulting Pty Ltd	21/05/2024
Stormwater Calculations Table Major	22-000082.03 Dwg. 1431 Rev. B	Egis Consulting Pty Ltd	21/05/2024

ASSESSMENT BENCHMARKS

The Assessment Benchmarks that applied to the development from the following Categorising Instruments include;

Categorising Instrument (*Planning Regulation 2017*)

State Planning Policy

- *State Planning Policy 2017*, Part E.

Regional Plan

- *South East Queensland Regional Plan 2017 (ShapingSEQ).*

Local Categorising Instrument (Moreton Bay Regional Planning Scheme)

- MBRC Planning Scheme - Works Code, Reconfiguration a Lot Code (applicable precinct only) and Caboolture West Local plan Code

Local Categorising Instrument (Variation Approval)

Not applicable.

Local Categorising Instrument (Temporary Local Planning Instrument)

Not applicable.

OTHER RELEVANT ASSESSMENT MATTERS

Not applicable.

REASONS FOR THE DECISION

Not Applicable.

REASONS FOR APPROVAL DESPITE NON-COMPLIANCE WITH ASSESSMENT BENCHMARKS

Not applicable.

REFERRAL AGENCY CONDITIONS

There were no Referral Agencies applicable to this development application.

SUBMISSIONS

Not applicable.

APPEAL RIGHTS

Attachment 4 of the Decision package is an extract from the *Planning Act 2016* which details your appeal rights, and the appeal rights of any submitters, if applicable, regarding this decision.

ATTACHMENT 2

Assessment Manager Conditions of Approval

CONDITION		**TIMING**
OPERATIONAL WORKS		
DEVELOPMENT ENGINEERING		
1	**Road Classifications for Pavement Design**	
	Design pavement in accordance with the following road classifications: 1. Road 7 - Modified living Residential - 1.2 x 10^5 ESA 2. Road 10 - Modified living Residential - 1.2 x 10^5 ESA 3. Road 11 - Driveway - 2.5 x 10^3 ESA 4. Road 12 - Driveway - 2.5 x 10^3 ESA	Prior to subgrade inspections.
2	**Non-Conforming Designs**	
	Only non-conforming designs listed in this approval have been accepted. All other discrepancies with Council standards shall be redesigned and / or reconstructed as necessary to conform with Council standards at no cost to Council.	At all times during construction and prior to works being accepted Off Maintenance.
3	**Errors and Omissions**	
	Where errors or omissions occur in the design or works do not conform to or meet Council standards then these works shall be rectified to comply with Council standards at no cost to Council. Where drawings contain insufficient detail or do not contain details of works that are either necessary or associated with the development then these works shall be designed and constructed to Council standards. Only the approved plans shall be used for construction. Note: Council reserves the right to amend the approved drawings or request further information should this become necessary.	At all times during construction and prior to works being accepted Off Maintenance.
4	**Works – Applicant's Expense**	
	All works, services, facilities and/or public utility alterations required by or as a consequence of this approval or stated condition/s, whether carried out by the Council or otherwise, shall be at the developer's expense unless otherwise specified or agreed in writing. Replace existing Council infrastructure (including but not limited to street trees and footpaths) to Council's standards.	At all times during construction and prior to works being accepted Off Maintenance.
5	**Works – Connection to existing works**	
	Where existing works, including roads and drainage works, will not link up with and join smoothly to proposed works and are not more than twenty (20) metres from the nearest point of the proposed works the developer shall carry out such	Prior to works being accepted On Maintenance.

CONDITION		TIMING
	works as are necessary to ensure that the incomplete works, including roads and drainage, are constructed to link up with and join smoothly to the works proposed in accordance with Council's standards. These works are to be undertaken at the developer's expense unless otherwise specified or agreed in writing.	
6	**Notification of Finalisation of Works**	
	Notify Council in writing that the development works on site have been finalised.	At the time of completion of construction.
7	**As Constructed Drawings**	
A	Provide, for review and approval, Council with a preliminary set of the surveyor and engineering As Constructed drawings for the approved works and a digital ADAC file. Note: The current design standard and relevant planning scheme policy is MBRC Planning Scheme Policy Operational Works inspection, maintenance and bonding procedures.	Prior to requesting an On Maintenance inspection.
B	Submit 'As Constructed' drawings and digital ADAC file in accordance with Council's Planning Scheme, relevant Planning Scheme Policies and design standards current at the time of development.	Prior to works being accepted On Maintenance.
8	**Works Through Land not owned by the Developer**	
	Where any works are proposed to be undertaken on or extend into any property not owned by the developer then the other property owner's written consent must be lodged with Council. The written consent from the land owner must identify the correct drawing title and number (including revision number) for the works within or through their land.	Prior to any works commencing within those properties.
9	**Works in Existing Roads**	
A	Works carried out in or affecting existing Roads must be undertaken so that these roads are maintained in a safe and useable condition.	At all times.
B	Provide to Council's delegated officer and receive acknowledgement of a Traffic Management Plan, with site specific Guidance Scheme, prepared and signed by an appropriately qualified person and in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) for any works that will affect traffic movements or traffic safety in existing roads. Note: • A 'Part Road Closure Application' for Development Works form is to accompany the Traffic Management Plan submission. • This submission is required to be made in addition to any Traffic Management Plan which has been	At least five (5) days prior to undertaking the works in or affecting existing roads.

CONDITION		TIMING
	submitted and/or approved as part of a Construction Management Plan for the site during the development application process for Material Change of Use or Reconfiguring a Lot or subsequent non-IDAS applications.	
10	**Information Sign – Works in Existing Roads**	
	A construction advisory road sign must be erected and regularly updated and maintained displaying the developer and contractors details and the expected completion date for works on existing roads. The sign shall be located so as be clearly legible to the public from of minimum 15m distance from the existing road on which the works are to be carried out on.	For the duration of the works from commencement to acceptance of On Maintenance.
11	**Notification to Affected Premises**	
A	Provide Council with a copy of an information kit for 'Notification to Affected Premises' which includes the following: 1. A layout plan of the proposed development showing adjoining lot boundaries, new and existing roads, park and open space, drainage reserves and community purposes lots as applicable; 2. Details of any external works with any changes to existing works highlighted for easy identification; 3. Scheduled start and completion dates; 4. Contact names and phone numbers for the Developer, Supervising Engineer, Consulting Engineer, the Contractor, Wildlife Spotter and who to contact in an emergency; and 5. The site working hours authorised for the site works.	Prior to distribution of information kit to residents.
B	Provide all occupiers of premises adjoining the site, directly opposite the frontage of the site, adjacent to and directly opposite external works and residents/occupiers likely to be directly affected by the works with a copy of the 'Notification to Affected Premises' information kit. Provide Council's delegated officer with a list of premises which the information kit has been delivered to.	Not less than 14 days prior to commencing any construction works.
12	**Information Sign – Development Works**	
	An information sign containing the following details and after hours contact details must be provided at each entrance to the development site: • Developer • Supervising Consultant/ Engineers / Project Manager • Principal Contractor The sign must be at least 0.9m (W) by 0.6m (H). The sign must be erected and maintained for the duration of the development works.	For the duration of the development works from commencement to acceptance On Maintenance by Council.

CONDITION		TIMING
13	**Prestart Meeting**	
	Arrange a prestart meeting with Council officers from Development Services section on 3205 0555 or (Email - council@moretonbay.qld.gov.au - Attention - Development Services - Engineering Waraba Construction Team - Referencing DA/2024/1094. The following people will be required to attend the prestart meeting: 1. Developer's Supervising Engineer 2. Contractor's Engineer / Project Manager 3. Contractor's Site Supervisor 4. Fauna Manager (where required).	Not less than 7 days prior to commencing any construction works.
14	**Mandatory Inspections with Council Officers**	
	Submit required documentation for each mandatory inspection in accordance with MBRC Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures.	Prior to requesting inspection.
	Undertake the following inspections with Council's delegated officer (where applicable to approved works) in accordance with MBRC Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures:	As prescribed below.
A	Stormwater drainage.	Prior to backfilling stormwater trenches.
B	Subgrade / box inspection.	Prior to placement of structural pavements.
C	Preseal inspection.	Prior to priming and sealing of structural pavements.
D	For concrete slabs and concrete pavements - foundations / subgrade and pre-pour inspections.	Prior to concrete pouring.
E	On maintenance inspection for Council's acceptance of all works.	Prior to works being accepted On Maintenance.
F	Off maintenance inspection of all works. Note: Reinspections attract a fee in accordance with Council's Fee Schedule. The fee must be paid prior to the reinspection.	After maintenance period has elapsed.
G	Provide Council's delegated officer with a copy of an Engineers' Certificate Soil tester's reports demonstrating that required compaction standards, finished levels and textures of finish have been obtained in accordance with Council's Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures.	Prior to proceeding to construction of next layer or surfacing.

CONDITION		TIMING
15	**Testing Frequency – General**	
A	All testing of the works shall be carried to comply with the minimum testing frequencies given in MBRC Planning Scheme Policy - Operational Works inspection, maintenance and bonding procedures. Note: Council's delegated officer may vary the frequency of testing to suit site conditions but must provide written advice to the supervising engineer prior to commencement of the relevant works.	At all times during construction.
B	Provide a plan identifying locations where testing has occurred.	Prior to works being accepted On Maintenance.
16	**Construction Hours Restrictions**	
	Ensure hours of construction are limited to 0630 to 1830 Monday to Saturday and not at all on Sundays and public holidays. Note: Council's engineer may approve (in writing) work outside the above hours where it can be demonstrated to the satisfaction of Council that the work will not cause unreasonable interference with the amenity of adjoining premise and any person.	At all times.
17	**Construction Nuisance and Annoyance**	
	Ensure construction works do not cause unreasonable interference with the amenity of adjoining premise and any person by reason of noise, vibration, electrical interference, smell, fumes, vapour, steam, soot, ash, dust, silt, wastewater, waste products, grit, oil or otherwise.	At all times.
18	**Construction Site Management**	
	Ensure the construction site is kept in a clean and tidy state.	At all times.
19	**Temporary Sedimentation, Erosion and Runoff Control**	
A	Implement an Erosion and Sediment Control Plan which is prepared by an experienced Certified Professional in Erosion and Sediment Control (CPESC) in accordance with International Erosion Control Association Australasia (IECA) Best Practice and Sediment Control document and MBRC Planning Scheme current at the time of development.	Prior to commencement of works and to be maintained current at all times during construction and until the development is accepted off-maintenance.
B	The temporary erosion and sediment control measures shall be maintained and be functional until the end of the Maintenance Period for the works or earlier if Council's delegated officer considers they are no longer required. Note: Council's delegated officer may order additional measures to control silt on site at no cost to Council.	At all times during construction.

CONDITION		TIMING
20	**Haul Routes**	
	Submit and have approved by Council's delegated officer all haul routes for the transport of imported or spoil material and gravel pavement material along Council roads below sub-arterial standard. Note: Refer to MBRC Planning Scheme Values and Constraints Mapping - Road Hierarchy for details on sub-arterial and arterial roads.	Prior to a prestart meeting being held.
21	**Spillage onto Existing Roads**	
	Clean those parts of the access route to the site that are affected by any material dropped, deposited or spilled on the roads as a result of construction processes associated with the site. Note: • All materials must be swept up and removed from the roads and not directed into Council's stormwater drainage system. • All care must be taken to prevent sediments being deposited on roads.	At all times during construction.
22	**Dust Control – Nuisance and Annoyance**	
	Implement suitable dust control measures. If airborne particles are observed leaving the site, any work is to cease immediately and satisfactory dust suppression is to be implemented. Note: Dust suppression measures must be in place at all times including weekends and public holidays.	At all times prior to works being accepted Off Maintenance.
23	**Earthworks Batters**	
	Where approved drawings do not include specifications for scour and erosion protection apply the following treatments to batter slopes: 1. Slopes of 1:6 or flatter – topsoil and seed 2. Slopes between 1:6 and 1:4 – topsoil and turf 3. Slopes of 1:4 or greater – provide treatment recommendation from a qualified geotechnical engineer (R.P.E.Q.) for Council approval prior to undertaking batter works 4. Or as directed by Council. Note: Batters within Open and Civic Spaces are to be treated in accordance with MBRC Planning Scheme Policy Integrated Design - Open and Civil Space Design.	At all times during construction.
24	**Road Crossings in Existing Roads**	
	All services crossings under Existing Council Roads are to be tunnel bored unless approved otherwise by Council's delegated officer.	At all times during construction.

CONDITION		TIMING
	Where approval is given for open trenching, the following is to apply: 1. Minor Roads - backfill shall be compacted in layers to 95% standard maximum dry density and topped with 300mm of pavement material and a 50mm AC wearing course. 2. Sub-arterial or Arterial roads - refer to I.P.W.E.A. Standard Drawing RS-170. 3. Verge - Backfill shall be compacted to 90% standard maximum dry density and topped with 75mm of sandy loam. Restoration of any vegetation shall be undertaken to a standard as near as practicable to the pre-construction standard.	
25	**Site works – Stormwater Runoff Quality**	
	Carry out earthworks in accordance with the State Planning Policy - Water Quality and IECA Best Practice Erosion and Sediment Control document. Note: 1. Soil disturbances of greater than 1.0 hectares will require a site specific Erosion & Sediment Control Plan. 2. Earthworks are to be undertaken to ensure that soil disturbances are staged into manageable areas of not greater than 3.5 hectares.	At all time during construction and until the site is suitably stabilised.
26	**Unsuitable Fill Materials**	
	Ensure that all fill material used on the development site is free of unsuitable materials, identified in AS3798 and the following: 1. actual acid sulfate soils and potential acid sulfate soils; 2. organic or putrescible matter; 3. material imported from land which is, or has been, listed on the “Environmental Management Register” under the *Environmental Protection Act 1994*; and 4. building demolition material.	At all times.
27	**Compaction Requirements**	
	All fill material which is intended to be load bearing, or the finished surface level of which is required to remain approximately constant, is selected, placed and compacted to the standard prescribed in Australian Standard AS3798 Guidelines on Earthworks for Commercial and Residential developments.	At all times during construction.
28	**Advisory Sign – Future Road Extension**	
	At the end of each road that is intended to extend with future development an advisory sign shall be supplied and erected to inform residents and the public of the future road extension. The sign shall be worded as follows:	Prior to works being accepted On Maintenance.

CONDITION		TIMING
	"This road may be extended with future development of the adjoining land. For further information refer to Council's Planning Scheme." This sign must be easily read at a distance of 5 metres. The sign shall not be attached to the road end hazard sign above the sign board.	
29	**Pavement Design**	
A	All road pavements must be designed, constructed and tested in accordance with MBRC Planning Scheme Policy - Integrated Design - Street, Roads and Utilities and standard drawings current at the time of construction. Note: 1. Council requires a primer seal placed under all asphalt surfaces. 2. Increased asphalt surface thicknesses for road thresholds are to be identified in the pavement design.	At all times during construction.
B	Submit, for review and approval by Council's delegated officer, a pavement design for all roads. Pavement designs are to include Soil tester's reports.	Prior to subgrade inspection.
30	**Pavement Jointing Detail**	
	Undertake pavement jointing in accordance with I.P.W.E.A.Q. Standard Drawings RS-170.	Prior to works being accepted On Maintenance.
31	**Concrete Footpaths**	
	Construct concrete footpaths and kerb ramps in accordance with I.P.W.E.A. Standard Drawings RS-065 and RS-090.	Prior to works being accepted On Maintenance.
32	**Street Signs**	
	Street signs must be provided in accordance with Council's Standard Drawings and I.P.W.E.A. Standard Drawings. Note: 1. House numbers required for these signs shall be obtained from Council's house numbering officer by contacting Council's Customer Service. 2. The MBRC Logo is not to be put on the sign.	Prior to works being accepted On Maintenance.
33	**Hazard Management**	
A	Undertake the hazard identification and treatment process for any additional, existing or introduced hazards identified onsite by the Consultant or by Council's delegated officer during the construction process. Undertake a review of the identified hazards and provide a copy of the completed Hazard Mitigation Worksheet found in AUSTROADS Guide to Road Design Part 6: Roadside	Prior to works being accepted On Maintenance.

CONDITION		TIMING
	Design, Safety and Barriers Appendix B along with any supporting information.	
B	Provide, for review and approval by Council's delegated officer, adequate design documentation for the recommended hazard management treatment in accordance with AS3845:1999 and AUSTROADS Guide to Road Design Part 6: Roadside Design, Safety and Barriers.	Prior to construction of any hazard management treatment.
C	Construct approved hazard management treatments in accordance with Council's Planning Scheme, Planning Scheme Policies, standard drawings and any other relevant standards current at the time of development.	Prior to works being accepted On Maintenance.
34	**Stormwater Runoff Control – Batters and Retaining Walls**	
	Provide cut-off drains at the top of the batter with turf or rock lined batter drains for all batters and/or retaining walls generally higher than 600mm in height and with a catchment greater than 1000m2. Note: Where these are not detailed on the approved drawings then these works shall be in accordance with Council's current standards.	Prior to works being accepted On Maintenance.
35	**Stormwater Runoff Control – Open Drains**	
	Provide lining with appropriate scour protection to all open drains and bunds in accordance with Council's Planning Scheme, Planning Scheme Policies and standard drawings current at the time of development. Note: Dumped rock is generally not considered as an appropriate solution .	Prior to works being accepted On Maintenance.
36	**Stormwater Pipe Outlets and Culvert Inlets and Outlets**	
	Stabilise all culvert inlets and outlets or stormwater drainage outlets in accordance with industry best practice and the following requirements: 1. Rock gabion baskets/rock mattresses 2. Grouted rock/stone pitching with a properly designed and prepared base and constructed to the following requirements: i. Mortar to be 1 part cement to 3 parts sand (by volume). ii. Open face stone pitching is to be used where the concrete is recessed 50mm behind the stone facing. iii. Select spalls to avoid sharp edges. 3. Other solutions as approved by Council's delegated officer. Note: Dumped rock is generally not considered as an appropriate solution.	At all times.

CONDITION		TIMING
37	**Stormwater Overland Flow – Site Earthworks**	
	Earthworks must be undertaken on the site so as not to cause nuisance and annoyance to any person or premises. The development must: 1. Allow stormwater overland flow which entered the land prior to the commencement of the earthworks to continue to enter the land; and 2. Ensure stormwater overland flow from the development site is not discharged or diverted onto land (other than a road) adjacent to the site in a manner which: i. concentrates the rate of flow at any point along the property boundary; or ii. increases the peak flow rates of stormwater discharged at any point along the property boundary; beyond that which existed prior to commencement of these earthworks.	At all times during construction.
38	**CCTV – Stormwater Pipes**	
A	Undertake and provide, to the satisfaction of the Council, a high definition Closed Circuit Television (CCTV) recording of all stormwater pipes, including inter allotment roof water drainage. Recording to be undertaken within one month immediately preceding making a request for On Maintenance inspection and post road pavement construction works. CCTV to clearly display all joints (full surrounds) and any form of damage or defects, including date and time of the recording. The recording is to include a report signed by a suitably qualified Registered Professional Engineer Queensland (RPEQ) stating that the recording has been reviewed and all works are satisfactory. Where defects have been identified, consultant is to provide method of rectification to Council for approval, prior to carrying out any rectification works.	Prior to a request for On Maintenance Inspection
B	Undertake and provide, to the satisfaction of the Council, a high definition Closed Circuit Television (CCTV) recording of all stormwater pipes, including inter allotment roof water drainage. Recording to be undertaken within one month immediately preceding making a request for Off Maintenance inspection. CCTV to clearly display all joints (full surrounds) and any form of damage or defects, including date and time of the recording. The recording is to include a report signed by a suitably qualified Registered Professional Engineer Queensland (RPEQ) stating that the recording has been reviewed and all works are satisfactory. Where defects have been identified, consultant is to provide	Prior to a request for Off Maintenance inspection.

CONDITION		TIMING
	method of rectification to Council for approval, prior to carrying out any rectification works.	
39	**Provision of Kerb Adapters**	
	Provide a minimum of two (2) metal kerb adaptors per lot for lots that drain to the road. Where a lot has side crossfall of up to 1.5%, one (1) kerb adaptor shall be located at each side of the lot. Where a lot has side crossfall of greater than 1.5%, both kerb adaptors shall be located at the low side of the lot. For lots with a concrete footpath at the frontage, the kerb adaptors shall be connected to the front boundary of the lot with Class SN8 uPVC stormwater pipe.	Prior to works being accepted On Maintenance.
40	**Certification – Public Stormwater Management Infrastructure**	
	Provide documentation to Council from a Registered Professional Engineer (RPEQ) specialising in stormwater design certifying that the stormwater management treatment train as approved in the stormwater management plan and design drawings has been constructed in accordance with engineering best practise and is functioning as designed. The certification shall include the completed sign-off forms for bioretention systems prepared by Water by Design in Partnership with Healthy Waterways shall be completed. The sign-off forms are accessible from www.waterbydesign.com.au.	Prior to works being accepted On Maintenance.
41	**Fertilisers for Grassing and Landscape Works**	
	Odorous chemicals, fertilisers, soil conditioners or mulches shall not be used on land development projects. Only a non-odorous, commercially bagged and labelled fertiliser shall be used when seeding grass areas or laying turf. Without limiting the above, Council's delegated officer may approve the use of suitably composed and aged organic material, such as soil conditioners, at the following locations: 1. in isolated locations where existing and proposed houses are considerable distances from the work site; and 2. where, in the officer's opinion, their use would not adversely affect the occupiers of any nearby properties with strong odours or loose material blown from the work site. Council's delegated officer will provide the approval in writing with conditions where odorous fertilisers are approved.	At all times during construction.
42	**Stabilisation of Disturbed Areas**	
	Ensure that a grass strike rate of at least 80% cover has been attained on all disturbed areas or other approved means of stabilisation of grassed areas have been provided.	Prior to works being accepted On Maintenance.

CONDITION		TIMING
	Note: For residential and rural residential subdivisions, the road reserve between kerb and property line shall be turfed as a condition of completion.	

ADVICES	
1	**Development Permit**
	This approval shall comply with all the conditions of related approval as stipulated in Council's Decision Notice – Development Permit dated 24 August 2024 referenced as DA/2021/4669. The Applicant needs to be aware that the Currency Period of that Decision Notice may determine the validity period of this Decision Notice.
2	**Extent of Checking by Council**
	This approval shall not be taken to mean that the drawings have been checked in detail and Council accepts no responsibility whatsoever for the survey information, the design, or for the accuracy of any information or detail contained in the approved drawings and specifications.
3	**Aboriginal Cultural Heritage Act**
	The *Aboriginal Cultural Heritage Act 2003* commenced in Queensland on April 16, 2004. Under the Act, indigenous parties are key in assessing cultural heritage significance. The *Aboriginal Cultural Heritage Act 2003* establishes a Duty of Care for indigenous cultural heritage. This applies on all land and water, including freehold land. The Cultural Heritage Duty of Care lies with the person or entity conducting the activity. Penalty provisions apply for failing to fulfil the Cultural Heritage Duty of Care. Those proposing an activity that involves additional surface disturbance beyond that which has already occurred on the proposed site need to be mindful of the Duty of Care requirement. Details of how to fulfil the Duty of Care are outlined in the Duty of Care Guidelines gazetted with the Act. Council strongly advises that you contact the relevant state agency to obtain a copy of the Duty of Care Guidelines and further information on the responsibilities of developer under the terms of the *Aboriginal Cultural Heritage Act 2003*.
4	**Environmental Protection Act**
	It remains the duty of care of the site owner not to cause Environmental Harm as defined under the *Environmental Protection Act 1994*.
5	**Fill in Proposed Parks**
	Filling is not permitted in proposed parks without prior written approval of Council's Delegated Officer.

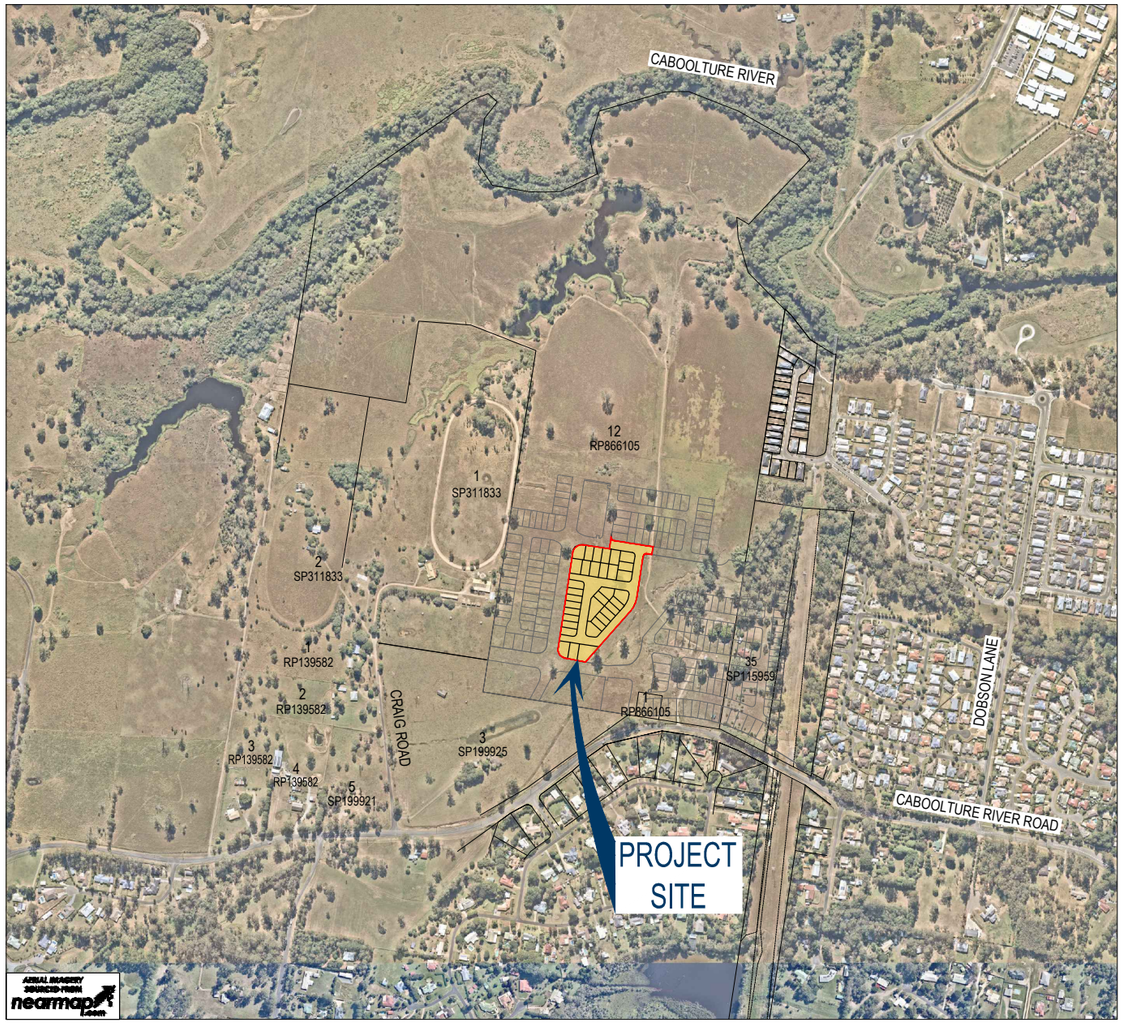
ADVICES	
6	**Road and Stormwater infrastructure**
	In respect to Road and Stormwater infrastructure, the works shall be designed and constructed in accordance with the relevant Planning scheme codes and policies; The current relevant planning scheme codes and policies are: 1. Works code; 2. Reconfiguring a lot codes; 3. PSP- Integrated Design 4. PSP- Operational Works Inspection, Maintenance and Bonding Procedures. All of which may be downloaded free of charge from Council's website at www.moretonbay.qld.gov.au. The PSP- Operational Works Inspection, Maintenance and Bonding Procedures also contains details of other requirements such as: 1. arrangements for works going On or Off Maintenance; 2. inspection and testing; 3. checklists and certification proforma; 4. bonding procedures. Should further information be required regarding the road and stormwater component of the Operational Works Application, please contact Council's Officer, Xavier Dubreuil on phone (07) 5433 2739.
7	**Acceptance Based on Applicant's Certification**
	Council's acceptance of the above submission is based solely on the applicant's certification that the proposal conforms totally to Council's Planning Scheme, Planning Scheme Policies and standard drawings.
8	**Biosecurity Act 2014 - Fire Ant Control**
	Significant portions of the Moreton Bay are within Fire Ant Biosecurity Zone 2 and must remain vigilant for the presence of fire ants. Under the Biosecurity Act 2014, individuals and businesses are responsible for ensuring that they follow the movement controls for specific organic materials to help prevent the spread of fire ants within South East Queensland's fire ant biosecurity zones. Movement of a fire ant carrier from within the fire ant biosecurity zone may need a biosecurity instrument permit. More information is available on https://www.fireants.org.au/treat/business--and-industry/movement-controls

ATTACHMENT 3

Approved Plans / Documents

LILYWOOD LANDINGS

STAGE 3 - OPERATIONAL WORKS
FOR FOREVERLEN PTY LTD



DRAWING INDEX

DWG NO.	DESCRIPTION
	GENERAL
1000	TITLE SHEET & LOCALITY PLAN
	KEY PLAN
1100	SITE LAYOUT PLAN
	CONTROL LINE SETOUT
1300	CONTROL LINE SETOUT PLAN SHEET 1 OF 2
1301	CONTROL LINE SETOUT PLAN SHEET 2 OF 2
1302	CONTROL LINE SETOUT PLAN DETAILS
	ROADWORKS LAYOUT PLAN
1310	ROADWORKS LAYOUT PLAN SHEET 1 OF 2
1311	ROADWORKS LAYOUT PLAN SHEET 2 OF 2
	INTERSECTION DETAILS
1320	INTERSECTION DETAILS SHEET 1 OF 2
1321	INTERSECTION DETAILS SHEET 2 OF 2
	LONGITUDINAL AND CROSS SECTIONS
1330	ROAD 7 LONGITUDINAL SECTION
1331	ROAD 7 CROSS SECTIONS
1332	ROAD 10 LONGITUDINAL SECTION SHEET 1 OF 2
1333	ROAD 10 LONGITUDINAL SECTION SHEET 2 OF 2
1334	ROAD 10 CROSS SECTIONS SHEET 1 OF 2
1335	ROAD 10 CROSS SECTIONS SHEET 2 OF 2
1336	ROAD 11 LONG & CROSS SECTIONS
1337	ROAD 12 LONG & CROSS SECTIONS
1338	ROAD 21 LONG & CROSS SECTIONS
	SIGNAGE AND LINEMARKING
1340	SIGNAGE & LINEMARKING LAYOUT PLAN B
	STORMWATER LAYOUT PLANS
1400	STORMWATER LAYOUT PLAN SHEET 1 OF 2
1401	STORMWATER LAYOUT PLAN SHEET 2 OF 2
1402	STORMWATER NOTES AND DETAILS
	STORMWATER CATCHMENT PLAN
1410	STORMWATER CATCHMENT PLAN
	STORMWATER LONGITUDINAL SECTIONS
1420	STORMWATER LONGITUDINAL SECTIONS SHEET 1 OF 2
1421	STORMWATER LONGITUDINAL SECTIONS SHEET 2 OF 2 B
	STORMWATER CALCULATION TABLES
1430	STORMWATER CALCULATION TABLES MINOR
1431	STORMWATER CALCULATION TABLES MAJOR
	SEWER RETICULATION PLANS
1500	SEWER RETICULATION COVER SHEET
1501	SEWER RETICULATION LAYOUT PLAN SHEET 1 OF 2
1502	SEWER RETICULATION LAYOUT PLAN SHEET 2 OF 2
	SEWER LONGITUDINAL SECTIONS
1510	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 1 OF 2
1511	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 2 OF 2
	WATER RETICULATION PLANS
1600	WATER RETICULATION COVER SHEET
1601	WATER RETICULATION LAYOUT PLAN SHEET 1 OF 2
1602	WATER RETICULATION LAYOUT PLAN SHEET 2 OF 2
1603	WATER RETICULATION NOTES AND DETAILS

CONSTRUCTION HOLD POINT
PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY LEVELS OF ALL EXISTING CROSSINGS AND CONNECTION POINTS.

CONSTRUCTION NOTE
THESE DRAWINGS ARE TO BE READ IN CONJUCTION WITH:
- CRR INTERSECTION & IDC SET - 22-000082_CRR
- BULK EARTHWORKS SET - 22-000082_EWKS
- STAGE 1A / 1B SET - 22-000082_1A-1B
- STAGE 2 SET - 22-000082_2
- STAGE 4 SET - 22-000082_4
- STAGE 23 SET - 22-000082_23
- GEOTECHNICAL REPORT
- BAF TRUNK WATER INFRASTRUCTURE SET - 22-000082_TWI
- BAF DOBSON LANE TRUNK GRAVITY SEWER SET - 22-000027
- BAF DN900 NORTHERN TRUNK GRAVITY SEWER SET - 22-000027_NTGS
- BAF NORTH-SOUTH TRUNK GRAVITY SEWER SET - 22-000027_NSTS
- SIGNALS PLANS (BY CV SERVICES)
- LANDSCAPE PLANS (BY AECOM)
- ELECTRICAL / COMMS PLANS (BY CV SERVICES)

MORETON BAY REGIONAL COUNCIL
LOT 12 ON RP 8661055
AREA OF SITE: 2.491ha
DA 2021/4669

LENNIUM GROUP

Lilywood LANDINGS

IMAGINE. CREATE. ACHIEVE. a sustainable future

PROJECT No.:	STAGE:	MILESTONE:	REVISION DATE:	DRAWING No.:	REVISION:
22-000082_3	3	OPW	20/05/24	1000	B

CITY OF MORETON BAY

Approved Subject to Conditions of Decision Notice DA/2024/1094

20/06/2024

LEGEND

- STAGE BOUNDARY
- PROPOSED LOT BOUNDARY
- EXISTING LOT BOUNDARY
- FUTURE LOT BOUNDARY
- AREA OF FUTURE DEVELOPMENT

N

FUTURE DEVELOPMENT

STAGE 4 WORKS (REFER 22-000082_4)

STAGE 03

STAGE 2 WORKS (REFER 22-000082_2)

EXISTING STAGE 2

STAGES 1A & 1B WORKS (REFER 22-000082_1A-1B)

EXISTING DEVELOPMENT

LOT 1 SP311833

LOT 7 SP199925

LOT 12 RP866105

LOT 1 RP866105

LOT 12 RP866105

LOT 9

ROAD 1

ROAD 3

ROAD 6

ROAD 7

ROAD 8

ROAD 10

ROAD 11

ROAD 12

PMT

CABOOLTURE RIVER ROAD (CRR) / INTERNAL DISTRICT COLLECTOR (IDC) SITE ACCESS ROADS. REFER CRR & IDC SET - 22-000082_CRR

CABOOLTURE RIVER ROAD

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

AMENDMENT

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE
1:1000 1:2000 10 0 10 20 30 40 50m A1 A3

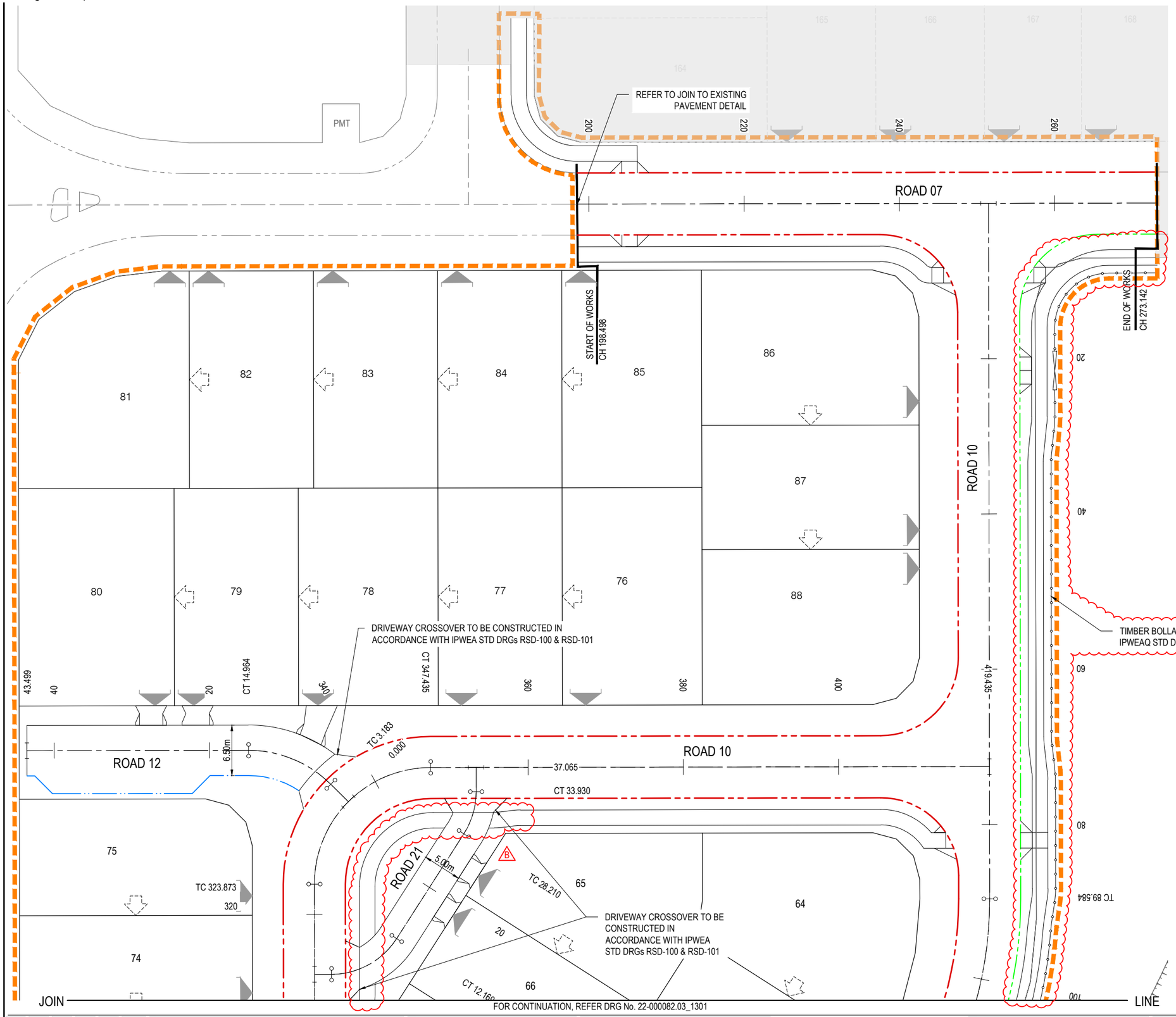
egis
www.egis-group.com

CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS
STAGE 3

DRAWING TITLE: SITE LAYOUT PLAN

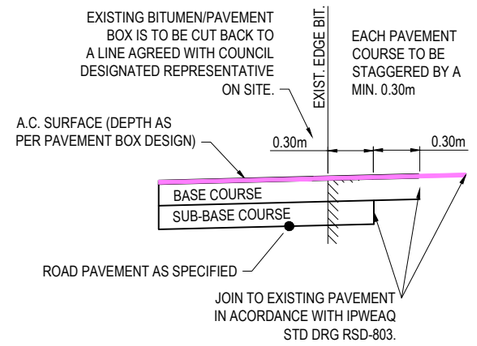
PROJECT No.	DRAWING No.	REVISION
22-000082_3	1100	A



LEGEND

- STAGE BOUNDARY
- CONTROL LINE
- MOUNTABLE KERB & CHANNEL TYPE 'M3'
- BARRIER KERB & CHANNEL TYPE 'B1'
- BARRIER KERB ONLY TYPE 'B2'
- INDICATIVE DRIVEWAY LOCATIONS
- BUILD TO BOUNDARY

NOTE:
REFER TO DRAWING 22-000082.03_1302 FOR KERB DETAILS AND CONTROL LINE SETOUT TABLES



JOIN TO EXISTING PAVEMENT DETAIL
N.T.S.

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
AMENDMENTS	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
B	AA	JG	AA	MH	20.05.24	FOOTPATH, BOLLARDS AND STAGE BDY UPDATED

STATUS: FOR APPROVAL
APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

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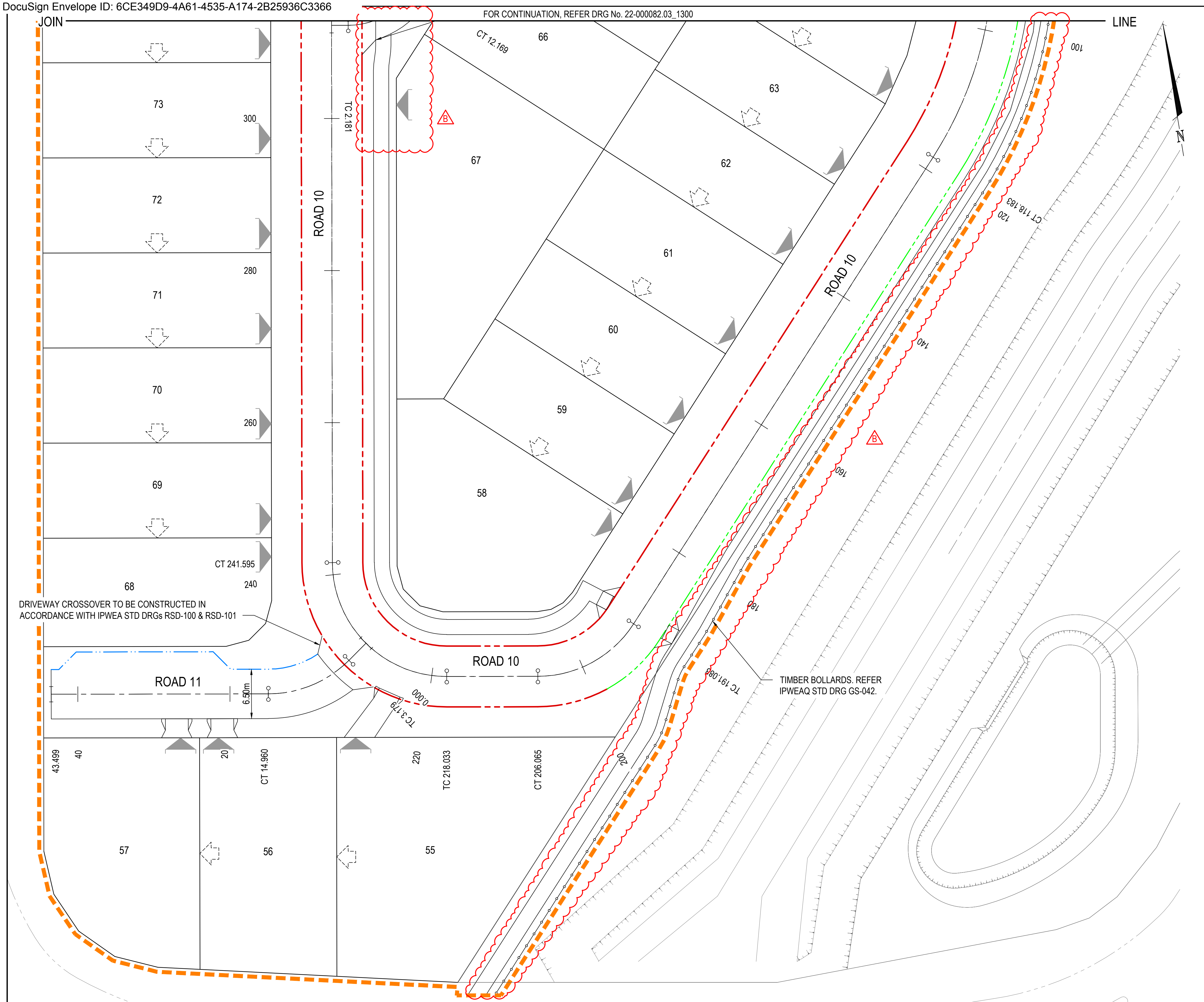
CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS — STAGE 3

DRAWING TITLE: CONTROL LINE SETOUT PLAN SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1300	B

CITY OF MORETON BAY



LEGEND

- STAGE BOUNDARY
- CONTROL LINE
- MOUNTABLE KERB & CHANNEL TYPE 'M3'
- BARRIER KERB & CHANNEL TYPE 'B1'
- BARRIER KERB ONLY TYPE 'B2'
- INDICATIVE DRIVEWAY LOCATIONS
- BUILD TO BOUNDARY

NOTE:
REFER TO DRAWING 22-000082.03_1302 FOR KERB DETAILS AND CONTROL LINE SETOUT TABLES

	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
INITIAL ISSUE	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
B	AA	JG	AA	MH	20.05.24	FOOTPATH, BOLLARDS AND STAGE BDY UPDATED

STATUS: FOR APPROVAL

APPROVED BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE: 1:250 A1 / 1:500 A3 (0, 5, 10m)

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CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: CONTROL LINE SETOUT PLAN SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1301	B

ROAD 7 - CONTROL LINE SETOUT

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	90646.723	502311.511	98°49'24.45"			
TC	394.861	91036.911	502250.943	98°49'24.45"			
IP 2	406.641	91051.733	502248.642		R = -15.000	23.562	89°59'55.96"
CT	418.422	91054.034	502263.464	8°49'28.49"			
TC	612.371	91083.788	502455.117	8°49'28.49"			
IP 3	624.152	91086.089	502469.940		R = -15.000	23.562	90°00'00.05"
CT	635.933	91071.267	502472.241	278°49'28.44"			
IP 4	918.310	90792.232	502515.560	278°49'28.44"			

ROAD 10 - CONTROL LINE SETOUT

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	90895.245	502272.933	188°49'28.42"			
TC	89.584	90881.502	502184.410	188°49'28.42"			
IP 2	103.884	90879.247	502169.881		R = 50.000	28.600	32°46'21.94"
CT	118.183	90869.485	502158.886	221°35'50.36"			
TC	191.083	90821.088	502104.370	221°35'50.36"			
IP 3	198.574	90815.656	502098.250		R = 15.000	14.982	57°13'38.11"
CT	206.065	90807.570	502099.505	278°49'28.47"			
TC	218.033	90795.744	502101.341	278°49'28.47"			
IP 4	229.814	90780.921	502103.643		R = 15.000	23.562	90°00'00.00"
CT	241.595	90783.222	502118.465	8°49'28.47"			
TC	323.873	90795.845	502199.770	8°49'28.47"			
IP 5	335.654	90798.146	502214.592		R = 15.000	23.562	89°59'59.95"
CT	347.435	90812.968	502212.291	98°49'28.42"			
IP 6	419.435	90884.116	502201.246	98°49'28.42"			

ROAD 11 - CONTROL LINE SETOUT

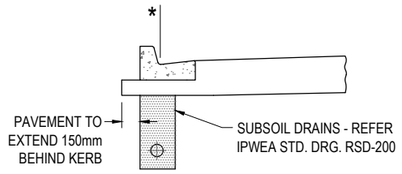
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	90785.936	502107.310	233°49'28.47"			
TC	3.179	90783.370	502105.433	233°49'28.47"			
IP 2	9.070	90778.355	502101.766		R = 15.000	11.781	45°00'00.00"
CT	14.960	90772.215	502102.719	278°49'28.47"			
IP 3	43.499	90744.014	502107.097	278°49'28.47"			

ROAD 12 - CONTROL LINE SETOUT

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	90801.812	502209.576	323°49'28.70"			
TC	3.183	90799.933	502212.146	323°49'28.70"			
IP 2	9.074	90796.266	502217.161		R = -15.000	11.781	45°00'00.29"
CT	14.964	90790.126	502218.114	278°49'28.42"			
IP 3	43.499	90761.929	502222.492	278°49'28.42"			

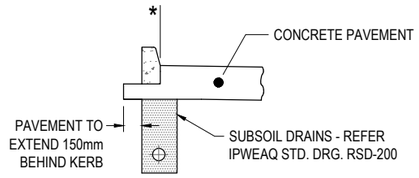
ROAD 21 - CONTROL LINE SETOUT

pp	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	90794.062	502188.285	98°49'28.47"			
TC	2.181	90796.217	502187.950	98°49'28.47"			
IP 2	7.175	90801.608	502187.113		R = -10.000	9.988	57°13'38.11"
CT	12.169	90805.229	502191.193	41°35'50.36"			
TC	28.210	90815.879	502203.189	41°35'50.36"			
IP 3	31.070	90817.831	502205.388		R = -10.000	5.720	32°46'21.94"
CT	33.930	90818.282	502208.294	8°49'28.42"			
IP 4	37.063	90818.763	502211.389	8°49'28.42"			



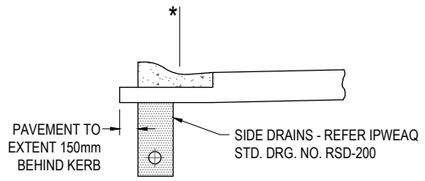
BARRIER KERB AND CHANNEL
TYPE B1 (300mm) IPWEA
SCALE 1 : 25

* NOMINAL KERB LINE



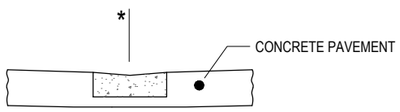
BARRIER KERB ONLY
TYPE B2 IPWEA
SCALE 1 : 25

* NOMINAL KERB LINE



MOUNTABLE KERB AND CHANNEL
TYPE M3 IPWEAQ
SCALE 1 : 25

* NOMINAL KERB LINE



600mm WIDE INVERT
IPWEA
SCALE 1 : 25

* NOMINAL KERB LINE

NOTE:
REFER TO DRG 22-000082.07_1300 FOR DRG LEGEND.

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	RA	15.09.23	
AMENDMENTS	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE
1:25 0.25 0 0.25 0.5 0.75 1.0 1.25m A1
1:50 A3

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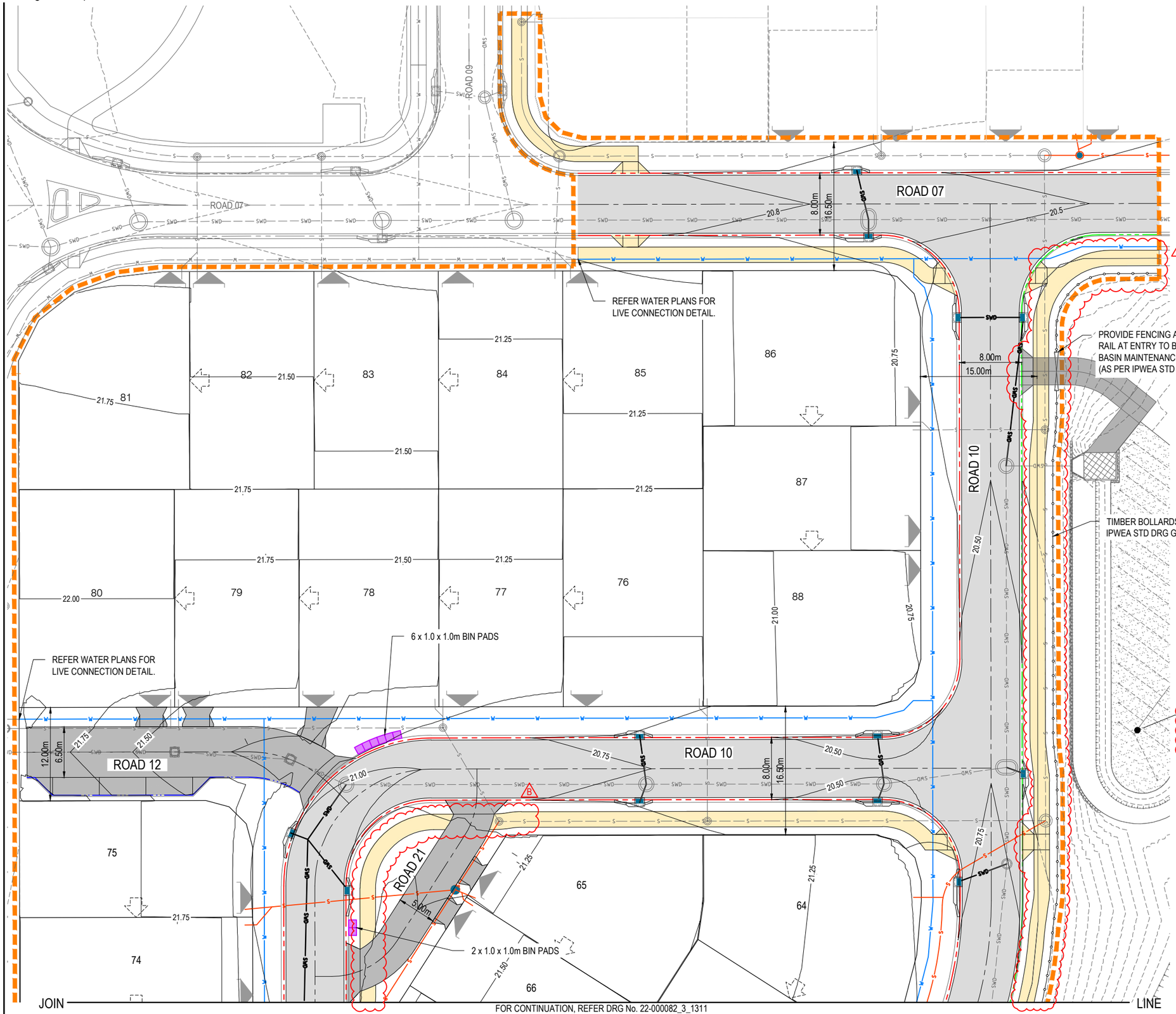
CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS
STAGE 3

DRAWING TITLE: CONTROL LINE SETOUT PLAN DETAILS

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1302	A

CITY OF MORETON BAY



LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- EXISTING STORMWATER DRAINAGE MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- EXISTING STORMWATER STRUCTURE
- CONCRETE FOOTPATH (2m WIDE)
- ASPHALT SURFACING
- CONCRETE DRIVEWAY
- MOUNTABLE KERB & CHANNEL TYPE 'M3'
- BARRIER KERB & CHANNEL TYPE 'B1'
- BARRIER KERB ONLY TYPE 'B2'
- EXISTING SURFACE CONTOUR (0.50m INTERVALS)
- DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- PROPOSED WATER MAIN
- PROPOSED SEWERAGE RETICULATION
- EXISTING SEWERAGE RETICULATION
- PROPOSED KERB ADAPTER + LINE
- PROPOSED ROOF WATER LINE
- EXISTING WATER MAIN
- PROPOSED SLEEPER RETAINING WALL
- PROPOSED BOULDER RETAINING WALL
- EXISTING RETAINING WALL + ACOUSTIC FENCE
- INDICATIVE DRIVEWAY LOCATION
- BUILD TO BOUNDARY

NOTE:
1. REFER TO DRG 22-000082.07_1311 FOR ROADWORKS NOTES.
2. REFER TO DRG 22-000082.07_1311 FOR TYPICAL LOT SERVICE CONNECTION LAYOUT

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
B	AA	JG	AA	MH	20.05.24	FOOTPATH, BOLLARDS AND STAGE BDY UPDATED

AMENDMENTS

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

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CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS — STAGE 3

DRAWING TITLE: ROADWORKS LAYOUT PLAN SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1310	B

CITY OF MORETON BAY

FOR CONTINUATION, REFER DRG No. 22-000082_3_1310

JOIN

LINE

ROAD 10

ROAD 11

4 x 1.0 x 1.0m BIN PADS

TIMBER BOLLARDS. REFER IPWEA STD DRG GS-042

REFER WATER PLANS FOR LIVE CONNECTION DETAIL.

CONNECT PROPOSED PATHWAY TO EXISTING STAGE IDC PATHWAY

N

ROADWORKS NOTES

1. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH CURRENT MORETON BAY REGIONAL COUNCIL STANDARD DRAWINGS AND METHODS.
2. NOTWITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE CROSS SECTIONS, THE ACTUAL LIMITS SHALL BE DETERMINED ON-SITE BY THE SUPERINTENDENT DURING CONSTRUCTION AND SIMILARLY THE FINISHED SURFACE CONTOURS MAY BE ADJUSTED BY WRITTEN DIRECTION OF THE SUPERINTENDENT DURING CONSTRUCTION.
3. LEVELS FOR KERB AND CHANNELING CONSTRUCTION ARE AT EQUAL INTERVALS AT LIP OF CHANNEL UNLESS SHOWN OTHERWISE.
4. SIDE DRAINS TO BE CONSTRUCTED UNDER ALL KERBS AND ALL KERB AND CHANNEL AND IN LOCATIONS DIRECTED BY THE SUPERINTENDENT IN ACCORDANCE WITH MORETON BAY REGIONAL COUNCIL STANDARDS.
5. LEVELS AND GRADIENTS AT JUNCTIONS WITH EXISTING WORKS MAY BE VARIED AS REQUIRED TO ACHIEVE A SATISFACTORY CONNECTION AND THE CONTRACTOR SHALL INCLUDE THE COST OF THIS WORK IN THE TENDER PRICE. WHERE NEW WORK JOINS EXISTING, THE WORK SHALL TRANSITION NEATLY WITH THE PAVEMENT SO THAT DEVIATION FROM THE LINE OF A 3.0m STRAIGHT EDGE SHALL BE NO GREATER THAN 10mm.
6. SUBGRADE TEST RESULTS TO BE FORWARDED TO SUPERINTENDENT. FOR DETERMINATION OF BOX DEPTHS PRIOR TO EXCAVATION, TESTS SHALL INCLUDE SOAKED CBR AND/OR OTHER TESTS AS REQUESTED BY THE SUPERINTENDENT.
7. CONTRACTOR TO LIAISE WITH ALL RELEVANT SERVICE AUTHORITIES TO ASCERTAIN SERVICES PRESENT ON-SITE. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT BY THAT SERVICE AUTHORITY ONLY.
8. FOOTPATHS AND BATTERS TO HAVE MINIMUM OF 75mm TOPSOIL (AND GRASSING IF ORDERED).
9. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF DEMOLISHING ANY EXISTING STRUCTURES WITHIN THE SITE AREAS.
10. WORKS SHALL BE PROGRAMMED SO AS NOT TO DISTURB NEARBY HOUSEHOLDERS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES.
11. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH WORKPLACE HEALTH AND SAFETY REQUIREMENTS.
12. KERB RAMPS AS PER CMB STANDARD DRAWING PC-2101. FOOTPATH CONSTRUCTION AS PER IPWEAQ STANDARD DRAWING PCD101. RESIDENTIAL DRIVEWAY CROSSOVERS AS PER IPWEA STANDARD DRAWINGS RSD-100 & RSD-101.

DRIVEWAY CROSSOVER IN ACCORDANCE WITH IPWEA STANDARD DRAWING RSD-100.

PE WATER METER BOX (NOM SIZE 400x275) IN ACCORDANCE WITH SEQ STD DRG SEQ-WAT-1108-3

SERVICE CLEARANCE NOTE:

MINIMUM VERTICAL CLEARANCE BETWEEN SEWER H.C. AND WATER METER OF 700mm.

TYPICAL DRIVEWAY AND LOT SERVICE CONNECTION LAYOUT

SCALE 1:50 (A1)

NOTE:

1. REFER TO DRG 22-000082.03_1310 FOR ROADWORKS LEGEND.

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	RA	15.09.23	
B	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
	AA	JG	AA	MH	20.05.24	FOOTPATH, BOLLARDS AND STAGE BDY UPDATED

AMENDMENT

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE: 1:250 1:500 5 0 5 10m A1 A3

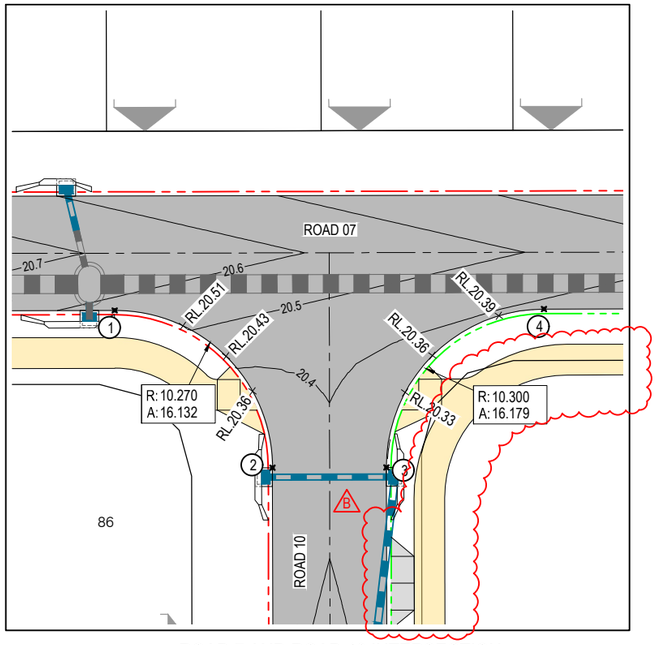
www.egis-group.com

CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: ROADWORKS LAYOUT PLAN SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1311	B



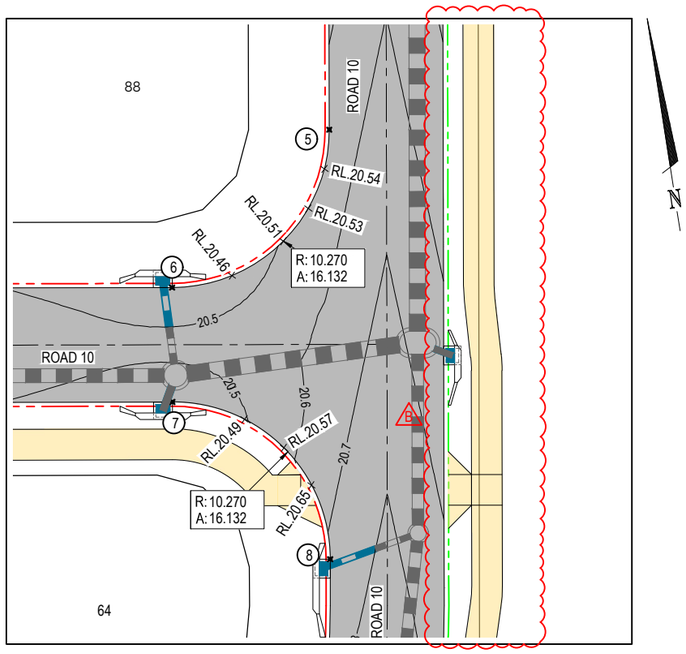
ROAD 7 AND ROAD 10 INTERSECTION
SCALE 1:200

ROAD 7 & 10 INTERSECTION

PINT ID	EASTING	NORTHING	LEVEL
1	90880.838	502271.395	20.574
2	90889.412	502259.671	20.307
3	90896.754	502258.531	20.307
4	90908.512	502267.130	20.380

ROAD 10 INTERSECTION

POINT ID	EASTING	NORTHING	LEVEL
5	90882.577	502215.650	20.536
6	90870.854	502207.077	20.449
7	90869.709	502199.706	20.449
8	90878.282	502187.982	20.715

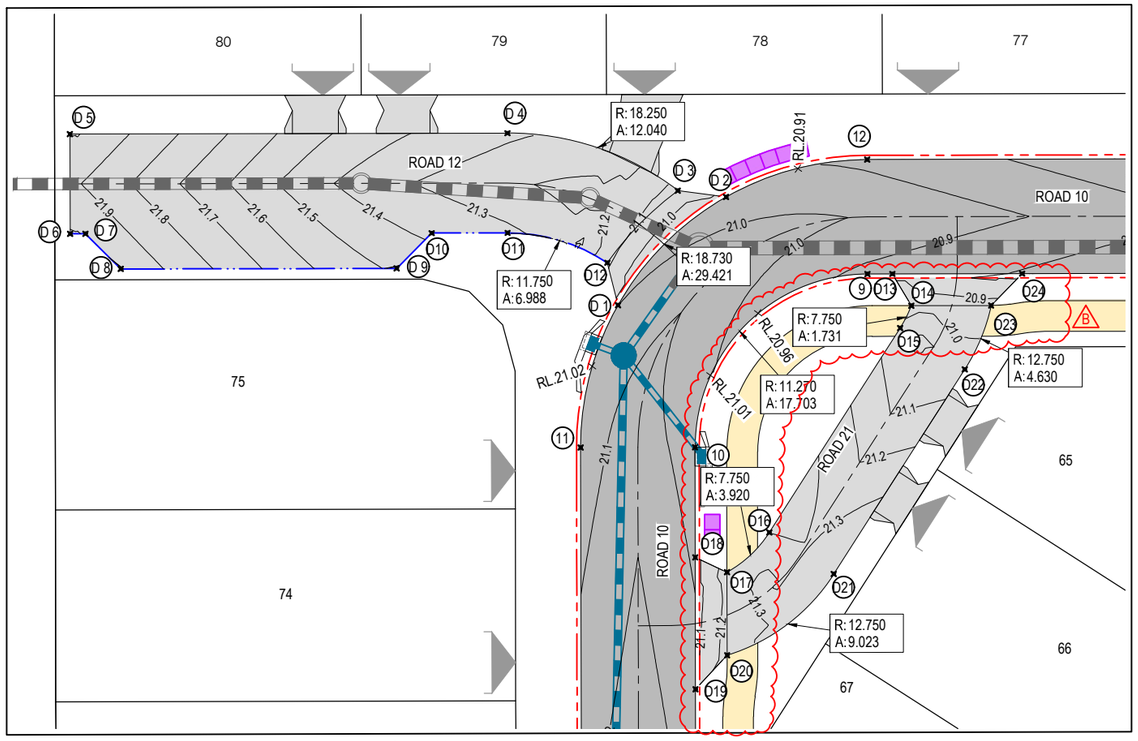


ROAD 10 INTERSECTION
SCALE 1:200

LEGEND

- WORKS BOUNDARY
- CONTROL LINE
- MOUNTABLE KERB & CHANNEL TYPE 'M3'
- BARRIER KERB & CHANNEL TYPE 'B1'
- BARRIER KERB ONLY TYPE 'B2'
- 66.0 — DESIGN SURFACE CONTOUR (0.1m INTERVALS)
- RL.59.651 — KERB INTERMEDIATE LEVEL
- 10 — KERB SETOUT POINT
- CONCRETE FOOTPATH
- ASPHALT SURFACING
- CONCRETE DRIVEWAY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- INDICATIVE DRIVEWAY LOCATIONS

NOTE
KERB SETOUT IS TO LIP OF KERB AND CHANNEL.
LEVEL ARE SHOWN TO LIP OF KERB AND CHANNEL.
KERB LEVELS SHOWN AT EQUAL INTERVALS, U.N.O.
R = KERB RADIUS
A = KERB ARC LENGTH



ROAD 10 BEND 1 + DRIVEWAY 1 AND DRIVEWAY 2
SCALE 1:200

DRIVEWAY 1 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
D 1	90796.007	502209.124	20.999
D 2	90804.065	502214.994	20.940
D 3	90801.023	502215.896	21.076
D 4	90790.626	502221.323	21.320
D 5	90762.427	502225.701	22.009
D 6	90761.430	502219.278	22.148
D 7	90762.418	502219.125	21.990
D 8	90764.334	502216.505	22.132
D 9	90782.121	502213.744	21.629
D10	90784.735	502215.655	21.382
D11	90789.629	502214.900	21.327
D12	90795.752	502211.964	21.110

DRIVEWAY 2 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
D13	90814.009	502208.353	20.863
D14	90814.908	502206.118	20.975
D15	90813.960	502204.794	21.030
D16	90803.450	502192.954	21.283
D17	90800.325	502190.824	21.217
D18	90798.429	502192.100	21.088
D19	90797.110	502183.607	21.131
D20	90799.496	502185.483	21.242
D21	90807.189	502189.635	21.371
D22	90817.700	502201.474	21.092
D23	90820.049	502205.320	20.931
D24	90822.374	502207.054	20.792

ROAD 10 BEND 1 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
9	90812.396	502208.603	20.877
10	90799.530	502199.196	21.049
11	90792.158	502200.340	21.049
12	90813.540	502215.975	20.877

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
B	AA	JG	AA	MH	20.05.24	FOOTPATH, BOLLARDS AND STAGE BDY UPDATED

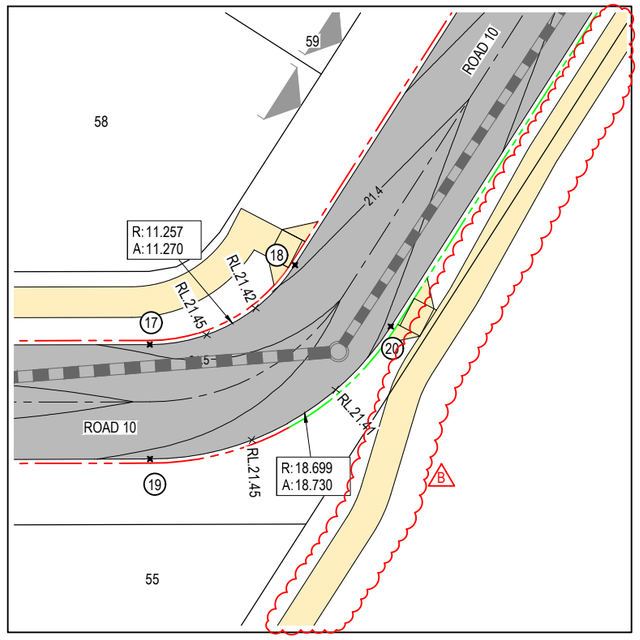
STATUS: FOR APPROVAL
APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE: 1:200 2 0 2 4 6 8 10m A1; 1:400 A3

egis
www.egis-group.com

CLIENT: LENNIUM GROUP
PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: INTERSECTION DETAILS SHEET 1 OF 2
PROJECT No. 22-000082_3 DRAWING No. 1320 REVISION B



ROAD 10 BEND 3

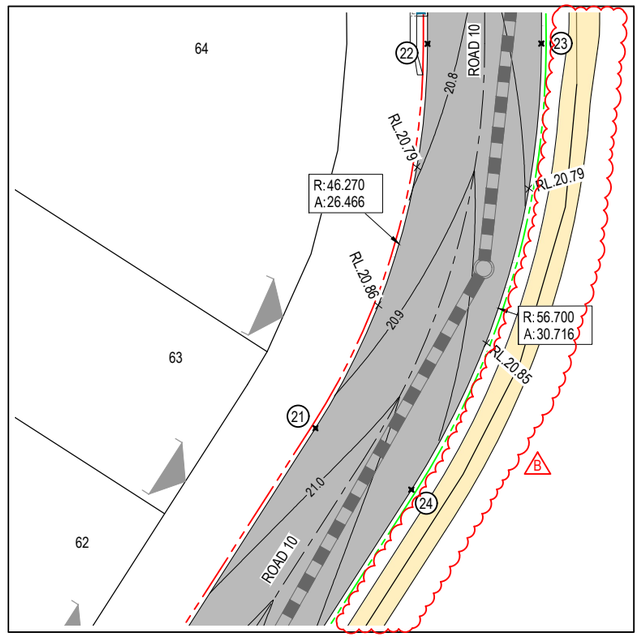
SCALE 1:200

ROAD 10 BEND 3 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
17	90808.142	502103.191	21.482
18	90818.299	502106.846	21.386
19	90806.997	502095.820	21.482
20	90823.855	502101.913	21.387

ROAD 10 BEND 4 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
21	90866.696	502161.362	20.918
22	90877.816	502184.982	20.735
23	90885.158	502183.842	20.736
24	90872.252	502156.429	20.919



ROAD 10 BEND 4

SCALE 1:200

LEGEND

- WORKS BOUNDARY
- CONTROL LINE
- MOUNTABLE KERB & CHANNEL TYPE 'M3'
- BARRIER KERB & CHANNEL TYPE 'B1'
- BARRIER KERB ONLY TYPE 'B2'
- 66.0 — DESIGN SURFACE CONTOUR (0.1m INTERVALS)
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- GULLY PIT
- OUTLET STRUCTURE
- INDICATIVE DRIVEWAY LOCATIONS

NOTE

KERB SETOUT IS TO LIP OF KERB AND CHANNEL.
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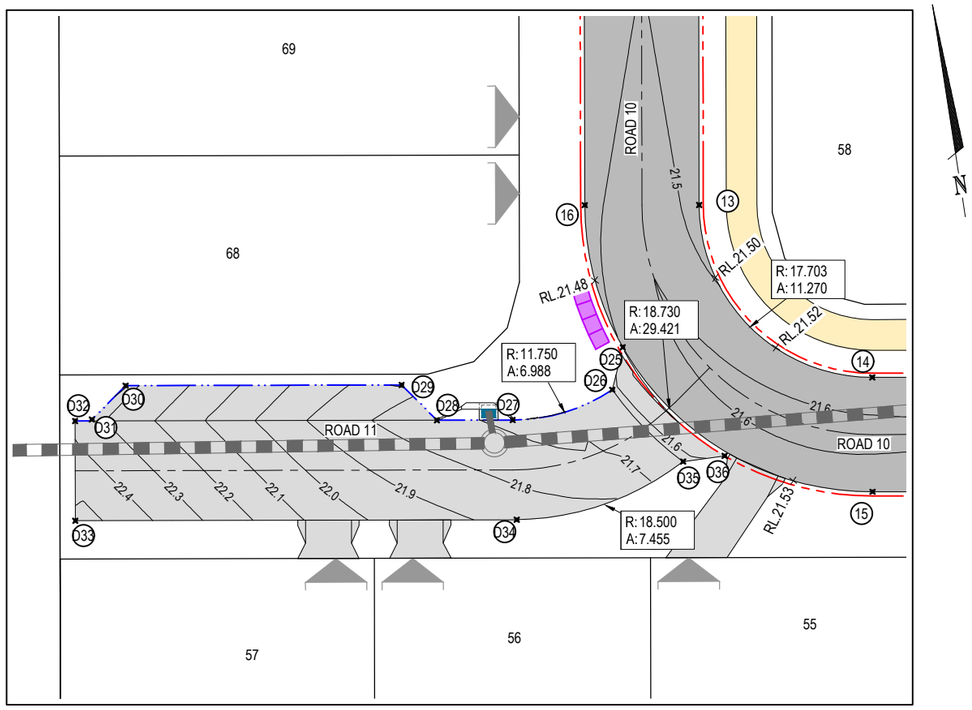


ROAD 10 BEND 2 + DRIVEWAY 2

SCALE 1:200

ROAD 10 BEND 2 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
13	90786.908	502117.893	21.464
14	90796.316	502105.027	21.526
15	90795.171	502097.656	21.526
16	90779.536	502119.037	21.464

DRIVEWAY 3 SETOUT

POINT ID	EASTING	NORTHING	LEVEL
D25	90780.540	502109.499	21.502
D26	90779.436	502106.871	21.630
D27	90772.711	502105.929	21.675
D28	90767.828	502106.687	21.733
D29	90765.913	502109.312	21.980
D30	90748.126	502112.073	22.473
D31	90745.606	502110.230	22.328
D32	90744.512	502110.307	22.366
D33	90743.515	502103.884	22.544
D34	90771.961	502099.468	21.867
D35	90783.267	502101.526	21.645
D36	90785.997	502101.472	21.506

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	RA	15.09.23	
B	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
	AA	JG	AA	MH	20.05.24	FOOTPATH, BOLLARDS AND STAGE BDY UPDATED

AMENDMENTS

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE
1:200 2 0 2 4 6 8 10m A1
1:400 A3

egis
www.egis-group.com

CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: INTERSECTION DETAILS SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1321	B

CITY OF MORETON BAY

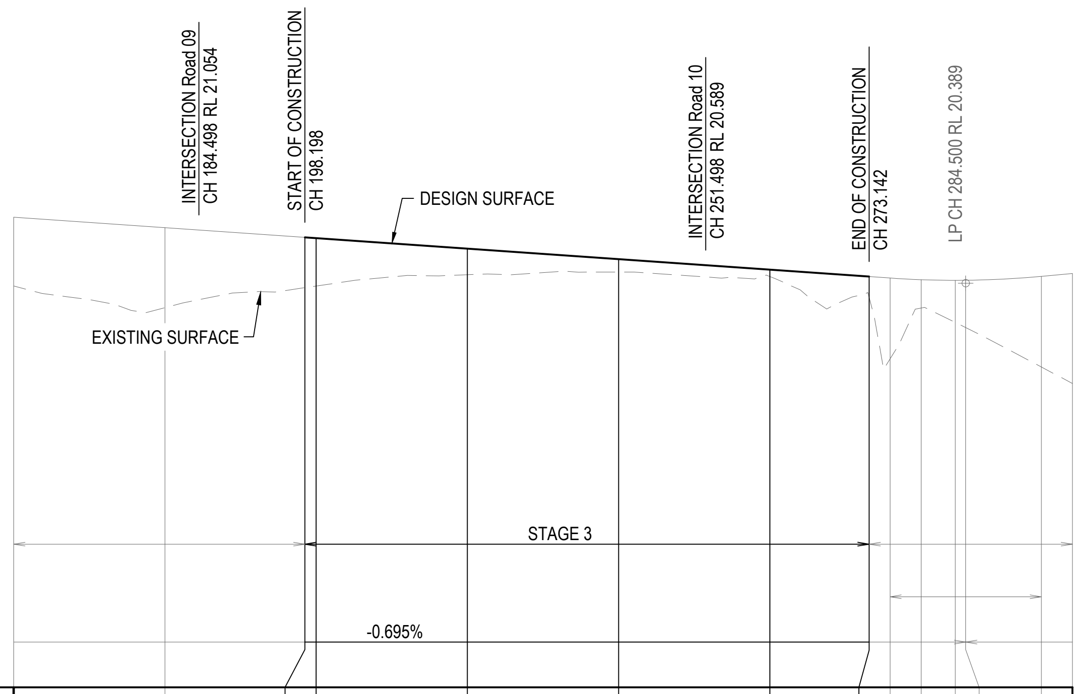
PRELIMINARY ROAD 7 PAVEMENT DESIGN

ROAD	SUBGRADE CBR	TRAFFIC ESA'S	ROAD CLASS	AC SURFACING (mm)	BASE (mm)	SUB-BASE (mm)	LOWER SUB-BASE (mm)	TOTAL BOX (mm)
ROAD 7	3*	1.2×10^5	LIVING RESIDENTIAL	25mm BCC TYPE 2	100	100	300	525

* ASSUMED SUBGRADE CBR

NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).



VERTICAL CURVE LEGTH (m)
VERTICAL CURVE RADIUS (m)
VERTICAL GRADE (%) -0.695%

DATUM RL 15.0

CUT (-) / FILL	0.910	1.059	0.665	0.633	0.344	0.171	0.090	0.274	1.071	0.375	0.556	0.626	1.199	1.455
LHS LIP LEVEL	21.114	20.974	20.825	20.835	20.696	20.557	20.418	20.326	20.307	20.285	20.277	20.278	20.330	20.367
RHS LIP LEVEL	21.113	20.974	20.825	20.835	20.696	20.557	20.418	20.326	20.308	20.286	20.278	20.279	20.330	20.368
DESIGN SURFACE	21.225	21.086	20.937	20.947	20.808	20.669	20.530	20.438	20.419	20.397	20.389	20.390	20.441	20.479
EXISTING SURFACE	20.314	20.027	20.292	20.314	20.463	20.498	20.439	20.163	19.348	20.023	19.833	19.764	19.242	19.024
CHAINAGES	160.000	180.000	198.198	200.000	220.000	240.000	260.000	273.142	275.883	280.000	284.500	285.883	295.883	300.000
HORIZONTAL CURVES														

LONGITUDINAL SECTION - ROAD 07

HORIZ SCALE: 500
VERTICAL SCALE: 50

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

AMENDMENTS

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE
1:500 / 1:1000 — 10 5 0 10 20m — A1 / A3 — HORIZONTAL
1:50 / 1:100 — 1 0.5 0 1 2m — A1 / A3 — VERTICAL

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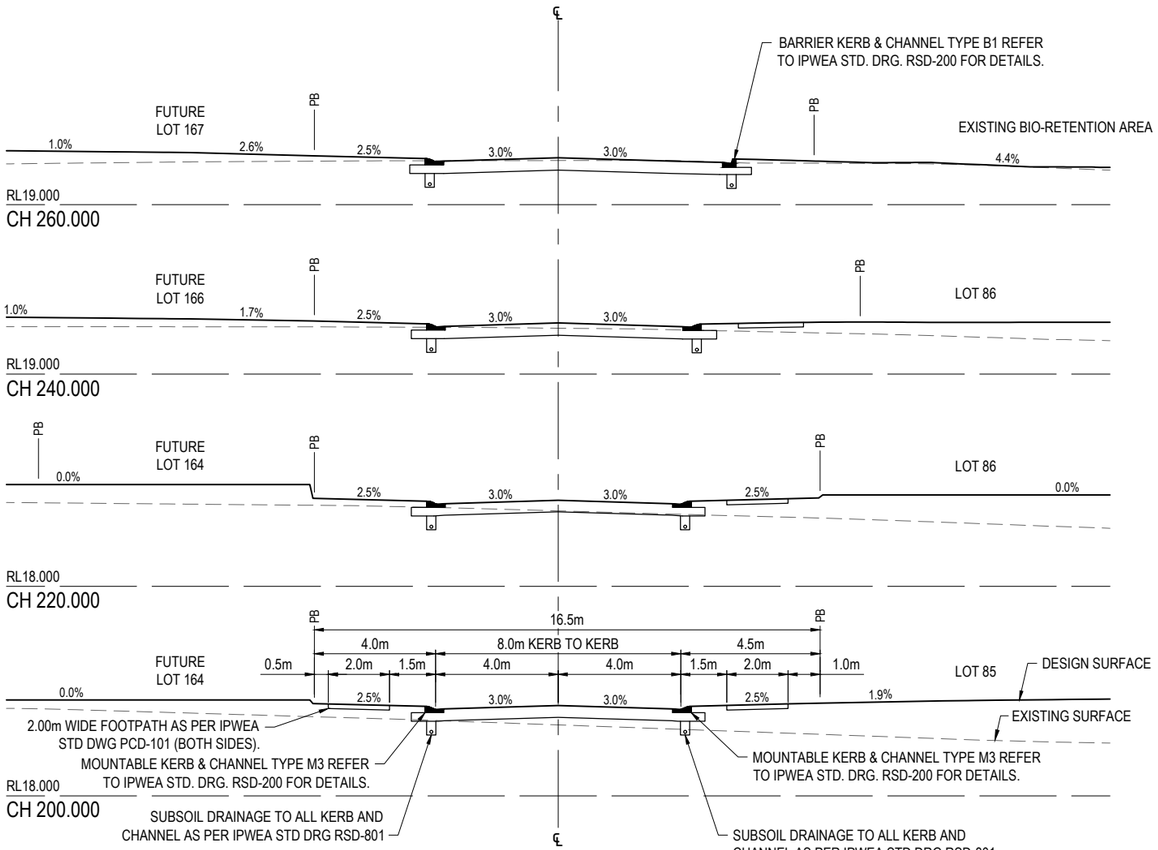
www.egis-group.com

CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: ROAD 7 LONGITUDINAL SECTION

PROJECT No. 22-000082_3 DRAWING No. 1330 REVISION A



INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
	AA	RT	AA	RA	15.09.23	

AMENDMENTS

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE
1:100 1 0 1 2 3 4 5m A1
1:200 A3

egis
www.egis-group.com

CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: ROAD 7 CROSS SECTIONS

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1331	A

CITY OF MORETON BAY

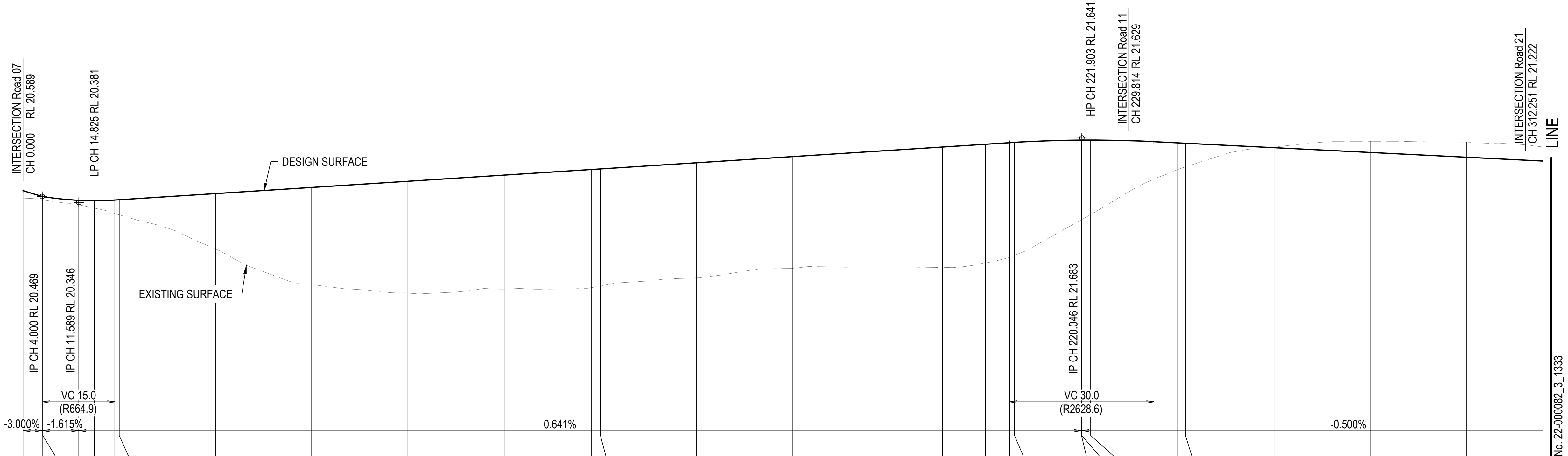
PRELIMINARY ROAD 10 PAVEMENT DESIGN

ROAD	SUBGRADE CBR	TRAFFIC ESA'S	ROAD CLASS	AC SURFACING (mm)	BASE (mm)	SUB-BASE (mm)	LOWER SUB-BASE (mm)	TOTAL BOX (mm)
ROAD 8	3*	1.2×10^5	LIVING RESIDENTIAL	25mm BCC TYPE 2	100	100	300	525

* ASSUMED SUBGRADE CBR

NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).



CHAINAGES	CUT (-) / FILL	LHS LIP LEVEL	RHS LIP LEVEL	DESIGN SURFACE	EXISTING SURFACE
0.000	0.154	⊛	⊛	20.589	20.435
4.000	0.071	⊛	⊛	20.469	20.398
4.089	0.070	⊛	⊛	20.468	20.397
11.589	0.093	⊛	⊛	20.389	20.296
14.825	0.154	20.305	20.305	20.381	20.227
19.089	0.281	20.312	20.311	20.395	20.113
20.000	0.314	20.316	20.315	20.400	20.087
40.000	1.152	20.418	20.417	20.529	19.377
60.000	2.016	20.546	20.545	20.657	18.641
80.000	2.325	20.674	20.673	20.785	18.461
89.584	2.365	20.736	20.735	20.847	18.481
100.000	2.371	20.802	20.802	20.913	18.543
118.183	2.456	20.919	20.918	21.030	18.574
120.000	2.433	20.931	20.930	21.042	18.609
140.000	2.392	21.059	21.058	21.170	18.778
160.000	2.326	21.187	21.186	21.298	18.972
180.000	2.422	21.315	21.315	21.426	19.004
191.083	2.506	21.387	21.386	21.498	18.992
200.000	2.468	21.443	21.443	21.555	19.087
205.046	2.382	21.475	21.475	21.587	19.205
206.065	2.349	21.482	21.482	21.593	19.245
218.033	1.762	21.526	21.526	21.638	19.877
220.000	1.655	21.529	21.529	21.640	19.985
220.046	1.653	21.529	21.529	21.640	19.988
221.903	1.549	21.529	21.529	21.641	20.092
240.000	0.555	21.472	21.472	21.584	21.028
241.595	0.491	21.464	21.464	21.576	21.084
260.000	-0.016	21.372	21.372	21.484	21.500
280.000	-0.233	21.272	21.272	21.384	21.616
300.000	-0.315	21.172	21.172	21.284	21.598
315.886	-0.293	21.092	21.092	21.204	21.498

HORIZONTAL CURVES: R50.000 (CH 89.584 – 118.183); R15.000 (CH 191.083 – 205.046); R15.000 (CH 218.033 – 241.595)

LONGITUDINAL SECTION - ROAD 10

HORIZ SCALE: 500
VERTICAL SCALE: 50

⊛ REFER INTERSECTION DETAILS FOR LEVELS

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

STATUS: FOR APPROVAL

APPROVED BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE: 1:500 / 1:1000 HORIZONTAL (A1 / A3); 1:50 / 1:100 VERTICAL (A1 / A3)

CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: ROAD 10 LONGITUDINAL SECTION SHEET 1 OF 2

PROJECT No. 22-000082_3 DRAWING No. 1332 REVISION A

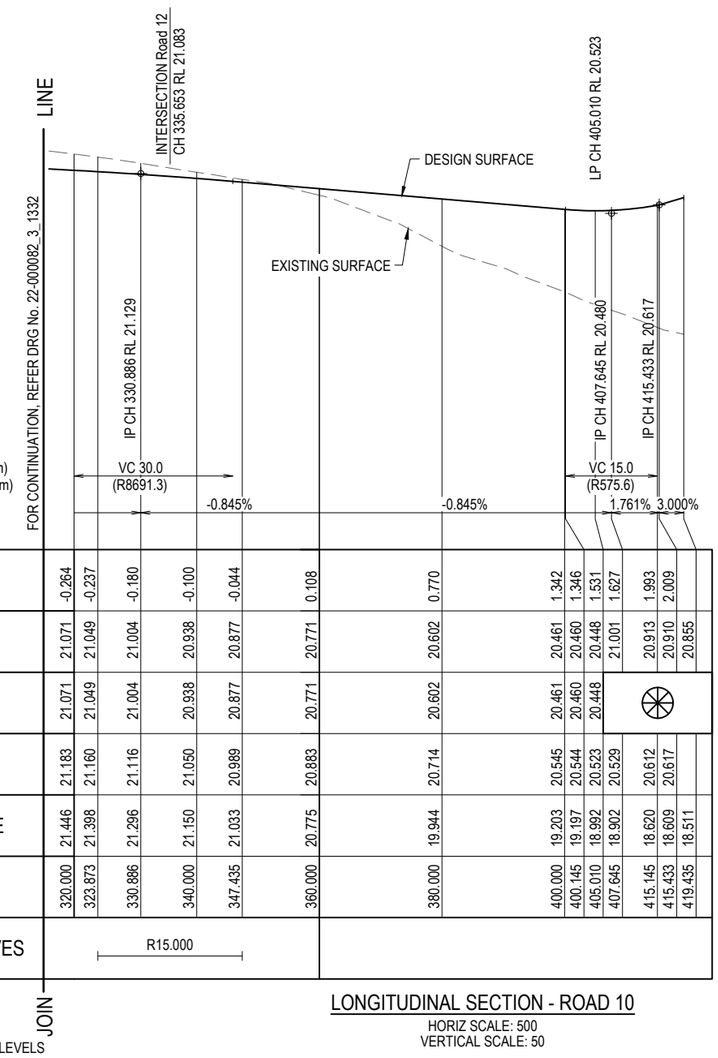
PRELIMINARY ROAD 10 PAVEMENT DESIGN

ROAD	SUBGRADE CBR	TRAFFIC ESA'S	ROAD CLASS	AC SURFACING (mm)	BASE (mm)	SUB-BASE (mm)	LOWER SUB-BASE (mm)	TOTAL BOX (mm)
ROAD 8	3*	1.2×10^5	LIVING RESIDENTIAL	25mm BCC TYPE 2	100	100	300	525

* ASSUMED SUBGRADE CBR

NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).



CUT (-) / FILL	-0.264	-0.237	-0.180	-0.100	-0.044	0.108	0.770	1.342	1.346	1.531	1.627	1.993	2.009										
LHS LIP LEVEL	21.071	21.049	21.004	20.938	20.877	20.771	20.602	20.461	20.460	20.448	21.001	20.913	20.910	20.855									
RHS LIP LEVEL	21.071	21.049	21.004	20.938	20.877	20.771	20.602	20.461	20.460	20.448													
DESIGN SURFACE	21.183	21.160	21.116	21.050	20.989	20.883	20.714	20.545	20.544	20.523	20.529	20.612	20.617										
EXISTING SURFACE	21.446	21.398	21.296	21.150	21.033	20.775	19.944	19.203	19.197	18.992	18.902	18.620	18.609	18.511									
CHAINAGES	320.000	323.873	330.886	340.000	347.435	360.000	380.000	400.000	400.145	405.010	407.645	415.145	415.433	419.435									
HORIZONTAL CURVES			R15.000																				

REFER INTERSECTION DETAILS FOR LEVELS

LONGITUDINAL SECTION - ROAD 10
HORIZ SCALE: 500
VERTICAL SCALE: 50

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

AMENDMENT

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE
1:500 10 5 0 10 20m A1
1:1000 HORIZONTAL A3
1:50 1 0.5 0 1 2m A1
1:100 VERTICAL A3

egis

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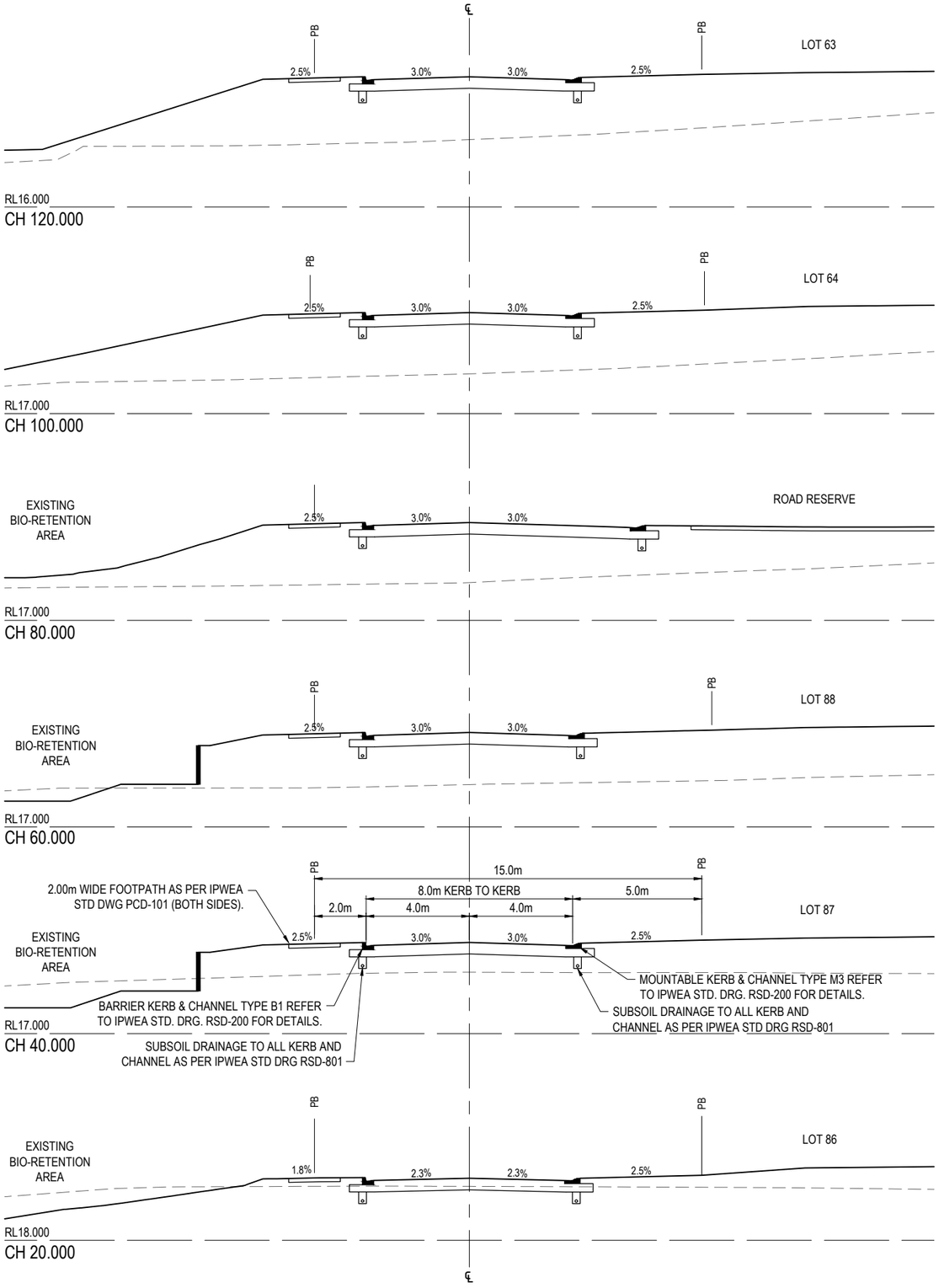
CLIENT: LENNIUM GROUP

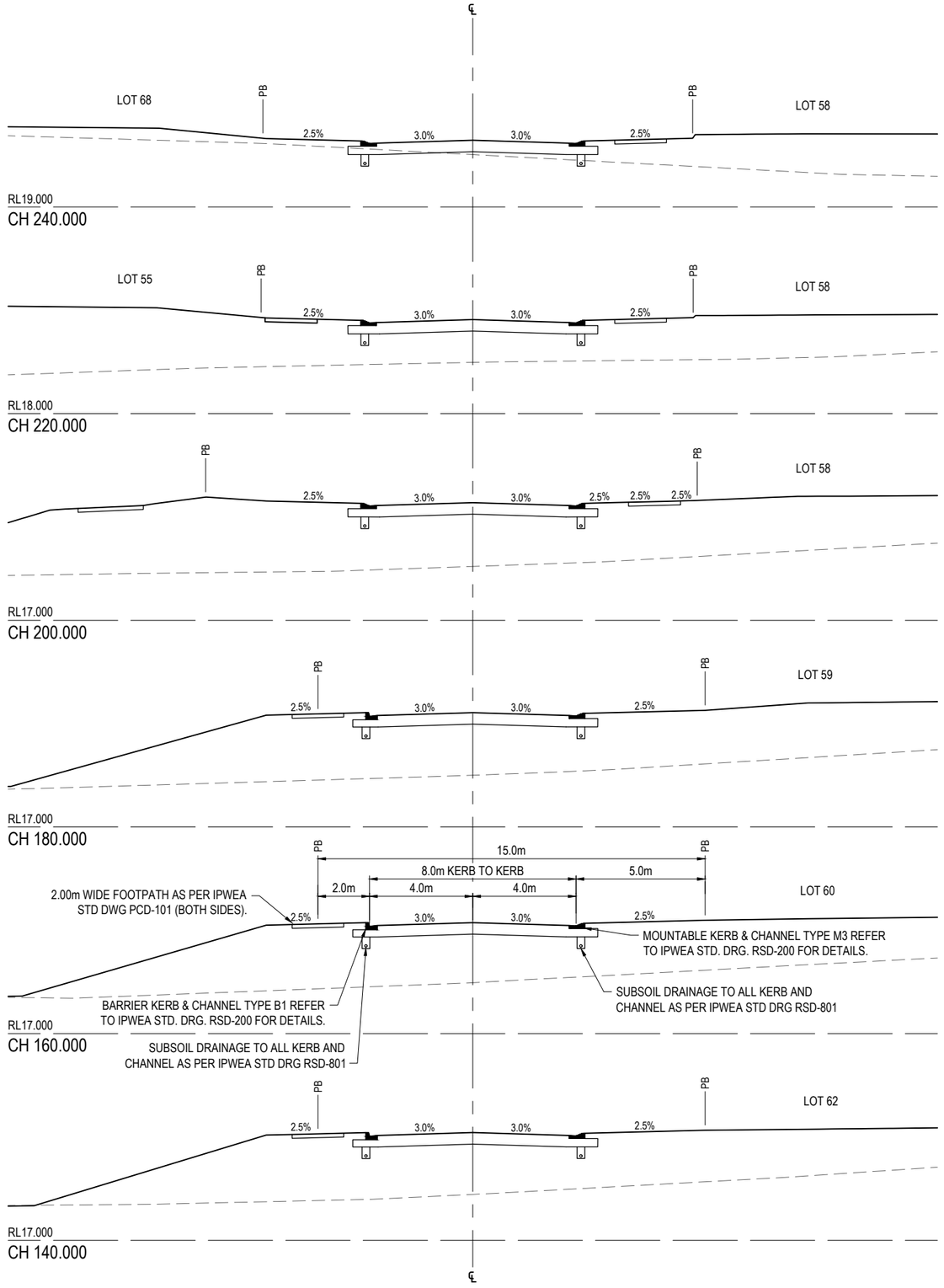
PROJECT: Lidywood LANDINGS STAGE 3

DRAWING TITLE: ROAD 10 LONGITUDINAL SECTION SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1333	A

CITY OF MORETON BAY





INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

AMENDMENT

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE
1:100 1 0 1 2 3 4 5m A1
1:200 A3

www.egis-group.com

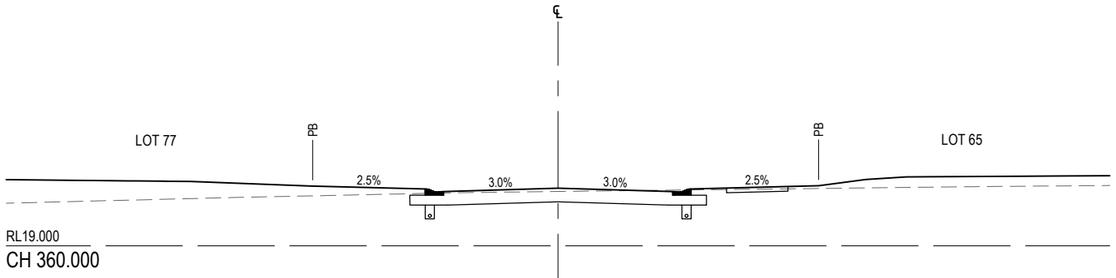
CLIENT: LENNIUM GROUP

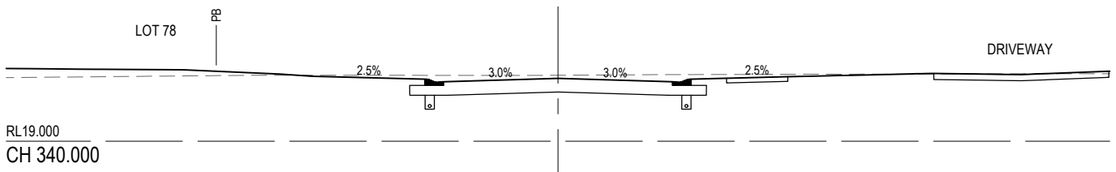
PROJECT: Lilywood LANDINGS
STAGE 3

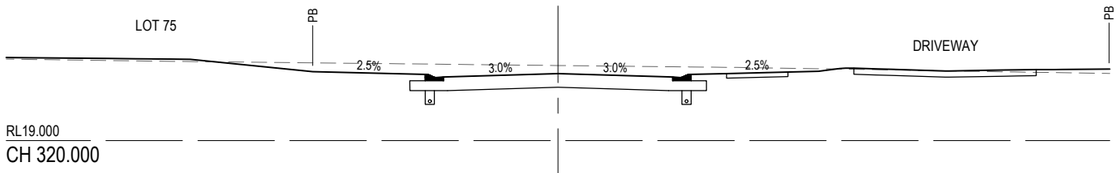
DRAWING TITLE
ROAD 10
CROSS SECTIONS
SHEET 1 OF 2

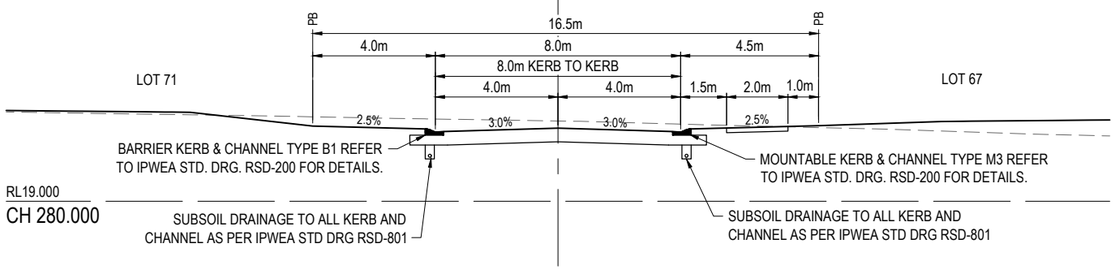
PROJECT No.	DRAWING No.	REVISION
22-000082_3	1334	A

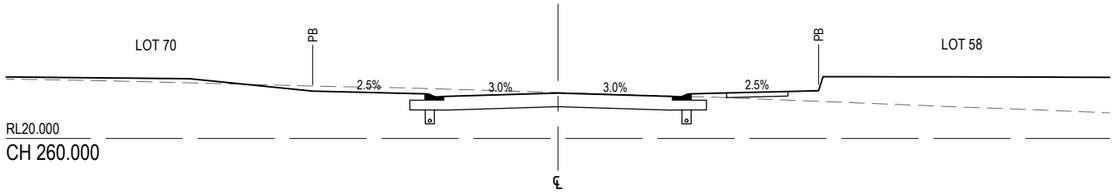
CITY OF MORETON BAY

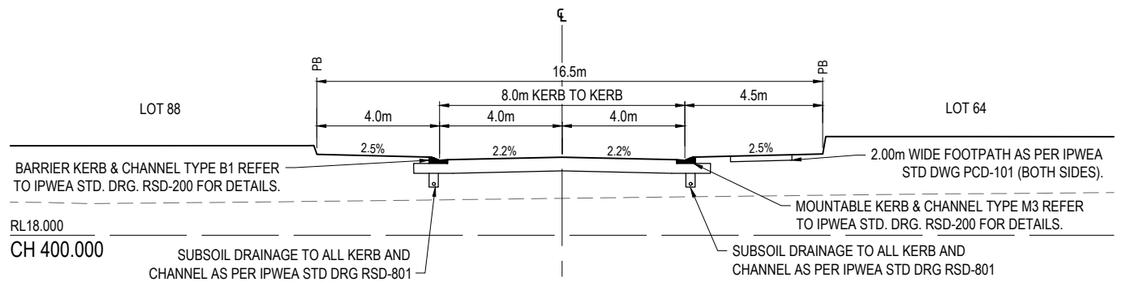


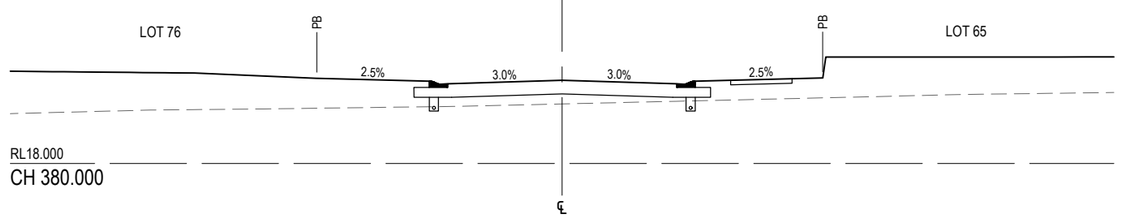












INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

AMENDMENTS

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE
1:100 1 0 1 2 3 4 5m A1
1:200 A3

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CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS
STAGE 3

DRAWING TITLE
ROAD 10
CROSS SECTIONS
SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1335	A

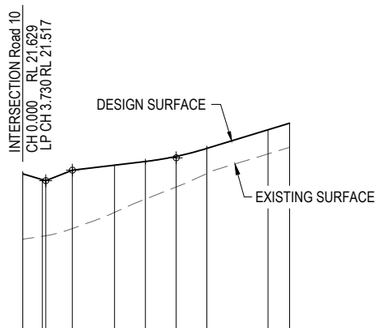
CITY OF MORETON BAY

PAVEMENT NOTE:

1. DRIVEWAY TO BE 175mm THICK N32 CONCRETE WITH SL92 MESH ON 150mm BASE TYPE 2.1. FINISH PER LANDSCAPE SPECIFICATION.

NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).

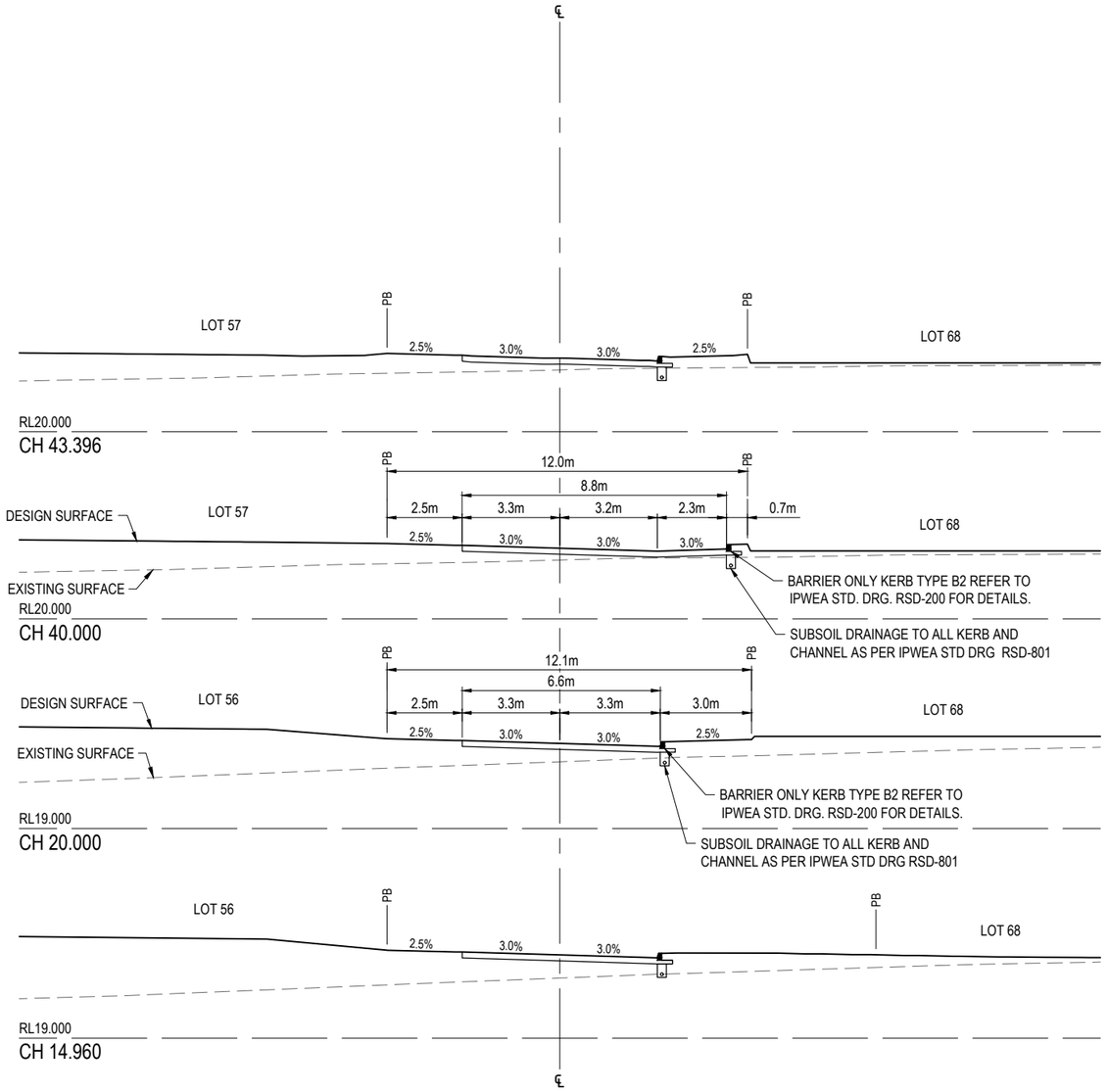


CUT (-) / FILL	1.064	0.923	0.898	0.954	0.771	0.613	0.499	0.408	0.394	
LHS LIP LEVEL					21.870	21.929	22.012	22.142	22.447	
RHS LIP LEVEL					21.675	21.734	21.817	21.947	22.252	
DESIGN SURFACE	21.629	21.534	21.517	21.690	21.772	21.832	21.915	22.044	22.350	
EXISTING SURFACE	20.566	20.611	20.620	20.737	21.001	21.219	21.415	21.636	21.956	22.062
CHAINAGES	0.000	3.179	3.730	8.072	14.960	20.000	25.000	30.000	40.000	43.499
HORIZONTAL CURVES	R15.000									

LONGITUDINAL SECTION - ROAD 11

HORIZ SCALE: 500
VERTICAL SCALE: 50

REFER INTERSECTION DETAILS FOR LEVELS



INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE
1:100 1 0 1 2 3 4 5m A1
1:200 A3
1:500 10 5 0 10 20m A1
1:1000 A3
HORIZONTAL
1:50 1 0.5 0 1 2m A1
1:100 A3
VERTICAL

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CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: ROAD 11 LONG & CROSS SECTIONS

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1336	A

CITY OF MORETON BAY

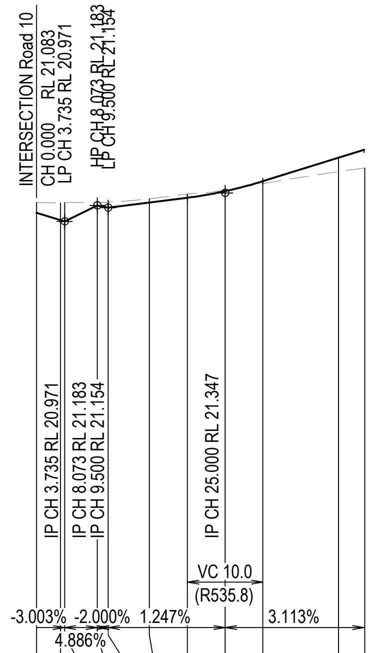
ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE

PAVEMENT NOTE:

1. DRIVEWAY TO BE 175mm THICK N32 CONCRETE WITH SL92 MESH ON 150mm BASE TYPE 2.1. FINISH PER LANDSCAPE SPECIFICATION.

NOTE:

1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).

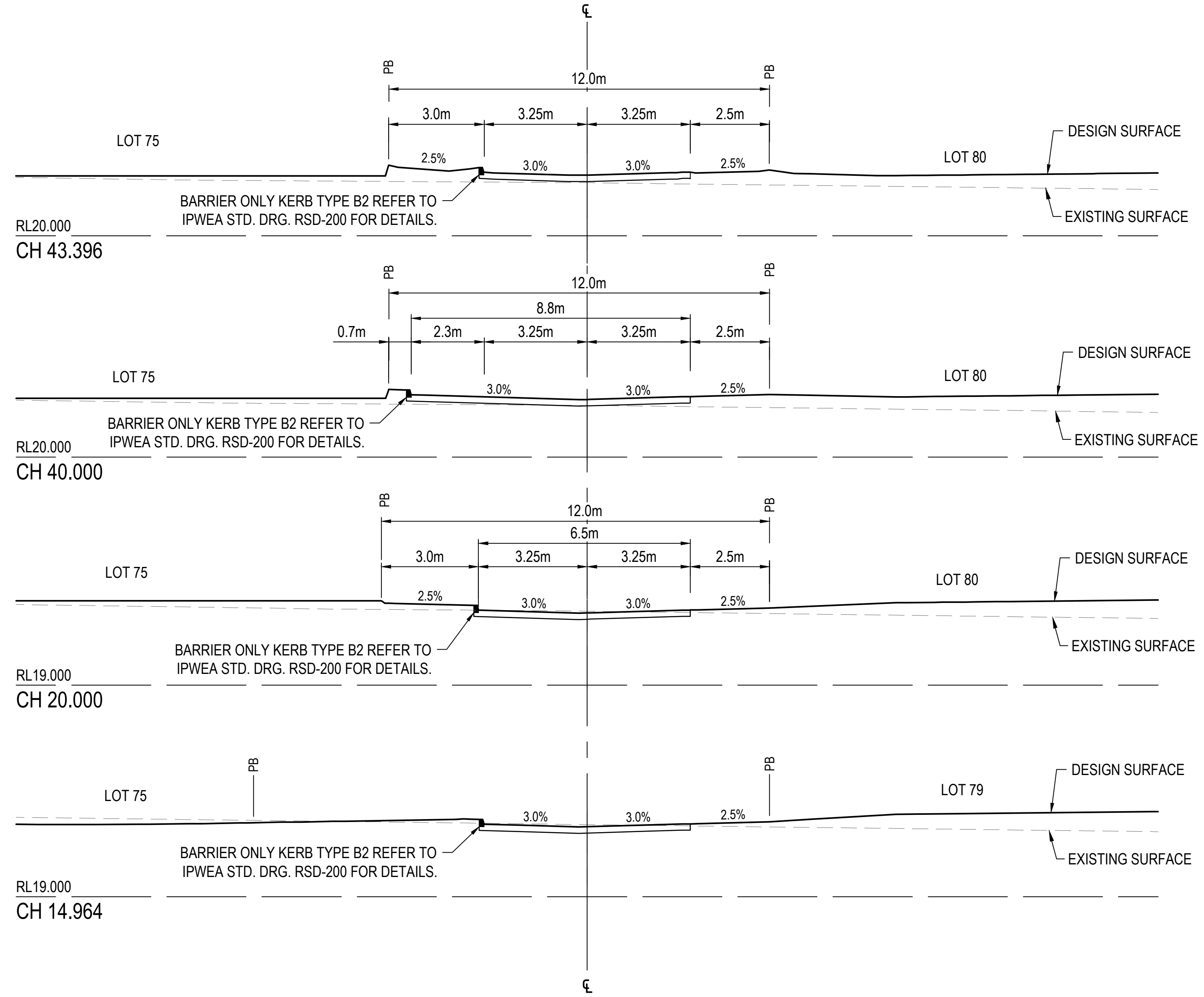


CUT (-) / FILL	-0.136	-0.229	-0.248	-0.038	-0.071	-0.050	-0.047	-0.016	0.032	0.185	
LHS LIP LEVEL	⊛				21.252	21.320	21.385	21.537	21.669	21.981	
RHS LIP LEVEL					21.252	21.320	21.382	21.468	21.600	21.912	
DESIGN SURFACE	21.083	20.987	20.971	21.183	21.154	21.222	21.285	21.371	21.503	21.814	
EXISTING SURFACE	21.219	21.216	21.219	21.221	21.225	21.272	21.332	21.386	21.471	21.630	21.679
CHAINAGES	0.000	3.183	3.735	8.073	9.500	14.964	20.000	25.000	30.000	40.000	43.499
HORIZONTAL CURVES	R-15.000										

LONGITUDINAL SECTION - ROAD 12

HORIZ SCALE: 500
VERTICAL SCALE: 50

⊛ REFER INTERSECTION DETAILS FOR LEVELS



B

	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
INITIAL ISSUE	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
B	AA	JG	AA	MH	20.05.24	ROAD 12 CROSS SECTIONS REVISED AS PER COUNCIL RFI

STATUS: FOR APPROVAL

APPROVED BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE: 1:100 A1 / 1:200 A3 (1 0 1 2 3 4 5m); 1:500 A1 / 1:1000 A3 (10 5 0 10 20m) HORIZONTAL; 1:50 A1 / 1:100 A3 (1 0.5 0 1 2m) VERTICAL

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CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: ROAD 12 LONG & CROSS SECTIONS

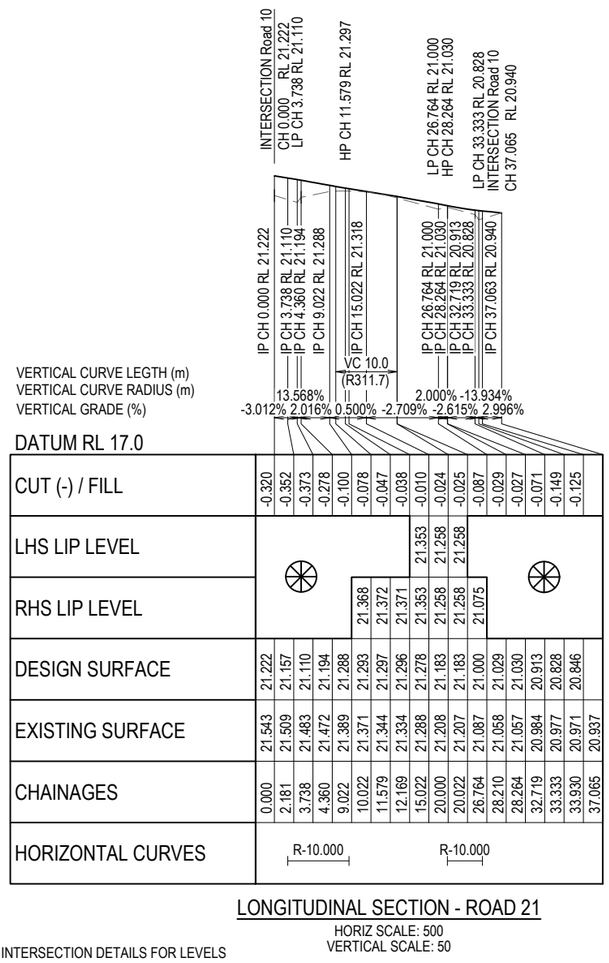
PROJECT No. 22-000082_3 DRAWING No. 1337 REVISION B

PAVEMENT NOTE:

1. DRIVEWAY TO BE 175mm THICK N32 CONCRETE WITH SL92 MESH ON 150mm BASE TYPE 2.1. FINISH PER LANDSCAPE SPECIFICATION.

NOTE:

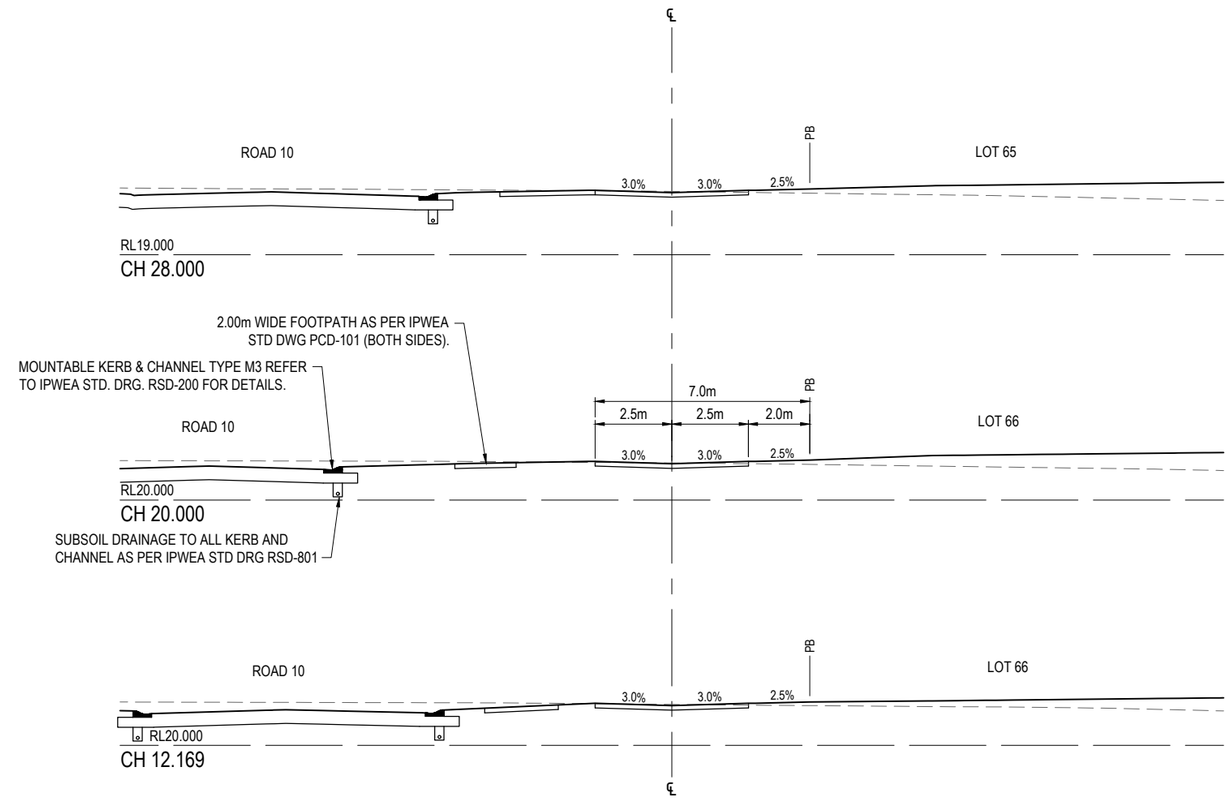
1. PRELIMINARY PAVEMENT DESIGNS HAVE BEEN BASED ON AN ASSUMED SUBGRADE CBR. ACTUAL PAVEMENT DESIGNS WILL BE BASED ON TEST RESULTS TAKEN AFTER STRIPPING HAS BEEN COMPLETED.
2. WHEN THE TOTAL PAVEMENT DEPTH (AS DETERMINED BY SUBGRADE TESTS) EXCEEDS THE NORMAL DEPTH, THE PAVEMENT GRAVEL SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm BEHIND (TYP).



LONGITUDINAL SECTION - ROAD 21

HORIZ SCALE: 500
VERTICAL SCALE: 50

REFER INTERSECTION DETAILS FOR LEVELS



INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
AMENDMENTS A	AA	RT	AA	RA	15.09.23	
	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE
1:100 1 0 1 2 3 4 5m A1
1:200 A3
1:500 10 5 0 10 20m A1
1:1000 A3
HORIZONTAL
1:50 1 0.5 0 1 2m A1
1:100 A3
VERTICAL

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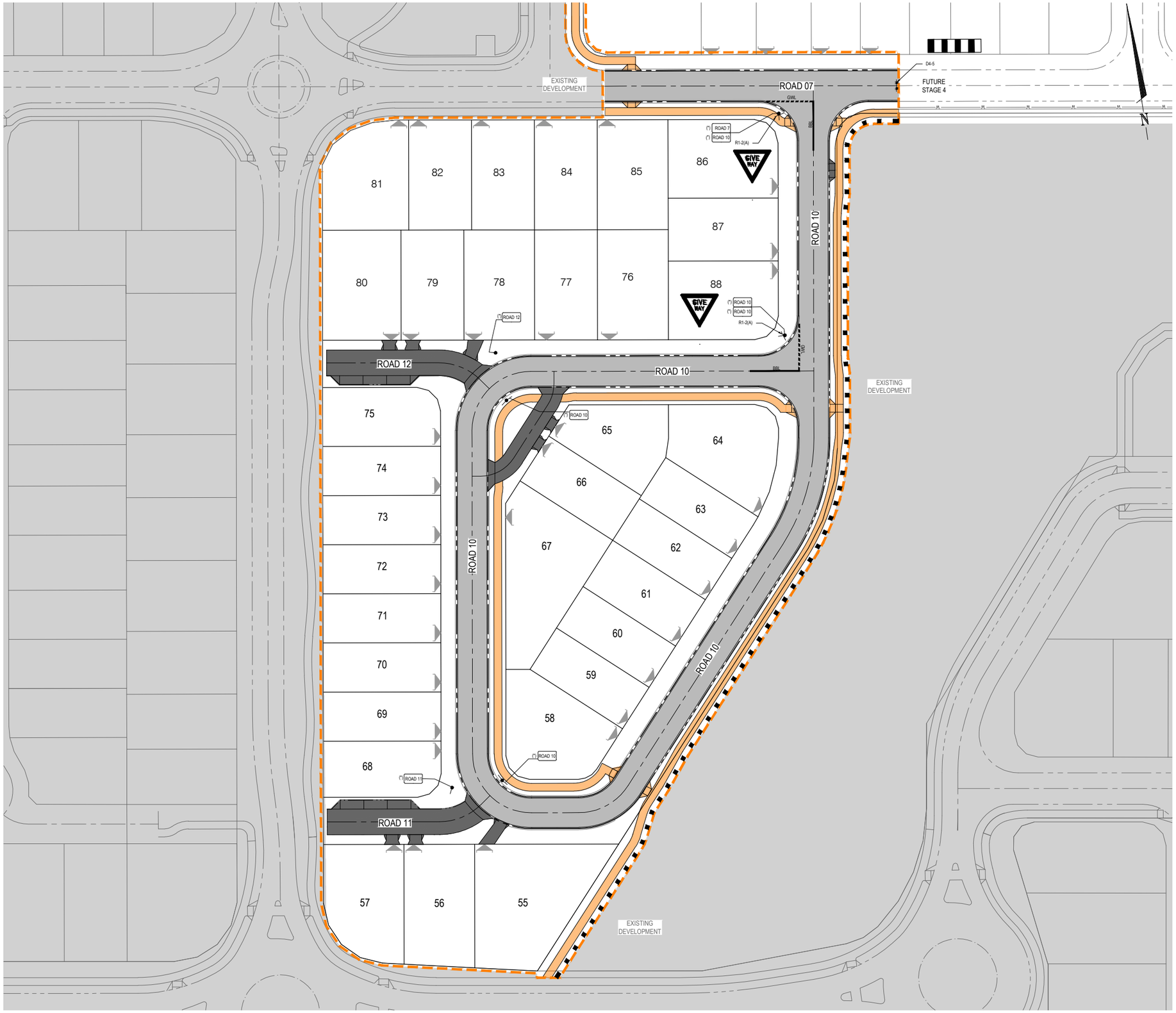
CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: ROAD 21 LONG & CROSS SECTIONS

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1338	A

CITY OF MORETON BAY



LEGEND

- WORKS BOUNDARY
- CONTROL LINE
- BOLLARDS
- CONCRETE FOOTPATH
- ASPHALT SURFACING
- CONCRETE DRIVEWAY

NOTE:
ALL LINEMARKING AND SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

NOTE:
(*) STREET NAME TO BE CONFIRMED WITH SUPERINTENDENT PRIOR TO PURCHASING OF STREET SIGNS.

PAVEMENT MARKINGS	LENGTH(m)	GAP(m)	WIDTH(mm)
GIVE WAY LINE (GWL)	0.6	0.6	300
BARRIER LINE (BOTH DIRECTIONS) (BBL)	-	-	80

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	MH	17.05.24	
A	AA	RT	AA	MH	20.05.24	ISSUED FOR APPROVAL

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE
1:500 1:1000 10 5 0 10 20m A1 A3

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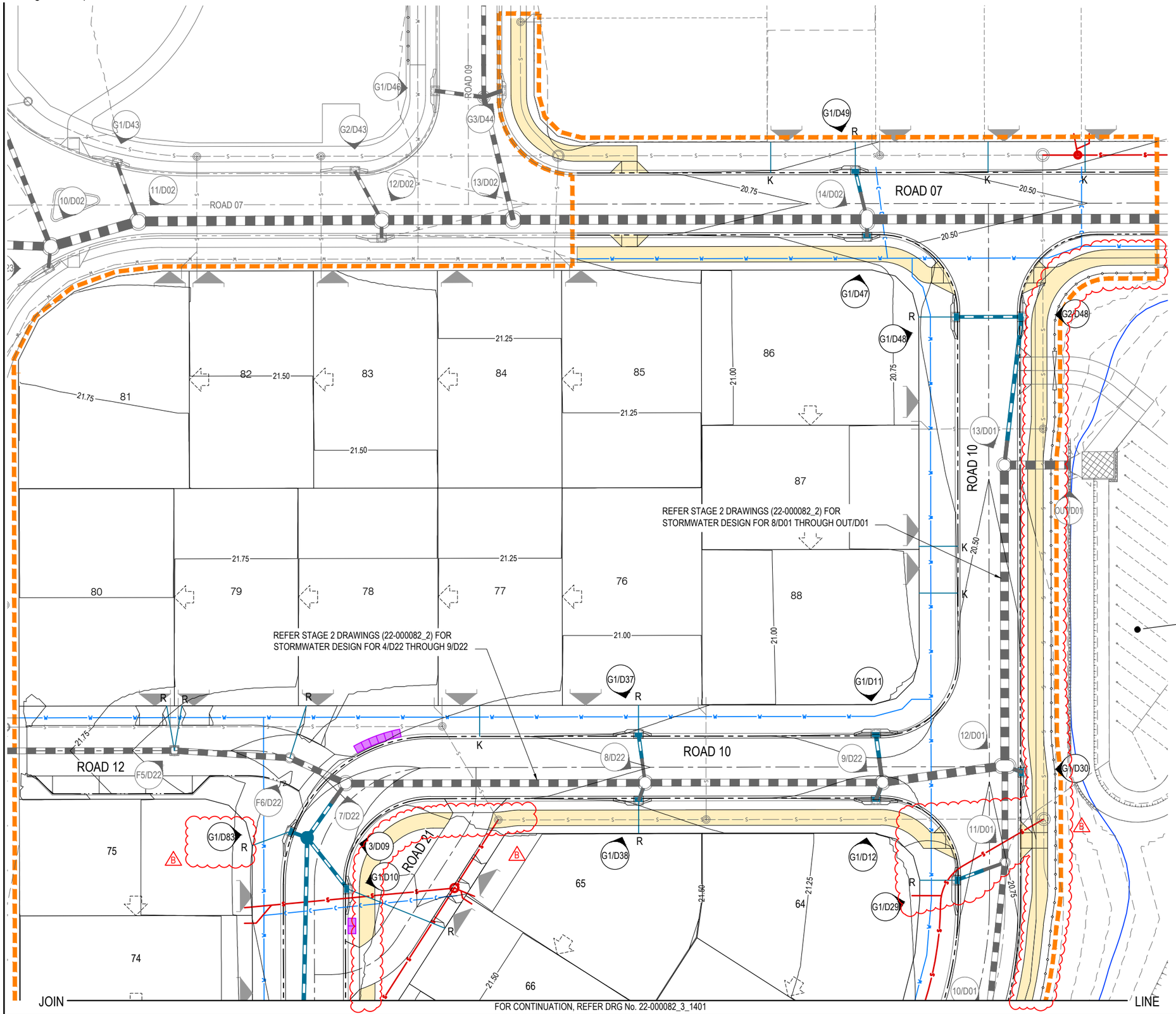
CLIENT: LENNIUM GROUP

PROJECT: Lidywood LANDINGS STAGE 3

DRAWING TITLE: LAYOUT PLAN

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1340	A



LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- ROCK SCOUR PROTECTION
- 64.0 — EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- 66.0 — DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- EXISTING STORMWATER DRAINAGE
- EXISTING MAINTENANCE HOLE
- EXISTING GULLY PIT
- EXISTING WATER RECTICULATION
- EXISTING SEWER RETICULATION
- PROPOSED WATER MAIN
- PROPOSED WATER CONDUIT
- PROPOSED SEWERAGE RETICULATION
- PROPOSED SLEEPER RETAINING WALL
- PROPOSED BOULDER RETAINING WALL
- EXISTING RETAINING WALL + ACOUSTIC FENCE
- K — PROPOSED KERB ADAPTER + LINE
- R — PROPOSED ROOF WATER LINE
- PROPOSED BATTERS
- CONCRETE FOOTPATH
- INDICATIVE DRIVEWAY LOCATION
- 5% AEP (20YR ARI) FLOOD LEVEL
- 1% AEP (100YR ARI) FLOOD LEVEL
- BUILD TO BOUNDARY

NOTE:

1. REFER TO DRG 22-000082_3_1402 FOR STORMWATER STANDARD NOTES AND DETAILS.
2. REFER TO DRG 22-000082_3_1410 FOR STORMWATER CATCHMENT PLAN.
3. REFER TO DRGs 22-000082_3_1420-1422 FOR STORMWATER LONGITUDINAL SECTIONS.
4. REFER TO DRGs 22-000082_3_1430-1431 FOR STORMWATER CALCULATION TABLES.

CAUTION !! UNDERGROUND TELECOMMS CABLES
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

CAUTION !! UNDERGROUND GAS MAIN
UNDERGROUND GAS MAIN EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR MAIN LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

CAUTION !! OVERHEAD ELECTRICAL CABLES
OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

CAUTION !! UNDERGROUND ELECTRICAL CABLES
UNDERGROUND ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
B	AA	JG	AA	MH	20.05.24	SEWER LINE UPDATED AND EX SEWER MH REMOVED, FOOTPATH UPDATED

AMENDMENTS

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE: 1:250 / 1:500 — 5 0 5 10m — A1 / A3

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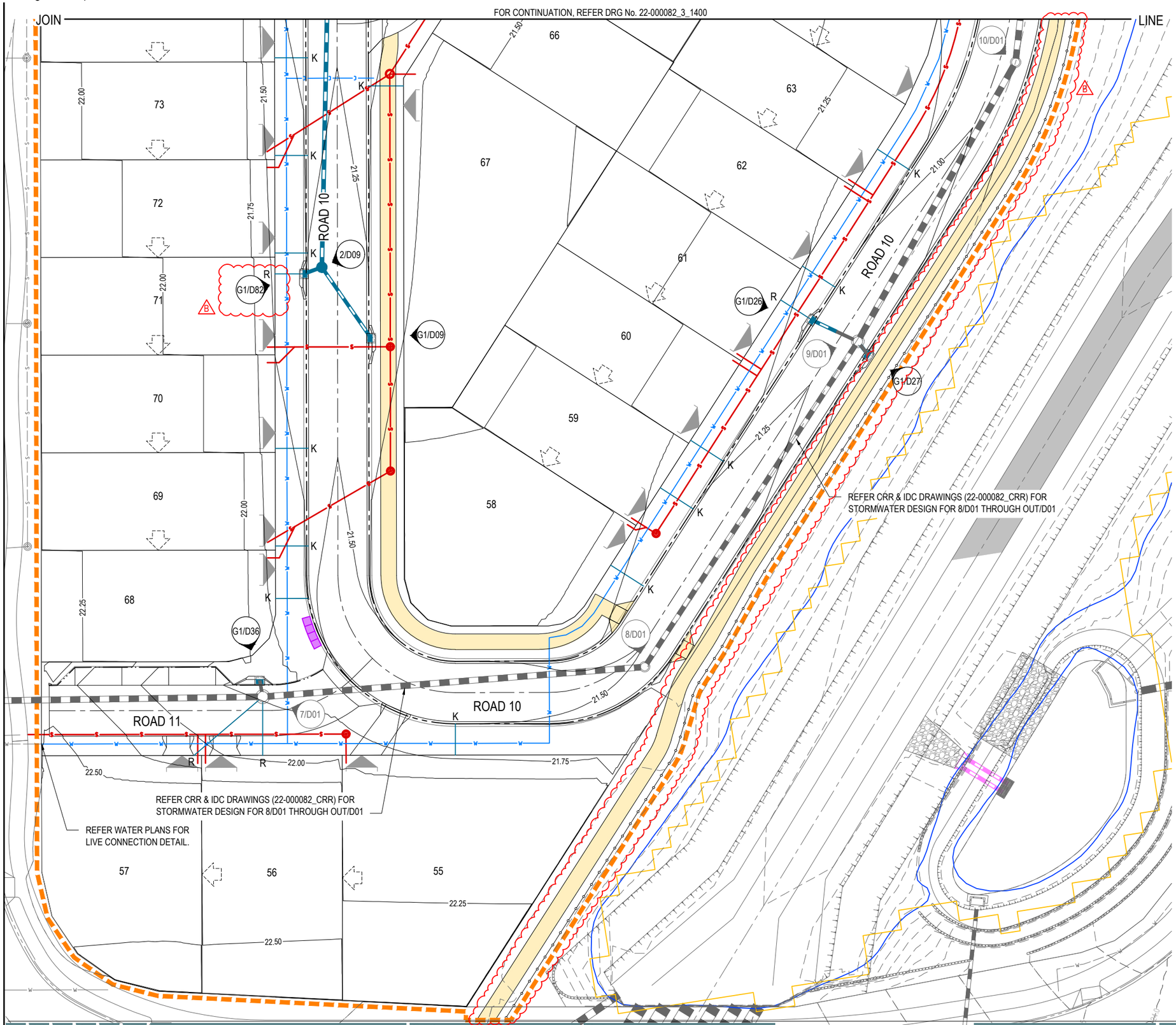
CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS — STAGE 3

DRAWING TITLE: STORMWATER LAYOUT PLAN SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1400	B

CITY OF MORETON BAY



LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- ROCK SCOUR PROTECTION
- 64.0 — EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- 66.0 — DESIGN SURFACE CONTOUR (0.50m INTERVALS)
- EXISTING STORMWATER DRAINAGE
- EXISTING MAINTENANCE HOLE
- EXISTING GULLY PIT
- EXISTING WATER RECTICULATION
- EXISTING SEWER RETICULATION
- PROPOSED WATER MAIN
- PROPOSED WATER CONDUIT
- PROPOSED SEWERAGE RETICULATION
- PROPOSED SLEEPER RETAINING WALL
- PROPOSED BOULDER RETAINING WALL
- EXISTING RETAINING WALL + ACOUSTIC FENCE
- K — PROPOSED KERB ADAPTER + LINE
- R — PROPOSED ROOF WATER LINE
- PROPOSED BATTERS
- CONCRETE FOOTPATH
- INDICATIVE DRIVEWAY LOCATION
- 5% AEP (20YR ARI) FLOOD LEVEL
- 1% AEP (100YR ARI) FLOOD LEVEL
- BUILD TO BOUNDARY

N

NOTE:

1. REFER TO DRG 22-000082_3_1402 FOR STORMWATER STANDARD NOTES AND DETAILS.
2. REFER TO DRG 22-000082_3_1410 FOR STORMWATER CATCHMENT PLAN.
3. REFER TO DRGs 22-000082_3_1420-1422 FOR STORMWATER LONGITUDINAL SECTIONS.
4. REFER TO DRGs 22-000082_3_1430-1431 FOR STORMWATER CALCULATION TABLES.

CAUTION !! UNDERGROUND TELECOMMS CABLES
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

CAUTION !! UNDERGROUND GAS MAIN
UNDERGROUND GAS MAIN EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR MAIN LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

CAUTION !! OVERHEAD ELECTRICAL CABLES
OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

CAUTION !! UNDERGROUND ELECTRICAL CABLES
UNDERGROUND ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	RA	15.09.23	
B	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
	AA	JG	AA	MH	20.05.24	FOOTPATH, BOLLARDS AND STAGE BDY UPDATED

AMENDMENT

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN:
DATE: 20.05.24

SCALE
1:250 1:500 5 0 5 10m A1 A3

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www.egis-group.com

CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS
STAGE 3

DRAWING TITLE
STORMWATER LAYOUT PLAN SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1401	B

CITY OF MORETON BAY

STORMWATER DRAINAGE NOTES

1. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH CURRENT M.B.R.C STANDARD DRAWINGS AND METHODS.
2. ALL STORMWATER PIPES UNDER ROADWAYS AND FOOTPATHS SHALL BE RCP CLASS 3 U.N.O.
3. ALL STORMWATER PIPES UP TO AND INCLUDING 600Ø SHALL BE R.R.J. STORMWATER PIPES GREATER THAN 600Ø SHALL BE INTERNAL FLUSH JOINTED WITH PROPRIETARY EXTERNAL BAND.
4. STEPIRONS ARE TO BE PROVIDED IN STORMWATER MANHOLES AND GULLIES GREATER THAN 1.20m DEEP, IN ACCORDANCE WITH M.B.R.C STD. DRG. SD.10.
5. ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE.
6. CONTRACTOR TO LIAISE WITH ALL RELEVANT SERVICE AUTHORITIES TO ASCERTAIN SERVICES PRESENT ON-SITE. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT BY THAT SERVICE AUTHORITY ONLY.
7. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF DEMOLISHING ANY EXISTING STRUCTURES WITHIN THE SITE AREAS.
8. THE STORMWATER PIPE CLASSES HAVE BE DESIGNED FOR SERVICE LOADS ONLY, AND THE CONTRACTOR SHALL ASSESS ANTICIPATED CONSTRUCTION LOADS AND UPGRADE THE PIPE CLASSES IF NECESSARY, IN ACCORDANCE WITH AS3725-2007.
9. RETAINING WALL SUBSOIL DRAINS TO CONNECT TO KERB AND CHANNEL SUBSOIL OR STORMWATER DRAINAGE STRUCTURES.
10. WORKS SHALL BE PROGRAMMED SO AS NOT TO DISTURB NEARBY HOUSEHOLDERS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES.
11. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH WORKPLACE HEALTH AND SAFETY REQUIREMENTS.
12. ANTI PONDING GULLIES ARE TO BE SIDE ENTRY TYPE. CHAMBER AND GRATE ONLY TYPE NOT TO BE USED.
13. GULLY PITS IN EXCESS OF 1.5 METRES DEEP ARE TO BE CONSTRUCTED AS A GULLY PIT/ACCESS CHAMBER STRUCTURE.
14. CRACKS IN STORMWATER PIPES WILL NOT BE ACCEPTED.
15. LEVELS AND GRADIENTS AT JUNCTIONS WITH EXISTING WORKS MAY BE VARIED AS REQUIRED TO ACHIEVE A SATISFACTORY CONNECTION AND THE CONTRACTOR SHALL INCLUDE THE COST OF THIS WORK IN THE TENDER PRICE. WHERE NEW WORK JOINS EXISTING, THE WORK SHALL TRANSITION NEATLY WITH THE PAVEMENT SO THAT DEVIATION FROM THE LINE OF A 3.0m STRAIGHT EDGE SHALL BE NO GREATER THAN 10mm.
16. CONDUITS SHALL BE IN ACCORDANCE WITH I.P.W.E.A STD. DRG. RSD-602.
17. ALL EXCAVATION AND FILLING SHALL BE COMPACTED TO THE REQUIREMENTS OF AS3798-2007 IN ACCORDANCE WITH THE LOCAL AUTHORITY REQUIREMENTS.
18. ALL LEVELS ARE IN METRES ABOVE AUSTRALIAN HEIGHTS DATUM (mAHD) UNLESS OTHERWISE SHOWN

KERB ADAPTORS NOTES

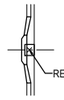
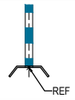
ALL LOTS NOT DRAINING TO A PROPERTY PIT TO HAVE 2 KERB ADAPTORS . KERB ADAPTORS SHOWN ARE INDICATIVE ONLY AND ARE TO BE INSTALLED IN ACCORDANCE WITH IPWEA STD DRG RSD-201.

NOTE:
NOTWITHSTANDING THAT EXISTING SERVICES MAY OR MAY NOT BE SHOWN ON THE JOB DRAWINGS, NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR THIS INFORMATION WHICH HAS BEEN SUPPLIED BY OTHERS. THE DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTOR SHALL ASCERTAIN THE POSITION OF ANY UNDERGROUND SERVICES IN THIS AREA AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO.

SCOUR PROTECTION NOTES:

1. IF ROCK SIZE IS SPECIFIED ON THE PLAN AS D_{50} THIS CORRESPONDS TO A ROCK SIZE WITH A MEDIAN ROCK DIAMETER OF D_{50}. A VARIANCE OF ±30% IS ACCEPTABLE. Eg. IF D_{50} = 600 IS SPECIFIED THEN THE EQUIVALENT ROCK DIAMETER RANGES FROM 420mm TO 780mm.
2. NEITHER BREADTH NOR THICKNESS OF A SINGLE ROCK SHALL BE LESS THAN ONE HALF ITS LENGTH (ie THE ROCK SHALL BE CHUNKY RATHER THAN FLAT).
3. ROCK TYPE - BASALT OR OTHER APPROVED MATERIAL. TO BE CONFIRMED WITH SUPERINTENDENT BEFORE COMMENCING ROCK WORK.
4. ROCKS GREATER THAN D_{50}=450 TO BE PLACED AND INTERLOCKED INTO POSITION AND BUILT UP TO FINAL LEVELS SHOWN, ENSURING COVERAGE OF GEOFABRIC. GAPS BETWEEN THE BOULDERS ARE TO BE FILLED BY DROPPING STONES INTO GAPS AND LOCKING INTO POSITION WITH A CROWBAR.
5. ROCKS LESS THAN & EQUAL TO D_{50}=450 TO BE DUMPED & MOVED INTO POSITION. BUILD UP TO FINAL LEVELS & ENSURING COVERAGE OF GEOFABRIC.

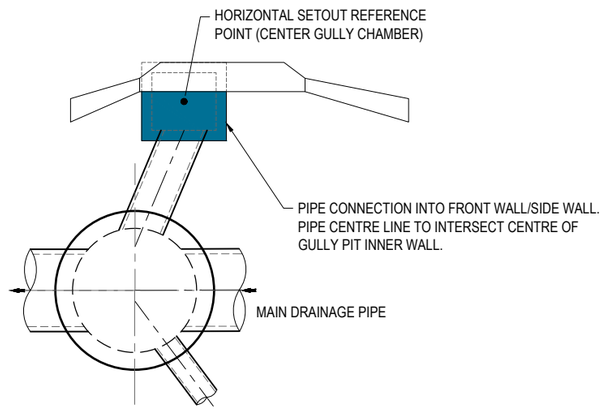
REFERENCE POINT LOCATION FOR DRAINAGE STRUCTURES

STRUCTURE TYPE	HORIZONTAL CONTROL (REFERENCE POINT LOCATION)		VERTICAL CONTROL (REFERENCE LEVEL)
MANHOLE		℄ OF MAIN SHAFT	FINISHED SURFACE LEVEL
GULLY PIT		GEOMETRIC CENTRE OF PIT STRUCTURE	KERB LIP LEVEL
HEADWALL		INTERSECTION OF HEADWALL FACE AND PIPE ℄	INVERT OF HEADWALL

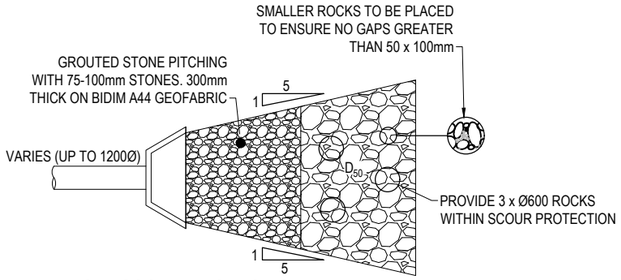
ROCK SCOUR PROTECTION

OUTLET	OUTLET PIPE SIZE	VELOCITY	D_{50}	'L'
OUT/G2	Ø 450	m/s	300 mm	4.3m
OUT/19 & OUT/20	Ø 2/ 450	m/s	300 mm	4.3m

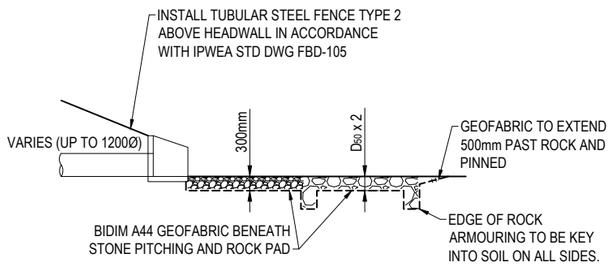
NOTE:
CONTRACTOR TO ENSURE PIPE CONNECTORS TO GULLY PITS ARE NOT CONSTRUCTED INTO THE CORNER OF TWO WALLS.



TYPICAL GULLY PIT PIPE CONNECTION DETAIL
NTS



TYPICAL SCOUR PROTECTION DETAIL PLAN
NTS



TYPICAL SCOUR PROTECTION SECTION
NTS

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL

AMENDMENTS

STATUS: FOR APPROVAL
APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 12.03.24

SCALE: AS SHOWN

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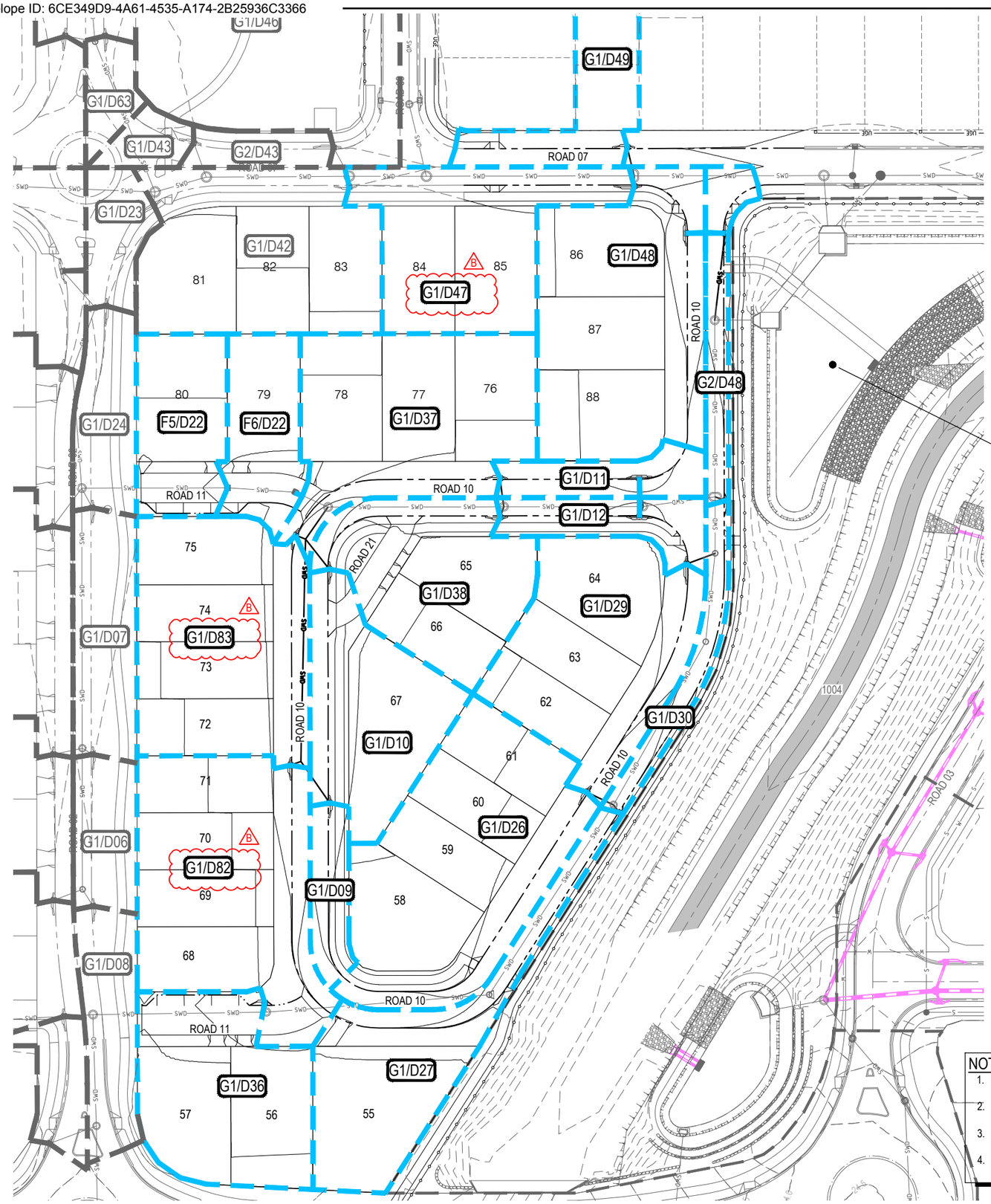
CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: STORMWATER NOTES AND DETAILS

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1402	A

CITY OF MORETON BAY



CATCHMENT NAME	CATCHMENT AREA (Ha)
G1/D09	0.0327
G1/D10	0.1239
G1/D11	0.0404
G1/D12	0.0465
F5/D22	0.0785
F6/D22	0.0684
G1/D26	0.2354
G1/D27	0.1411
G1/D29	0.1787
G1/D30	0.0367
G1/D36	0.1445
G1/D37	0.1890
G1/D38	0.1381
G1/D47	0.1485
G1/D48	0.2172
G2/D48	0.0427
G1/D49	0.0718
G1/D82	0.2141
G1/D83	0.1953

B

EXISTING F2 BASIN (CONSTRUCTED IN STAGE 2) FUTURE F1 BASIN TO BE CONSTRUCTED IN STAGE 4. B

N

LEGEND

- STAGE BOUNDARY
- STORMWATER DRAINAGE
- MAINTENANCE HOLE
- GULLY PIT
- OUTLET STRUCTURE
- G1/A01 — STORMWATER CATCHMENT NAME
- F1/A03 — EXISTING STORMWATER CATCHMENT NAME
- STORMWATER CATCHMENT BOUNDARY
- EXISTING STORMWATER CATCHMENT BOUNDARY
- 64.0 — DESIGN SURFACE CONTOUR (0.5m INTERVALS)
- 66.0 — EXISTING SURFACE CONTOUR (0.5m INTERVALS)
- EXISTING STORMWATER DRAINAGE
- EXISTING MAINTENANCE HOLE
- EXISTING GULLY PIT

NOTE:
1. REFER TO DRG 22-000082_3_1402 FOR STORMWATER STANDARD NOTES AND DETAILS.
2. REFER TO DRG 22-000082_3_1410 FOR STORMWATER CATCHMENT PLAN.
3. REFER TO DRGs 22-000082_3_1420-1422 FOR STORMWATER LONGITUDINAL SECTIONS.
4. REFER TO DRGs 22-000082_3_1430-1431 FOR STORMWATER CALCULATION TABLES.

CAUTION !! UNDERGROUND TELECOMMS CABLES
UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

CAUTION !! UNDERGROUND GAS MAIN
UNDERGROUND GAS MAIN EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR MAIN LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

CAUTION !! OVERHEAD ELECTRICAL CABLES
OVERHEAD ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX WHERE CABLE CLEARANCE IS COMPROMISED BY MACHINERY.

CAUTION !! UNDERGROUND ELECTRICAL CABLES
UNDERGROUND ELECTRICITY CABLES EXIST IN THIS VICINITY. CONTACT ENERGEX FOR CABLE LOCATIONS. EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	RA	15.09.23	
AMENDMENT	A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
	B	AA	JG	AA	MH	20.05.24	STORMWATER CATCHMENT UPDATED

STATUS: FOR APPROVAL
APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE: 1:500 / 1:1000 — 10 5 0 10 20m — A1 / A3

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CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: STORMWATER CATCHMENT PLAN

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1410	B

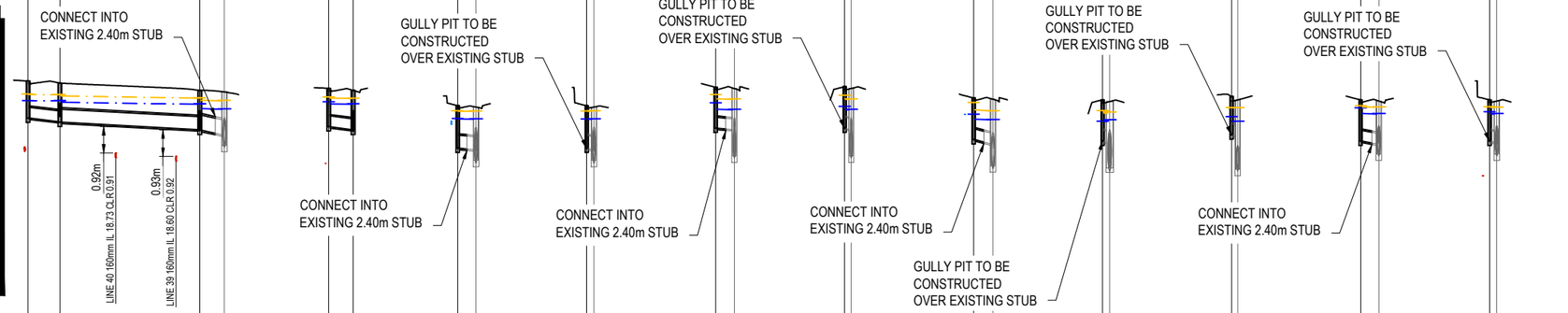
STRUCTURE NAME	G1/D09	2/D09	3/D09	7/D22	G1/D10	3/D09	G1/D11	9/D22	G1/D12	9/D22	G1/D26	9/D01	G1/D27	9/D01	G1/D29	11/D01	G1/D30	12/D01	G1/D36	7/D01	G1/D37	8/D22	G1/D38	8/D22
STRUCTURE DESCRIPTION	GULLY PIT	MANHOLE	MANHOLE	MANHOLE	GULLY PIT	MANHOLE	GULLY PIT (SAG)	MANHOLE	GULLY PIT (SAG)	MANHOLE	GULLY PIT	MANHOLE	GULLY PIT	MANHOLE	GULLY PIT	MANHOLE	GULLY PIT	MANHOLE	GULLY PIT	MANHOLE	GULLY PIT	MANHOLE	GULLY PIT	MANHOLE
	L.I.L; 2.4m Lintel; MK&C	1050mm DIA	1050mm DIA	1500mm DIA	L.I.L; 2.4m Lintel; MK&C	1050mm DIA	L.I.L; 3.6m Lintel; MK&C	1500mm DIA	L.I.L; 3.6m Lintel; MK&C	1500mm DIA	L.I.L; 2.4m Lintel; MK&C	1350mm DIA	L.I.L; 2.4m Lintel; BK&C	1350mm DIA	L.I.L; 3.6m Lintel; MK&C	1500mm DIA	L.I.L; 2.4m Lintel; BK&C	MANHOLE	L.I.L; 2.4m Lintel; BK&C	1350mm DIA	L.I.L; 2.4m Lintel; MK&C	1500mm DIA	L.I.L; 2.4m Lintel; MK&C	1500mm DIA
PIPE SIZE (mm)	375	450	525		375		450		450		375		375		375		375		375		375		375	
PIPE CLASS	3	3	3		3		3		3		3		3		3		3		3		3		3	
PIPE GRADE (%)	1.08%	0.53%	1.86%		1.17%		0.79%		1.99%		0.77%		2.21%		2.23%		2.04%		2.85%		1.57%		2.02%	
PIPE SLOPE (1 in X)	92.92	187.70	53.63		85.19		127.13		50.20		130.66		45.21		44.86		49.00		35.14		63.57		49.56	
FULL PIPE VELOCITY (m/s)	0.14	0.67	1.16		0.52		0.27		0.16		0.90		0.59		0.81		0.15		0.61		1.01		0.58	
PART FULL VELOCITY (m/s)	1.00	1.32	2.61		1.51		1.19		1.41		1.48		1.97		2.15		1.30		2.17		2.00		1.89	
DATUM RL	6.0				6.0		6.0		6.0		6.0		6.0		6.0		6.0		7.0		6.0		6.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	20.713 / 20.704	20.703 / 20.711	20.652	20.582 / 20.605	20.436 / 20.407 / 20.427	20.295	20.670 / 20.592	20.582 / 20.605	20.436	20.086 / 20.065	20.064 / 20.075	20.004	20.071 / 20.064	20.064 / 20.075	20.004	20.635 / 20.408	20.387 / 20.406	20.273	20.513 / 20.390	20.387 / 20.406	20.273	20.242 / 20.062	20.044 / 20.052	19.999
PIPE FLOW (Cumecs)	0.015	0.107	0.251		0.058		0.043		0.025		0.100		0.066		0.089		0.017		0.067		0.111		0.064	
PIPE CAPACITY AT GRADE (Cumecs)	0.182	0.208	0.587		0.190		0.253		0.403		0.153		0.261		0.262		0.251		0.296		0.220		0.249	
DEPTH TO INVERT	1.297	1.338	1.358	1.366	1.386	1.493	1.863	1.337	1.483	1.484	1.854	1.427	1.434	2.353	1.450	1.434	2.353	1.454	1.556	2.318	1.438	1.427	2.321	1.334	1.274	2.419	1.436	1.496	1.846	1.436	1.446	1.846
INVERT LEVEL OF DRAIN	20.100	19.980	19.960	19.700	19.680	19.520	19.150	19.800	19.700	19.680	19.050	19.000	18.630	19.750	19.700	18.781	19.750	19.434	18.781	19.350	19.200	18.438	19.300	19.250	18.356	20.520	20.460	19.315	19.300	19.200	18.850	19.300	19.250	18.850
DESIGN SURFACE LEVEL	21.397	21.318	21.066	21.013	21.137	21.066	20.533	20.484	20.533	20.484	21.177	21.134	21.200	21.134	20.804	20.756	20.738	20.677	21.854	21.734	20.736	20.696	20.736	20.696
SETOUT COORDINATES	E 90792.130 / N 502147.831	E 90787.303 / N 502157.786	E 90795.865 / N 502205.830	E 90801.836 / N 502211.993	E 90799.997 / N 502198.501	E 90795.865 / N 502206.630	E 90870.333 / N 502207.732	E 90870.193 / N 502201.381	E 90869.014 / N 502199.239	E 90870.193 / N 502201.381	E 90848.223 / N 502141.408	E 90853.632 / N 502137.751	E 90854.691 / N 502135.793	E 90853.632 / N 502137.751	E 90877.627 / N 502187.461	E 90884.201 / N 502188.760	E 90888.221 / N 502199.867	E 90886.107 / N 502201.031	E 90771.248 / N 502106.731	E 90771.291 / N 502104.632	E 90840.115 / N 502212.424	E 90839.975 / N 502206.072	E 90838.796 / N 502203.930	E 90839.975 / N 502206.072
RUNNING CHAINAGE	0.000 / 11.150	11.150 / 48.801	59.951 / 8.581	68.532	0.000 / 8.519	8.519	0.000 / 6.357	6.357	0.000 / 2.510	2.510	0.000 / 6.533	6.533	0.000 / 2.260	2.260	0.000 / 6.729	6.729	0.000 / 2.450	2.450	0.000 / 2.108	2.108	0.000 / 6.357	6.357	0.000 / 2.478	2.478
LINE	Line D09				Line D10		Line D11		Line D12		Line D26		Line D27		Line D29		Line D30		Line D36		Line D37		Line D38	

LEGEND

- DESIGN SURFACE
- EXISTING SURFACE
- HYDRAULIC GRADE LINE (10% AEP ARI)
- HYDRAULIC GRADE LINE (1% AEP ARI)

NOTES:

1. NOTWITHSTANDING THE STORMWATER STRUCTURE LEVELS SHOWN, THE COVER OR GRATE LEVEL SHALL SUIT THE FINISHED SURFACE PROFILE.
2. THE PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY. THE CONTRACTOR SHALL ASSESS ANTICIPATED LOADS AND UPGRADE THE PIPE CLASSES IF NECESSARY IN ACCORDANCE WITH AS 3725-2007. CRACKED PIPES WILL NOT BE ACCEPTED.
3. REFER DRG 22-000082_3_1402 FOR STORMWATER NOTES.



INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
B	AA	JG	AA	MH	20.05.24	LINE D47 D48 D49 MOVED TO SHEET 1421

AMENDMENTS

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE
1:1000 10 0 10 20 30 40 50m A1
1:2000 HORIZONTAL A3
1:100 2 1 0 2 4m A1
1:200 VERTICAL A3

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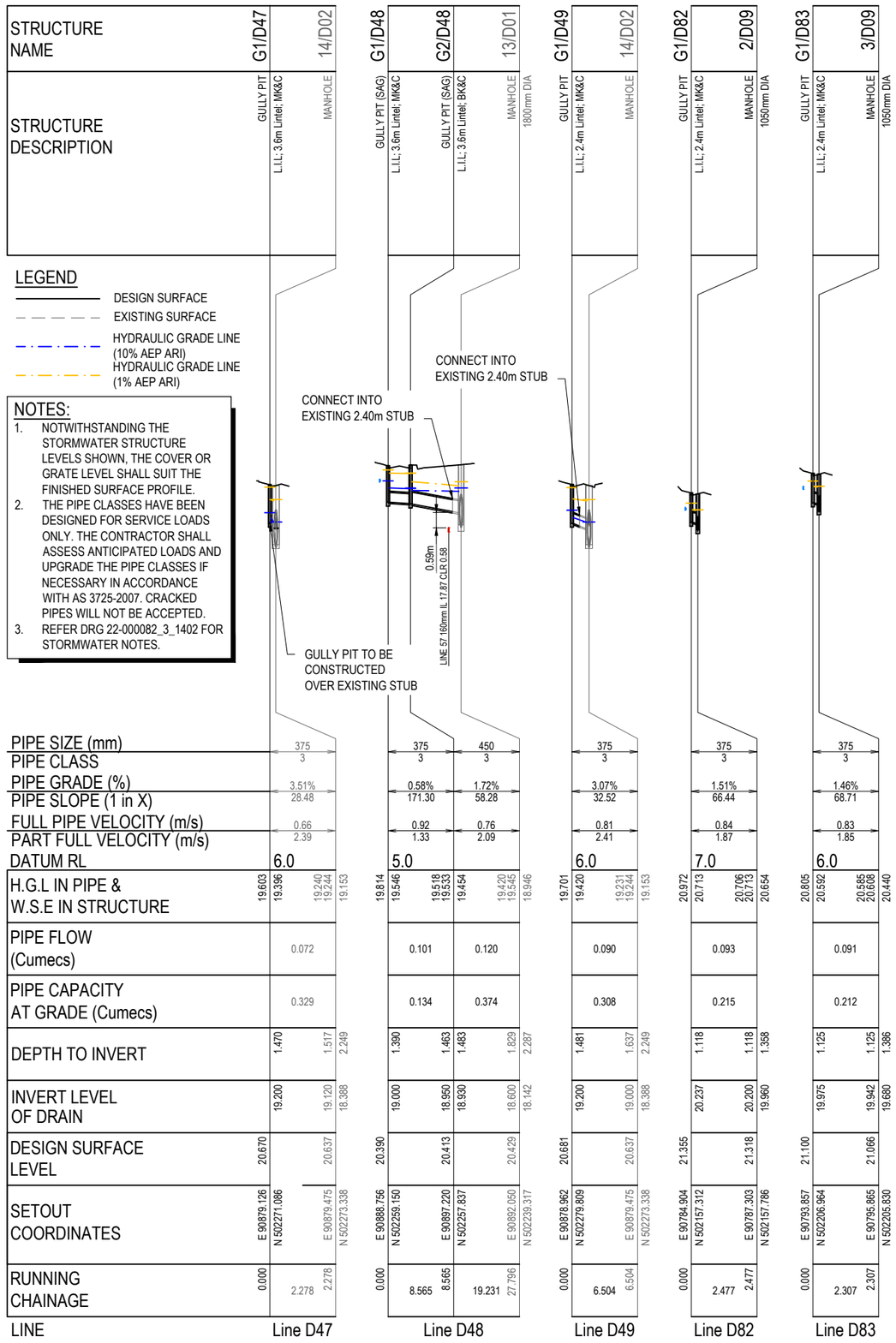
CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: STORMWATER LONGITUDINAL SECTIONS SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1420	B

CITY OF MORETON BAY



STRUCTURE NAME	G1/D47	14/D02	G1/D48	G2/D48	13/D01	G1/D49	14/D02	G1/D82	2/D09	G1/D83	3/D09
STRUCTURE DESCRIPTION	GULLY PIT L.I.L; 3.6m Lintel; MK&C	MANHOLE	GULLY PIT (SAG) L.I.L; 3.6m Lintel; MK&C	GULLY PIT (SAG) L.I.L; 3.6m Lintel; BK&C	MANHOLE 1800mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1050mm DIA	GULLY PIT L.I.L; 2.4m Lintel; MK&C	MANHOLE 1050mm DIA
PIPE SIZE (mm)	375		375	450		375		375		375	
PIPE CLASS	3		3	3		3		3		3	
PIPE GRADE (%)	3.51%		0.58%	1.72%		3.07%		1.51%		1.46%	
PIPE SLOPE (1 in X)	28.48		171.30	58.28		32.52		66.44		68.71	
FULL PIPE VELOCITY (m/s)	0.66		0.92	0.76		0.81		0.84		0.83	
PART FULL VELOCITY (m/s)	2.39		1.33	2.09		2.41		1.87		1.85	
DATUM RL	6.0		5.0			6.0		7.0		6.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	19.603 19.396	19.240 19.244	19.153	19.814 19.546	19.518 19.533	19.454	19.420 19.545	18.946	19.701 19.420	19.231 19.244	19.153	20.972 20.713	20.706 20.713	20.654	20.805 20.592	20.585 20.608	20.440
PIPE FLOW (Cumecs)	0.072			0.101		0.120			0.090			0.093			0.091		
PIPE CAPACITY AT GRADE (Cumecs)	0.329			0.134		0.374			0.308			0.215			0.212		
DEPTH TO INVERT	1.470	1.517	2.249	1.390	1.463	1.483	1.829	2.287	1.481	1.637	2.249	1.118	1.118	1.358	1.125	1.125	1.386
INVERT LEVEL OF DRAIN	19.200	19.120	18.388	19.000	18.950	18.930	18.600	18.142	19.200	19.000	18.388	20.237	20.200	19.960	19.975	19.942	19.680
DESIGN SURFACE LEVEL	20.670	20.637		20.390	20.413		20.429		20.681	20.637		21.355	21.318		21.100	21.066	
SETOUT COORDINATES	E 90879.126 N 502271.086	E 90879.475 N 502273.338		E 90888.756 N 502259.150	E 90897.220 N 502257.837		E 90892.050 N 502239.317		E 90878.962 N 502279.809	E 90879.475 N 502273.338		E 90784.904 N 502157.312	E 90787.303 N 502157.786		E 90793.857 N 502206.964	E 90795.865 N 502205.830	
RUNNING CHAINAGE	0.000	2.278	2.278	0.000	8.565	8.565	19.231	27.796	0.000	6.504	6.504	0.000	2.477	2.477	0.000	2.307	2.307
LINE	Line D47			Line D48			Line D49			Line D82			Line D83				

LEGEND

- DESIGN SURFACE
- EXISTING SURFACE
- HYDRAULIC GRADE LINE (10% AEP ARI)
- HYDRAULIC GRADE LINE (1% AEP ARI)

NOTES:

1. NOTWITHSTANDING THE STORMWATER STRUCTURE LEVELS SHOWN, THE COVER OR GRATE LEVEL SHALL SUIT THE FINISHED SURFACE PROFILE.
2. THE PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY. THE CONTRACTOR SHALL ASSESS ANTICIPATED LOADS AND UPGRADE THE PIPE CLASSES IF NECESSARY IN ACCORDANCE WITH AS 3725-2007. CRACKED PIPES WILL NOT BE ACCEPTED.
3. REFER DRG 22-000082_3_1402 FOR STORMWATER NOTES.

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
A	AA	RT	AA	RA	17.05.24	
AMENDMENTS	AA	RT	AA	MH	20.05.24	ISSUED FOR APPROVAL

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE
1:1000 10 0 10 20 30 40 50m A1
1:2000 A3
HORIZONTAL
1:100 2 1 0 2 4m A1
1:200 A3
VERTICAL

CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: STORMWATER LONGITUDINAL SECTIONS SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-000082_4	1421	A

CITY OF MORETON BAY

	LOCATION	CATCHMENT PROPERTIES			FULL AREA RUNOFF					PART AREA RUNOFF					INLET DESIGN										DRAIN DESIGN								HEADLOSSES							PART FULL		DESIGN LEVELS							
		fi	Ci	Cp	tc	I	A	CA	Q	tc	I	A	CA	Q	Qa						Qg	Qb		tc	I	CA	Qp	L	S		Vf	S/Do	Qg/Qo	Du/Do		Vf2/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn								
DESIGN ARI	STRUCTURE No.	FRACTION IMPERVIOUS	COEFFICIENT OF RUNOFF IMPERVIOUS AREA	COEFFICIENT OF RUNOFF PERVIOUS AREA	TIME OF CONCENTRATION	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT IMPERVIOUS AREA	SUB-CATCHMENT DISCHARGE	TIME OF CONCENTRATION	RAINFALL INTENSITY	PARTIAL CATCHMENT AREA	EQUIVALENT IMPERVIOUS AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C(INC. BYPASS)	FLOW WIDTH	FLOW DEPTH	FLOW DxV	ROAD GRADE AT INLET	ROAD XFALL AT INLET	INLET TYPE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	FULL PIPE VELOCITY	SUBMERGENCE RATIO	GRATE FLOW RATIO	DIAMETER RATIO	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL.	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	W.S.E	GRATE LEVEL	FREEBOARD	STRUCTURE No.
Yrs					min	mm/hr	ha	ha	L/s	min	mm/hr	ha	ha	L/s	L/s	m	m		%	%		L/s	L/s		min	mm/hr	ha	L/s	m	%	mm	m/s					m	m			m	%	m	m	m/s	m	m	m	m	m	m	m	
10%	1/D01	0																			MH1500				5.05	207	0.096	892	39.027	0.4	900	1.4	1.9	0	1	T1/T3	0.1	0.48	0.048	0.53	0.053	0.24	0.095	0.597	1.99	20.129	19.973	21.783	21.688	21.836	22.613	0.777	1/D01
10%	2/D01	0																			MH1500				5.41	204	0.21	956	28.228	0.4	900	1.5	1.94	0	1	T1/T3	0.115	0.82	0.095	0.93	0.107	0.28	0.079	0.631	2.01	19.953	19.841	21.593	21.515	21.701	22.408	0.707	2/D01
10%	3/D01	0																			MH				5.95	200	0.336	416	5.117	0.5	750	0.94	2.27	0	1	T3/T6	0.045	1.6	0.072	1.76	0.08	0.14	0.007	0.388	1.81	19.821	19.796	21.442	21.435	21.522	22.853	1.331	3/D01
10%	4/D01	0																			MH1200				5.72	201	0.398	453	17.512	0.5	750	1.03	2.23	0	1	T6/T9	0.054	1.87	0.1	2.1	0.112	0.17	0.029	0.408	1.84	19.776	19.688	21.335	21.306	21.447	22.755	1.308	4/D01
10%	5/D01	0																			MH1200				5.89	200	0.415	460	24.412	0.5	750	1.04	2.19	0	1	T1/T3	0.055	0.37	0.021	0.4	0.022	0.17	0.042	0.412	1.85	19.668	19.546	21.285	21.244	21.307	22.386	1.078	5/D01
10%	6/D01	0																			MH1500				6.11	198	0.62	572	38.092	0.5	750	1.29	2.32	0	1	T10	0.085	1.89	0.162	2.12	0.181	0.26	0.1	0.474	1.94	19.526	19.335	21.082	20.981	21.263	22.245	0.982	6/D01
10%	7/D01	0																			MH1350				6.44	196	0.738	631	49.063	0.5	750	1.43	2.24	0	1	T1/T3	0.104	0.91	0.095	1.02	0.107	0.32	0.158	0.508	1.98	19.315	19.07	20.887	20.729	20.993	21.734	0.741	7/D01
10%	8/D01	0																			MH1200				6.9	192	0.738	624	49.803	0.5	750	1.41	2.26	0	1	T6/T9	0.102	1.84	0.187	2.03	0.207	0.31	0.156	0.504	1.98	19.05	18.801	20.542	20.385	20.749	21.456	0.707	8/D01
10%	9/D01	0																			MH1350				7.25	189	1.047	771	41.064	0.5	900	1.21	1.8	0	1	T1/T3	0.075	1.52	0.114	1.77	0.133	0.18	0.074	0.504	2.1	18.781	18.576	20.272	20.197	20.404	21.134	0.729	9/D01
10%	10/D01	0																			MH1200				7.54	187	1.044	763	19.497	0.5	900	1.2	1.85	0	1	T3	0.073	1.64	0.12	1.9	0.14	0.18	0.035	0.5	2.1	18.556	18.458	20.077	20.043	20.217	20.878	0.662	10/D01
10%	11/D01	0																			MH1500				7.54	187	1.186	843	12.418	0.5	1050	0.97	1.54	0	0.93	T1/T3	0.048	0.93	0.045	1.1	0.053	0.1	0.012	0.485	2.15	18.438	18.376	19.997	19.986	20.05	20.756	0.706	11/D01
10%	12/D01	0																			MH				7.33	189	2.868	1734	38.745	0.5	1050	2	1.61	0	1	T3/T6	0.205	2	0.41	2.28	0.468	0.4	0.156	0.777	2.52	18.356	18.163	19.576	19.42	20.043	20.677	0.633	12/D01
10%	13/D01	0																			MH1800				7.58	187	3.079	1829	8.5	0.5	1050	2.11	1.57	0	1	T10	0.228	2.08	0.474	2.63	0.599	0.88	0.045	0.815	2.54	18.142	18.1	18.946	18.871	19.545	20.429	0.885	13/D01
10%	OUT/D01																				HW outlet																																	18.871	20.15		OUT/D01
10%	G1/D02	85	0.9	0.64	10	168	0.274	0.235	109	5	207	0.253	0.222	127	127	3.97	0.112	0.08	0.65	3	GULLY BK-S	106	21	G1/D13	5	207	0.222	106	6.556	1.22	375	0.96	2.06	1		G2	0.047	6.76	0.32		0.32	0.37	0.024	0.198	1.79	21.4	21.32	21.851	21.827	22.172	22.736	0.564	G1/D02
10%	2/D02	0																			MH1050				5.06	207	0.317	161	38.783	0.77	450	1.01	1.32	0	1	T9/T10	0.052	2.45	0.128	2.76	0.145	0.29	0.12	0.262	1.67	21.3	21	21.699	21.586	21.844	22.778	0.934	2/D02
10%	3/D02	0																			MH1050				5.47	203	0.56	312	37.528	0.96	525	1.44	1.46	0	1	T3/T6	0.106	1.93	0.204	2.27	0.24	0.37	0.191	0.336	2.13	20.98	20.62	21.383	21.242	21.622	22.575	0.952	3/D02
10%	4/D02	0																			MH1050				5.79	201	0.793	442	38.972	0.87	600	1.56	1.42	0	1	T1/T3	0.125	1.65	0.206	2	0.249	0.63	0.309	0.395	2.24	20.6	20.26	21.036	20.791	21.285	22.379	1.093	4/D02
10%	5/D02	0																			MH1200				6.11	198	1.03	563	25.53	0.94	750	1.27	1.14	0	1	T1/T3	0.083	1.05	0.087	1.25	0.104	0.6	0.216	0.384	2.47	20.24	20	20.704	20.55	20.808	22.183	1.375	5/D02
10%	6/D02	0																			MH1500				6.29	197	1.178	644	13.36	1.2	900	1.01	1.13	0	1	T3/T6	0.052	1.9	0.099	2.25	0.118	-0.14	0.081	0.353	2.78	19.98	19.82	20.45	20.469	20.568	22.068	1.5	6/D02
10%	7/D02	0																			MH1500				6.36	196	1.355	732	48.121	1.08	900	1.15	1.21	0	1	T6/T9	0.068	2.46	0.166	2.74	0.185	1.01	0.516	0.39	2.77	19.8	19.28	20.303	19.817	20.489	22.217	1.728	7/D02
10%	8/D02	0																			MH1800				6.58	195	1.584	843	35.809	0.67	1050	0.97	1.05	0	1	T1/T3	0.048	0.83	0.04	0.98	0.048	0.32	0.199	0.447	2.4	19.26	19.02	19.776	19.66	19.824	21.725	1.901	8/D02
10%	9/D02	0																			MH1800				6.82	193	2.046	1096	11.74	0.51	1200	0.97	1.09	0	1	T3/T6	0.048	1.92	0.092	2.26	0.108	0.13	0.054	0.523	2.32	19	18.94	19.568	19.554	19.677	21.345	1.668	9/D02
10%	10/D02	0																			MH1800				6.89	192	2.063	1101	31.353	0.51	1200	0.97	1.06	0	1	T1/T3	0.048	1.32	0.064	1.58	0.077	0.03	0.107	0.525	2.31	18.92	18.761	19.49	19.48	19.567	21.289	1.722	10/D02
10%	12/D02	0																			MH1800				6.76	193	2.208	1182	16.948	0.5	1200	1.05	1.04	0	1	T1/T3	0.056	0.68	0.038	0.8	0.045	-0.04	0.031	0.549	2.34	18.741	18.656	19.442	19.449	19.487	21.072	1.585	12/D02
10%	13/D02	0																			MH1800				6.87	192	2.846	1518	45.602	0.5	1200	1.34	1.14	0	1	T1/T3	0.092	1.51	0.139	1.82	0.167	0.21	0.191	0.635	2.5	18.636	18.408	19.31	19.213	19.478	20.954	1.476	13/D02
10%	14/D02	0																			MH				7.19	190	3.029	1598	41.647	0.5	1200	1.41	1.06	0	1	T1/T3	0.102	0.58	0.059	0.68	0.069	0.01	0.094	0.656	2.53	18.388	18.18	19.153	19.148	19.222	20.637	1.415	14/D02
10%	15/D02	0																			MH2100				7.47	188	3.348	1746	11.134	0.54	1200	1.54	1.27	0	1	T9/T10	0.122	2.16	0.263	2.68	0.326	0.97	0.053	0.677	2.66	18.16	18.1	18.885	18.777	19.211	20.348	1.137	15/D02
10%	OUT/D02																				HW outlet																																	18.777	20		OUT/D02
10%	G1/D09	85	0.9	0.64	10	168	0.033	0.028	13	5	207	0.03	0.026	15	15	1.642	0.056	0.02	0.5	3	GULLY MK-S	15	0	G1/D10	5	207	0.026	15	11.15	1.08	375	0.14	1.63	1		G2	0.001	8.98	0.009		0.009	0.01	0.001	0.073	1	20.1	19.98	20.704	20.703	20.713	21.312	0.599	G1/D09
10%	2/D09	0																			MH1050				5.02	207	0.199	107	48.801	0.53	450	0.67	1.67	0	1	T6/T9	0.023	2.22	0.052	2.54	0.059	0.14	0.069	0.229	1.32	19.96	19.7	20.652	20.582	20.711	21.318	0.608	2/D09
10%	3/D09	0																			MH1050				5.64	202	0.459	251	8.581	1.86	525	1.16	1.76	0	1	T6/T9	0.069	2.13	0.146	2.45	0.168	0.34	0.029	0.24	2.61	19.68	19.52	20.436	20.407	20.605	21.066	0.462	3/D09
10%	G1/D10	85	0.9	0.64	10	168	0.124	0.106	50	5	207	0.115	0.1	58	58	2.674	0.085	0.05	0.57	3	GULLY MK-S	58	0	G1/D38	5	207	0.1	58	10.63	0.94	375	0.52	2.33	1		G2	0.014	5.61	0.078		0.078	0.11	0.011	0.15	1.39	19.8	19.7	20.596	20.584	20.674	21.052	0.378	G1/D10
10%	G1/D11	85	0.9	0.64	10	168	0.04	0.035	16	5	207	0.037	0.033	19	43		0.012		0.13	1.44	SAG MK-M	43	0	G1/D48	5	207	0.033	43	6.357	0.79	450	0.27	2.3	1		G2	0.004	5.74	0.021		0.021	0.02	0.001	0.126	1.19	19.05	19	20.064	20.062	20.085	20.448	0.363	G1/D11
10%	G1/D12	85	0.9	0.64	10	168	0.046	0.04	19	5	207	0.043	0.038	22	25		0.004		0.13	1.46	SAG MK-M	25	0	G1/D11	5	207	0.038	25	2.51	1.99	450	0.16	2.27	1		G2	0.001	5.88	0.008		0.008	0.01	0	0.077	1.41	19.05	19	20.062	20.062	20.07	20.448	0.378	G1/D12
10%	G1/D22	85	0.9	0.64	10	168	0.127	0.109	51	5	207	0.117	0.102	59	59		0.044		0.33	2.46	SAG MK-S	59	0	G1/D24	5	207	0.102	59	10.837	1.02	450	0.37	1.69	1		G2	0.007	8.67	0.061		0.061	0.04	0.005	0.138	1.42	20.05	19.94	20.75	20.746	20.811	21.377	0.566	G1/D22
10%	2/D22	0																			MH1050				5.1	206	0.149	85	14.658	0.68	525	0.39	1.58	0	1	T6/T9	0.008	2.31	0.018	2.62	0.021	0.04	0.006	0.175	1.35	19.92	19.82	20.727	20.722	20.748	21.466	0.718	2/D22
10%	3/D22	0																			MH1050				5.25	205	0.25	145	25.871	0.62	600	0.51	1.54	0	1	T3/T6	0.013	1.99	0.027	2.3	0.031	0.06	0.014	0.225	1.49	19.8	19.64	20.695	20.681	20.726	21.537	0.811	3/D22
10%	4/D22	0																			MH1350				6.19	198	0.746	410	32.001	0.75	750	0.93	1.43	0	1	T9	0.044	2.5	0.11	2.78	0.122	0.14	0.043	0.341	2.09	19.62	19.38	20.571	20.528	20.693	21.666	0.973	4/D22
10%	F5/D22	85	0.9	0.64	10	168	0.078	0.067	31	5	207	0.073	0.063	37	37	2.6	0.039	0.03	2.2	3	F1-6x9 on-grade 50% Blockage	11	25	F6/D22	6.43	196	0.81	416	14.865	0.81	750	0.94	1.56	0.03	1	T1/T3	0.045	0.56	0.025	0.62	0.028	0.14	0.021	0.337	2.16	19.36	19.24	20.502	20.482	20.531	21.362	0.831	F5/D22
10%	F6/D22	85	0.9	0.64	10	168	0.068	0.059	27	5	207	0.063	0.055	32	57		0.03		0.6	3.04	FSIP-9x9	16	41	G1/D37	6.54	195	0.867	428	7.898	0.63	750	0.97	1.7	0.04	1	T1/T3	0.048	1.52	0.073	1.81	0.087	0.15	0.012	0.368	1.99	19.22	19.17	20.409	20.397	20.495	21.115	0.62	F6/D22
10%	7/D22	0																			MH1500				6.13	198	1.31	673	38.596	0.73	900	1.06	1.41	0	1	T3/T6	0.057	1.85	0.106	2.21	0.126	0.14	0.053	0.416	2.34	19.15	18.87	20.291	20.238	20.417	21.013	0.596	7/D22
10%	8/D22	0																			MH1500				6.4	196	1.579	836	30.58	0.65	900	1.31	1.57	0	1	T1/T3	0.088	1.26	0.111	1.5	0.132	0.21	0.065	0.487	2.38	18.85	18.65	20.127	20.062	20.259	20.696	0.436	8/D22
10%	9/D22	0																			MH1500				6.62	194	1.65	895	15.921	0.57	1050	1.03	1.38	0	1	T1/T3	0.054	1.09	0.06	1.31	0.071	0.11	0.017	0.485	2.29	18.63	18.54	20.003	19.986	20.074	20.484	0.41	9/D22
10%	G1/D26	85	0.9	0.64	10	168	0.235	0.202	94	5	207	0.218	0.19	110	110	3.359	0.104	0.07	0.64	3	GULLY MK-S	100	10	G1/D29	5	207	0.19	100	6.533	0.77	375	0.9	2.36	1		G2	0.041	5.5	0.228		0.228	0.32	0.021	0.22	1.48	19.75	19.7	20.406	20.385	20.634	21.092	0.458	G1/D26
10%	G1/D27	85	0.9	0.64	10	168	0.141	0.121	56	5	207	0.13	0.114	66	66	2.611	0.108	0.07	0.64	3	GULLY BK-S	66	0	G1/D30	5	207	0.114	66	2.26	2.21	375	0.59	2.03	1		G2	0.018	6.86	0.124		0.124	0.14	0.003	0.128	1.97	19.75	19.7	20.388	20.385	20.512	21.093	0.581	G1/D27
10%	G1/D29	85	0.9	0.64	10	168	0.179	0.153	71	5	207	0.165	0.145	83	93	3.157	0.098	0.07	0.64	1.56	GULLY MK-M	89	4	G1/D12	5	207	0.145	89	6.729	2.23	375	0.81	2.38	1		G2	0.033	5.42	0.181		0.181	0.26	0.017	0.151	2.15	19.35	19.2	20.06	20.043	20.241	20.719	0.478	G1/D29
10%	G1/D30	85	0.9	0.64	10	168	0.037	0.031	15	5	207	0.034	0.03	17	17	1.495	0.075	0.03	0.64	3	GULLY BK-S	17	0	G2/D48	5	207	0.03	17	2.45	2.04	375	0.15	1.85	1		G2	0.001	7.79	0.01		0.01	0.01	0	0.066	1.3	19.3	19.25	19.986	19.986	19.995	20.631	0.636	G1/D30
10%	G1/D36	85	0.9	0.64	10	168	0.144	0.124	58	5	207	0.134	0.117	67	67	2.41	0.072	0.06	1.19	3	GULLY BK-S	67	0	G2/D09	5	207	0.117	67	2.108	2.85	375	0.61	1.68	1		G2	0.019	8.73	0.165		0.165	0.15	0.003	0.122	2.17	20.52	20.46	20.985	20.981	21.15	21.693	0.544	G1/D36
10%	G1/D37	85	0.9	0.64	10	168	0.189	0.162	76	5	207	0.175	0.153	88	136	3.639	0.108	0.09	0.85	3	GULLY MK-S	111	24	G1/D11	5	207	0.153	111	6.357	1.57	375	1.01	3.08	1		G2	0.052	3.71	0.192		0.192	0.4	0.026	0.189	2	19.3	19.2	20.264	20.238	20.456	20.651	0.195	G1/D37
10%	G1/D38	85	0.9	0.64	10	168	0.138	0.118	55	5	207	0.128	0.112	64	64	2.599	0.083	0.06	0.85	3	GULLY MK-S	64	0	G1/D12	5	207	0.112	64	2.478	2.02	375	0.58	2.71	1		G2	0.017	4.43	0.077		0.077	0.13	0.003	0.13	1.89	19.3	19.25	20.241	20.238	20.318	20.651	0.333	G1/D38
10%	G1/D47	85	0.9	0.64	10	168	0.148	0.127	59	5	207	0.137	0.12	69	72	2.824	0.089	0.06	0.69	1.39	GULLY MK-M	72	0	G1/D48	5	207	0.12	72	2.278	3.51	375	0.66	1.55	1		G2	0.022	9.43	0.207		0.207	6.88	0	0.12	2.39	19.2	19.12	19.396	19.24	19.603	20.585	0.983	G1/D47
10%	G1/D48	85	0.9	0.64	10	168	0.217	0.186	87	5	207	0.201	0.176	101	101		0.046		0.02	1.52	SAG MK-M	101	0	G2/D48	5	207	0.176	101	8.565	0.58	375	0.92	2.17	1		G2	0.043	6.28	0.268		0.268	0.33	0.028	0.243	1.33	19	18.95	19.546	19.517	19.814	20.305	0.491	G1/D48
10%	G2/D48	85	0.9	0.64	10	168	0.043	0.037	17	5	207	0.04	0.035	20	20		0.007		0.02	1.52	SAG BK-M	20	0	LOST	5.12	206	0.21	120	19.231	1.72	450	0.76	1.34	0.16	0.83	T10	0.029	2.17	0.064	2.7	0.079	0.18	0.034	0.176	2.09	18.93	18.6	19.454	19.42	19.533	20.306	0.773	G2/D48
10%	G1/D49	85	0.9	0.64	10	168	0.072	0.062	29	5	207	0.066	0.058	33	33	2.097	0.069	0.04	0.7	3	GULLY MK-S	33	0	G1/D60	5	207	0.058	33	6.504	3.07	375	0.3	1.12	1		G2	0.005	9.7	0.045		0.045	1.82	0.153	0.083	1.82	19.2	19	19.331	19.213	19.377	20.596	1.219	G1/D49
10%	G1/D82	85	0.9	0.64	10	168	0.214	0.184	86	5	207	0.198	0.173	100	100	3.486	0.106	0.06	0.5	3	GULLY MK-S	93	7	G1/D83	5	207	0.173	93	2.477	1.51	375	0.84	1.95	1		G2	0.036	7.25	0.26		0.26	0.28	0.007	0.172	1.87	20.237	20.2	20.71	20.703	20.97	21.27	0.301	G1/D82
10%	G1/D83	85	0.9	0.64	10	168	0.195	0.167	78	5	207	0.181	0.158	91	98	3.349	0.104	0.06	0.51	3.01	GULLY MK-S	91	7	G1/D37	5	207	0.158	91	2.307	1.46	375	0.83	2.21	1		G2	0.035	6.13	0.214		0.214	0.27	0.006	0.172	1.85	19.975	19.942	20.589	20.582	20.803	21.015	0.212	G1/D83

STORMWATER DRAINAGE CALCULATIONS - MINOR 10% AEP

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
B	AA	JG	AA	MH	20.05.24	DRAINAGE CALCS AMENDED

AMENDMENTS

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE

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CLIENT: LENNIUM GROUP

PROJECT: Lilywood LANDINGS STAGE 3

DRAWING TITLE: STORMWATER CALCULATION TABLES MINOR

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1430	B

CITY OF MORETON BAY

	LOCATION	CATCHMENT PROPERTIES			FULL AREA RUNOFF					PART AREA RUNOFF					INLET DESIGN									DRAIN DESIGN								HEADLOSSES								PART FULL		DESIGN LEVELS							
		fi	Ci	Cp	tc	I	A	CA	Q	tc	I	A	CA	Q	Qa							Qg	Qb		tc	I	CA	Qp	L	S		Vf	S/Do	Qg/Qo	Du/Do		Vf2/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn								
DESIGN ARI	STRUCTURE No.	FRACTION IMPERVIOUS	COEFFICIENT OF RUNOFF IMPERVIOUS AREA	COEFFICIENT OF RUNOFF PERVIOUS AREA	TIME OF CONCENTRATION	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT IMPERVIOUS AREA	SUB-CATCHMENT DISCHARGE	TIME OF CONCENTRATION	RAINFALL INTENSITY	PARTIAL CATCHMENT AREA	EQUIVALENT IMPERVIOUS AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C(INC. BYPASS)	FLOW WIDTH	FLOW DEPTH	FLOW DxV	ROAD GRADE AT INLET	ROAD XFALL AT INLET	INLET TYPE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	FULL PIPE VELOCITY	SUBMERGENCE RATIO	GRATE FLOW RATIO	DIAMETER RATIO	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL.	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	W.S.E	GRATE LEVEL	FREEBOARD	STRUCTURE No.
Yrs					min	mm/h	ha	ha	L/s	min	mm/h	ha	ha	L/s	L/s	m	m		%	%		L/s	L/s		min	mm/hr	ha	L/s	m	%	mm	m/s					m	m				%	m	m	m/s	m	m	m	m	m	m	m	
1%	1/D01	0																			MH1500				5.05	369	0.108	947	39.027	0.4	900	1.49	2.4	0	1	T1/T3	0.113	0.64	0.072	0.71	0.08	0.27	0.107	0.624	2.01	20.129	19.973	22.209	22.103	22.29	22.613	0.323	1/D01
1%	2/D01	0																			MH1500				5.41	363	0.236	1070	28.228	0.4	900	1.68	2.41	0	1	T1/T3	0.144	0.91	0.132	1.03	0.148	0.35	0.099	0.693	2.04	19.953	19.841	21.971	21.872	22.119	22.408	0.289	2/D01
1%	3/D01	0																			MH				5.67	359	0.372	551	5.117	0.5	750	1.25	2.73	0	1	T3/T6	0	1.43	0	1.58	0	0	0	0.462	1.93	19.821	19.796	21.872	21.872	21.872	22.853	0.981	3/D01
1%	4/D01	0																			MH1200				5.72	359	0.447	625	17.512	0.5	750	1.41	2.8	0	1	T6/T9	0.001	1.77	0.001	1.93	0.001	0	0	0.504	1.98	19.776	19.688	21.871	21.871	21.872	22.755	0.883	4/D01
1%	5/D01	0																			MH1200				5.89	356	0.465	644	24.412	0.5	750	1.46	2.94	0	1	T1/T3	0.031	0.38	0.012	0.43	0.013	0.09	0.023	0.516	1.99	19.668	19.546	21.859	21.836	21.872	22.386	0.514	5/D01
1%	6/D01	0																			MH1500				6.09	353	0.695	741	38.092	0.5	750	1.68	3.13	0	1	T10	0.116	1.69	0.197	2.01	0.233	0.36	0.136	0.579	2.03	19.526	19.335	21.639	21.503	21.872	22.245	0.373	6/D01
1%	7/D01	0																			MH1350				6.44	348	0.828	748	49.063	0.5	750	1.69	2.93	0	1	T1/T3	0.146	0.46	0.068	0.53	0.077	0.45	0.221	0.584	2.03	19.315	19.07	21.435	21.214	21.512	21.734	0.222	7/D01
1%	8/D01	0																			MH1200				6.9	341	0.828	732	49.803	0.5	750	1.66	2.91	0	1	T6/T9	0.14	1.71	0.239	1.83	0.256	0.43	0.215	0.572	2.02	19.05	18.801	20.974	20.759	21.23	21.456	0.226	8/D01
1%	9/D01	0																			MH1350				7.04	339	1.164	878	41.064	0.5	900	1.38	2.22	0	1	T1/T3	0.097	1.32	0.128	1.49	0.145	0.23	0.096	0.547	2.17	18.781	18.576	20.631	20.535	20.776	21.134	0.357	9/D01
1%	10/D01	0																			MH1200				7.38	334	1.164	861	19.497	0.5	900	1.35	2.22	0	1	T3	0.094	1.48	0.138	1.68	0.157	0.23	0.044	0.541	2.16	18.556	18.458	20.396	20.352	20.553	20.878	0.325	10/D01
1%	11/D01	0																			MH1500				7.54	331	1.331	970	12.418	0.5	1050	1.12	1.83	0	0.93	T1/T3	0.064	0.99	0.064	1.13	0.072	0.13	0.016	0.526	2.23	18.438	18.376	20.289	20.273	20.361	20.756	0.395	11/D01
1%	12/D01	0																			MH				7.29	335	3.213	1891	38.745	0.5	1050	2.18	1.87	0	1	T3/T6	0.243	1.87	0.455	2.06	0.5	0.48	0.186	0.842	2.54	18.356	18.163	19.818	19.632	20.318	20.677	0.358	12/D01
1%	13/D01	0																			MH1800				7.58	331	3.456	2086	8.5	0.5	1050	2.41	1.73	0	1	T10	0.296	2.07	0.612	2.57	0.762	1.15	0.05	1.05	2.41	18.142	18.1	19.02	18.922	19.783	20.429	0.647	13/D01
1%	OUT/D01																				HW outlet																												18.922	20.15		OUT/D01
1%	G1/D02	85	1	0.77	10	294	0.274	0.264	216	5	370	0.253	0.248	255	255	5.777	0.141	0.11	0.65	3	GULLY BK-S	53	202	G1/D13	5	370	0.248	53	6.556	1.22	375	0.48	2.21	1		G2	0.012	6.13	0.073		0.073	0.09	0.006	0.135	1.5	21.4	21.32	22.155	22.149	22.228	22.736	0.508	G1/D02
1%	2/D02	0																			MH1050				5.06	369	0.356	103	38.783	0.77	450	0.65	1.91	0	1	T9/T10	0.022	2.08	0.045	2.56	0.055	0.13	0.051	0.201	1.5	21.3	21	22.104	22.053	22.159	22.778	0.619	2/D02
1%	3/D02	0																			MH1050				5.47	362	0.628	180	37.528	0.96	525	0.83	2.05	0	1	T3/T6	0.035	1.68	0.059	1.85	0.065	0.17	0.066	0.24	1.87	20.98	20.62	21.994	21.928	22.059	22.575	0.516	3/D02
1%	4/D02	0																			MH1050				5.79	358	0.889	277	38.972	0.87	600	0.98	2.23	0	1	T3/T6	0.049	1.52	0.074	1.71	0.084	0.2	0.079	0.294	2.01	20.6	20.26	21.854	21.774	21.937	22.379	0.442	4/D02
1%	5/D02	0																			MH1200				6.11	353	1.156	537	25.53	0.94	750	1.21	2.07	0	1	T3/T6	0.075	1.6	0.121	1.8	0.135	0.23	0.059	0.374	2.44	20.24	20	21.654	21.594	21.789	22.183	0.394	5/D02
1%	6/D02	0																			MH1500				6.29	350	1.321	758	13.36	1.2	900	1.19	1.81	0	1	T3/T6	0.072	1.92	0.139	2.12	0.154	0.18	0.023	0.386	2.91	19.98	19.82	21.455	21.432	21.609	22.068	0.459	6/D02
1%	7/D02	0																			MH1500				6.31	350	1.518	904	48.121	1.08	900	1.42	1.86	0	1	T6/T9	0.103	2.11	0.218	2.54	0.262	0.25	0.12	0.44	2.93	19.8	19.28	21.214	21.094	21.476	22.217	0.741	7/D02
1%	8/D02	0																			MH1800				6.58	346	1.777	1221	35.809	0.67	1050	1.41	1.77	0	1	T1/T3	0.102	1.46	0.148	1.71	0.174	0.2	0.072	0.554	2.64	19.26	19.02	20.945	20.874	21.119	21.725	0.606	8/D02
1%	9/D02	0																			MH1800				6.47	347	2.263	1748	11.74	0.51	1200	1.55	1.59	0	1	T3/T6	0.111	1.91	0.211	2.22	0.245	0.18	0.021	0.689	2.6	19	18.94	20.662	20.641	20.907	21.345	0.437	9/D02
1%	10/D02	0																			MH1800				6.55	346	2.282	1759	31.353	0.51	1200	1.56	1.46	0	1	T1/T3	0.123	1.33	0.163	1.59	0.197	0.2	0.064	0.693	2.6	18.92	18.761	20.477	20.413	20.674	21.289	0.615	10/D02
1%	12/D02	0																			MH1800				6.76	343	2.477	1953	16.948	0.5	1200	1.73	1.41	0	1	T1/T3	0.152	0.78	0.119	0.92	0.14	0.25	0.042	0.746	2.64	18.741	18.656	20.295	20.252	20.434	21.072	0.637	12/D02
1%	13/D02	0																			MH1800				6.87	341	3.206	2061	45.602	0.5	1200	1.82	1.36	0	1	T1/T3	0.169	0.54	0.091	0.62	0.105	0.28	0.127	0.774	2.67	18.636	18.408	20.161	20.034	20.266	20.954	0.688	13/D02
1%	14/D02	0																			MH				7.19	337	3.412	2385	41.647	0.5	1200	2.11	1.41	0	1	T1/T3	0.227	1.09	0.247	1.3	0.295	0.37	0.156	0.862	2.74	18.388	18.18	19.787	19.631	20.082	20.637	0.555	14/D02
1%	15/D02	0																			MH2100				7.41	333	3.761	2597	11.134	0.54	1200	2.3	1.59	0	1	T9/T10	0.269	2.14	0.575	2.64	0.711	0.61	0.06	0.896	2.87	18.16	18.1	19.056	18.989	19.767	20.348	0.581	15/D02
1%	OUT/D02																				HW outlet																												18.989	20		OUT/D02
1%	G1/D09	85	1	0.77	10	294	0.033	0.032	26	5	370	0.03	0.03	30	30	2.156	0.071	0.03	0.5	3	GULLY MK-S	30	0	G1/D10	5	370	0.03	30	11.15	1.08	375	0.28	2.23	1		G2	0.004	6.02	0.023		0.023	0.03	0.003	0.104	1.22	20.1	19.98	20.914	20.911	20.938	21.312	0.374	G1/D09
1%	2/D09	0																			MH1050				5.02	369	0.223	111	48.801	0.53	450	0.7	2.13	0	1	T6/T9	0.025	1.91	0.047	2.18	0.054	0.15	0.074	0.234	1.33	19.96	19.7	20.864	20.79	20.918	21.318	0.4	2/D09
1%	3/D09	0																			MH1050				5.64	360	0.515	194	8.581	1.86	525	0.9	2.13	0	1	T6/T9	0.041	1.89	0.077	2.12	0.087	0.2	0.017	0.208	2.43	19.68	19.52	20.712	20.695	20.799	21.066	0.267	3/D09
1%	G1/D10	85	1	0.77	10	294	0.124	0.12	98	5	370	0.115	0.112	115	115	3.709	0.109	0.07	0.57	3	GULLY MK-S	47	68	G1/D38	5	370	0.112	47	10.63	0.94	375	0.43	2.93	1		G2	0.009	3.96	0.037		0.037	0.07	0.008	0.135	1.32	19.8	19.7	20.86	20.852	20.897	21.052	0.155	G1/D10
1%	G1/D11	85	1	0.77	10	294	0.04	0.039	32	5	370	0.037	0.037	38	907		0.095		0.13	1.44	SAG MK-M	33	874	G1/D48	5	370	0.037	33	6.357	0.79	450	0.21	2.9	1		G2	0.002	4.03	0.009		0.009	0.01	0.001	0.11	1.1	19.05	19	20.345	20.344	20.353	20.448	0.094	G1/D11
1%	G1/D12	85	1	0.77	10	294	0.046	0.045	37	5	370	0.043	0.042	43	363		0.075		0.13	1.46	SAG MK-M	23	340	G1/D11	5	370	0.042	23	2.51	1.99	450	0.14	2.89	1		G2	0.001	4.05	0.004		0.004	0.01	0	0.073	1.37	19.05	19	20.344	20.344	20.348	20.448	0.099	G1/D12
1%	G1/D22	85	1	0.77	10	294	0.127	0.122	100	5	370	0.117	0.115	118	583		0.105		0.33	2.46	SAG MK-S	2	581	G1/D24	5	370	0.115	2	10.837	1.02	450	0.01	2.49	1		G2	0	4.93	0		0	0	0	0.027	0.52	20.05	19.94	21.172	21.172	21.172	21.377	0.205	G1/D22
1%	2/D22	0																			MH1050				5.1	368	0.167	69	14.658	0.68	525	0.32	2.39	0	1	T6/T9	0.005	1.84	0.01	2.04	0.011	0.03	0.004	0.157	1.27	19.92	19.82	21.162	21.159	21.173	21.466	0.293	2/D22
1%	3/D22	0																			MH1050				5.25	366	0.28	156	25.871	0.62	600	0.55	2.27	0	1	T6	0.016	1.78	0.028	1.9	0.03	0.06	0.017	0.235	1.52	19.8	19.64	21.131	21.114	21.161	21.537	0.376	3/D22
1%	4/D22	0																			MH1350				6.19	352	0.837	535	32.001	0.75	750	1.21	2.04	0	1	T9/T10	0.075	1.99	0.149	2.47	0.185	0.23	0.074	0.399	2.24	19.62	19.38	20.965	20.891	21.15	21.666	0.516	4/D22
1%	F5/D22	85	1	0.77	10	294	0.078	0.076	62	5	370	0.073	0.071	73	73	3.373	0.051	0.04	2.2	3	F1-6x9 on-grade 50% Blockage	17	56	F6/D22	6.43	348	0.909	541	14.865	0.81	750	1.22	2.05	0.03	1	T1/T3	0.076	0.53	0.04	0.57	0.043	0.24	0.035	0.393	2.31	19.36	19.24	20.85	20.815	20.894	21.362	0.468	F5/D22
1%	F6/D22	85	1	0.77	10	294	0.068	0.066	54	5	370	0.063	0.062	64	120		0.03		0.6	3.04	FSIP-9x9	16	104	G1/D37	6.54	346	0.972	550	7.898	0.63	750	1.24	2.15	0.03	1	T1/T3	0.079	1.36	0.108	1.55	0.123	0.24	0.019	0.428	2.11	19.22	19.17	20.708	20.688	20.83	21.115	0.285	F6/D22
1%	7/D22	0																			MH1500				6.13	353	1.469	791	38.596	0.73	900	1.24	1.73	0	1	T3/T6	0.079	1.75	0.138	2.03	0.16	0.19	0.074	0.457	2.44	19.15	18.87	20.55	20.476	20.71	21.013	0.303	7/D22
1%	8/D22	0																			MH1500				6.4	348	1.771	855	30.58	0.65	900	1.34	1.82	0	1	T1/T3	0.092	0.7	0.064	0.8	0.073	0.22	0.068	0.494	2.39	18.85	18.65	20.412	20.344	20.485	20.696	0.21	8/D22
1%	9/D22	0																			MH1500				6.62	345	1.852	891	15.921	0.57	1050	1.03	1.64	0	1	T1/T3	0.054	0.99	0.054	1.17	0.063	0.11	0.017	0.483	2.29	18.63	18.54	20.29	20.273	20.353	20.484	0.13	9/D22
1%	G1/D26	85	1	0.77	10	294	0.235	0.227	186	5	370	0.218	0.214	219	219	5.499	0.134	0.1	0.64	3	GULLY MK-S	97	122	G1/D29	5	370	0.214	97	6.533	0.77	375	0.88	3.13	1		G2	0.039	3.66	0.144		0.144	0.3	0.02	0.216	1.47	19.75	19.7	20.779	20.759	20.923	21.092	0.17	G1/D26
1%	G1/D27	85	1	0.77	10	294	0.141	0.136	111	5	370	0.13	0.128	131	131	3.426	0.133	0.1	0.64	3	GULLY BK-S	89	42	G1/D30	5	370	0.128	89	2.26	2.21	375	0.81	3.04	1		G2	0.033	3.76	0.125		0.125	0.26	0.006	0.151	2.14	19.75	19.7	20.765	20.759	20.889	21.093	0.203	G1/D27
1%	G1/D29	85	1	0.77	10	294	0.179	0.172	141	5	370	0.165	0.162	166	289	5.941	0.145	0.12	0.64	1.56	GULLY MK-M	129	160	G1/D12	5	370	0.162	129	6.729	2.23	375	1.17	3.4	1		G2	0.07	3.37	0.235		0.235	0.54	0.036	0.186	2.36	19.35	19.2	20.389	20.352	20.624	20.719	0.096	G1/D29
1%	G1/D30	85	1	0.77	10	294	0.037	0.035	29	5	370	0.034	0.033	34	77	2.776	0.113	0.07	0.64	3	GULLY BK-S	74	2	G2/D48	5	370	0.033	74	2.45	2.04	375	0.67	2.86	1		G2	0.023	4.11	0.095		0.095	0.18	0.004	0.14	1.98	19.3	19.25	20.278	20.273	20.373	20.631	0.258	G1/D30
1%	G1/D36	85	1	0.77	10	294	0.144	0.139	114	5	370	0.134	0.131	135	135	3.127	0.093	0.09	1.19	3	GULLY BK-S	23	112	G2/D09	5	370	0.131	23	2.108	2.85	375	0.21	2.65	1		G2	0.002	4.57	0.01		0.01	0.02	0	0.071	1.59	20.52	20.46	21.503	21.503	21.513	21.693	0.18	G1/D36
1%	G1/D37	85	1	0.77	10	294	0.189	0.182	149	5	370	0.175	0.171	176	585	7.044	0.173	0.19	0.85	3	GULLY MK-S	56	529	G1/D11	5	370	0.171	56	6.357	1.57	375	0.51	3.28	1		G2	0.013	3.5	0.046		0.046	0.1	0.006	0.129	1.66	19.3	19.2	20.483	20.476	20.529	20.651	0.122	G1/D37
1%	G1/D38	85	1	0.77	10	294	0.138	0.133	109	5	370	0.128	0.125	129	197	4.82	0.124	0.1	0.85	3	GULLY MK-S	37	160	G1/D12	5	370	0.125	37	2.478	2.02	375	0.33	3.19	1		G2	0.006	3.59	0.02		0.02	0.04	0.001	0.097	1.61	19.3	19.25	20.478	20.476	20.498	20.651	0.153	G1/D38
1%	G1/D47	85	1	0.77	10	294	0.148	0.143	117	5	370	0.137	0.135	138	514	6.974	0.171	0.17	0.69	1.39	GULLY MK-M	193	321	G1/D48	5	370	0.135	193	2.278	3.51	375	1.75	3.6	1		G2	0.156	3.15	0.49		0.49	1.21	0.028	0.207	3.09	19.2	19.12	20.061	20.034	20.551	20.585	0.034	G1/D47
1%	G1/D48	85	1	0.77	10	294	0.217	0.21	171	5	370	0.201	0.197	202	1398		0.07		0.02	1.52	SAG MK-M	90	1308	G2/D48	5	370	0.197	90	8.565	0.58	375	0.81	3.29	1		G2	0.034	3.48	0.118		0.118	0.26	0.023	0.225	1.3	19	18.95	20.117	20.094	20.235	20.305	0.071	G1/D48
1%	G2/D48	85	1	0.77	10	294	0.043	0.041	34	5	370	0.04	0.039	40	1350		0.085		0.02	1.52	SAG BK-M	163	1186	LOST	5.12	368	0.236	252	19.231	1.72	450	1.59	2.64	0.64	0.83	G1/T10	0.128	2.43	0.311	2.6	0.333	0.78	0.15	0.271	2.52	18.93	18.6	19.783	19.632	20.116	20.306	0.19	G2/D48
1%	G1/D49	85	1	0.77	10	294	0.072	0.069	57	5	370	0.066	0.065	67	697	7.679	0.188	0.2	0.7	3	GULLY MK-S	187	510	G1/D60	5	370	0.065	187	6.504	3.07	375	1.69	3.63	1		G2	0.145	3.12	0.454		0.454	1.13	0.074	0.211	2.92	19.2	19	20.107	20.034	20.561	20.596	0.035	G1/D49
1%	G1/D82	85	1	0.77	10	294	0.214	0.207	169	5	370	0.198	0.194	200	310	6.289	0.154	0.12	0.5	3	GULLY MK-S	81	229	G1/D83	5	370	0.194	81	2.477	1.51	375	0.74	2.25	1		G2	0.028	5.95	0.165		0.165	0.22	0.005	0.16	1.81	20.237	20.2	20.916	20.911	21.081	21.27	0.189	G1/D82
1%	G1/D83	85	1	0.77	10	294	0.195	0.188	154	5	370	0.181	0.177	182	411	6.801	0.167	0.14	0.51	3.01	GULLY MK-S	44	367	G1/D37	5	370	0.177	44	2.307	1.46	375	0.4	2.3	1		G2	0.008	5.75	0.046		0.046	0.06	0.001	0.116	1.51	19.975	19.942	20.791	20.79	20.837	21.015	0.178	G1/D83

STORMWATER DRAINAGE CALCULATIONS - MAJOR 1% AEP

(INCLUDING 20% ABOVE STANDARD 1% AEP INTENTIES FOR CLIMATE CHANGE)

INITIAL ISSUE	DES	DRN	CHK	APP	DATE	AMENDMENT DETAILS
	AA	RT	AA	RA	15.09.23	
A	AA	RT	AA	MH	12.03.24	ISSUED FOR APPROVAL
B	AA	JG	AA	MH	20.05.24	DRAINAGE CALCS AMENDED

AMENDMENT

STATUS: FOR APPROVAL

APPROVED
BY: MAX HOOPER NO: 16633
SIGN: DATE: 20.05.24

SCALE

egis
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www.egis-group.com

CLIENT: LENNIUM GROUP

PROJECT: Lidywood LANDINGS STAGE 3

DRAWING TITLE: STORMWATER CALCULATION TABLES MAJOR

PROJECT No.	DRAWING No.	REVISION
22-000082_3	1431	B

CITY OF MORETON BAY

ATTACHMENT 4

Appeal Rights

Chapter 6 Dispute resolution

Part 1 Appeal rights

229 Appeals to tribunal or P&E Court

(1) Schedule 1 states—

(a) matters that may be appealed to—

(i) either a tribunal or the P&E Court; or

(ii) only a tribunal; or

(iii) only the P&E Court; and

(b) the person—

(i) who may appeal a matter (the ***appellant***); and

(ii) who is a respondent in an appeal of the matter; and

(iii) who is a co-respondent in an appeal of the matter; and

(iv) who may elect to be a co-respondent in an appeal of the matter.

(2) An appellant may start an appeal within the appeal period.

(3) The ***appeal period*** is—

(a) for an appeal by a building advisory agency—10 business days after a decision notice for the decision is given to the agency; or

(b) for an appeal against a deemed refusal—at any time after the deemed refusal happens; or

(c) for an appeal against a decision of the Minister, under chapter 7, part 4, to register premises or to renew the registration of premises—20 business days after a notice is published under section 269(3)(a) or (4); or

(d) for an appeal against an infrastructure charges notice—20 business days after the infrastructure charges notice is given to the person; or

(e) for an appeal about a deemed approval of a development application for which a decision notice has not been given—30 business days after the applicant gives the deemed approval notice to the assessment manager; or

(f) for an appeal relating to the *Plumbing and Drainage Act 2018*—

(i) for an appeal against an enforcement notice given because of a belief mentioned in the *Plumbing and Drainage Act 2018*, section 143(2)(a)(i), (b) or (c)—5 business days after the day the notice is given; or

(ii) for an appeal against a decision of a local government or an inspector to give an action notice under the *Plumbing and Drainage Act 2018*—5 business days after the notice is given; or

(iii) for an appeal against a failure to make a decision about an application or other matter under the *Plumbing and Drainage Act 2018*—at anytime after the period within which the application or matter was required to be decided ends; or

(iv) otherwise—20 business days after the day the notice is given; or

(g) for any other appeal—20 business days after a notice of the decision for the matter, including an enforcement notice, is given to the person.

Note—

See the P&E Court Act for the court's power to extend the appeal period.

(4) Each respondent and co-respondent for an appeal may be heard in the appeal.

(5) If an appeal is only about a referral agency's response, the assessment manager may apply to the tribunal or P&E Court to withdraw from the appeal.

(6) To remove any doubt, it is declared that an appeal against an infrastructure charges notice must not be about—

(a) the adopted charge itself; or

(b) for a decision about an offset or refund—

(i) the establishment cost of trunk infrastructure identified in a LGIP; or

(ii) the cost of infrastructure decided using the method included in the local government's charges resolution.

230 Notice of appeal

(1) An appellant starts an appeal by lodging, with the registrar of the tribunal or P&E Court, a notice of appeal that—

(a) is in the approved form; and

(b) succinctly states the grounds of the appeal.

(2) The notice of appeal must be accompanied by the required fee.

(3) The appellant or, for an appeal to a tribunal, the registrar, must, within the service period, give a copy of the notice of appeal to—

(a) the respondent for the appeal; and

(b) each co-respondent for the appeal; and

(c) for an appeal about a development application under schedule 1, section 1, table 1, item 1—each principal submitter for the application whose submission has not been withdrawn; and

(d) for an appeal about a change application under schedule 1, section 1, table 1, item 2—each principal submitter for the application whose submission has not been withdrawn; and

(e) each person who may elect to be a co-respondent for the appeal other than an eligible submitter for a development application or change application the subject of the appeal; and

(f) for an appeal to the P&E Court—the chief executive; and

(g) for an appeal to a tribunal under another Act—any other person who the registrar considers appropriate.

(4) The ***service period*** is—

(a) if a submitter or advice agency started the appeal in the P&E Court—2 business days after the appeal is started; or

(b) otherwise—10 business days after the appeal is started.

(5) A notice of appeal given to a person who may elect to be a co-respondent must state the effect of subsection (6).

(6) A person elects to be a co-respondent to an appeal by filing a notice of election in the approved form—

(a) if a copy of the notice of appeal is given to the person—within 10 business days after the copy is given to the person; or

(b) otherwise—within 15 business days after the notice of appeal is lodged with the registrar of the tribunal or the P&E Court.

(7) Despite any other Act or rules of court to the contrary, a copy of a notice of appeal may be given to the chief executive by emailing the copy to the chief executive at the email address stated on the department's website for this purpose.

231 Non-appealable decisions and matters

(1) Subject to this chapter, section 316(2), schedule 1 and the P&E Court Act, unless the Supreme Court decides a decision or other matter under this Act is affected by jurisdictional error, the decision or matter is non-appealable.

(2) The *Judicial Review Act 1991*, part 5 applies to the decision or matter to the extent it is affected by jurisdictional error.

(3) A person who, but for subsection (1) could have made an application under the *Judicial Review Act 1991* in relation to the decision or matter, may apply under part 4 of that Act for a statement of reasons in relation to the decision or matter.

(4) In this section—

decision includes—

(a) conduct engaged in for the purpose of making a decision; and

(b) other conduct that relates to the making of a decision; and

(c) the making of a decision or the failure to make a decision; and

(d) a purported decision; and

(e) a deemed refusal.

non-appealable, for a decision or matter, means the decision or matter—

(a) is final and conclusive; and

(b) may not be challenged, appealed against, reviewed, quashed, set aside or called into question in any other way under the *Judicial Review Act 1991* or otherwise, whether by the Supreme Court, another court, any tribunal or another entity; and

(c) is not subject to any declaratory, injunctive or other order of the Supreme Court, another court, any tribunal or another entity on any ground.

232 Rules of the P&E Court

(1) A person who is appealing to the P&E Court must comply with the rules of the court that apply to the appeal.

(2) However, the P&E Court may hear and decide an appeal even if the person has not complied with rules of the P&E Court.

ATTACHMENT 5

Infrastructure Charges Notice

In accordance with the Infrastructure Charges Resolution (No. 10) dated 5 October 2022 or as amended, there is no Infrastructure Charges applicable to the development.