

Groundwater Impact Assessment

Former Corrimal Coke Works, Stage 2-4 Civil Works Development

27 Railway Street
Corrimal NSW 2518

Project No. 25234
Version 1

11 December 2025

Reditus Consulting Pty Ltd
ABN: 34 631 168 502



Desktop Hydrogeological Assessment

Former Corrimal Coke Works, Stage 2-4 Civil Works Development

27 Railway Street, Corrimal NSW 2518

Prepared for LegPro 70 Pty Ltd ATF LegPro 70 Unit Trust c/- Legacy Property Pty Ltd

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Executive Summary

This Groundwater Impact Assessment (GIA) has been prepared by Reditus Consulting Pty Ltd (Reditus) to accompany a State Significant Development Application (**SSDA**) which seeks development consent for facilitating civil works and subdivision to support a concurrent Stage 2a Built Form SSDA (SSD-83789711) and the future redevelopment of Stages 2-4 of the Corrimal Coke Works Precinct. The civil works proposed by this SSDA include the construction of the Central Park, the Southern Park, and roads, drainage and stormwater infrastructure, and paper subdivision.

This GIA has been prepared to address the requirements of the Secretary's Environmental Assessment Requirements (SEARs) Item 12.

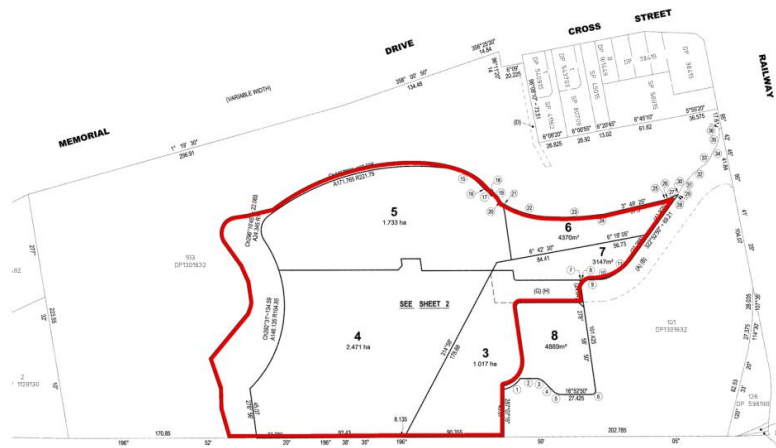
This civil works SSDA was declared as State Significant Development (**SSD**) in the State Significant Development Declaration Ministerial Order (No 10) 2025 (dated 30 June 2025) at Clause 5(1)(n) in Schedule 1 (Amendment SSD Declaration Order 2025 (No 5)). The project and site description are presented in the table below.

DESCRIPTOR	SITE DETAILS
Proponent / Applicant	Legpro 70 Pty Ltd ATF Legpro 70 Unit Trust (Legacy)
Site Ownership	Illawarra Coke Company
SSD Reference	SSD-86131212 [SEARs issued 3 July 2025]
Project Name	Corrimal Coke Works - Stage 2-4 Early Stage (Civil) Works
Street Address	Corrimal Coke Works, 27 Railway Street, Corrimal
Country	Dharawal Country
Project Description	<p>The civil works SSDA seeks development consent for the following works:</p> <ul style="list-style-type: none">• Torrens subdivision to create nine (9) new title lots (referred to as Lot200, Lot 201, Lot 202, Lot 203, Lot 204, Lot 300, Lot 301, Lot 302, and Lot303 in DP1313981).• Detailed civil works associated with the construction of local roads and drainage works relevant to future Stages 2-4. [Note. The detailed civil works will be enabled by the outcomes of the approved Stages 2- 4 Bulk Earthworks DA (which includes vegetation management and creek alignment / embellishment works) (reference: DA-2023/823)].• Construction of the Central Park (including embellishment works, lawn areas, landscaping, tree planting, equipment, and services).• Construction of the Southern Park (including embellishment works, lawn areas, landscaping, tree planting, equipment, and services).• Public domain works (landscaping, street tree planting, paving).• Reticulation of site services and infrastructure (electricity, telecommunication, water, and sewer).
Existing Legal Description	<p>The existing legal property description of the former Corrimal Coke Works site is Lot 101 DP1301632, Lot 201 DP1308649, Lot 202 DP1308649, and Lot 103 DP1301632 (registered titles). The former Corrimal Coke Works site boundary extent is identified in blue below.</p> <p>The proposed works associated with the civil works SSDA extend across Lot 201 DP1308649 (part), Lot 202 DP1308649, and Lot 103 DP1301632 (part).</p>

The land to which the civil works SSDA relates is identified in **red** below.



Note. On September 2025, Wollongong City Council approved a development application for the paper subdivision of the former Corrimal Coke Works site to create eight (8) new Torrens Title lots (DA-2025/388). The new lots are described as Lot 1 - Lot 8 in DP1313981. The new lots have not yet been registered with the NSW Land Registry Services. However, it is anticipated that formal registration will occur prior to the determination of the subject civil works SSDA. For information only, the below identifies in **red** the land to which the civil works SSDA will relate at the point the newly created lots (approved by DA-2025/388) are formally registered.



Site Area

The area of the land to which the Stage 2-4 Civil Works SSDA relates is 66,226 sqm. This land is identified in the image above in **red**.

More broadly, the area of the Corrimal Coke Works site is 18.2 hectares.

Existing Development

Existing features across the Corrimal Coke Works site are as follows:

- Structures and infrastructure associated with the former coke work use have been demolished under the Demolition DA (DA-2022/1249).

- Towradgi Creek forms the southern boundary of the site and drains in a west to east direction. A tributary of the Creek traverses the site. The western portion of the site is occupied by scattered bush and stockpiling areas.

Separate development applications (DAs) have been lodged to Wollongong City Council, and either have been determined or are under assessment. These DAs propose works relating to subdivision, built form (apartment buildings), bulk earthworks, and vegetation management.

Heritage

The site, in part, is subject to the following heritage listings:

- Local heritage listing in the Wollongong LEP 2009 (ID 6607); and
- State heritage listing on the State Heritage Register in the NSW Heritage Act 1977 ('Corrimal Coke Works Site' , Item No. 02061)

Local Context

The site has an irregular rectangular configuration and is bounded by:

- East boundary: main southern railway line (Corrimal Train Station)
- West boundary: dual carriageway (Memorial Drive)
- North boundary: Railway Street
- South boundary: Towradgi Creek

Regional Context

The site is approximately 1km to the east of the Corrimal Town Centre.

Corrimal is approximately 6.5 kilometres north of Wollongong City Centre.

The site is located within close proximity to education and recreation facilities, including the Corrimal High School, Corrimal East Public School, Robert Ziems Park, Corrimal Memorial Park, Towradgi Beach Park, and Bowls and Recreation Club.

The findings of the report include characterisation of the existing environment at the site in relation to the hydrogeological regime, and a review of impacts to the groundwater environment as a result of the proposed development, review of legislation and policy relating to the development, and mitigation measures for the identified impacts. A summary of the findings include:

- Groundwater data was collected from monitoring wells installed for the Stage 2a area of the development. Groundwater level data collected from these monitoring wells found that four of the eight wells were dry. The highest standing water level recorded over the period between 28 August and 21 November 2025 was 13.09 mAHD at monitoring well location RED_MW05.
- Groundwater recharge was influenced by rainfall at three locations (RED_MW01, RED_MW02 and RED_MW05), whilst location RED_MW03 did not show a change in groundwater level as a response to rainfall.
- No groundwater users are found within 1.0 km of the site.
- No high or very-high priority GDEs were found within the site boundary or within 1.0 km of the site.
- Groundwater sampling at RED_MW02 and RED_MW05 as well as surface water sample locations (S2, S3 and S4) found that there were minor exceedances of metals and nutrients above the ANZG (2018) 95% Fresh and Marine water species protection criteria. These exceedances are considered to be typical of the ambient shallow groundwater conditions and manageable under the future Construction Environmental Management Plans (CEMP's) at the site.
- No dewatering requirements have been identified for the proposed Stage 2-4 Civil Works, however should any additional cutting or excavation be required, additional review of this groundwater assessment should be undertaken to determine whether the activity will constitute an aquifer interference in line with the NSW DPIE *Aquifer Interference Policy*



Minimal impacts have been identified as a result of the proposed development, and are manageable with appropriate mitigation measures and include:

- The proposed development will increase the impervious areas during the construction phase through compaction of soils from plant movement, and as a result of on-going operation through an increase in hardstand areas. This may cause a reduction in infiltration and recharge into the aquifer below the site. This reduction in infiltration can be managed through deep soil drainage, permeable landscapes and pavements and appropriate Water Sensitive Urban Design (WSUD).
- Chemical spillages during the construction phase that may leak into the groundwater system. These impacts can be managed through the appropriate storage of hazardous liquids and use of bunded areas. Also with suitable training of personal involved in the handling and storage of such chemicals.
- As the impacts from the civil works are considered negligible, cumulative impacts at the property and surrounds are not expected to be exacerbated by the proposed development.



1 Introduction

1.1 Commissioning

This Groundwater Impact Assessment (GIA) has been prepared by Reditus Consulting Pty Ltd (Reditus) to accompany a State Significant Development Application (**SSDA**) which seeks development consent for facilitating civil works and subdivision to support a concurrent Stage 2a Built Form SSDA (SSD-83789711) and the future redevelopment of Stages 2-4 of the Corrimal Coke Works Precinct. The civil works proposed by this SSDA include the construction of the Central Park, the Southern Park, and roads, drainage and stormwater infrastructure, and paper subdivision (herein referred to as 'the site'). The location and layout of the site is presented on **Figures F1 and F2** in **Appendix A**.

This GIA has been prepared to address the requirements of the Secretary's Environmental Assessment Requirements (SEARs) Item 12 - Ground and Groundwater Conditions.

This civil works SSDA was declared as State Significant Development (**SSD**) in the State Significant Development Declaration Ministerial Order (No 10) 2025 (dated 30 June 2025) at Clause 5(1)(n) in Schedule 1 (Amendment SSD Declaration Order 2025 (No 5)). The project and site description are presented in the table below.

Table 1 Project and Site Description

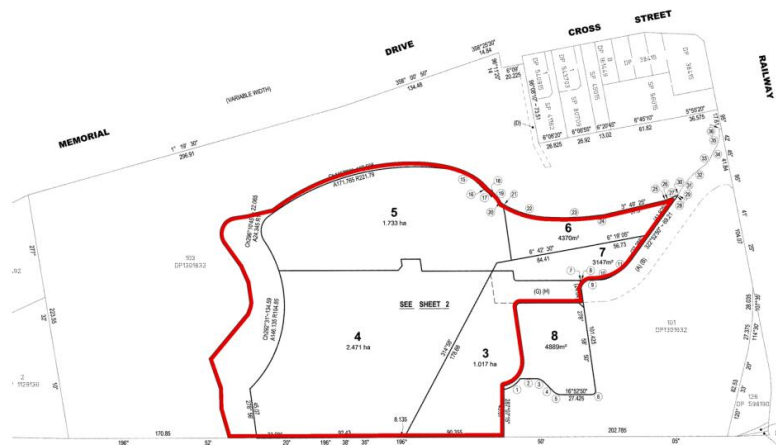
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Water Sharing Plan

Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2023

Groundwater Source

Sydney Basin South Groundwater Source¹

1.2 Objectives

The primary objectives of the Preliminary Groundwater Impact Assessment were to:

- Collate desktop and publicly available hydrological and hydrogeological information applicable to the proposed development site to enable completion of the groundwater impact assessment.
- Characterise the existing groundwater regime, including authorised users and groundwater dependent ecosystems (GDEs).
- Provide details of the proposed development layout for the Bulk Excavation Works.
- Determine the potential impacts of the development on groundwater dependent ecosystems (GDEs), water supply works, surface water resources including downstream assets and watercourses.
- Provide management and mitigation strategies to minimise adverse environmental impacts because of construction and ongoing operation of the development.

1.3 Scope of Works



To meet the above objectives, the following scope of work was undertaken:

- A desktop preliminary assessment, including data obtained from fieldworks and review of previous reports where available to assess:
 - The environmental setting, with regard to climate, geology, topography, hydrology and hydrogeology.
 - Review of nearby licenced water works approvals.
 - Review of any previous reports / investigations prepared at the site.
- A review of relevant groundwater policy, legislation, regulations, and guidelines.
- Review of construction proposal details relevant to groundwater.
- Determine potential impacts to groundwater caused by the Stage 2-4 CW.
- Preparation of this Groundwater Impact Assessment (this document).

1.4 Limitations

A detailed statement of limitations for this report is provided in **Section 12**.

This report is based on the Scope of Work outlined above in **Section 1.3**. Reditus prepared this report in a manner consistent with the normal level of care and expertise exercised by members of the environmental and hydrogeological assessment profession.

This report relates only to the objectives stated and does not relate to any other work undertaken for the Client (LegPro 70 Pty Ltd ATF LegPro 70 Unit Trust c/- Legacy Property Pty Ltd). It is a report based on the information reported in previous environmental and geotechnical assessments by others, and data made available to Reditus. These conditions stated in this report may change with time and space.

All conclusions regarding the property area are the professional opinions of Reditus, subject to the qualifications in the report. Whilst normal assessments of data reliability have been made, Reditus assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of Reditus, or developments resulting from situations outside the scope of this project. The client acknowledges that this report is for the exclusive use of the client.



2 Document and Data Review

The following documents specific to the site were utilised for preparation of this report:

- SDG Pty Ltd (15 August 2025) Ground Level Surveys, 27 Railway Street, Corrimal (ref: 9117)
- DKO Architecture (NSW) Pty Ltd (2025) Architectural Plans for Stages 2-4, Corrimal Coke Works, Corrimal, NSW 2518 (ref: 13687).
- DKO Architecture (NSW) Pty Ltd (August 2020) Staging Plan, Corrimal Coke Works, Corrimal, NSW 2518 (ref: 11877).
- Douglas Partners Pty Ltd (May 2023a) Report on Geotechnical Investigation, Proposed Corrimal Coke Works Redevelopment Bulk Earthworks, 27 Railway Street, Corrimal (ref: 78653.13).
- Douglas Partners Pty Ltd (May 2023b) Report on Geotechnical Investigation, Proposed Medium Density Developments, 27 Railway Street, Corrimal (ref: 78653.15).
- Reditus Consulting Pty Ltd (2020) – Data Gap Investigation, 27 Railway Street, Corrimal NSW (ref: 19149RP01).
- Reditus Consulting Pty Ltd (2022) – Consolidated Detailed Site Investigation, Former Corrimal Coke Works, Railway Street, Corrimal NSW (ref:22158RP04).
- Reditus (2024) Remediation Action Plan, Bulk Earthworks - Stage 2-4 Redevelopment - Former Corrimal Coke Works, Railway Street, Corrimal NSW (ref: 22158RP07).
- Reditus (2025) Acid Sulfate Soil Assessment, Stage 2-4 Bulk Earth Works Redevelopment Site, Former Corrimal Coke Works, Railway Street, Corrimal NSW (ref: 24326LTR20_v1)



3 Legislative Context

3.1.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) is the primary legislation governing land use planning and development assessment in NSW. It provides a comprehensive legal framework for the management, development, and conservation of both natural and built environments. The Act aims to ensure that development is carried out in a sustainable manner, balancing economic growth with environmental protection.

Key components of the Act include the establishment of planning instruments such as local environmental plans (LEPs), development control plans (DCPs), and state environmental planning policies (SEPPs). These instruments guide decision-making processes and set out the rules and standards for development. The Act also outlines the procedures for development assessment, including the requirements for development applications, public participation, and the consideration of environmental impacts.

This project has been declared an SSD under the State Environmental Planning Policy (State and Regional Development) 2011 and as such, this Preliminary Groundwater Impact Assessment has been conducted.

3.1.2 PROTECTION OF THE ENVIRONMENT OPERATIONS (POEO) ACT 1997

The POEO Act 1997 and its associated schedules and regulations are directly relevant to SSDs. In particular, the Act includes requirements prohibiting the pollution of waters, preventing or minimising air and noise pollution, regarding maintenance and operation plant in a proper and efficient condition/manner, and for minimising and managing wastes.

The Act also requires notification to the NSW Environmental Protection Authority (EPA) and Council, when a pollution incident occurs that causes or threatens material harm to the environment (including discharges above the set limits to the stormwater and where any unacceptable impact to the receiving waters is identified).

3.1.3 NSW WATER QUALITY OBJECTIVES (2006)

The NSW Water Quality Objectives are the agreed environmental values and long-term goals for NSW's surface waters. They set out:

- The community's values and uses for our rivers, creeks, estuaries and lakes (i.e., healthy aquatic life, water suitable for recreational activities like swimming and boating, and drinking water).
- A range of water quality indicators to help us assess whether the current condition of our waterways supports those values and uses.

3.1.4 WATER ACT 1912 AND WATER MANAGEMENT ACT 2000

Dewatering for construction purposes is classified as an aquifer interference activity under the NSW Aquifer Interference Policy 2012.

WaterNSW are responsible for waters work approvals under the provisions of the Water Management Act 2000 (WMA) which includes regulation of all aquifer interference activities within Water Sharing Plan management areas. WaterNSW also are responsible for water works approvals for all groundwater extraction in areas outside Water Sharing Plan management areas, as well as State Significant Developments.

While minor aquifer interference activities works are generally exempt from the full extent of the WMA 2000, an application for "Approval for Water Supply Works and/or Water Use" (previously known as a Dewatering Licence) is required, regardless of the total volume of groundwater extracted is expected to exceed <3 ML per year. A Water Access License (WAL), or written approval from WaterNSW/NRAR if no licence is required, must be obtained prior to commencement. The Stage 2-4 CW are not expected to intercept groundwater.

Further information on the aquifer interference policy and licencing requirements are available from the WaterNSW website.

3.2 Policies and guidelines

3.2.1 NSW AQUIFER INTERFERENCE POLICY 2012

The purpose of the NSW Aquifer Interference Policy 2012 is to explain the role and requirements of the Minister administering the WMA in the water licensing and assessment processes for aquifer interference activities under the WMA and other relevant legislative frameworks. The NSW Aquifer Interference Policy 2012:

1. Clarifies the requirements for obtaining water licences for aquifer interference activities under NSW water legislation; and
2. Establishes and objectively defines considerations in assessing and providing advice on whether more than minimal impacts might occur to a key water-dependent asset.

The Stage 2-4 CW are not expected to intercept groundwater, therefore the proposed works would not be aquifer interference under the NSW Aquifer Interference Policy (2012).

Licensing of water taken through aquifer interference

A water licence is required under the WMA (unless an exemption applies, or water is being taken under a basic landholder right) where any act by a person carrying out an aquifer interference activity causes:

- The removal of water from a water source; or
- The movement of water from one part of an aquifer to another part of an aquifer; or
- The movement of water from one water source to another water source, such as:
 - from an aquifer to an adjacent aquifer; or
 - from an aquifer to a river/lake; or
 - from a river/lake to an aquifer.

A licence for the removal of water from a water source may be required for the development.

3.2.2 WATER SHARING PLANS (WSPS)

WSPs are being progressively developed for rivers and groundwater systems across NSW following the introduction of the Water Management Act 2000. WSPs made under the WMA are being prepared as Minister's plans under Section 50 of the Act. These plans protect the health of our rivers and groundwater while also providing water users with perpetual access licences, equitable conditions, and increased opportunities to trade water through separation of land and water.

WSPs provide a legislative basis for sharing water between the environment and consumptive purposes. Under the WMA, a plan for the sharing of water must protect each water source and its dependent ecosystems and must protect basic landholder rights.

The site is located within the following WSP:

- Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources (2023) – Sydney Basin South Groundwater Source.

Water sharing plan for the Greater Metropolitan region groundwater sources (2023) – Sydney Basin South Groundwater Source

The Sydney Basin South Groundwater Source bounded by the coast to the east, Kangaroo River to the east and the Nepean Management Zone. The groundwater source ranges from north of Wollongong to Nerriga in the south. National parks cover much of the southern and western portion of the groundwater source and the bore distribution is concentrated to the north-east around Camden and the south-western areas around Moss Vale. The geology consists predominantly of sedimentary rocks of the Sydney Basin, which includes coal measures, shales and sandstone

The long-term average annual extraction limit (LTAAEL) is 50,584 ML/yr (2023).



4 Proposed Development

4.1 Development Details

The stage 2-4 Civil works SSDA seeks development consent for the following works:

- Torrens subdivision to create nine (9) new title lots (referred to as Lot200, Lot 201, Lot 202, Lot 203, Lot 204, Lot 300, Lot 301, Lot 302, and Lot303 in DP1313981).
- Detailed civil works associated with the construction of local roads and drainage works relevant to future Stages 2-4. [Note. The detailed civil works will be enabled by the outcomes of the approved Stages 2- 4 Bulk Earthworks DA (which includes vegetation management and creek alignment / embellishment works) (reference: DA-2023/823)].
- Construction of the Central Park (including embellishment works, lawn areas, landscaping, tree planting, equipment, and services).
- Construction of the Southern Park (including embellishment works, lawn areas, landscaping, tree planting, equipment, and services).
- Public domain works (landscaping, street tree planting, paving).
- Reticulation of site services and infrastructure (electricity, telecommunication, water, and sewer).



5 Geological Setting

5.1 Topography

A detail survey of the site was undertaken by SGD Pty Ltd (2025), which is included in **Appendix B**.

The site shows significant undulations with numerous peaks and troughs across the wider site area. The northern portion of the site (Stage 1 development) has a maximum elevation of 16 m Australian Height Datum (AHD), whilst the southern portion of the site (wider site area) sits at the lowest site elevation of 4 mAHD. At the time of this report, the northern and eastern portions of the site were in the process of being graded for the purposes of the Stage 1 developments. The grade is non-uniform across the site area, with grades varying between 20% and 40%.

Two connected surface water dams are located in the central portion of the site which discharge into Corrimal Creek. Towradgi Creek is located along the southern boundary of the site where the confluence with North Corrimal Creek is located at the south-eastern corner of the site before flowing out to the east towards Corrimal Beach and the Pacific Ocean.

5.2 Geology and Soil Landscape

The Wollongong – Port Hacking 1:100 000 Geological Series Sheet (Department of Mines, 1985) indicates that the site is underlain by the Erin Vale Formation (mapping unit P_{ie} , comprising fine to medium grained lithic sandstone) and Pheasants Nest Formation (mapping unit P_{pc} , comprising interbedded lithic sandstone, coal, carbonaceous claystone, siltstone and claystone). Both rock units belong to the Illawarra Coal Measures of Permian age, which cover almost all of the site and are mantled by alluvium (mapping unit Q_{al} , comprising quartz and lithic “fluvial” sand, silt and clay) associated with North Corrimal Creek and Towradgi Creek.

The soil landscape likely to be found on the site is Gwynneville. The Gwynneville residual soil landscape typically comprises shallow brown podzolic soils and xanthozems on upper slopes, lithosols on simple slopes and shallow brown earths on midslopes and lower slopes (Department of Planning, Industry and Environment, 2020, soil landscapes of central and eastern NSW v2.1).

5.3 Acid Sulfate Soils

Acid sulfate soils (ASS) occur predominantly on coastal land with elevations generally below 5 m Australian Height Datum (AHD). These soils also occur further inland in saline seepage areas, rivers, lake beds and irrigation channels. Where present, drawdown of the local water table can expose ASS to oxidising conditions creating acidity and mobilising metals at potentially harmful concentrations.

Review of the Wollongong Local Environmental Plan (2009) maps much of the wider site including the Stage 2-4 development as Acid Sulphate Soils Class 5 with approximately 3% of the wider site is mapped as Class 3 land. The Class 3 land which is located along the southern boundary of the wider site adjacent to Towradgi Creek and is not proposed to be disturbed by the Stage 2-4 CW development. The Class 3 land is mapped at an RL of less than 4m AHD, while the deepest invert of the Stage 2-4 CW is 12.465 m AHD, as such these areas are not proposed to be disturbed as part of these works.

The Wollongong Local Environmental Plan (2009) defines Class 5 ASS as:

- Development consent is required for the carrying out of works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum and by which the water table is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.

Reditus completed additional assessment works relating to the potential for Acid Sulfate Soils to be present within the Stage 2-4 areas. These were reported in *Acid Sulfate Soil Assessment. Proposed New Creek Alignment, Stage 2-4 Bulk Earth Works Redevelopment Site. Former Corrimal Coke Works, Railway Street, Corrimal NSW* dated 23 September 2025.



Based on the additional field observations and soil analytical results, it was concluded that:

- The field and analytical results of the ASS assessment did not identify indicators of AASS at the site for the soil sampling locations assessed to date.
- The sulfur trail is not indicative of RIS and PASS requiring management. Therefore, the soils proposed for excavation as part of the proposed development are not considered to present a potential ASS risk.

Even though the recent investigations did not identify the presence of any ASS/PASS requiring management, an Acid Sulfate Soil Management Plan (ASSMP), a precautionary approach was recommended and an ASSMP (Reditus, 2025) was prepared for the site.

6 Hydrology

6.1 Regional Drainage Catchments and Waterways

Wollongong City Council LGA is incorporated by several drainage catchments across the LGA. The drainage catchment specific to the site is the Towradgi Creek Catchment (Towradgi Creek Flood Study, Floodplain Risk Management Study and Plan, WCC, 2023). Towradgi Creek Catchment includes the following surface water features specific to the site:

- North Corrimal Creek enters the site at the north-western boundary and flows in a south-easterly direction through the site, converging with Towradgi Creek near the central portion of the southern site boundary. North Corrimal Creek functions as a secondary tributary within the Towradgi Creek and receives urban stormwater runoff from mostly residential and commercial lands including existing groundwater inflows from areas that are steeply incised.
- Towradgi Creek receives urban runoff from the Towradgi Creek Catchment which is approximately 7.5 km² in area and includes the suburbs of Tarrawanna, Corrimal, East Corrimal and Towradgi. Including the following smaller tributaries:
 - South Angels Creek;
 - North Angels Creek;
 - South Corrimal Creek;
 - North Corrimal Creek;
 - Carr Creek (sometimes locally known as Jones Creek); and,
 - Parker Creek.
- The entrance of Towradgi Creek (at the ocean) to Towradgi Lagoon is defined as an Intermittently Closed or Open Lake or Lagoon (ICOLL). Council have adopted an Entrance Management Policy (2007), which provides operational details on when entrance should be opened if conditions and resources permit. The entrance has historically been opened naturally during flood events.

6.1.1 WATERWAYS

A figure excerpt taken from the Towradgi Creek Catchment Flood Study (WCC, 2019) shows the waterways surrounding the site within the Towradgi Creek Catchment area and is presented in Figure 1 below. These waterways are discussed in Table 2 below, in regards to Strahler stream classification system, key fish habitats and whether the waterways are sensitive receiving environments.

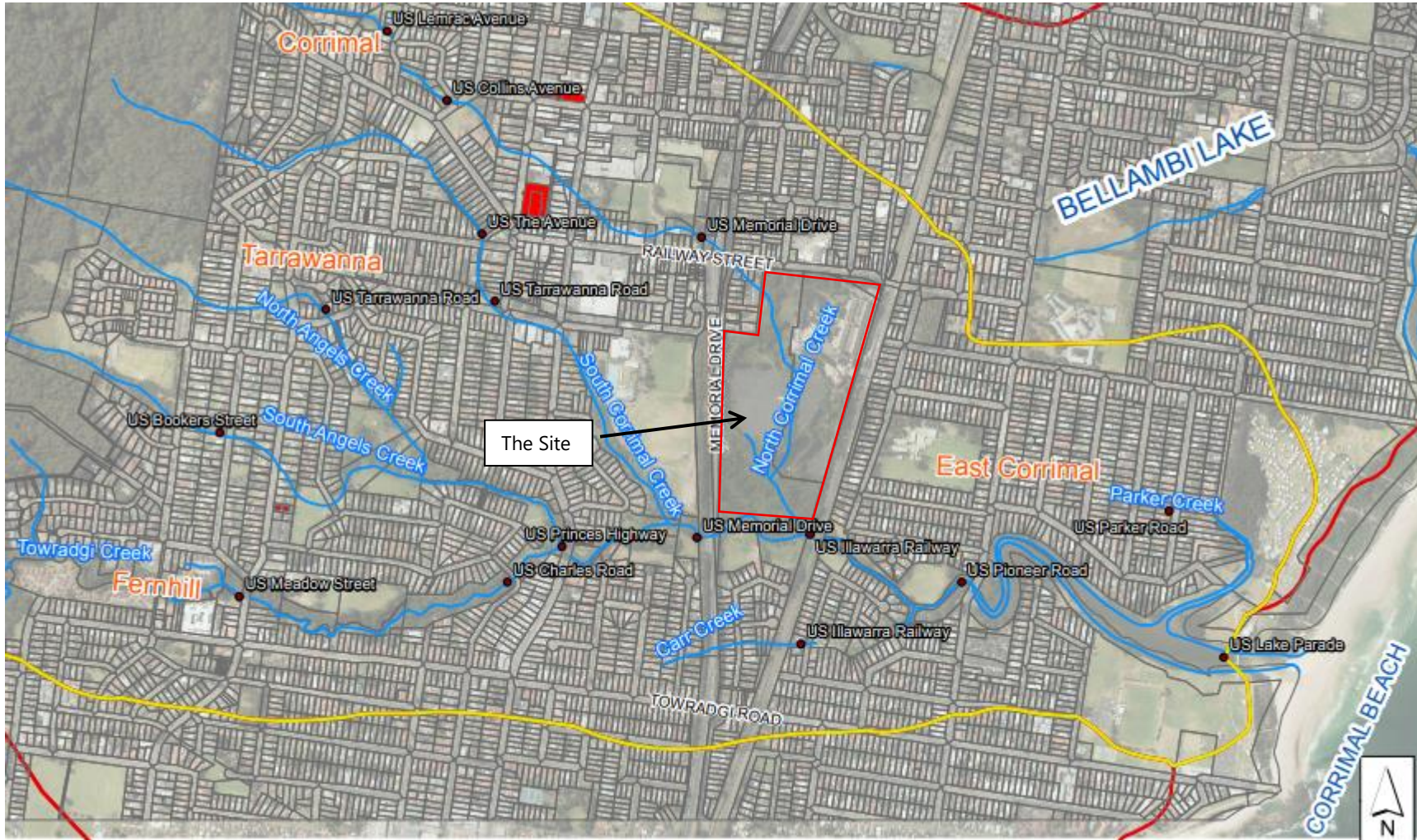


Figure 1 Waterways surrounding the site within the Towradgi Creek Catchment (Towradgi Creek Flood Study, WCC 2019)



Table 2 Waterways within close proximity to the Site and determination of SRE

WATERWAY	DISTANCE FROM SITE	STRAHLER STREAM ORDER	KEY FISH HABITAT	OTHER RELEVANT FEATURES	SRE DETERMINATION
Towradgi Creek	On-site	Third	Yes	Towradgi Creek flows generally towards the east before discharging to the Ocean	SRE – Moderate Towradgi Creek is determined to be a Moderate sensitive receiving environment
North Corrimal Creek	On-site	Second	No	North Corrimal Creek flows to the south-east before joining Towradgi Creek.	SRE – Low North Corrimal Creek is determined to be a low sensitive receiving environment.
South Corrimal Creek	150 m west	Second	No	South Corrimal Creek flows to the south-east before joining Towradgi Creek.	SRE – Low South Corrimal Creek is determined to be a low sensitive receiving environment.
North Angel Creek	400 m west	Second	No	North Angel Creek flows to the east before joining Towradgi Creek.	SRE – Low North Angel Creek is determined to be a low sensitive receiving environment.
South Angel Creek	400 m west	Second	No	South Angel Creek flows to the east before joining Towradgi Creek.	SRE – Low South Angel Creek is determined to be a low sensitive receiving environment.
Carr Creek	300 m south	Second	No	Carr Creek flows to the east before joining Towradgi Creek.	SRE – Low Carr Creek is determined to be a low sensitive receiving environment.
Parker Creek	950 m east	Second	Yes	Parker Creek flows to the south before joining Towradgi Creek.	SRE – Moderate Parker Creek is determined to be a moderate sensitive receiving environment.



6.1.2 FLOODING ASSESSMENT

A flood study was conducted on the Towradgi Creek (WCC, 2023). The Towradgi Creek Flood Study assesses flood risks in the Towradgi Creek catchment. The study uses TUFLOW and LiDAR survey data to estimate flood levels and map flood extents for various flood sizes, from common to extreme events. It aims to inform land-use planning, assess risks for future development, and evaluate potential flood mitigation measures.

Results of the model indicate that the site is subject to flood risk due to the proximity of North and South Corrimal Creeks, however the higher areas of hydraulic hazard are generally contained to the creek corridor. The creek realignment is also noted in the flood study.

6.2 Surface Water Quality Sampling

Surface water samples were collected by Reditus on 28 August 2025 from three (3) locations along North Corrimal Creek and Towradgi Creek (S2, S3 and S4). The locations have been sampled as part of the baseline sampling events to characterise the water quality of North Corrimal Creek prior to discharge of treated groundwater following the dewatering of the Stage 1 development (which has a separate approval). Locations of S2, S3 and S4 are shown on **Figure 3, Appendix A**. Surface water samples were analysed for the following suite:

- Turbidity, Total suspended solids (TSS), Total Organic Carbon (TOC) and Sodium absorption ration (SAR).
- Nutrients including ammonia as N (NH₃), nitrite (NO₂), Nitrate (NO₃), Total Kjeldahl Nitrogen (TKN), organic nitrogen (Norg), nitric oxide (NOX), total nitrogen (N), total phosphorus (P) and phosphate (PO₄).
- Metals including aluminium (Al), antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), boron (B), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), lead (Pb), lithium (Li), manganese (Mn), mercury (Hg), molybdenum (Mo), nickel (Ni), selenium (Se), silver (Ag), strontium (Sr), uranium (U), vanadium (V) & zinc (Zn).
- Major ions (Calcium, Sodium, Potassium, Magnesium, Chloride, Sulfate, Carbonate, Bicarbonate, Hardness and Total Alkalinity).
- EC, pH, Redox, DO
- TRH.
- BTEX.
- PAHs
- OCP (trace level), OPP (low level) and PCB (low level)
- Pathogens, including faecal coliforms, faecal enterococci and E.coli.

Surface water analytical results were compared against ANZG (2018) Freshwater and Marine 95% species protection criteria and ANZECC (2000) default trigger values for physical and chemical stressors for south-east Australia for slightly disturbed ecosystems. Results were found to be below the criteria except for the following:

- Copper (filtered) at locations SW_S2-01, SW_S3-01 and SW_S4-04 (3 µg/L) exceeded the ANZG (2018) Fresh and Marine 95% species protection criteria (1.3 µg/L).
- Zinc (filtered) at locations SW_S2-01 (12 µg/L) and SW_S3-01 (9 µg/L) exceeded the ANZG (2018) Fresh and Marine 95% species protection criteria (8 µg/L).
- Aluminium (filtered) at locations SW_S2-01 (60 µg/L), SW_S3-01 (110 µg/L) and SW_S4-04 (120 µg/L) exceeded the ANZG (2018) Fresh water 95% species protection criteria (55 µg/L).
- Ammonia at location SW_S3-01 (50 µg/L) exceeded the ANZECC (2000) trigger values for south-east Australia slightly disturbed ecosystems (20 µg/L)
- Total Nitrogen at locations SW_S2-01 (1,400 µg/L), SW_S3-01 (1,300 µg/L) and SW_S4-01 (1,400 µg/L) exceeded the ANZECC (2000) trigger values for south-east Australia slightly disturbed ecosystems (500 µg/L)
- Reactive Phosphorous at locations SW_S2-01 (50 µg/L), SW_S3-01 (50 µg/L) and SW_S4-01 (40 µg/L) exceeded the ANZECC (2000) trigger values for south-east Australia slightly disturbed ecosystems (20 µg/L).

Results from the surface water sampling are presented in **Table C2, Appendix C**



6.3 Surface Water / Groundwater Interaction

An assessment of the surface water and groundwater interaction at North Corrimal Creek and Towradgi Creek was conducted in order to determine if it is a gaining or losing stream (i.e. if it discharges water to groundwater or if it gains water from groundwater). This was assessed by determining the long-term trends of surface water (in North Corrimal Creek and Towradgi Creek) and groundwater (in monitoring wells RED_MW09, RED_MW10 and RED_MW11) elevations.

Groundwater elevations at the monitoring wells in the northern part of the site located adjacent to North Corrimal Creek (RED_MW09 and RED_MW10) indicates that North Corrimal Creek is losing as groundwater elevations are below the creek water elevations (i.e., the creek is approximately 12.5 mAHD, and RED_MW09 is approximately 9.8 mAHD). Conversely, groundwater elevation to the south of the site is above the creek invert, indications that it is gaining (i.e. approximately 8.7 mAHD at location RED_MW11, with a creek invert of less than 4 mAHD). As such, it is determined that the creek operates as both gaining and losing throughout the site.



7 Hydrogeological Setting

The site is located within the Sydney Basin South Groundwater Source, which is managed under the WMA 2000 through the Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2023.

The groundwater system within the development extent on the site is described as:

- **Semi-Confined/Confined Weathered and Fractured Sandstone Aquifer:** Semi-confined/confined groundwater system within weathered and fractured sandstone/shale/siltstone of the Pheasants Nest Formation.

The depth to the bedrock in the Stage 1 area of the proposed development (north of Stages 2-4) has been mapped at between 6 and 8 m with some areas at greater than 10 metres. Monitoring wells installed near the basement footprints of the Stage 2a development to depths of <5 m below ground level (bgl) did not reach depth of bedrock. Shallow perched groundwater was observed in two monitoring wells which were screened within fill material (carbonaceous material) and alluvium. It is expected that the depth to bedrock in the Stage 2-4 development areas would be at similar depths (6-10 mbgl) to the Stage 1 area. Groundwater storage within the bedrock sequence would be dominated by secondary porosity within the open bedding planes and fractures. The intensity, connectivity and orientation of the fracture network would determine the groundwater flow direction and velocity.

A review of Hydrogeology map of Australia (Geoscience Australia) indicates that site aquifers are fractured or fissured, extensive aquifers of low to moderate productivity.

7.1 Climate

Rainfall data was obtained from the Bureau of Meteorology weather stations at Bellambi AWS (068228) to create a monthly rainfall data set representative of the Site. The rainfall data from Bellambi AWS ranges from 1997 to 2025.

The Bellambi AWS is located approximately 2.0 km from east of the Site, with a rainfall record spanning from 1997 to 2025 (current), which is considered suitable to provide long-term average rainfall data for the Site. A summary of the long-term monthly average rainfall is presented on Table 3 below.

Table 3 Average Rainfall

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Average Rainfall	86.7	150.5	123.5	103.5	85.0	111.0	87.1	88.5	59.5	79.5	99.9	76.8

7.2 Groundwater Monitoring Wells

Several groundwater investigations have been completed at the wider site area. Groundwater monitoring wells installed at the site as part of the Stage 1 development are summarised as follows:

- MW1 to MW5 were installed by Environmental Strategies in 2014 during the DSI. It is noted that these monitoring wells have been lost/destroyed.
- MW12 to MW14 were installed by Arcadis in 2018 during further additional groundwater investigations at the site.
- RCMW01 to RCMW03 were installed by Reditus in 2020 during the DGI. It is noted that RCMW01 and RCMW02 have been destroyed.
- Groundwater monitoring wells MW501, MW503 and MW507 were installed by Douglas Partners in March 2023 during the Geotechnical Investigation. These groundwater wells were utilised by Reditus for hydrogeological assessment purposes at the site.
- Groundwater monitoring wells RW01 through to RW06 (inclusive) were installed by Reditus in April 2024 to confirm the hydrogeological model of the shallow water bearing zone and were also utilised for hydrogeological assessment purposes for the Stage 1 development.



- Groundwater monitoring test pits were constructed on the 17th February within the basement footprint and then surveyed and the water levels determined within those pits on the 18th February 2025.
- The Stage 1 monitoring wells have been installed to depths ranging between RL 6.4 mAHD to 12.0 mAHD.

The groundwater monitoring wells (RED_MW01-RED_MW08) were installed as part of the Stage 2a development, whilst monitoring wells RED_MW09 and RED_MW10 were installed as part of the surface water / groundwater interaction purposes by Reditus in August 2025. Monitoring wells RED_MW01 to RED_MW08 were installed to approximately 0.5m below the bulk excavation levels (BELs) of the Stage 2a basement excavations. A summary of the well installation details are presented in Table 4 below

The groundwater monitoring well locations are provided in **Figure 3, Appendix A**. Copies of borehole drilling logs and well construction logs are provided in **Appendix D**.

Table 4 Monitoring Well installation summary

WELL ID	SURFACE ELEVATION		WELL DEPTH		SCREEN DEPTH	SCREENED LITHOLOGY
	mAHD	mBGL	mAHD	mBGL	mAHD	
RED_MW01	12.12	2.47	9.65	0.47-2.47	11.65-9.65	Carbonaceous material and alluvial silty clay
RED_MW02	11.54	1.96	9.58	0.46-1.96	11.08-9.58	Carbonaceous material and alluvial silty clay
RED_MW03	13.03	3.0	10.03	2-3	11.03-10.03	Alluvial silty clay
RED_MW04	12.99	2.27	10.72	0.77-2.27	12.22-10.72	Carbonaceous material and alluvial silty clay
RED_MW05	13.08	2.35	10.73	0.35-2.35	12.73-10.73	Carbonaceous material
RED_MW06	14.44	3.22	11.22	2.42-3.22	12.02-11.22	Alluvial silty clay
RED_MW07	12.49	4.79	11.42	3.79-4.79	12.42-11.42	Carbonaceous material
RED_MW08	16.21	2.28	11.29	0.28-2.28	13.29-11.29	Carbonaceous material
RED_MW09	-	3.0	-	0.2-3.0	-	Alluvial silty clay and residual clay
RED_MW10	-	6.0	-	3.0-6.0	-	Residual silty clay

7.3 Groundwater Elevations and Inferred Flow Direction

7.3.1 MANUAL MEASUREMENTS

Groundwater manual measurements were recorded at several monitoring wells installed as part of the Stage 2a development (RED_MW01-RED_MW08). A summary of the standing groundwater levels manually measured at the locations is provided in Table 5 below.

It is noted that monitoring wells RED_MW06-RED_MW08 were dry during the groundwater gauging event.

Based on the groundwater level measurements, groundwater within the shallow aquifer in the Stage 2a development is inferred to flow to the west and south-west towards the surface water lake and tributaries of Towradgi Creek in the centre of the Stage 2-4 development.

Table 5 Summary of groundwater elevations between 28 August and 26 September 2025

WELL ID	DATE	GROUND ELEVATION (RL mAHD)	DEPTH TO WATER (mBGL)	GROUNDWATER LEVEL (RL mAHD)
RED_MW01	26 Aug 25	12.12	2.37	9.75
RED_MW02	26 Aug 25	11.54	1.22	10.32
RED_MW03	26 Aug 25	13.03	2.96	10.07
RED_MW04	26 Aug 25	12.99	2.137	10.853
RED_MW05	26 Aug 25	13.08	0.62	12.46
RED_MW06	26 Aug 25	14.44	DRY	-
RED_MW07	26 Aug 25	16.21	DRY	-
RED_MW08	26 Aug 25	13.57	DRY	-
RED_MW09	26 Aug 25	10.5 *	1.135	10.065 *
RED_MW10	26 Aug 25	12.5 *	5.735	7.405 *

RL mAHD – Reduced level metres Australian Height Datum

mBGL – metres below ground level

*Inferred ground elevation based on site survey (SDG, 2025)

7.3.2 GROUNDWATER ELEVATION MONITORING

Daily groundwater elevations were recorded at eight (8) monitoring well locations (RED_MW01 to RED_MW08) from 28 August 2025 to 21 November 2025, approximately 12 weeks. Four of the eight monitoring wells were noted as being dry for the duration of the monitoring period. A hydrograph was created for the recorded monitoring data at locations RED_MW01, RED_MW02, RED_MW03 and RED_MW05 and is presented on Figure 2 below.

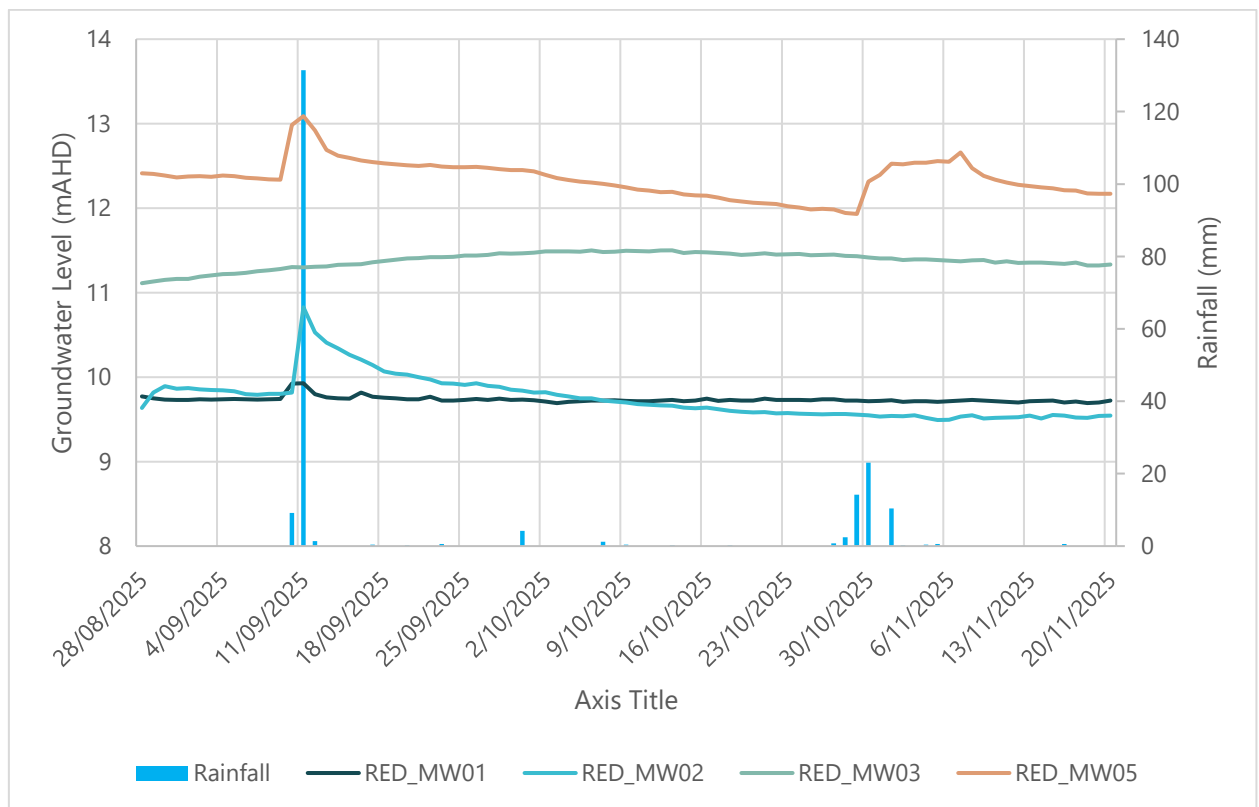


Figure 2 RED_MW01, RED_MW02, RED_MW03 and RED_MW05 recorded groundwater levels from 28 August to 26 September 2025

A summary of groundwater data is presented in Table 6 below. Groundwater contours presented on Figure 2, Appendix A, indicate that the hydraulic gradient in the Stage 2a area (eastern side of the Stage 2-4 development area) slopes to the west towards North Corrimal Creek and Towradgi Creek located in the central portion of the site. Further assessment of groundwater elevation in the remaining areas of the Stage 2-4 development is required to



accurately evaluate groundwater flow direction. It is also noted that proximity to surface water features can distort groundwater contours, reducing confidence in the groundwater flow direction.

The groundwater elevation data presented indicates that groundwater is directly influenced by rainfall at locations RED_MW01, RED_MW02 and RED_MW05. This is expected as these wells were installed and screened directly into the unconsolidated fill materials at the site. Data recorded at location RED_MW03 was screened within the underlying natural shallow alluvial deposit and did not show any indication of change during high rainfall events indicating that groundwater in this location may not be directly influenced by rainfall.

Table 6 Summary of groundwater elevations between 28 August and 26 September 2025

ID	MINIMUM	MAXIMUM	RANGE
	mAHD	mAHD	(m)
RED_MW01	9.69	9.93	0.23
RED_MW02	9.49	10.83	1.33
RED_MW03	11.11	11.50	0.39
RED_MW05	11.93	13.09	1.16

7.4 Hydraulic Conductivity

Rising head slug testing data was obtained from two onsite wells (RED_MW02 and RED_MW05) located on the boundaries of the Stage 2a basement footprint. Outputs generated from computational software are presented in **Appendix D**. This test was completed to measure the change in hydraulic head overtime and to determine the aquifer characteristics of the wells. It is noted that the remaining wells installed as part of the Stage 2a development (RED_MW01, RED_MW03, RED_MW04, and RED_106-RED_MW108) were either dry or did not contain enough water within the well to conduct a slug test.

Following the fieldwork, the data was plotted using both the Bouwer-Rice and Hvorslev Method. Estimates of hydraulic conductivity were calculated and are summarised in **Table 7** below.

Given that groundwater monitoring wells have only been installed for the purposes of assessing hydraulic conductivity values of the shallow aquifer within the immediate vicinity of the Stage 2a basement development, the values provided serve only as preliminary values for the eastern portion of the entire Stage 2-4 development. Further testing is required to be undertaken to accurately characterise the hydraulic conductivity of groundwater across the entire proposed Stage 2-4 development. It is expected that groundwater monitoring wells would be required to be installed to approximately 0.5m below the bulk excavation levels of the Stage 2-4 basement excavations, however as this groundwater impact assessment is focussed on the Stage 2-4 BEW, and groundwater interaction is not expected, these values are considered appropriate for the purpose of the assessment.

Table 7 Hydraulic conductivity estimates

WELL ID	LITHOLOGY	HYDRAULIC CONDUCTIVITY (M/DAY) BOUWER-RICE 1976 SOLUTION (UNCONFINED AQUIFER)		HYDRAULIC CONDUCTIVITY (M/DAY) HVORSLEV 1951 SOLUTION (UNCONFINED AQUIFER)	
		MIN	MAX	MIN	MAX
MW02	Carbonaceous fill material (gravelly sand) and silty clay alluvium	0.305	0.687	0.715	1.80
MW05	Carbonaceous fill material (gravelly sand) and re-worked natural sandy clay	0.464	0.935	1.13	2.24
Minimum:		0.305 m/day			
Maximum:		2.24 m/day			
Mean:		0.721 m/day			
Median:		0.701 m/day			

The above estimates of hydraulic conductivity are noted to be within the range of literature values for silty/gravelly sand (Fitts, C.R. 2013 Groundwater Science (2nd ed. Academic Press).

7.5 Water Quality / Contaminated Sites

7.5.1 GROUNDWATER QUALITY SAMPLING

Groundwater samples were collected by Reditus on 28 August 2025 at two monitoring wells (RED_MW02 and RED_MW05) as well as a duplicate and triplicate sample during the groundwater monitoring event (GME) and were sampled for the following:

- Turbidity, Total suspended solids (TSS), Total Organic Carbon (TOC) and Sodium absorption ration (SAR).
- Nutrients including ammonia as N (NH₃), nitrite (NO₂), Nitrate (NO₃), Total Kjeldahl Nitrogen (TKN), organic nitrogen (Norg), nitric oxide (NO_x), total nitrogen (N), total phosphorus (P) and phosphate (PO₄).
- Metals including aluminium (Al), antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), boron (B), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), lead (Pb), lithium (Li), manganese (Mn), mercury (Hg), molybdenum (Mo), nickel (Ni), selenium (Se), silver (Ag), strontium (Sr), uranium (U), vanadium (V) & zinc (Zn).
- Major ions (Calcium, Sodium, Potassium, Magnesium, Chloride, Sulfate, Carbonate, Bicarbonate, Hardness and Total Alkalinity).
- TRH.
- BTEX.
- PAHs
- Silica, Bromide and Fluoride.
- Pathogens, including faecal coliforms, faecal enterococci and E.coli.

For preliminary assessment purposes, groundwater analytical results were compared against ANZG (2018) Freshwater and Marine 95% species protection criteria and ANZECC (2000) default trigger values for physical and chemical stressors for south-east Australia for slightly disturbed ecosystems. Results were found to be below the criteria with the exception of the following:

- Cobalt (filtered) at location RED_MW02 (9 µg/L) exceeded the ANZG (2018) Marine 95% species protection criteria (1 µg/L).
- Zinc (filtered) at locations RED_MW02 (24 µg/L), RED_MW05 (12 µg/L), DUP01 (13 µg/L) and TRIP01 (11 µg/L) exceeded the ANZG (2018) Marine 95% species protection criteria (8 µg/L).
- Manganese (filtered) at location RED_MW02 (2,400 µg/L) exceeded the ANZG (2018) Freshwater 95% species protection criteria (1,900 µg/L).
- Ammonia at location RED_MW02 (1,600 µg/L) exceeded the ANZECC (2000) trigger values for south-east Australia slightly disturbed ecosystems (20 µg/L)
- NO_x at location RED_MW02 (290 µg/L) exceeded the ANZECC (2000) trigger values for south-east Australia slightly disturbed ecosystems (40 µg/L)
- Total Nitrogen at location RED_MW02 (2,000 µg/L) exceeded the ANZECC (2000) trigger values for south-east Australia slightly disturbed ecosystems (500 µg/L).

Results are presented in **Table 1a, Appendix C**

7.5.2 GROUNDWATER PHYSICOCHEMICAL PARAMATERS

During the GME, monitoring wells were purged using a low-flow pump until water quality physicochemical parameters were stabilised to the adopted stabilisation criteria (where possible). The readings are summarised in Table 8 below.

Table 8 Groundwater Physico-chemical properties

WELL ID	PH	TEMP (°C)	EC (uS/cm)	DO (PPM)	ORP * (mV)	COMMENTS
RED_MW02	6.06	18.5	1,073	1.06	406.2	Pale brown, moderately turbid with no odours or sheen. Fields did not stabilise.
RED_MW05	6.13	17.1	1,600	0.68	418.7	Clear with some suspended solids, no odours or sheen. Fields stabilised

* ORP adjusted to the standard hydrogen electrode (SHE) by adding 199mV to field result.

Based on the physicochemical parameters recorded during the groundwater monitoring event the following observations have been made:

- pH indicated neutral to slightly acidic conditions in the underlying shallow aquifer.
- Electrical conductivity readings indicated a slightly brackish groundwater environment with dissolved salt and inorganics in relatively moderate concentrations.
- Dissolved oxygen (DO) readings indicated hypoxic groundwater.
- ORP results indicate oxidising conditions in the underlying shallow aquifer.

It is noted that the monitoring wells sampled during the GME were installed for the purposes of characterising the groundwater quality in the vicinity of the Stage 2a development basement excavations. Even though basements will not be excavated as part of the proposed works, these wells are still applicable to groundwater quality within the Stage 2-4 area. It is expected that additional monitoring well installation and groundwater quality testing would be required to characterise the groundwater across the entire Stage 2-4 development as part of the future planning submissions related to the built structures.

Given the minor extent of the excavation works, no aquifer interference is expected to occur within the Stage 2-4 CW development area.

7.5.3 CONTAMINATED SITES RECORDS

A search of the public register of licences issued under the POEO Act (1997) identified no Environmental Protection Licence within a 1 km radius of the site.



A search of records held by NSW EPA including the Contaminated Land Record of Notices and the List of Notified Sites under Section 60 of the CLM Act (1997) found that there was two (2) sites located within 1km of the site that were on the List of Notified Sites. The sites are identified as Woolworths Petrol – Corrimal and is located approximately 400m west of the site, and 7-Eleven Corrimal located approximately 700m north-west of the site.

Based on review of publicly available data and aquifer interference activities to occur as part of the proposed Stage 2-4 development, potential sources of groundwater contamination have been identified, these however are not considered significant enough to warrant further investigation. Given the Stage 2-4 BEW do not include aquifer interference activities, no further assessment is required to assess on-site groundwater quality in the vicinity of the Stage 2-4 development prior to the civil works components proceeding.

7.6 Registered Groundwater Bore Search

A search of the WaterNSW Registered Groundwater Bore Database (<https://realtimedata.waternsw.com.au/water.stm>) indicated there are four (4) registered groundwater bores with a 1 km radius of the site. All four bores are used for monitoring purposes and located west of the site.

The closest registered groundwater bore is GW115679, which is located approximately 470 m west of the site. The bore was drilled to 7.0 m and is noted to be screened from 1.5m to 7.0m within clay and gravel fill, clayey sand and sandy clay material. There are no registered groundwater supply bores within a 1 km radius of the site.

7.7 Groundwater Dependant Ecosystems

Groundwater dependent ecosystems (GDEs) are a diverse and important component of biological diversity. The term GDE takes into account ecosystems that use groundwater as part of their survival strategies. GDEs can potentially include wetlands, vegetation, mound springs, river base flows, cave ecosystems, playa lakes and saline discharges, springs, mangroves, river pools, billabongs and hanging swamps and near-shore marine ecosystems.

The groundwater dependence of ecosystems can range from complete to partial reliance on groundwater, such as might occur during droughts. The degree and nature of groundwater dependence will influence the extent to which they are affected by changes to the groundwater system, both in quality and quantity.

Many land and water use activities within a catchment can affect groundwater dependent ecosystem function and viability. It is important to manage these land and water use activities within a regulatory and licensing framework. Risk assessment guidelines for groundwater dependent ecosystems have been developed to operate within the regulatory and licensing framework provided by the Water Management Act 2000 and Water Sharing Plans (WSPs). The guidelines are based on an assessment of various ecological and risk factors that are important to decisions on allowing a proposed activity or development.

WSPs have been developed for groundwater systems in NSW to preserve water resources by establishing rules for sharing water between different types of water uses. The site is located within the following WSP:

- Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2023 – Sydney Basin South Groundwater Source.

There are no very-high or high Priority GDEs (NSW DCCEEW High Ecological Value Aquatic Ecosystems Map 2018) or High Priority GDEs (Water Sharing Plan Greater Metro Source 2023) within a 1.5 km radius of the site. The closest mapped GDE's is 3.5 km west of the site located on the Illawarra escarpment east of the Princes Motorway and West of Tarrawanna.



8 Preliminary Groundwater Impact Assessment

8.1 Construction Phase

8.1.1 DEWATERING

The information suggests that no dewatering activities will be required during the Stage 2-4 Civil Works development program. As such, negligible and minimal impacts to surrounding groundwater users of GDEs is anticipated for the development. It is noted that there is a potential for the requirement for cutting and excavation due to the undulating nature of the site. The depth to groundwater reported in the monitoring wells indicates that this is unlikely to intercept the groundwater should it occur. Additionally, cutting highlighted on the Bulk Earthworks Layout Plan within the Stage 2-4 area is unlikely to intercept groundwater, as these typically include the former filled areas built for roads / access ways / anthropogenic structures as part of the former coke works.

8.1.2 POLLUTANTS AND CHEMICAL CONTAMINATION

The proposed development will involve construction phase works which have the potential to impact groundwater through increased pollutant generation activities that may infiltrate into the aquifer below the site. Potential pollutant generation may include:

- Leaching of heavy metals from construction materials.
- Chemical spillages including hydrocarbons from fluids associated with construction machinery. To reduce the potential for material leaching and chemical spills during construction a site-specific Construction Environmental Monitoring Plan (CEMP) should be developed for the project prior to construction works commencing. In addition all personnel who work with potentially hazardous liquids should be appropriately trained in handling and cleanup techniques.

8.1.3 IMPERVIOUS AREAS

The proposed development will increase the impervious areas during the construction phase through compaction of soils from plant movement, and as a result of on-going operation through an increase in hardstand areas. This may cause a reduction in infiltration and recharge into the aquifer below the site.

8.2 Operational Phase

8.2.1 DEWATERING

As it has been deemed unlikely that the proposed works will intercept groundwater, no dewatering is expected.

8.2.2 IMPERVIOUS AREAS

With reference to the proposed development, it is expected that there will be an increase in impervious areas (roads and footpaths), particularly around carparking and building footprint areas. The likely impacts from the increase in hardstand includes reduced infiltration and recharge into the underlying aquifer. This can potentially have negative long-term effects on drawdown impacts to surrounding GDEs and local bores.



9 Cumulative Impacts

Assessment of the impacts resulting from the proposed development may include the cumulative impacts of developments occurring in the Stage 1 development area, and Stage 2-4 building developments (not included in this stage of work), surrounding area and nearby proposals that have the potential to increase the risks to ground and surface water. Review of Wollongong City Council land zoning in the surrounding area indicates that areas to the north and east are zoned as R3 – Medium density residential, whilst areas to the south and west are zoned as RE1 – Public recreational and R2 – Low density residential. Under the current land zoning, Reditus consider that there is a potential for future medium-density residential developments to have a cumulative environmental impact on the local groundwater.

Reditus note that, for future developments that would have the potential to create a cumulative impact on groundwater, impact assessments would be required to outline the potential impacts of the development. The future management and mitigation strategies would be expected to minimise those impacts.

The cumulative impacts of the Stage 2-4 Civil Works development are considered to be negligible since there is no direct interference with the underlying aquifer and all potential impacts during and post construction can be appropriately managed.



10 Mitigation and Management Measures

Assessment of potential groundwater impacts associated risks during construction works and mitigation measures are presented below.

A summary of impacts to surface water and groundwater during the construction phase, and mitigation measures are presented in Table 9 below.

Table 9 Potential Construction Risks and Mitigation Measures

RISK	PHASE	POTENTIAL IMPACTS	MITIGATION MEASURES
Dewatering	Construction	Although it has been deemed unlikely that excavation will require dewatering during construction phase, drawdown impacts as a result of unexpected excavation or cuttings may occur.	Conduct a groundwater assessment for any unexpected excavation or cutting works. Investigation to involve installation of groundwater wells in the vicinity to assess the potential to intercept the underlying aquifer. Appropriate regulatory approvals should be sought if required.
Impervious Areas	Construction / Operation	Increase overland flow during rain events has potential to transport contaminants and reduce recharge into aquifers	Provide adequate deep soil and permeable landscape areas as vegetation buffer strips. Incorporation were possible, of permeable pavements and appropriate design of stormwater detention including Water Sensitive Urban Design principals.
Chemical spills	Construction	Contaminate the underlying groundwater via seepage into the ground.	Storage of hazardous liquids and refuelling operations to take place in bunded areas to reduce chance of spillage causing impacts. Training of relevant personnel in the appropriate handling and cleanup of hazardous substances. Incorporate water quality monitoring plan into CEMP that will constantly monitor water quality of receiving water bodies.



11 Conclusions

The findings of the report include characterisation of the existing environment at the site in relation to the hydrogeological regime, and a review of impacts to the groundwater and surface water environment as a result of the proposed development, review of legislation and policy relating to the development, and mitigation measures for the identified impacts. A summary of the findings include:

- Groundwater data was collected from monitoring wells installed for the Stage 2a area of the development. Groundwater level data collected from these monitoring wells found that four of the eight wells were dry. The highest standing water level recorded over the period between 28 August and 21 November 2025 was 13.09 mAHD at monitoring well location RED_MW05.
- Groundwater recharge was influenced by rainfall at three locations (RED_MW01, RED_MW02 and RED_MW05), whilst location RED_MW03 did not show a change in groundwater level as a response to rainfall.
- No groundwater users are found within 1.0 km of the site.
- No high or very-high priority GDEs were found within the site boundary or within 1.0 km of the site.
- Groundwater sampling at RED_MW02 and RED_MW05 as well as surface water sample locations (S2, S3 and S4) found that there were minor exceedances of metals and nutrients above the ANZG (2018) 95% Fresh and Marine water species protection criteria. These exceedances are considered to be typical of the ambient shallow groundwater conditions and manageable under the future Construction Environmental Management Plans (CEMP's) at the site.
- No dewatering requirements have been identified for the proposed Stage 2-4 Civil Works, however should any additional cutting or excavation be required, additional review of this groundwater assessment should be undertaken to determine whether the activity will constitute an aquifer interference in line with the NSW DPIE *Aquifer Interference Policy*

Minimal impacts have been identified as a result of the proposed development, and are manageable with appropriate mitigation measures and include:

- The proposed development will increase the impervious areas during the construction phase through compaction of soils from plant movement, and as a result of on-going operation through an increase in hardstand areas. This may cause a reduction in infiltration and recharge into the aquifer below the site. This reduction in infiltration can be managed through deep soil drainage, permeable landscapes and pavements and appropriate Water Sensitive Urban Design (WSUD).
- Chemical spillages during the construction phase that may leak into the groundwater system. These impacts can be managed through the appropriate storage of hazardous liquids and use of bunded areas. Also with suitable training of personal involved in the handling and storage of such chemicals.



12 Limitations

The report or document does not purport to provide legal advice and any conclusions or recommendations made should not be relied upon as a substitute for such advice.

The report does not constitute a recommendation by Reditus for the client (LegPro 70 Pty Ltd ATF LegPro 70 Unit Trust c/- Legacy Property Pty Ltd) or any other party to engage in any commercial or financial transaction and any decision by the client or other party to engage in such activities is strictly a matter for the client.

The report relies upon data, surveys, measurements and results taken at or under the site at particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the client. Furthermore, the report has been prepared solely for use by the client and Reditus accepts no responsibility for its use by other parties. The client agrees that Reditus' report or associated correspondence will not be used or reproduced in full or in part for promotional purposes and cannot be used or relied upon by any other individual, party, group or company in any prospectus or offering. Any individual, party, group or company seeking to rely this report cannot do so and should seek their own independent advice.

No warranties, express or implied, are made. Subject to the scope of work undertaken, Reditus assessment is limited strictly to identifying typical environmental conditions associated with the subject property based on the scope of work and testing undertaken and does not include and evaluation of the structural conditions of any buildings on the subject property or any other issues that relate to the operation of the site and operational compliance of the site with state or federal laws, guidelines, standards or other industry recommendations or best practice. Scope of work undertaken for assessments are agreed in advance with the client and may not necessarily comply with state or federal laws or industry guidelines for the type of assessment conducted.

Additionally, unless otherwise stated Reditus did not conduct soil, air or wastewater analyses including asbestos or perform contaminated sampling of any kind. Nor did Reditus investigate any waste material from the property that may have been disposed off the site, or undertake an assessment or review of related site waste management practices.

The results of this assessment are based upon (if undertaken as part of the scope work) a site inspection conducted by Reditus personnel and/or information from interviews with people who have knowledge of site conditions and/or information provided by regulatory agencies. All conclusions and recommendations regarding the property are the professional opinions of the Reditus personnel involved with the project, subject to the qualifications made above.

While normal assessments of data reliability have been made, Reditus assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of Reditus, or developments resulting from situations outside the scope of this project/assessment.

Reditus is not engaged in environmental auditing and/or reporting of any kind for the purpose of advertising sales promoting, or endorsement of any client's interests, including raising investment capital, recommending investment decisions, or other publicity purposes. Reditus assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of Reditus, or developments resulting from situations outside the scope of this project.

Information relating to soil, groundwater, waste, air or other matrix conditions in this document is considered to be accurate at the date of issue. Surface, subsurface and atmospheric conditions can vary across a particular site or region, which cannot be wholly defined by investigation. As a result, it is unlikely that the results and estimations presented in this report will represent the extremes of conditions within the site that may exist. Subsurface conditions including contaminant concentrations can change in a limited period of time and typically have a high level of spatial heterogeneity.

From a technical perspective, there is a high degree of uncertainty associated with the assessment of subsurface, aquatic and atmospheric environments. They are prone to be heterogeneous, complex environments, in which small subsurface features or changes in geologic conditions or other environmental anomalies can have substantial impact on water, air and chemical movement.

Major uncertainties can also occur with source characterisation, assessment of chemical fate and transport in the environment, assessment of exposure risks and health effects, and remedial action performance. These factors make uncertainty an inherent feature of potentially impacted sites. Technical uncertainties are characteristically several orders of magnitude greater at impacted sites than for other kinds of projects.

Reditus' professional opinions are based upon its professional judgment, experience, and training. These opinions are also based upon data derived from the limited testing and analysis described in this report or reports reviewed. It is possible that additional testing and analysis might produce different results and/or different opinions or other opinions. Reditus has limited its investigation(s) to the scope agreed upon with its client. Reditus believes that its opinions are reasonably supported by the testing and analysis that has been undertaken (if any), and that those opinions have been developed



according to the professional standard of care for the environmental consulting profession in this area at this time. Other opinions and interpretations may be possible. That standard of care may change and new methods and practices of exploration, testing and analysis may develop in the future, which might produce different results.



13 References

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- Wollongong City Council (2019) Towradgi Creek Flood Study, Floodplain Risk Management Study and Plan, Volume 1, (ref: 117027), dated June 2023.

A

Figures





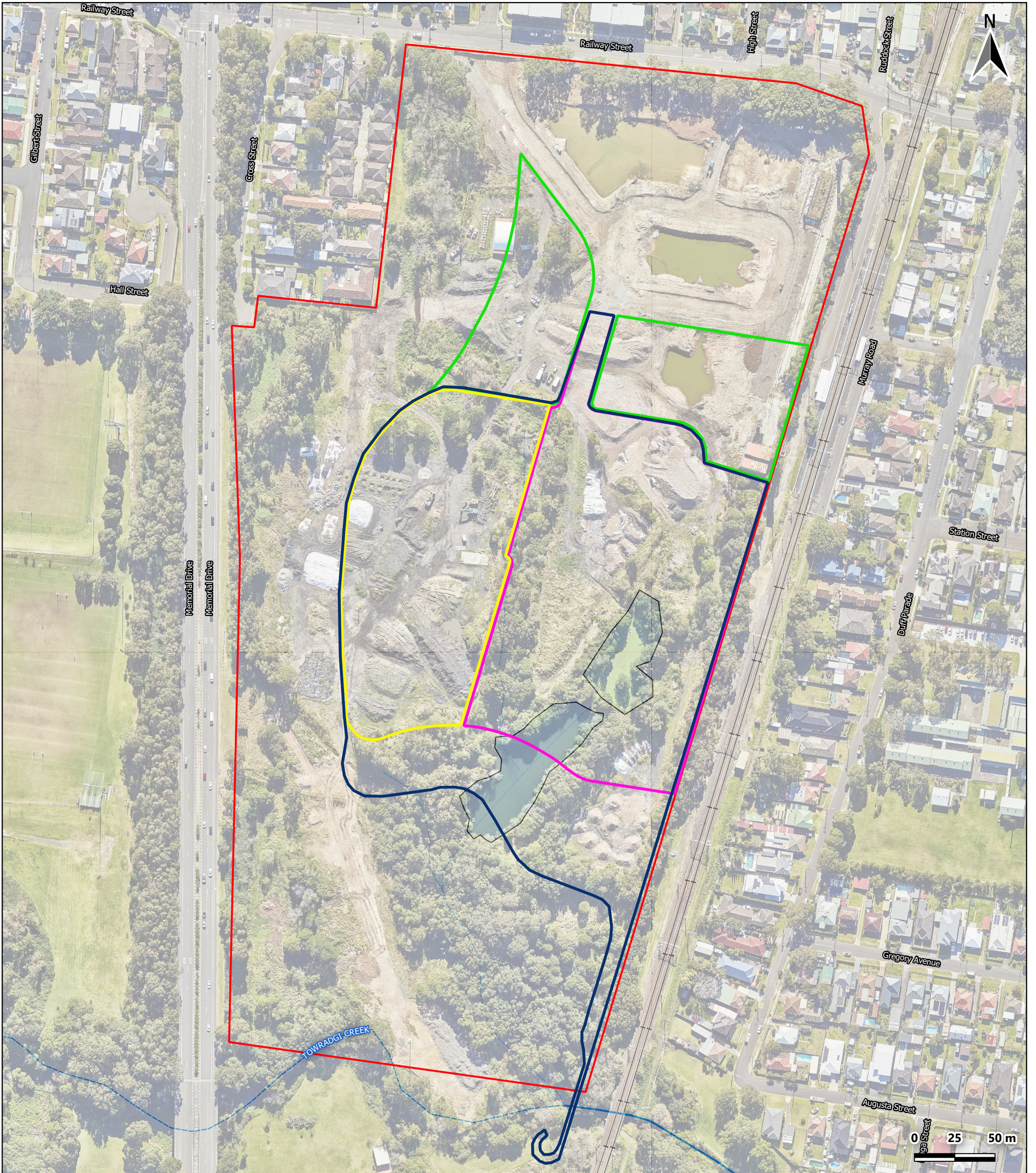
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Date of Export 02/10/2025	
Author TG	Approver SM
Data Source Metromap, Google Maps, Open Street Map, NSW Government	

Legend	
Site Boundary	Rivers
Surface Water	Stream (Perennial)
AU Railways OSM	Stream (Non-Perennial)
	Unnamed Stream (Non-Perennial)
	Other Channels

Figure 1 - Site Location

27 Railway Street, Corrimal NSW

25234RP01 - Groundwater Impact Assessment - Stage 2-4
Civil Works, Corrimal Coke Works
LegPro 70 Pty Ltd ATF LegPro 70 Unit Trust c/- Legacy
Property Pty Ltd



Map	
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Author	Approver
SM	DJ
Data Source	
Metromap, Google Maps, Open Street Map, Geoscience Australia	






Legend	
 Site Boundary	 Stage 3 Area
 Stage 2 to 4 Civil Works Area	 Stage 4 Area
 Stage 2 Area	

Figure 2 - Site Layout

27 Railway Street, Corrimal

25234RP01 - Groundwater Impact Assessment- Stage 2-4 Civil Works, Corrimal Coke Works

LegPro 70 Pty Ltd ATF LegPro 70 Unit Trust c/- Legacy Property Pty Ltd



Map	
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Author	Approver
SM	DJ
Data Source	
Metromap, Google Maps, Open Street Map, Geoscience Australia	

Legend	
Site Boundary	Stage 4 Area
Stage 2 to 4 Civil Works Area	Groundwater Contours (mAHD)
Stage 2 Area	Groundwater Monitoring Well Locations
Stage 3 Area	Surface Water Monitoring Well Locations

Figure 3 - Monitoring Well and Sample Locations

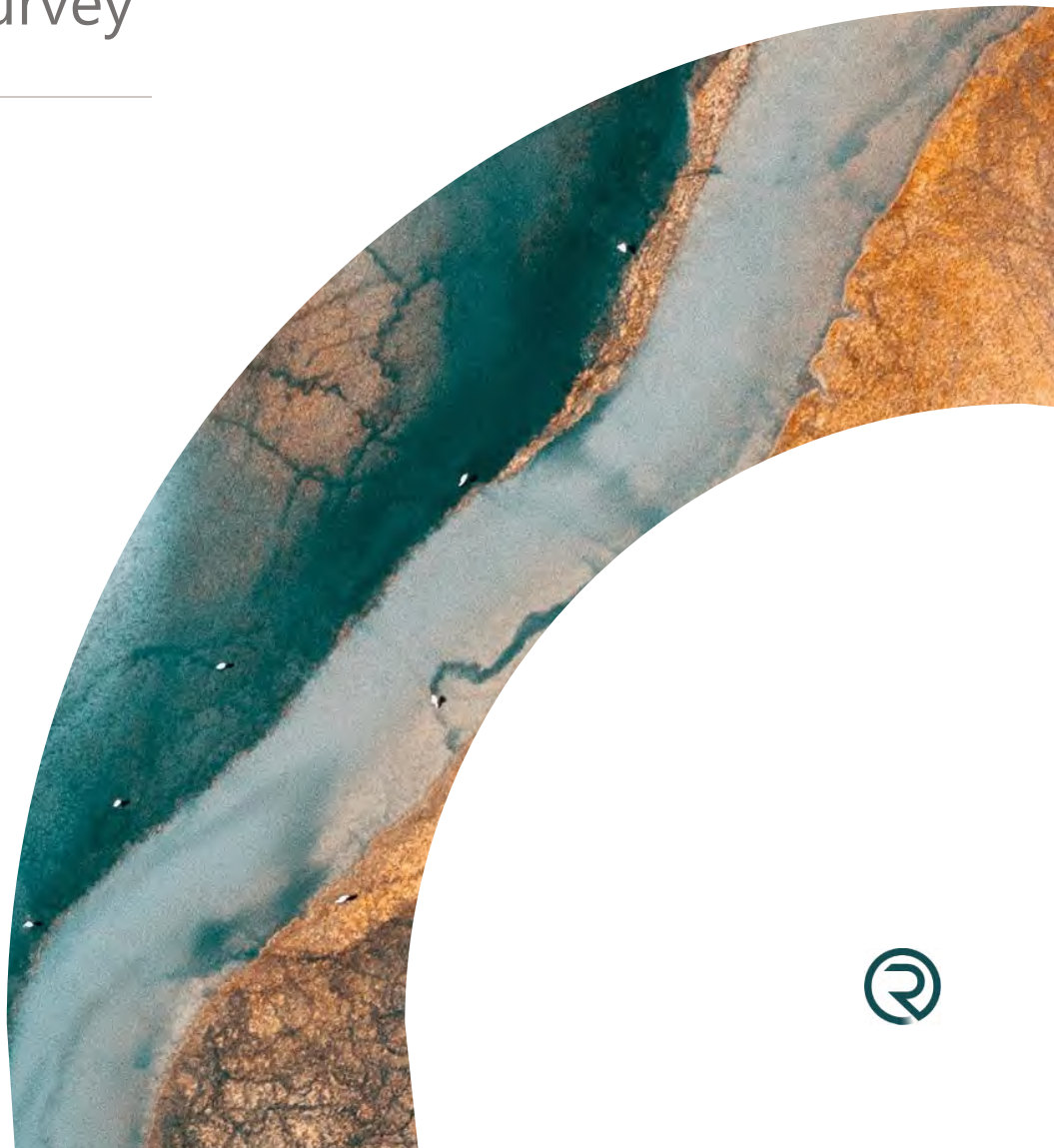
27 Railway Street, Corrimal

25234RP01 - Groundwater Impact Assessment- Stage 2-4 Civil Works, Corrimal Coke Works

LegPro 70 Pty Ltd ATF LegPro 70 Unit Trust c/- Legacy Property Pty Ltd

B

Development Plans & Detailed Survey



CORRIMAL COKE WORKS, STAGE 2-4

27 RAILWAY STREET, CORRIMAL

LOT 102 DP 1301632

CIVIL WORKS PLANS FOR DEVELOPMENT APPLICATION

PLAN NUMBER	DRAWING TITLE
MKR00452-11-C0000	COVER SHEET
MKR00452-11-C0010	NOTES
MKR00452-11-C0030	ZONING LAYOUT PLAN
MKR00452-11-C0040	KEY PLAN
MKR00452-11-C0050	LOT LAYOUT PLAN
MKR00452-11-C0060	STAGING LAYOUT PLAN
MKR00452-11-C0100	CIVIL WORKS LAYOUT PLAN 1 OF 3
MKR00452-11-C0101	CIVIL WORKS LAYOUT PLAN 2 OF 3
MKR00452-11-C0102	CIVIL WORKS LAYOUT PLAN 3 OF 3
MKR00452-11-C0200	BULK EARTHWORKS LAYOUT PLAN
MKR00452-11-C0250	BULK EARTHWORKS SECTIONS PLAN 1 OF 4
MKR00452-11-C0251	BULK EARTHWORKS SECTIONS PLAN 2 OF 4
MKR00452-11-C0252	BULK EARTHWORKS SECTIONS PLAN 3 OF 4
MKR00452-11-C0253	BULK EARTHWORKS SECTIONS PLAN 4 OF 4
MKR00452-11-C0300	TYPICAL ROAD SECTIONS LAYOUT PLAN
MKR00452-11-C0310	TYPICAL ROAD SECTIONS PLAN 1 OF 3
MKR00452-11-C0311	TYPICAL ROAD SECTIONS PLAN 2 OF 3
MKR00452-11-C0312	TYPICAL ROAD SECTIONS PLAN 3 OF 3
MKR00452-11-C0350	CIVIL DETAILS 1 OF 2
MKR00452-11-C0351	CIVIL DETAILS 2 OF 2
MKR00452-11-C0400	PAVEMENT PLAN
MKR00452-11-C0500	LONGITUDINAL SECTIONS ROAD 01
MKR00452-11-C0501	LONGITUDINAL SECTIONS ROAD 03 1 OF 3
MKR00452-11-C0502	LONGITUDINAL SECTIONS ROAD 03 2 OF 3
MKR00452-11-C0503	LONGITUDINAL SECTIONS ROAD 03 3 OF 3
MKR00452-11-C0504	LONGITUDINAL SECTIONS ROAD 04
MKR00452-11-C0505	LONGITUDINAL SECTIONS ROAD 05
MKR00452-11-C0560	LONGITUDINAL SECTIONS PATH 01

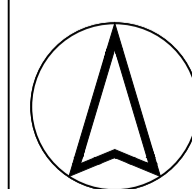
PLAN NUMBER	DRAWING TITLE
MKR00452-11-C0800	STORMWATER LAYOUT PLAN 1 OF 2
MKR00452-11-C0801	STORMWATER LAYOUT PLAN 2 OF 2
MKR00452-11-C1200	CONCEPT BIORETENTION BASIN LAYOUT PLAN
MKR00452-11-C1210	CONCEPT BIORETENTION BASIN SECTIONS PLAN
MKR00452-11-C1250	BASIN DETAILS
MKR00452-11-C1300	CONCEPTUAL ALLOCATIONS LAYOUT PLAN 1 OF 3
MKR00452-11-C1301	CONCEPTUAL ALLOCATIONS LAYOUT PLAN 2 OF 3
MKR00452-11-C1302	CONCEPTUAL ALLOCATIONS LAYOUT PLAN 3 OF 3
MKR00452-11-C1500	SOIL AND WATER MANAGEMENT NOTES AND DETAILS
MKR00452-11-C1501	SOIL AND WATER MANAGEMENT LAYOUT PLAN
MKR00452-11-C1600	RETAINING WALL LAYOUT PLAN
MKR00452-11-C1650	RETAINING WALL LONGSECTION 1 OF 3
MKR00452-11-C1651	RETAINING WALL LONGSECTION 2 OF 3
MKR00452-11-C1652	RETAINING WALL LONGSECTION 3 OF 3
MKR00452-11-C1700	SWEPT PATH KEY PLAN
MKR00452-11-C1701	SWEPT PATH LAYOUT PLAN DESIGN VEHICLES 1 OF 7
MKR00452-11-C1702	SWEPT PATH LAYOUT PLAN DESIGN VEHICLES 2 OF 7
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MKR00452-11-C1704	SWEPT PATH LAYOUT PLAN DESIGN VEHICLES 4 OF 7
MKR00452-11-C1705	SWEPT PATH LAYOUT PLAN DESIGN VEHICLES 5 OF 7
MKR00452-11-C1706	SWEPT PATH LAYOUT PLAN DESIGN VEHICLES 6 OF 7
MKR00452-11-C1707	SWEPT PATH LAYOUT PLAN DESIGN VEHICLES 7 OF 7
MKR00452-11-C1708	SWEPT PATH LAYOUT PLAN CHECK VEHICLES 1 OF 5
MKR00452-11-C1709	SWEPT PATH LAYOUT PLAN CHECK VEHICLES 2 OF 5
MKR00452-11-C1710	SWEPT PATH LAYOUT PLAN CHECK VEHICLES 3 OF 5
MKR00452-11-C1711	SWEPT PATH LAYOUT PLAN CHECK VEHICLES 4 OF 5
MKR00452-11-C1712	SWEPT PATH LAYOUT PLAN CHECK VEHICLES 5 OF 5
MKR00452-11-C1713	SWEPT PATH LAYOUT PLAN ACCESS ROADS AND PARKING BAY
MKR00452-11-C1714	TEMP SWEPT PATH LAYOUT PLAN DESIGN AND CHECK VEHICLES
MKR00452-11-C1900	LOCAL AREA TRAFFIC MANAGEMENT LAYOUT PLAN



LOCALITY DIAGRAM

Alex Gollan, 30/10/2025 11:13 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION COVER SHEET			
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN				
APPROVED:	A.GOLLAN				
NOT FOR CONSTRUCTION		DRAWING NUMBER MKR00452-11-C0000	SHEET No.	ORIG. SIZE	REVISION
				A1	3

GENERAL

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES IN THESE DOCUMENTS SHALL BE REFERRED TO THE SUPERINTENDENT FOR A DECISION BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL CHECK AND BE RESPONSIBLE FOR THE CORRECTNESS OF ALL DIMENSIONS. ANY DISCREPANCY SHALL BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING OFF THE PLANS.
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT AUSTRALIAN STANDARDS, THE BY-LAWS AND ORDINANCES OF THE RELEVANT AUTHORITIES AND THE SPECIFICATIONS.
- NO CHANGES SHALL BE MADE BY THE CONTRACTOR WITHOUT THE WRITTEN CONSENT OF THE SUPERINTENDENT. THE SUPERINTENDENT IS TO CONFIRM THE EXACT EXTENTS ON SITE PRIOR TO COMMENCEMENT.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SAFE WORK PRACTICES ARE FOLLOWED AT ALL TIMES DURING THE COURSE OF THE CONTRACT. OHS REGULATIONS AND WORK COVER REQUIREMENTS ARE TO BE COMPLIED WITH. REFER TO THE SPECIFICATION AND CONTRACT DOCUMENTS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL SURVEY MARKS ARE MAINTAINED. IF THE CONTROL MARKS ARE DESTROYED OR MOVED DURING CONSTRUCTION THE CONTRACTOR MUST SUPPLY ADEQUATE MARKS FOR RE-ESTABLISHMENT AND INFORM THE SUPERINTENDENT.
- CHANGES, REDUCED LEVELS, CHAINAGES, OFFSETS AND ROAD WIDTHS ARE IN METRES UNLESS OTHERWISE SHOWN.
- LIAISE WITH THE APPOINTED SITE SUPERINTENDENT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL SITE FILLING SHALL BE COMPACTED TO 98% STANDARD COMPACTION, CONTROLLED BY THE GEOTECHNICAL ENGINEER OR AS INSTRUCTED BY THE SUPERINTENDENT
- SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED BY THE SUPERINTENDENT.
- ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.
- THE CONTRACTOR SHALL NOT ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE WRITTEN PERMISSION OF THE OWNERS.
- SITE FILL AREAS - THE CONTRACTORS REGISTERED SURVEYOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.
- DRAINAGE LINES UNDER ROADS SHALL BE BACKFILLED WITH NON-COHESIVE SAND, AND THE SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK, DISCHARGING INTO DOWN STREAM PITS.
- ALL CONDUITS AND MAINS SHALL BE LAID PRIOR TO LAYING FINAL ASPHALTIC CONCRETE SEAL.
- STREET NAME SIGNS SHALL BE ERECTED, WHERE SHOWN, IN ACCORDANCE WITH COUNCIL'S STANDARD OR AS DIRECTED BY THE SUPERINTENDENT.
- THE CONTRACTOR SHALL MAINTAIN DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT.
- ALL TREES WITHIN LIMIT OF WORKS TO BE REMOVED UNLESS NOTED AS PER LEGEND. TREES OUT OF LIMIT OF WORKS ZONE ARE TO BE LEFT UNTOUCHED. SHOULD THERE BE ANY IMPACTED TREES OUTSIDE OF WORKS ZONE THE SUPERINTENDENT IS TO BE INFORMED IMMEDIATELY.
- REFER TO CITY COUNCIL'S SPECIFICATION AND STANDARD DRAWINGS OF KERB INLET PIT AND KERB AND GUTTER.
- CONTRACTOR TO PROVIDE STORMWATER KERB DISCHARGE INCLUDING RECTANGULAR HOLLOW SECTION, ADAPTER AND PIPE EXTENDED 0.5m BEYOND THE PROPERTY BOUNDARY AND CAPPED OFF FOR FUTURE CONNECTION.
- PROVIDE FLOODWAY WARNING SIGNS AT APPROPRIATE LOCATIONS AND/OR AS DIRECTED BY COUNCIL'S ENGINEER.

BULK EARTHWORKS NOTES

- BULK EARTHWORKS COVERED UNDER SEPARATE DEVELOPMENT APPLICATION APPROVAL. BULK EARTHWORKS FOR STAGE 2-4 TO OCCUR PRIOR TO CIVIL COMPONENT. EARTHWORK OPERATIONS TO ESTABLISH DESIGN LEVELS AND ROAD SUBGRADE LEVELS FOR ROAD PAVEMENT INSTALLATION TO BE COVERED WITHIN THE STAGE 2-4 CIVIL DA. PLEASE REFER TO MKR0452-16 SET FOR BULK EARTHWORK ENGINEERING DRAWINGS AS ASSESSED UNDER DA-2023/823.

SITE PREPARATION NOTES

- ORIGIN OF LEVELS: AHD. COORDINATES TO MGA - MAP GRID AUSTRALIA
- ASPHALTIC CONCRETE SHALL CONFORM TO R.T.A. FORM R116.
- ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.T.A. FORM 3051 (UNBOUND), R.T.A. FORM 3052 (BOUND) COMPACTED TO A MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m³ OF BASECOURSE MATERIAL PLACED.
- ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.T.A. FORM 3051 AND COMPACTED TO MINIMUM 95% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m³ OF SUB-BASE COURSE MATERIAL PLACED.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATION AND CONTRACT DOCUMENTS.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF WORKS, INCLUDING REPAIR AND/OR REPLACEMENT OF DAMAGED SECTIONS. INSPECTIONS ARE TO BE MADE PERIODICALLY DURING PROLONGED RAINFALL EVENTS AND AFTER STORM EVENTS FOR DAMAGE.
- ALL EXISTING TREES ON THE SITE ARE NOT TO BE DISTURBED OTHER THAN THOSE DESIGNATED ON THE PLANS FOR REMOVAL. THE SUPERINTENDENT IS TO APPROVE ALL TREES TO BE REMOVED. REMAINING TREES MUST BE PROTECTED IN ACCORDANCE TO THE SPECIFICATION.
- WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED OUT BY OTHERS (EG. ADJUSTMENT OF SERVICES). COORDINATION OF THESE WORKS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

SURVEY NOTES

- ALL SITE SET OUT POINTS ARE TO BE CERTIFIED BY A REGISTERED SURVEYOR.
- THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE REGISTERED SURVEYOR. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. MAKER DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
- CONTACT SUPERINTENDENT IF DISCREPANCIES ARE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND FIELD DATA.
- PROJECT COORDINATE SYSTEM USED: MGA-56 (GD494). ALL SETOUT INFORMATION AND DATUM SHALL BE CONFIRMED BY A REGISTERED SURVEYOR PRIOR TO CONSTRUCTION.
- DIGITAL DATA PROVIDED FOR INFORMATION ONLY AND IS NOT TO BE FOR SETOUT UNLESS NOTED OTHERWISE
- PLANS TAKE PRECEDENCE OVER DIGITAL DATA UNLESS NOTED OTHERWISE

ALL NOTES ARE TO BE READ IN CONJUNCTION WITH WOLLONGONG CITY COUNCIL ENGINEERING SPECIFICATIONS. SHOULD A CONFLICT ARISE WOLLONGONG CITY COUNCIL SPECIFICATIONS ARE TO TAKE PRECEDENCE

PROPOSED SERVICES

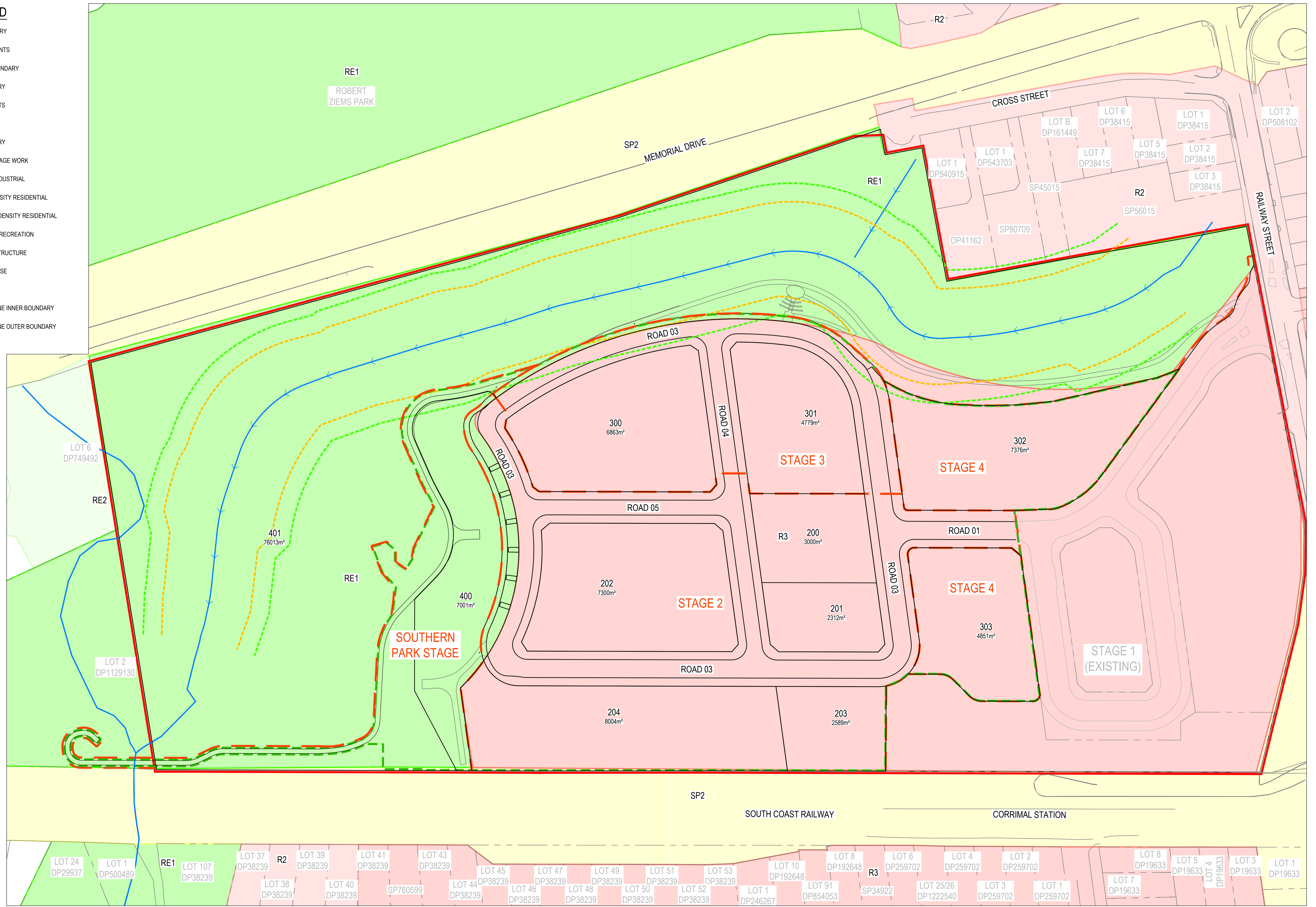
- ALL SERVICES SHOWN ON THIS PLAN ARE APPROXIMATE ONLY AND HAVE BEEN LOCATED FROM SITE INVESTIGATION AND RELEVANT AUTHORITIES' PLANS. THESE SERVICES ARE NOT GUARANTEED CORRECT OR COMPLETE.
- THE CONTRACTOR MUST OBTAIN UP-TO-DATE PLANS FROM DIAL BEFORE YOU DIG BEFORE COMMENCEMENT OF WORKS. THE EXACT LOCATION OF ALL SERVICES ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS.
- EXISTING SERVICES ARE TO BE MAINTAINED OR ADJUSTED AS DETAILED IN THE PLANS. ANY ADJUSTMENT OR PROTECTION MEASURES ARE TO BE CARRIED OUT BY ACCREDITED SERVICE PROVIDERS. REFER ANY CONFLICTS OR UNIDENTIFIED EXISTING SERVICES TO THE SUPERINTENDENT IMMEDIATELY.
- ELECTRICAL CONDUITS SHOULD BE PROVIDED AND LOCATED TO THE SATISFACTION OF ENDEAVOUR ENERGY.
- WATER CONDUITS SHOULD BE PROVIDED TO SUIT WATER MAIN LOCATIONS.
- TELSTRA AND OPTUS CONDUITS PROVIDED AND LOCATED TO THE SATISFACTION OF THE RELEVANT TELECOMMUNICATIONS AUTHORITY.
- ALL SERVICES PIT COVERS AND MARKERS ARE TO BE LAID ENTIRELY WITHIN OR OUTSIDE OF THE CONCRETE FOOTPATH. REFER TO MAKER SERVICE COORDINATION DRAWINGS FOR SERVICE COVER LOCATIONS. CONTACT SUPERINTENDENT SHOULD DIFFICULTIES ARISE.
- WHERE SERVICES COVERS ARE LOCATED WITHIN THE FOOTPATH & ROADWAYS, INFILL COVERS WITH A PAVEMENT SIMILAR TO THAT OF THE FOOTPATH OR ADJACENT ROADWAY SHALL BE USED. PROVIDE CONCRETE INFILL WHERE COVERS ARE WITHIN LANDSCAPE.
- ALL SERVICES COVERS TO BE PLACED AT FINISHED SURFACE LEVELS, ENSURE LONGITUDINAL AND CROSS FALL GRADES MATCH PROPOSED GRADES
- ALL WATER AND SEWER TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT SYDNEY WATER STANDARDS. CARE TO BE TAKEN WHEN INSTALLING HYDRANTS AND STOP VALVES IN THE FOOTPATH.

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



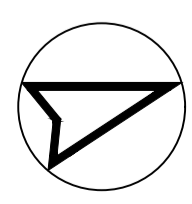
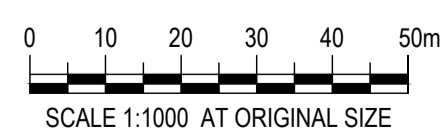
DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION NOTES			
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN				
APPROVED:	A.GOLLAN				
NOT FOR CONSTRUCTION		DRAWING NUMBER MKR00452-11-C0010	SHEET No.	ORIG. SIZE A1	REVISION 3

PROPOSED		LEGEND	
	SITE BOUNDARY		WORKS EXTENTS
	STAGING BOUNDARY		LOT BOUNDARY
	BASIN EXTENTS		BASIN EXTENTS
EXISTING			LOT BOUNDARY
	IN2 - LIGHT INDUSTRIAL		R2 - LOW DENSITY RESIDENTIAL
	R3 - MEDIUM DENSITY RESIDENTIAL		RE1 - PUBLIC RECREATION
	SP2 - INFRASTRUCTURE		WATER COURSE
	OPEN DRAIN		RIPARIAN ZONE INNER BOUNDARY
	RIPARIAN ZONE OUTER BOUNDARY		



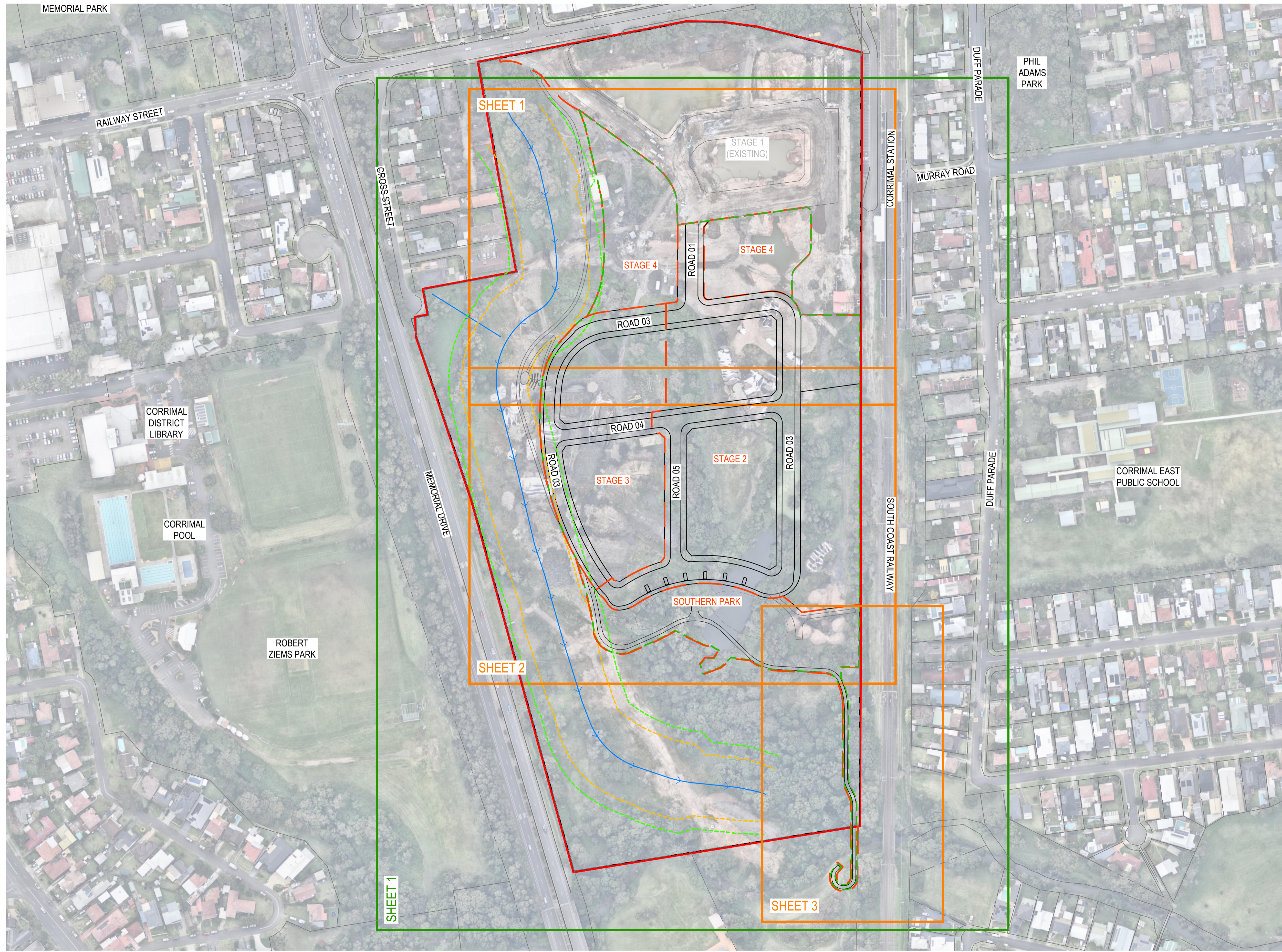
Alex Gollan, 30/10/2025 11:13 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



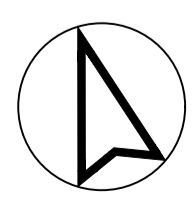
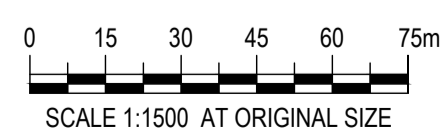
DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION ZONING LAYOUT PLAN			
DRAWING NUMBER MKR00452-11-C0030	SHEET No.	ORIG. SIZE A1	REVISION 3



PROPOSED		LEGEND	
	SITE BOUNDARY		WORKS EXTENTS
	STAGING BOUNDARY		LOT BOUNDARY
	SHEET LAYOUT (1:500 SCALE)		INDICATIVE FUTURE BUILT FORM OUTLINE
	SHEET LAYOUT (1:1000 SCALE)		WATER COURSE
	LOT BOUNDARY		OPEN DRAIN
	INDICATIVE FUTURE BUILT FORM OUTLINE		RIPARIAN ZONE INNER BOUNDARY
	LOT BOUNDARY		RIPARIAN ZONE OUTER BOUNDARY

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

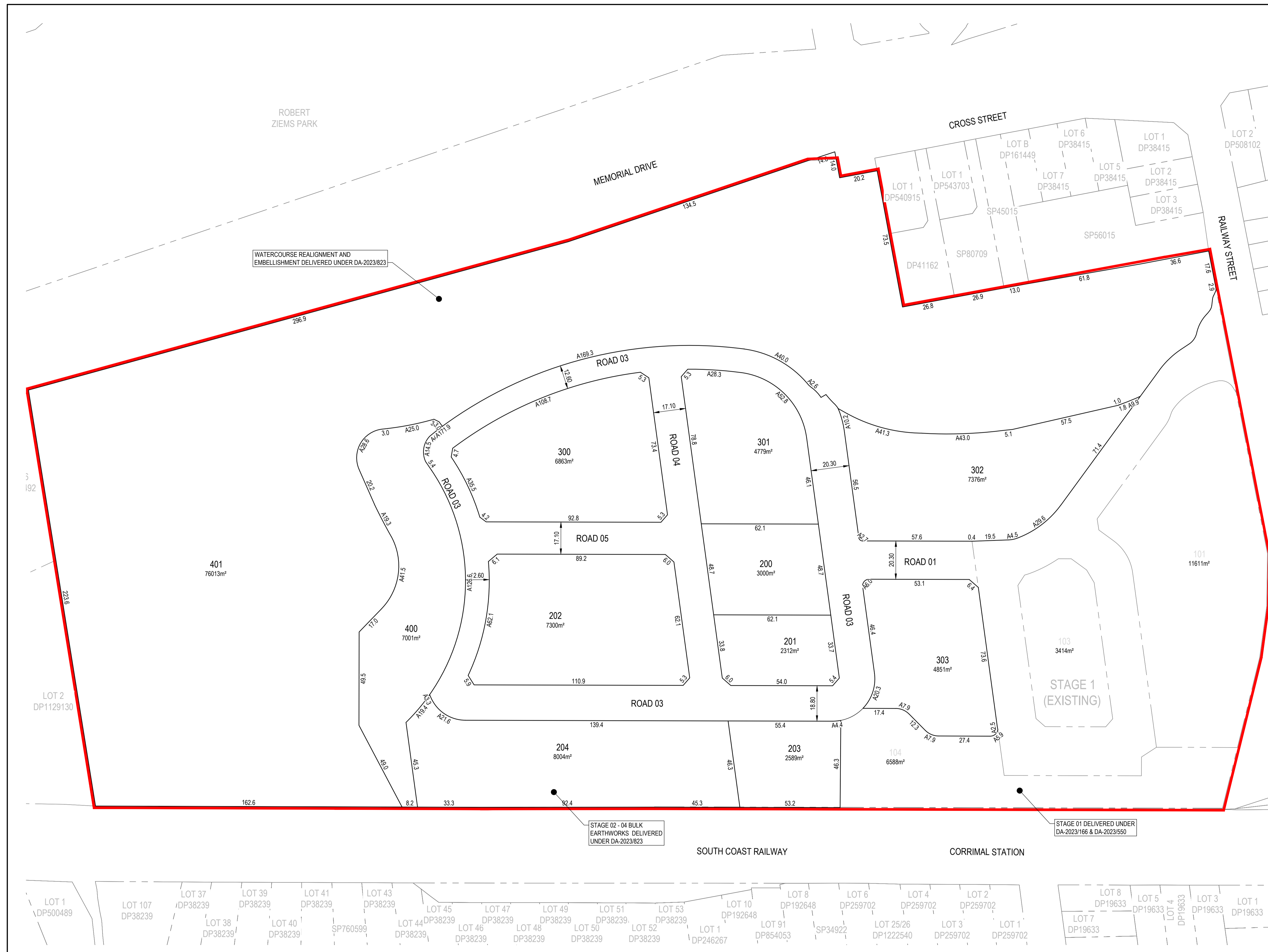
**CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
KEY PLAN**

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C0040		A1	3

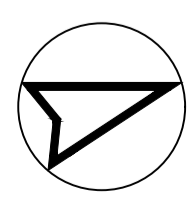
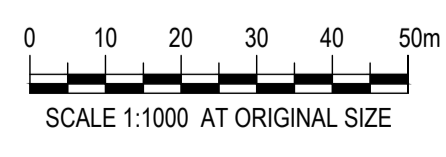
Alec Gollan, 30/10/2025 10:57 AM

PROPOSED		LEGEND	
	SITE BOUNDARY		LOT BOUNDARY
	LOT BOUNDARY		EXISTING STAGE 1 LAYOUT
	EXISTING		LOT BOUNDARY

- NOTES:**
- FURTHER EASEMENT RESTRICTIONS MAY APPLY
 - FINAL BOUNDARY AND EASEMENT ARRANGEMENT SUBJECT TO BOUNDARY DEFINITION BY REGISTERED SURVEYOR
 - INDICATIVE DIMENSIONS ROUNDED TO THE NEAREST 0.1m. REFER TO REGISTERED SURVEY PLANS FOR DIMENSIONS



REV	DATE	DESCRIPTION	AMD BY	APP BY
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2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

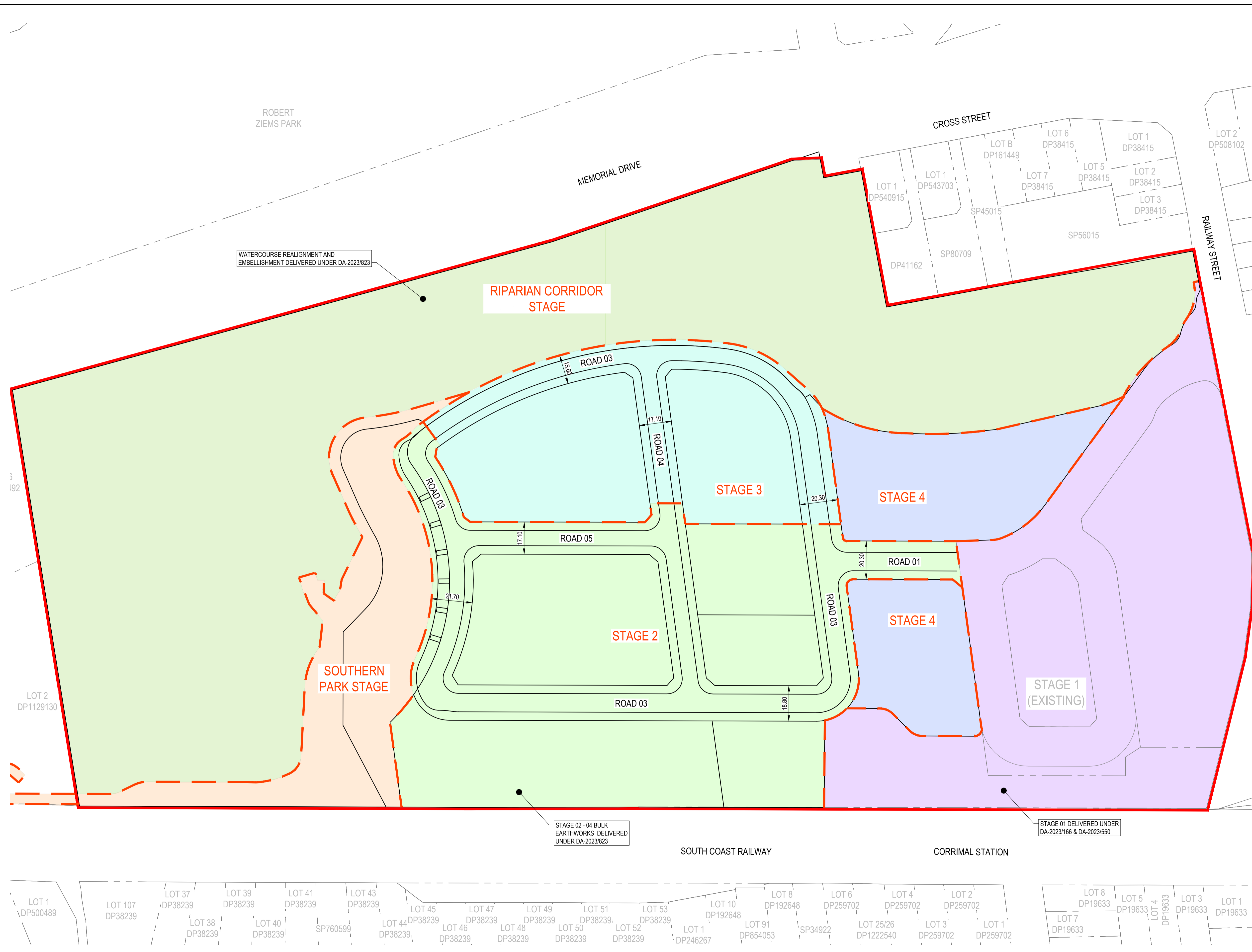


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DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	
NOT FOR CONSTRUCTION	

**CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
LOT LAYOUT PLAN**

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C0050		A1	3

Alec Gollan, 30/10/2025 10:59 AM



PROPOSED

- SITE BOUNDARY
- STAGING BOUNDARY
- LOT BOUNDARY
- STAGE 02
- STAGE 03
- STAGE 04
- SOUTHERN PARK

PREVIOUS STAGE

- EXISTING STAGE 1 LAYOUT
- STAGE 01
- RIPARIAN CORRIDOR

EXISTING

- LOT BOUNDARY

- NOTES:**
- FURTHER EASEMENT RESTRICTIONS MAY APPLY
 - FINAL BOUNDARY AND EASEMENT ARRANGEMENT SUBJECT TO BOUNDARY DEFINITION BY REGISTERED SURVEYOR
 - INDICATIVE DIMENSIONS ROUNDED TO THE NEAREST 0.1m. REFER TO REGISTERED SURVEY PLANS FOR DIMENSIONS

WATERCOURSE REALIGNMENT AND EMBELLISHMENT DELIVERED UNDER DA-2023/823

RIPARIAN CORRIDOR STAGE

SOUTHERN PARK STAGE

STAGE 2

STAGE 3

STAGE 4

STAGE 4

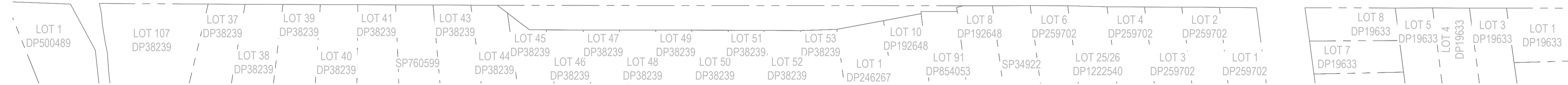
STAGE 1 (EXISTING)

STAGE 02 - 04 BULK EARTHWORKS DELIVERED UNDER DA-2023/823

STAGE 01 DELIVERED UNDER DA-2023/166 & DA-2023/550

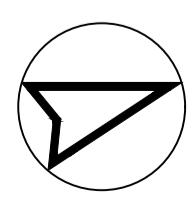
SOUTH COAST RAILWAY

CORRIMAL STATION



Alec Gollan, 30/10/2025 10:39 AM

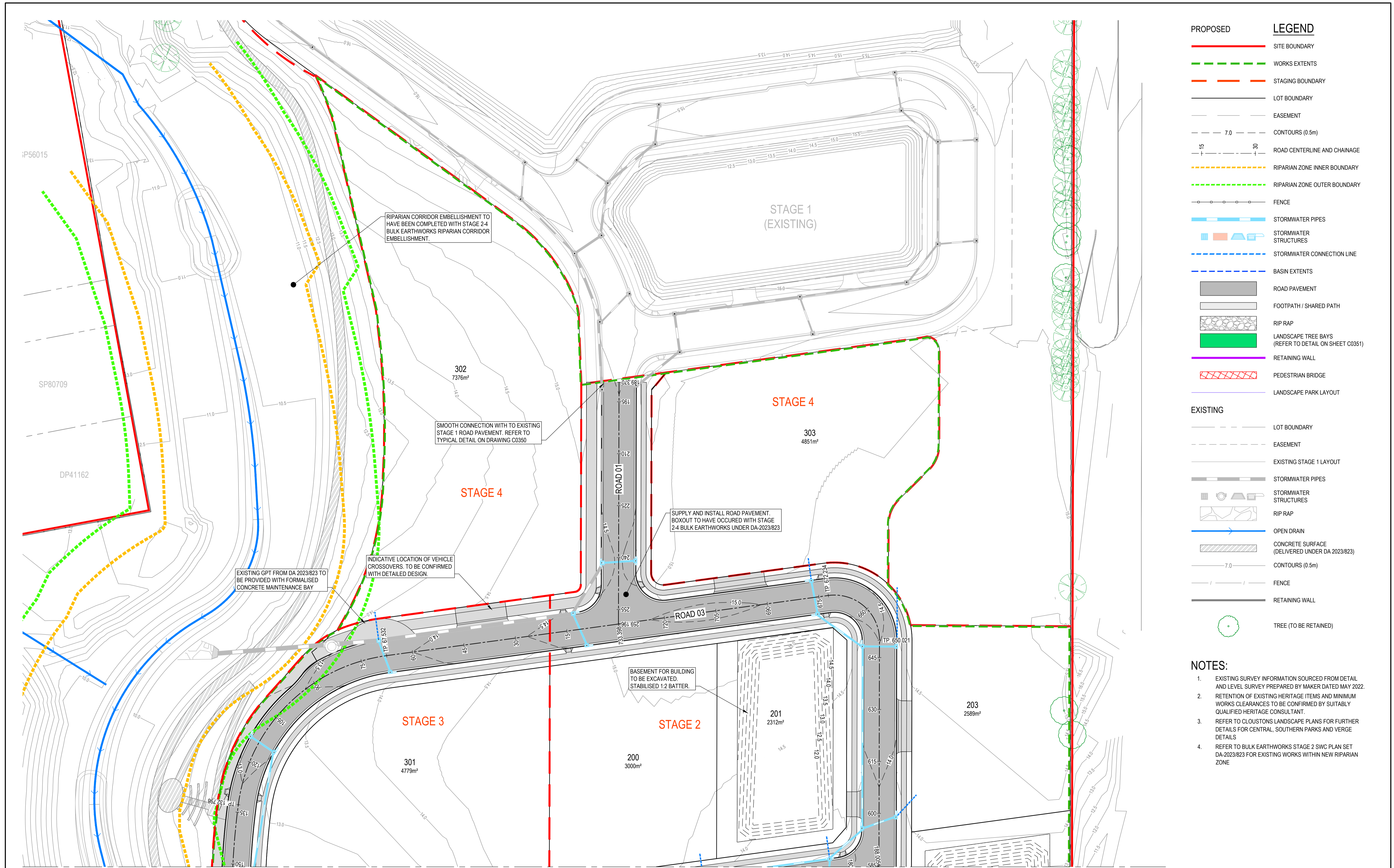
REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	
NOT FOR CONSTRUCTION	

**CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
STAGING LAYOUT PLAN**

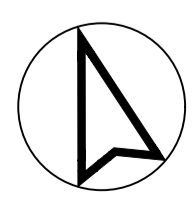
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C0060		A1	3



PROPOSED		LEGEND	
	SITE BOUNDARY		WORKS EXTENTS
	STAGING BOUNDARY		LOT BOUNDARY
	EASEMENT		CONTOURS (0.5m)
	7.0		ROAD CENTERLINE AND CHAINAGE
	15		RIPARIAN ZONE INNER BOUNDARY
	30		RIPARIAN ZONE OUTER BOUNDARY
	FENCE		STORMWATER CONNECTION LINE
	BASIN EXTENTS		STORMWATER PIPES
	ROAD PAVEMENT		STORMWATER STRUCTURES
	FOOTPATH / SHARED PATH		STORMWATER CONNECTION LINE
	RIP RAP		BASIN EXTENTS
	LANDSCAPE TREE BAYS (REFER TO DETAIL ON SHEET C0351)		ROAD PAVEMENT
	RETAINING WALL		FOOTPATH / SHARED PATH
	PEDESTRIAN BRIDGE		RIP RAP
	LANDSCAPE PARK LAYOUT		LANDSCAPE TREE BAYS (REFER TO DETAIL ON SHEET C0351)
EXISTING			
	LOT BOUNDARY		OPEN DRAIN
	EASEMENT		CONCRETE SURFACE (DELIVERED UNDER DA 2023/823)
	EXISTING STAGE 1 LAYOUT		CONTOURS (0.5m)
	STORMWATER PIPES		FENCE
	STORMWATER STRUCTURES		RETAINING WALL
	RIP RAP		TREE (TO BE RETAINED)

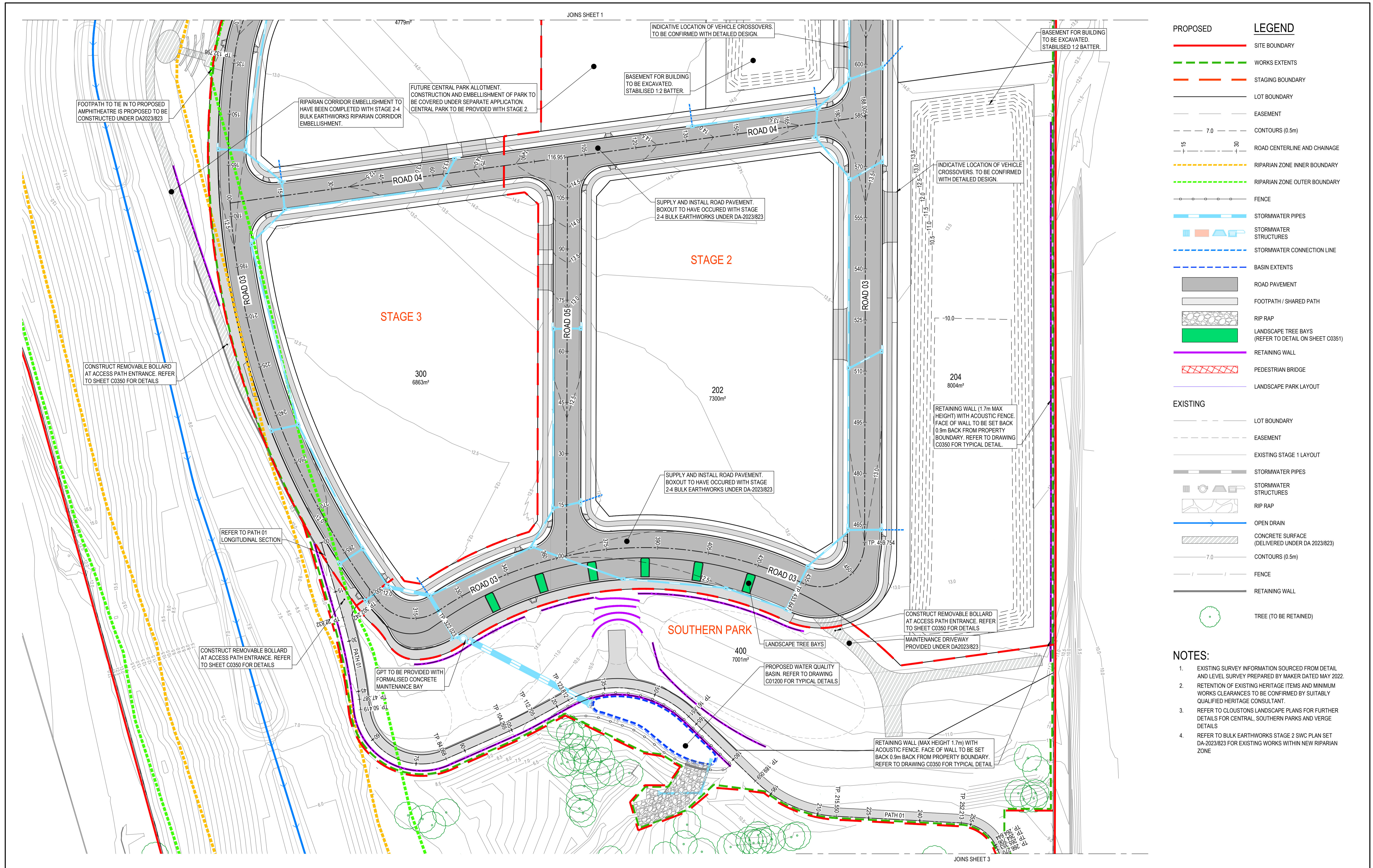
- NOTES:**
- EXISTING SURVEY INFORMATION SOURCED FROM DETAIL AND LEVEL SURVEY PREPARED BY MAKER DATED MAY 2022.
 - RETENTION OF EXISTING HERITAGE ITEMS AND MINIMUM WORKS CLEARANCES TO BE CONFIRMED BY SUITABLY QUALIFIED HERITAGE CONSULTANT.
 - REFER TO CLOUSTONS LANDSCAPE PLANS FOR FURTHER DETAILS FOR CENTRAL, SOUTHERN PARKS AND VERGE DETAILS
 - REFER TO BULK EARTHWORKS STAGE 2 SWC PLAN SET DA-2023/823 FOR EXISTING WORKS WITHIN NEW RIPARIAN ZONE

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION CIVIL WORKS LAYOUT PLAN			
DRAWING NUMBER MKR00452-11-C0100	SHEET No. 1 OF 3	ORIG. SIZE A1	REVISION 3

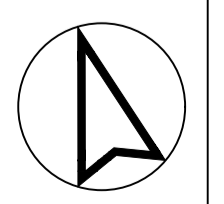


PROPOSED		LEGEND	
[Red dashed line]	SITE BOUNDARY	[Red dashed line]	SITE BOUNDARY
[Green dashed line]	WORKS EXTENTS	[Green dashed line]	WORKS EXTENTS
[Orange dashed line]	STAGING BOUNDARY	[Orange dashed line]	STAGING BOUNDARY
[Black dashed line]	LOT BOUNDARY	[Black dashed line]	LOT BOUNDARY
[Grey dashed line]	EASEMENT	[Grey dashed line]	EASEMENT
[Dashed line with 7.0m interval]	CONTOURS (0.5m)	[Dashed line with 7.0m interval]	CONTOURS (0.5m)
[Dashed line with 15m and 30m intervals]	ROAD CENTERLINE AND CHAINAGE	[Dashed line with 15m and 30m intervals]	ROAD CENTERLINE AND CHAINAGE
[Yellow dashed line]	RIPARIAN ZONE INNER BOUNDARY	[Yellow dashed line]	RIPARIAN ZONE INNER BOUNDARY
[Green dashed line]	RIPARIAN ZONE OUTER BOUNDARY	[Green dashed line]	RIPARIAN ZONE OUTER BOUNDARY
[Black line with circles]	FENCE	[Black line with circles]	FENCE
[Blue line with circles]	STORMWATER PIPES	[Blue line with circles]	STORMWATER PIPES
[Blue square]	STORMWATER STRUCTURES	[Blue square]	STORMWATER STRUCTURES
[Blue dashed line]	STORMWATER CONNECTION LINE	[Blue dashed line]	STORMWATER CONNECTION LINE
[Blue dashed line]	BASIN EXTENTS	[Blue dashed line]	BASIN EXTENTS
[Grey rectangle]	ROAD PAVEMENT	[Grey rectangle]	ROAD PAVEMENT
[White rectangle]	FOOTPATH / SHARED PATH	[White rectangle]	FOOTPATH / SHARED PATH
[Patterned rectangle]	RIP RAP	[Patterned rectangle]	RIP RAP
[Green rectangle]	LANDSCAPE TREE BAYS (REFER TO DETAIL ON SHEET C0351)	[Green rectangle]	LANDSCAPE TREE BAYS (REFER TO DETAIL ON SHEET C0351)
[Purple rectangle]	RETAINING WALL	[Purple rectangle]	RETAINING WALL
[Red hatched rectangle]	PEDESTRIAN BRIDGE	[Red hatched rectangle]	PEDESTRIAN BRIDGE
[Blue rectangle]	LANDSCAPE PARK LAYOUT	[Blue rectangle]	LANDSCAPE PARK LAYOUT
EXISTING		EXISTING	
[Black dashed line]	LOT BOUNDARY	[Black dashed line]	LOT BOUNDARY
[Grey dashed line]	EASEMENT	[Grey dashed line]	EASEMENT
[Black dashed line]	EXISTING STAGE 1 LAYOUT	[Black dashed line]	EXISTING STAGE 1 LAYOUT
[Blue line with circles]	STORMWATER PIPES	[Blue line with circles]	STORMWATER PIPES
[Blue square]	STORMWATER STRUCTURES	[Blue square]	STORMWATER STRUCTURES
[Patterned rectangle]	RIP RAP	[Patterned rectangle]	RIP RAP
[Blue line with circles]	OPEN DRAIN	[Blue line with circles]	OPEN DRAIN
[Hatched rectangle]	CONCRETE SURFACE (DELIVERED UNDER DA 2023/823)	[Hatched rectangle]	CONCRETE SURFACE (DELIVERED UNDER DA 2023/823)
[Dashed line with 7.0m interval]	CONTOURS (0.5m)	[Dashed line with 7.0m interval]	CONTOURS (0.5m)
[Black dashed line]	FENCE	[Black dashed line]	FENCE
[Purple rectangle]	RETAINING WALL	[Purple rectangle]	RETAINING WALL
[Green circle]	TREE (TO BE RETAINED)	[Green circle]	TREE (TO BE RETAINED)

- NOTES:**
- EXISTING SURVEY INFORMATION SOURCED FROM DETAIL AND LEVEL SURVEY PREPARED BY MAKER DATED MAY 2022.
 - RETENTION OF EXISTING HERITAGE ITEMS AND MINIMUM WORKS CLEARANCES TO BE CONFIRMED BY SUITABLY QUALIFIED HERITAGE CONSULTANT.
 - REFER TO CLOUSTONS LANDSCAPE PLANS FOR FURTHER DETAILS FOR CENTRAL, SOUTHERN PARKS AND VERGE DETAILS.
 - REFER TO BULK EARTHWORKS STAGE 2 SWC PLAN SET DA-2023/823 FOR EXISTING WORKS WITHIN NEW RIPARIAN ZONE.

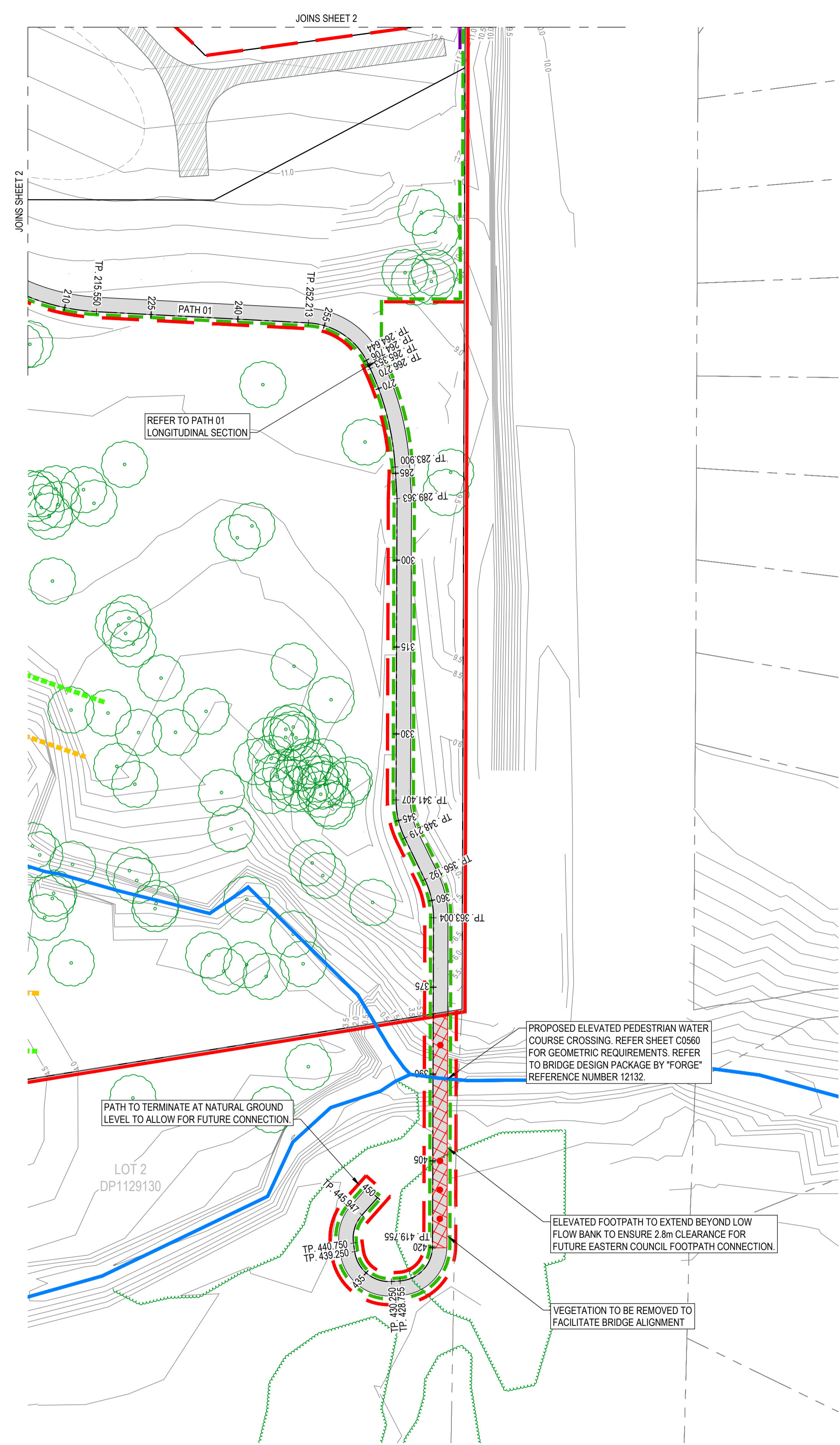
Alex Gollan, 30/10/2025 10:39 AM

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3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION CIVIL WORKS LAYOUT PLAN			
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C0101	2 OF 3	A1	3

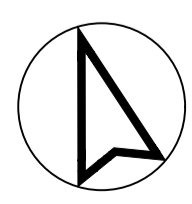


PROPOSED		LEGEND	
	SITE BOUNDARY		WORKS EXTENTS
	STAGING BOUNDARY		LOT BOUNDARY
	EASEMENT		EXISTING STAGE 1 LAYOUT
	7.0 CONTOURS (0.5m)		STORMWATER PIPES
	ROAD CENTERLINE AND CHAINAGE		STORMWATER STRUCTURES
	RIPARIAN ZONE INNER BOUNDARY		STORMWATER CONNECTION LINE
	RIPARIAN ZONE OUTER BOUNDARY		BASIN EXTENTS
	FENCE		ROAD PAVEMENT
	STORMWATER PIPES		FOOTPATH / SHARED PATH
	STORMWATER STRUCTURES		RIP RAP
	STORMWATER CONNECTION LINE		LANDSCAPE TREE BAYS (REFER TO DETAIL ON SHEET C0351)
	BASIN EXTENTS		RETAINING WALL
	ROAD PAVEMENT		PEDESTRIAN BRIDGE
	FOOTPATH / SHARED PATH		LANDSCAPE PARK LAYOUT
	RIP RAP		
	LANDSCAPE TREE BAYS (REFER TO DETAIL ON SHEET C0351)		
	RETAINING WALL		
	PEDESTRIAN BRIDGE		
	LANDSCAPE PARK LAYOUT		
EXISTING			
	LOT BOUNDARY		STORMWATER PIPES
	EASEMENT		STORMWATER STRUCTURES
	EXISTING STAGE 1 LAYOUT		RIP RAP
	STORMWATER PIPES		OPEN DRAIN
	STORMWATER STRUCTURES		CONCRETE SURFACE (DELIVERED UNDER DA 2023/823)
	RIP RAP		7.0 CONTOURS (0.5m)
	OPEN DRAIN		FENCE
	CONCRETE SURFACE (DELIVERED UNDER DA 2023/823)		RETAINING WALL
	7.0 CONTOURS (0.5m)		TREE (TO BE RETAINED)
	FENCE		
	RETAINING WALL		

- NOTES:**
- EXISTING SURVEY INFORMATION SOURCED FROM DETAIL AND LEVEL SURVEY PREPARED BY MAKER DATED MAY 2022.
 - RETENTION OF EXISTING HERITAGE ITEMS AND MINIMUM WORKS CLEARANCES TO BE CONFIRMED BY SUITABLY QUALIFIED HERITAGE CONSULTANT.
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 - REFER TO BULK EARTHWORKS STAGE 2 SWC PLAN SET DA-2023/823 FOR EXISTING WORKS WITHIN NEW RIPARIAN ZONE.

Alex Gollan, 30/10/2025 10:39 AM

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DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION CIVIL WORKS LAYOUT PLAN			
DRAWING NUMBER MKR00452-11-C0102	SHEET No. 3 OF 3	ORIG. SIZE A1	REVISION 3



PROPOSED

LEGEND

- SITE BOUNDARY
- STAGING BOUNDARY
- LOT BOUNDARY
- RETAINING WALL

	GREATER THAN -3.0m
	-3.0m TO -2.5m
	-2.5m TO -2.0m
	-2.0m TO -1.5m
	-1.5m TO -1.0m
	-1.0m TO -0.5m
	-0.5m TO 0.0m
	0.0m TO 0.5m
	0.5m TO 1.0m
	1.0m TO 1.5m
	GREATER THAN 1.5m

EXISTING

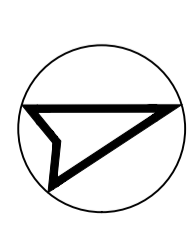
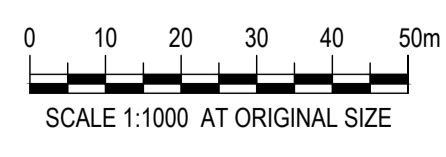
- LOT BOUNDARY
- EASEMENT
- EXISTING LAYOUT
- RETAINING WALL

STAGE 02-04 EARTHWORKS

CUT	19,024	Cu.m
FILL	81	Cu.m
NET <CUT>	18,943	Cu.m

- NOTES:**
- VOLUMETRIC ANALYSIS IS FROM UNDERSIDE OF PAVEMENT/TOP OF SUBGRADE TO FINISHED SURFACE LEVEL.
 - VOLUMES EXCLUDE TOPSOIL STRIPPING, SERVICE TRENCHES AND PAVEMENT EXCAVATION AND INSTALLATION.
 - BULK EARTHWORKS TO ESTABLISH BUILT FORM AND CREEK SURFACE LEVELS TO HAVE BEEN COMPLETED UNDER STAGE 2-4 BULK EARTHWORKS DEVELOPMENT CONSENT DA-2023/823.
 - STORMWATER TRENCHING ESTIMATE ASSUMING 2.0m DEEP x 0.75m WIDE WITH 1167m OF PIPE (1750.65m²)
 - REFER TO STORMWATER LAYOUT PLAN (C0800 & C0801) FOR BASEMENT PUMP OUT LOCATIONS. DETAILS TO BE CONFIRMED IN SWC PLAN SET

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1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

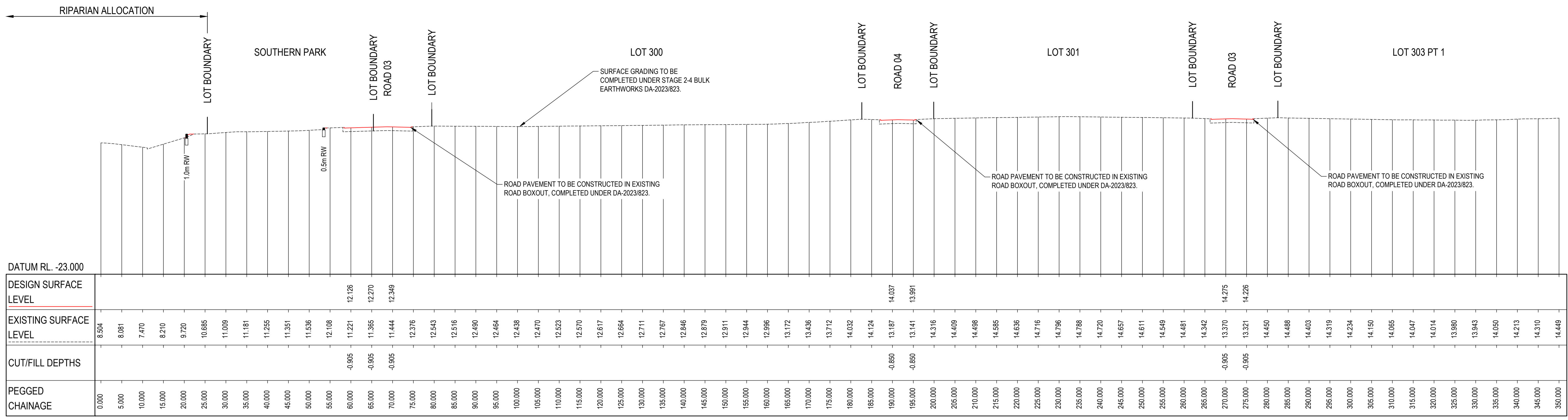


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN

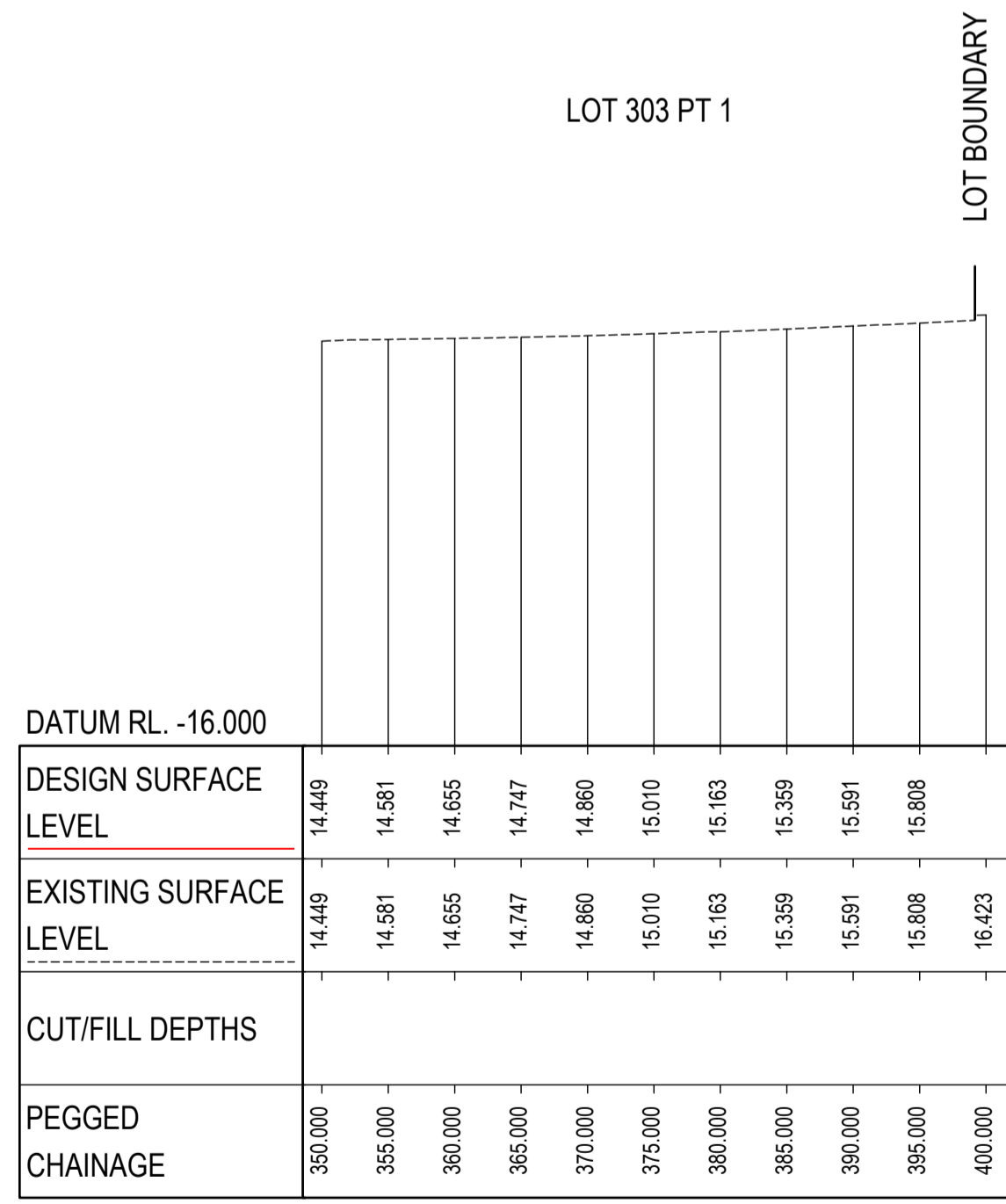
**CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
BULK EARTHWORKS
LAYOUT PLAN**

NOT FOR CONSTRUCTION	DRAWING NUMBER MKR00452-11-C0200	SHEET No.	ORIG. SIZE A1	REVISION 3
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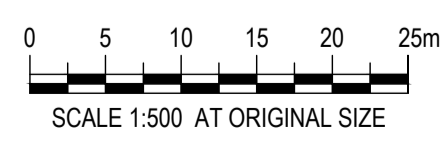
Alex Gollan, 30/10/2025 10:39 AM



SECTION 01
SCALE 1:500 C0200



SECTION 01
SCALE 1:500 C0200

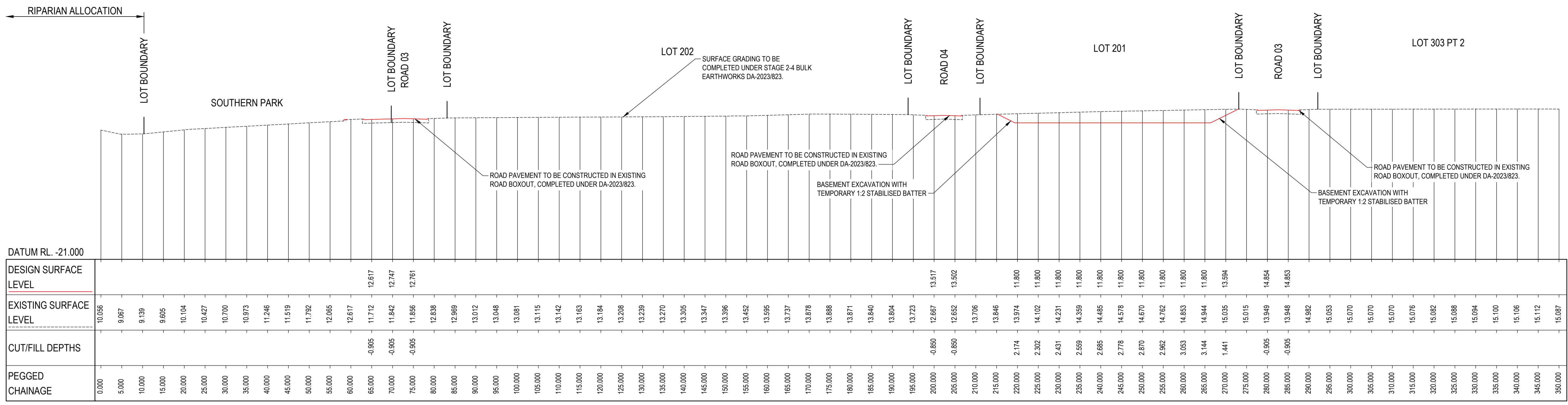


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3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

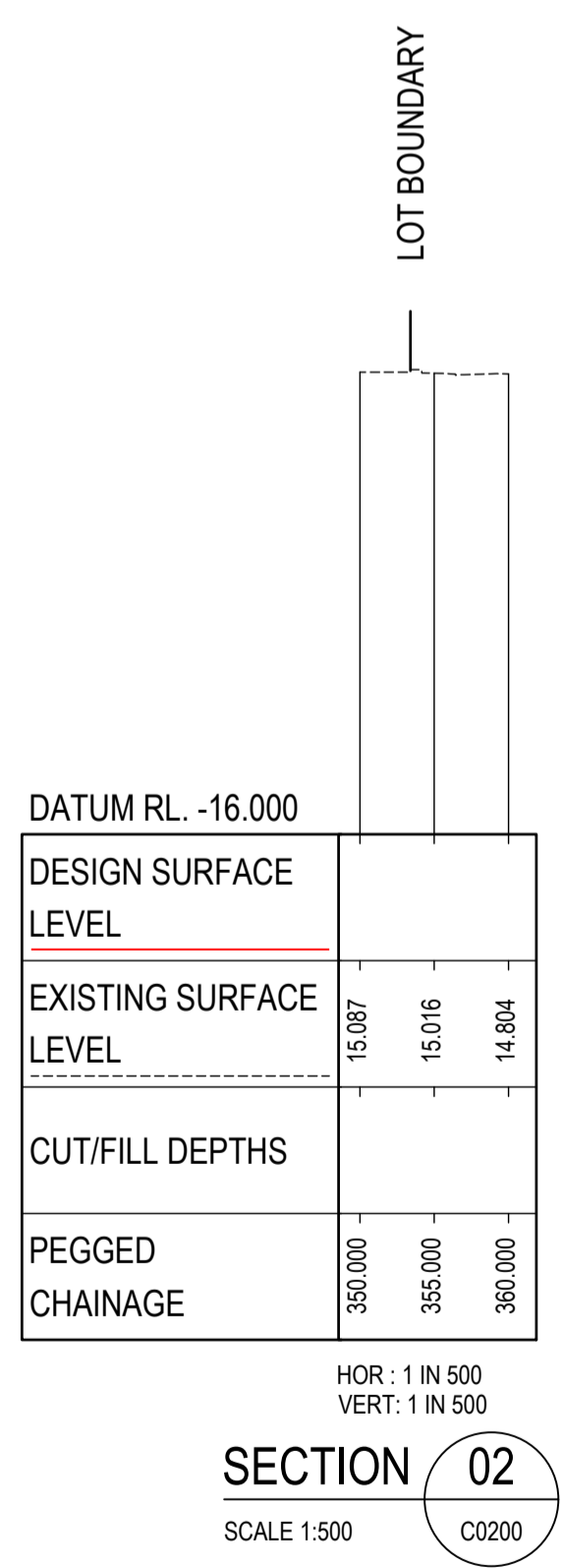


DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION BULK EARTHWORKS SECTIONS PLAN			
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN	DRAWING NUMBER: MKR00452-11-C0250	SHEET No: 1 OF 4	ORIG. SIZE: A1	REVISION: 3
APPROVED: A.GOLLAN		NOT FOR CONSTRUCTION			

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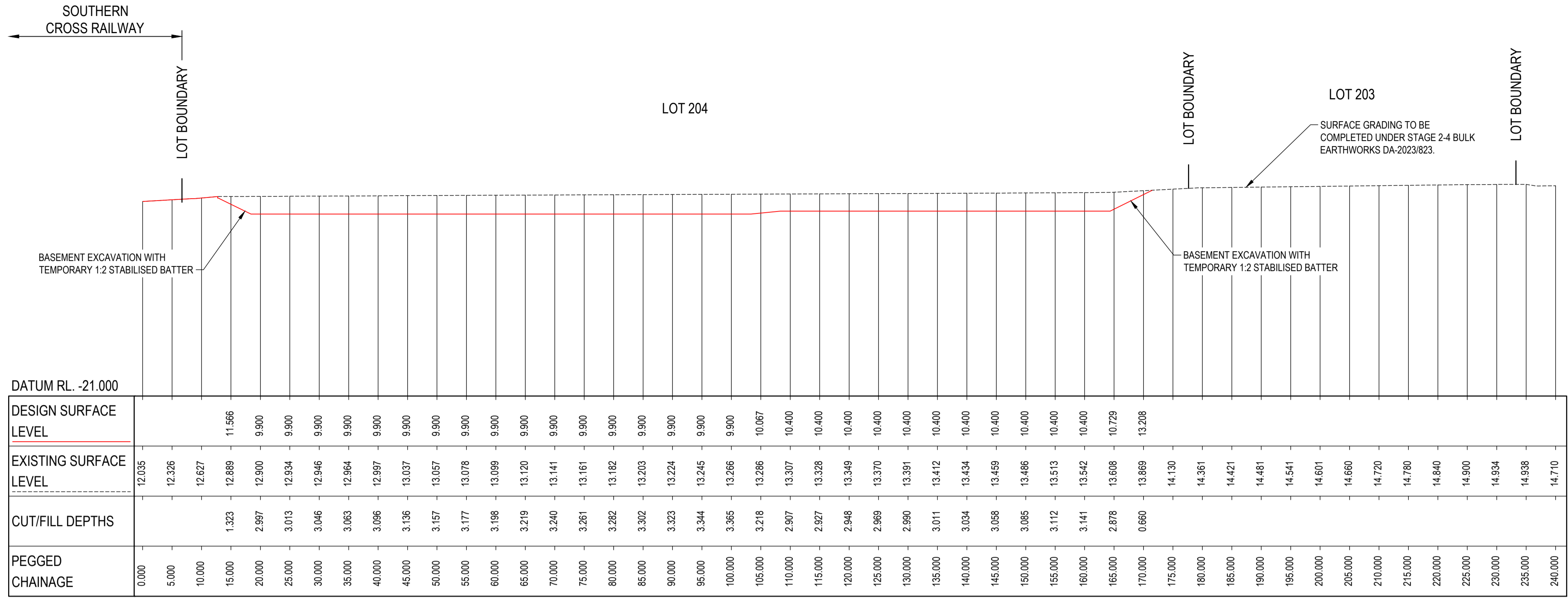
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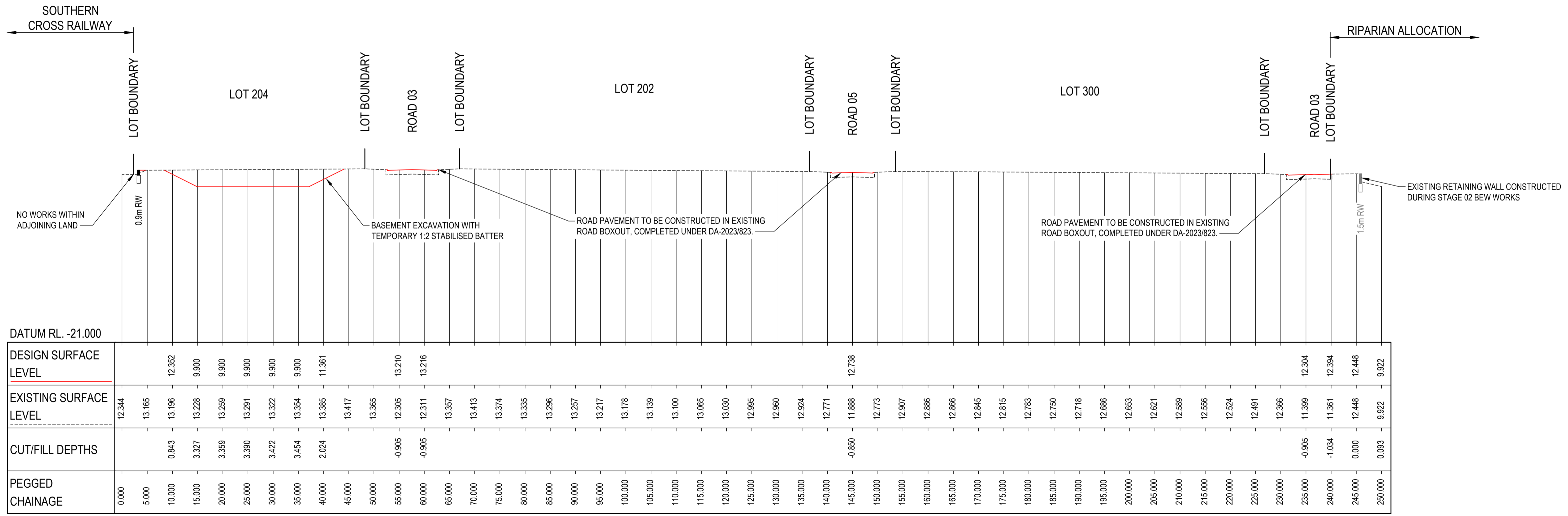
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1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION BULK EARTHWORKS SECTIONS PLAN			
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN				
APPROVED: NOT FOR CONSTRUCTION	A.GOLLAN	DRAWING NUMBER MKR00452-11-C0251	SHEET No. 2 OF 4	ORIG. SIZE A1	REVISION 3



SECTION 03
SCALE 1:500 C0200



SECTION 04
SCALE 1:500 C0200



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

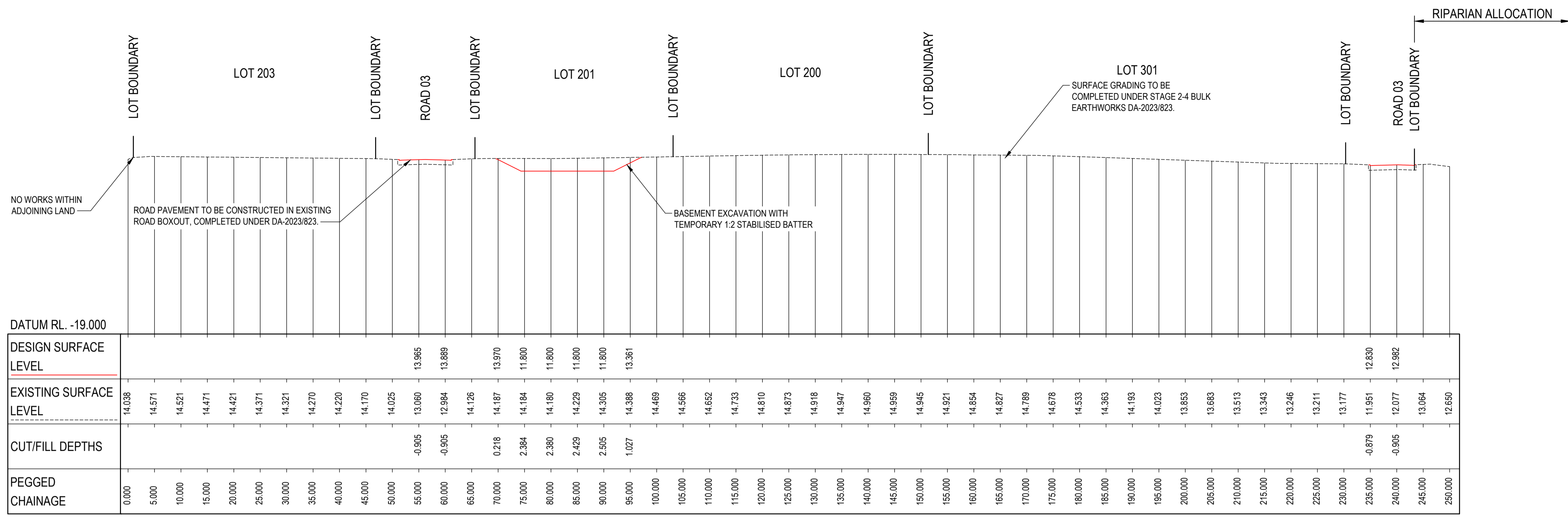
CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
BULK EARTHWORKS
SECTIONS PLAN

DRAWING NUMBER MKR00452-11-C0252	SHEET No. 3 OF 4	ORIG. SIZE A1	REVISION 3
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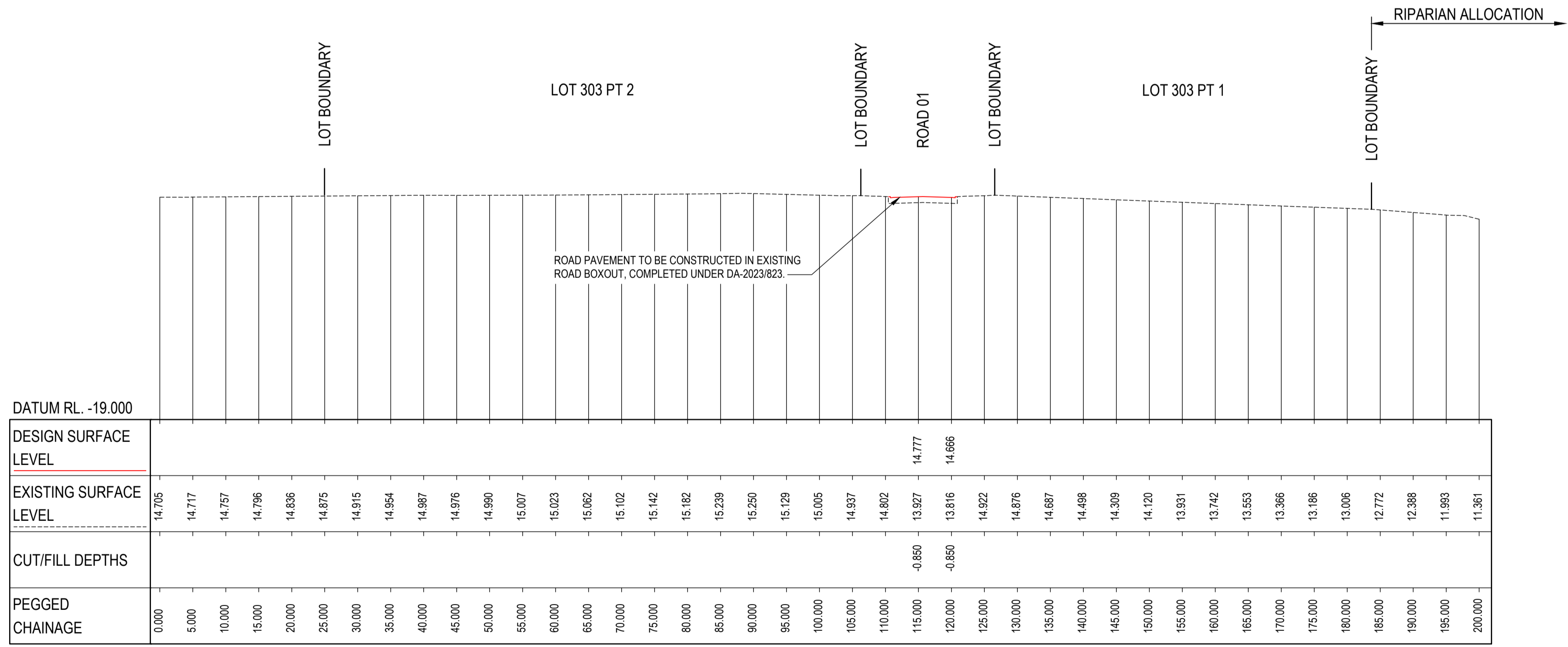
Alex Gollan, 30/10/2025 10:39 AM

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SECTION 05
SCALE 1:500 C0200



SECTION 06
SCALE 1:500 C0200

Alex Gollan, 30/10/2025 10:39 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
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2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
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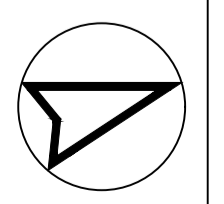
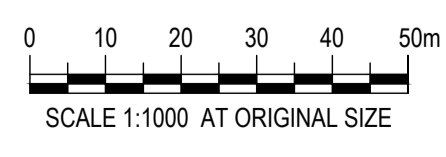


DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION BULK EARTHWORKS SECTIONS PLAN			
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN				
APPROVED: A.GOLLAN		DRAWING NUMBER MKR00452-11-C0253	SHEET No. 4 OF 4	ORIG. SIZE A1	REVISION 3
NOT FOR CONSTRUCTION					



PROPOSED		LEGEND	
	SITE BOUNDARY		STAGING BOUNDARY
	LOT BOUNDARY		RETAINING WALL
	TYPE A ENTRY BOULEVARD BEYOND BUS LOOP (20.30m WIDE)		TYPE B MAIN LOOP ROAD CIRCULATION (18.80m WIDE)
	TYPE C RIPARIAN EDGE ROAD TYPE A ACTIVATION OF GREEN SPACE (15.60m WIDE)		TYPE D RIPARIAN EDGE ROAD TYPE B ACTIVATION OF GREEN SPACE (21.70m WIDE)
	TYPE E LOCAL STREET TYPICAL STREET (17.10m WIDE)		CONCRETE PATH PAVEMENT (1.5m WIDE)
	CONCRETE PATH PAVEMENT (2.5m WIDE)		CONCRETE PATH PAVEMENT (2.825m WIDE)
	CONCRETE PATH PAVEMENT (3.0m WIDE)		CONCRETE PATH PAVEMENT (3.5m WIDE)
	CONCRETE VEHICLE CROSSING PAVEMENT		EXISTING LOT BOUNDARY
	RETAINING WALL		CONCRETE PATH PAVEMENT (1.8m WIDE)
	CONCRETE PATH PAVEMENT (2.5m WIDE)		CONCRETE VEHICLE CROSSING PAVEMENT

REV	DATE	DESCRIPTION	AMD BY	APP BY
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2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

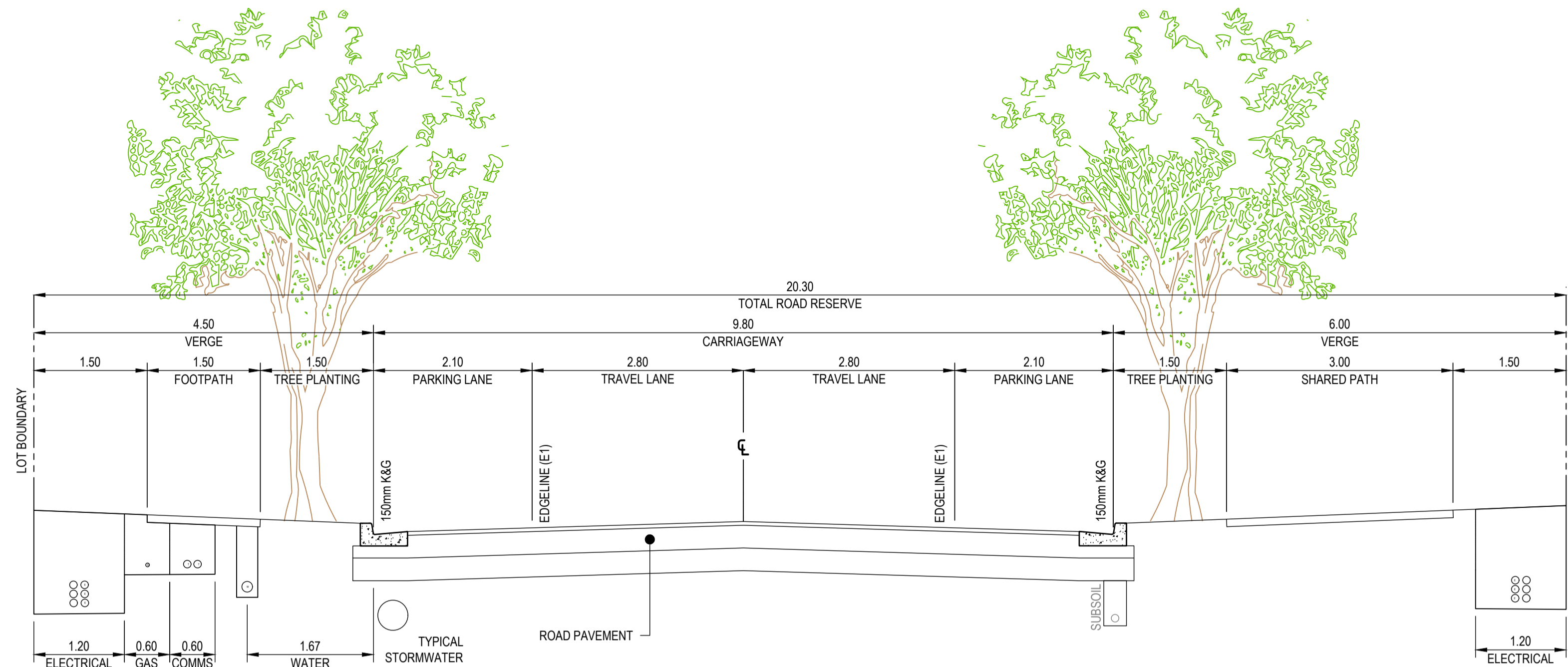


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION TYPICAL ROAD SECTIONS LAYOUT PLAN			
DRAWING NUMBER MKR00452-11-C0300	SHEET No.	ORIG. SIZE A1	REVISION 3

NOT FOR CONSTRUCTION

Alex Gollan, 30/10/2025 10:59 AM

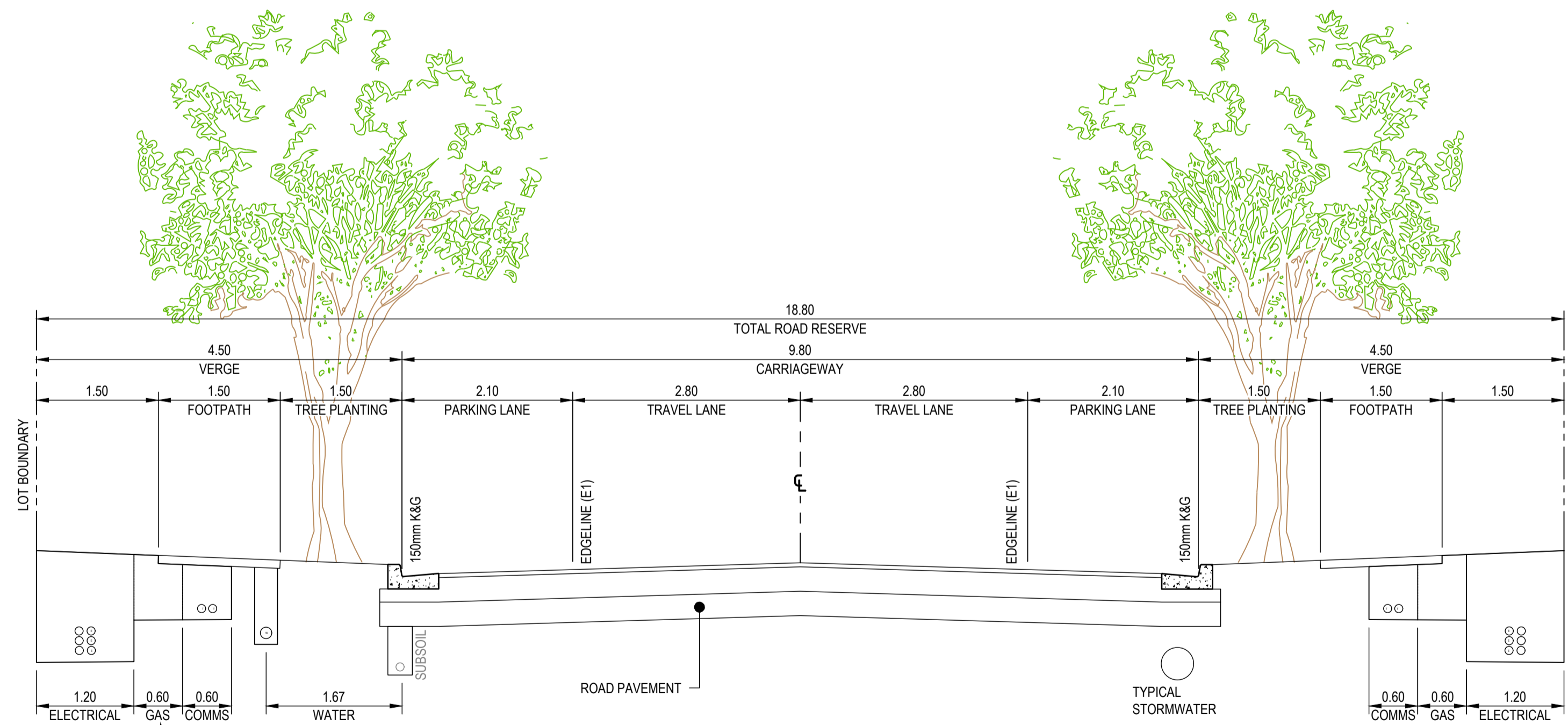


**ENTRY BOULEVARD
BEYOND BUS LOOP**

SCALE 1:50

TYPE A

ROAD 01 CH 189.37 - CH 259.196
 ROAD 03 CH 0.00 - CH 88.783
 ROAD 03 CH 718.584 - CH 733.398



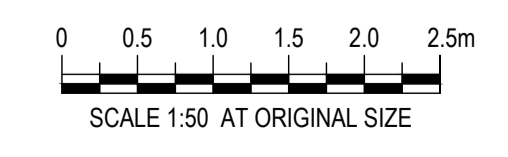
**MAIN LOOP ROAD
CIRCULATION**

SCALE 1:50

TYPE B

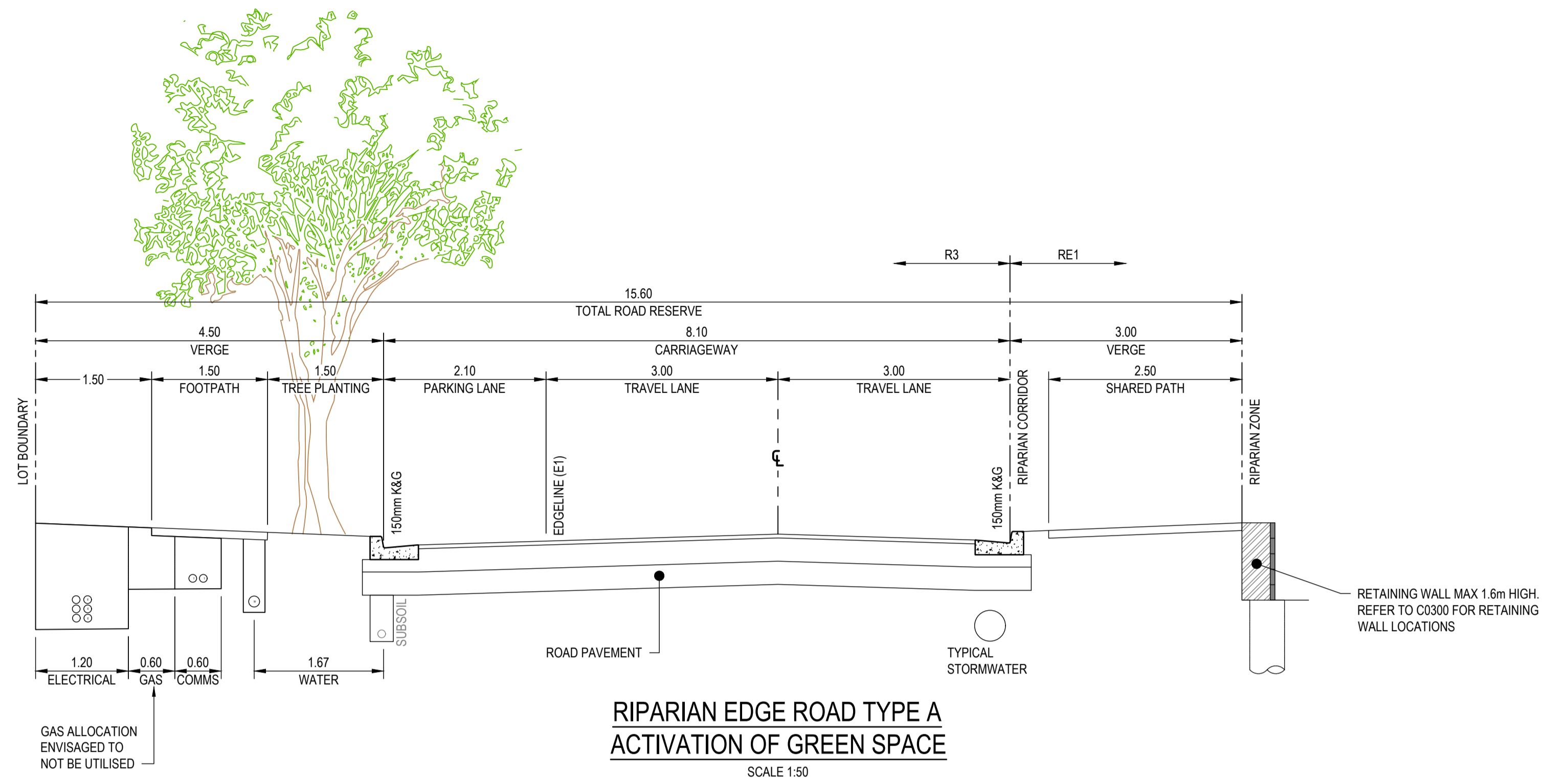
ROAD 03 CH 459.577 - CH 718.584

- GENERAL CONSTRUCTION NOTES**
1. LOCATION AND EXTENTS OF SUBSURFACE DRAINAGE TO BE CONFIRMED BY SUITABLY QUALIFIED GEOTECHNICAL ENGINEER DURING CONSTRUCTION
 2. SERVICES TO BE PROVIDED IN ACCORDANCE WITH THE RELEVANT SERVICE AUTHORITY REQUIREMENTS
 3. PAVEMENT DESIGN SUBJECT TO DETAILED DESIGN AND INVESTIGATION BY A SUITABLY QUALIFIED GEOTECHNICAL/STRUCTURAL ENGINEER



DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION TYPICAL ROAD SECTIONS PLAN		
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN	DRAWING NUMBER MKR00452-11-C0310	SHEET No. 1 OF 3	ORIG. SIZE A1
APPROVED: A.GOLLAN	NOT FOR CONSTRUCTION	REVISION 3		

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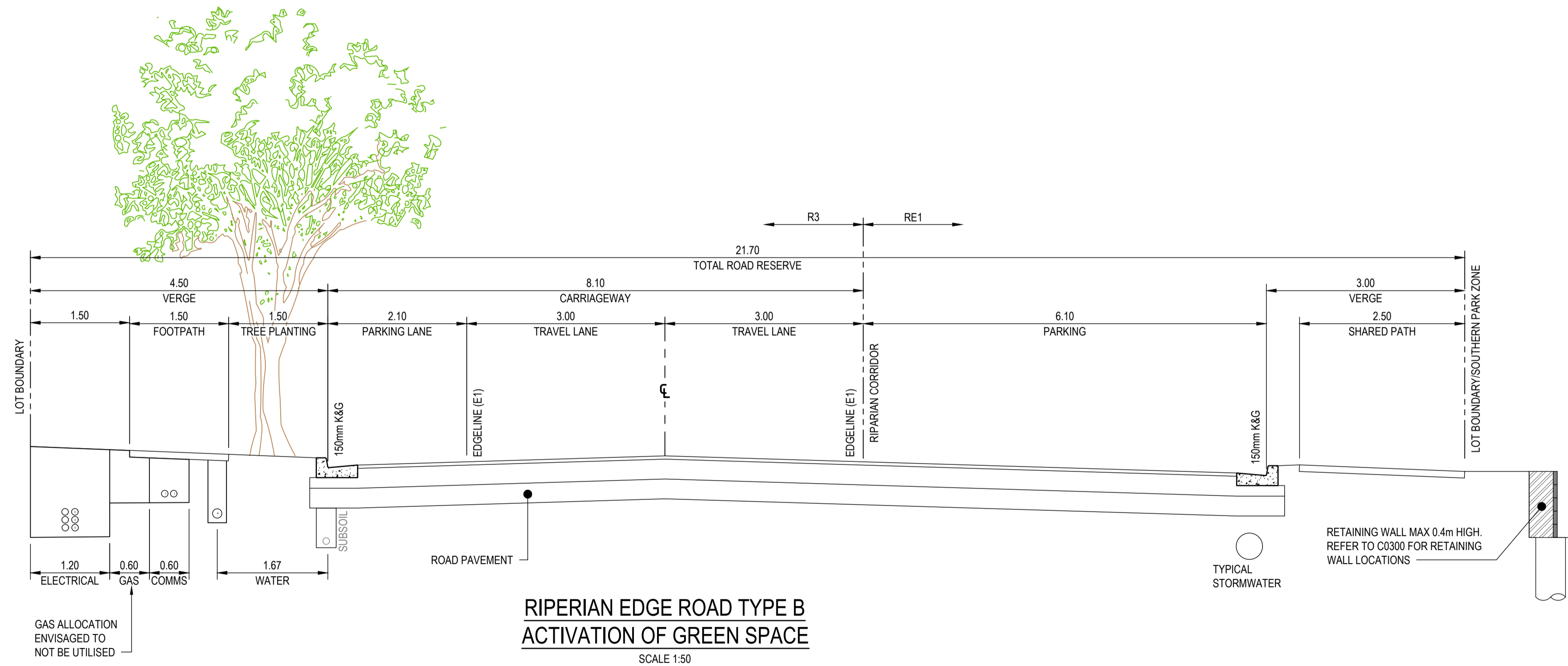


**RIPARIAN EDGE ROAD TYPE A
ACTIVATION OF GREEN SPACE**

SCALE 1:50

TYPE C

ROAD 03 CH 88.783 - CH 302.319



**RIPARIAN EDGE ROAD TYPE B
ACTIVATION OF GREEN SPACE**

SCALE 1:50

TYPE D

ROAD 03 CH 302.319 - CH 459.577

- GENERAL CONSTRUCTION NOTES**
1. LOCATION AND EXTENTS OF SUBSURFACE DRAINAGE TO BE CONFIRMED BY SUITABLY QUALIFIED GEOTECHNICAL ENGINEER DURING CONSTRUCTION
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 3. PAVEMENT DESIGN SUBJECT TO DETAILED DESIGN AND INVESTIGATION BY A SUITABLY QUALIFIED GEOTECHNICAL/STRUCTURAL ENGINEER

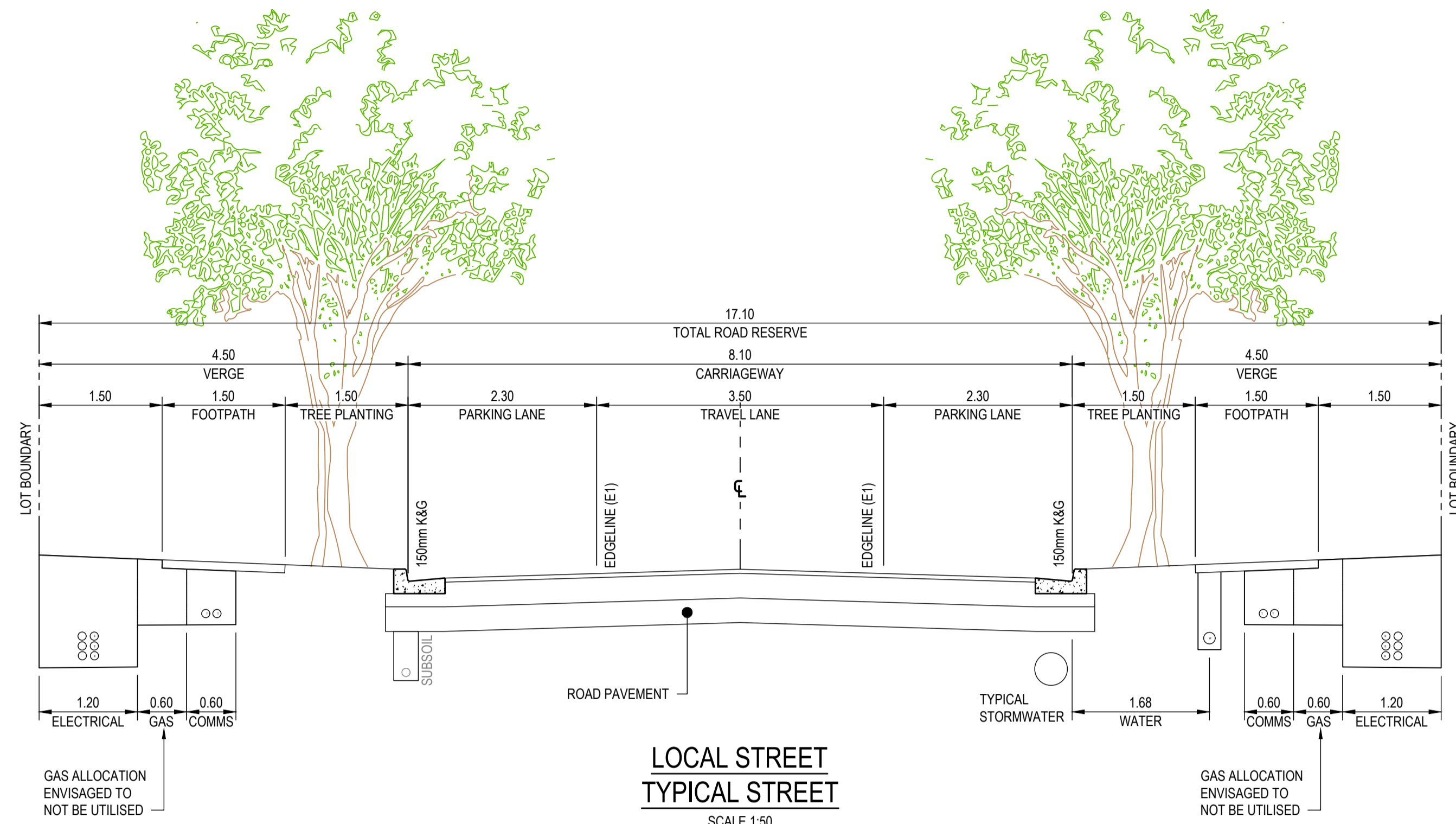


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION TYPICAL ROAD SECTIONS PLAN			
DRAWING NUMBER MKR00452-11-C0311	SHEET No. 2 OF 3	ORIG. SIZE A1	REVISION 3

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1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

Alex Gollan, 30/10/2025 10:59 AM



**LOCAL STREET
TYPICAL STREET**
SCALE 1:50

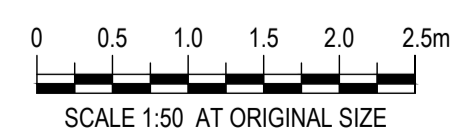
TYPE E

ROAD 04 CH 15.100 - CH 171.900
ROAD 05 CH 15.000 - CH 116.951

- GENERAL CONSTRUCTION NOTES**
1. LOCATION AND EXTENTS OF SUBSURFACE DRAINAGE TO BE CONFIRMED BY SUITABLY QUALIFIED GEOTECHNICAL ENGINEER DURING CONSTRUCTION
 2. SERVICES TO BE PROVIDED IN ACCORDANCE WITH THE RELEVANT SERVICE AUTHORITY REQUIREMENTS
 3. PAVEMENT DESIGN SUBJECT TO DETAILED DESIGN AND INVESTIGATION BY A SUITABLY QUALIFIED GEOTECHNICAL/STRUCTURAL ENGINEER

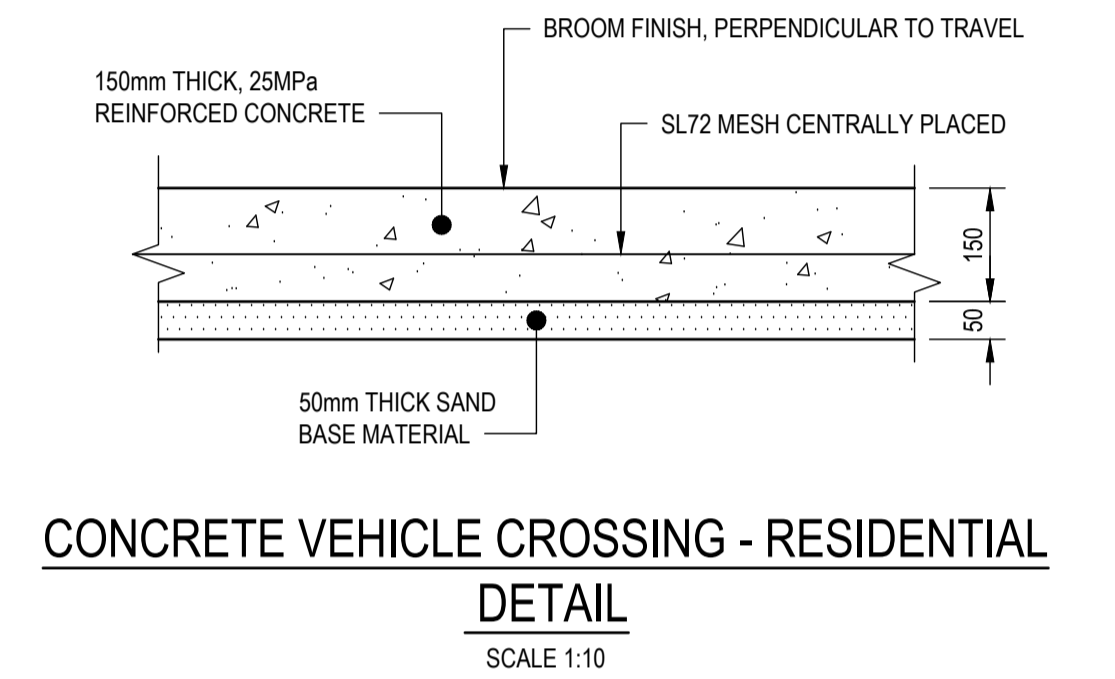
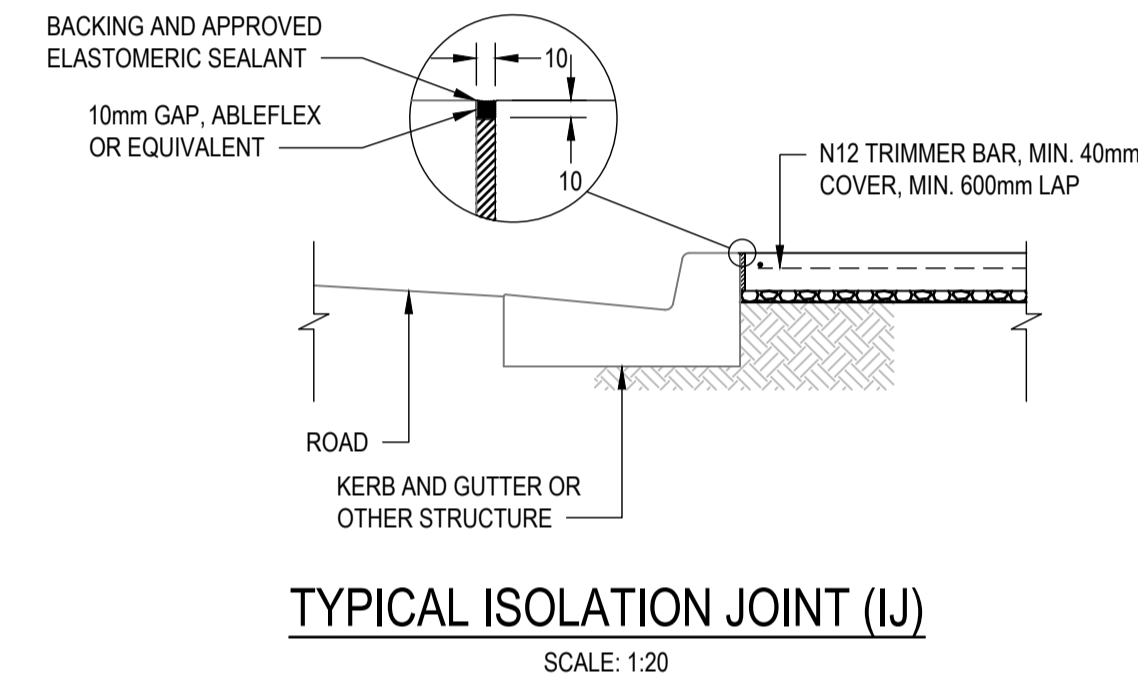
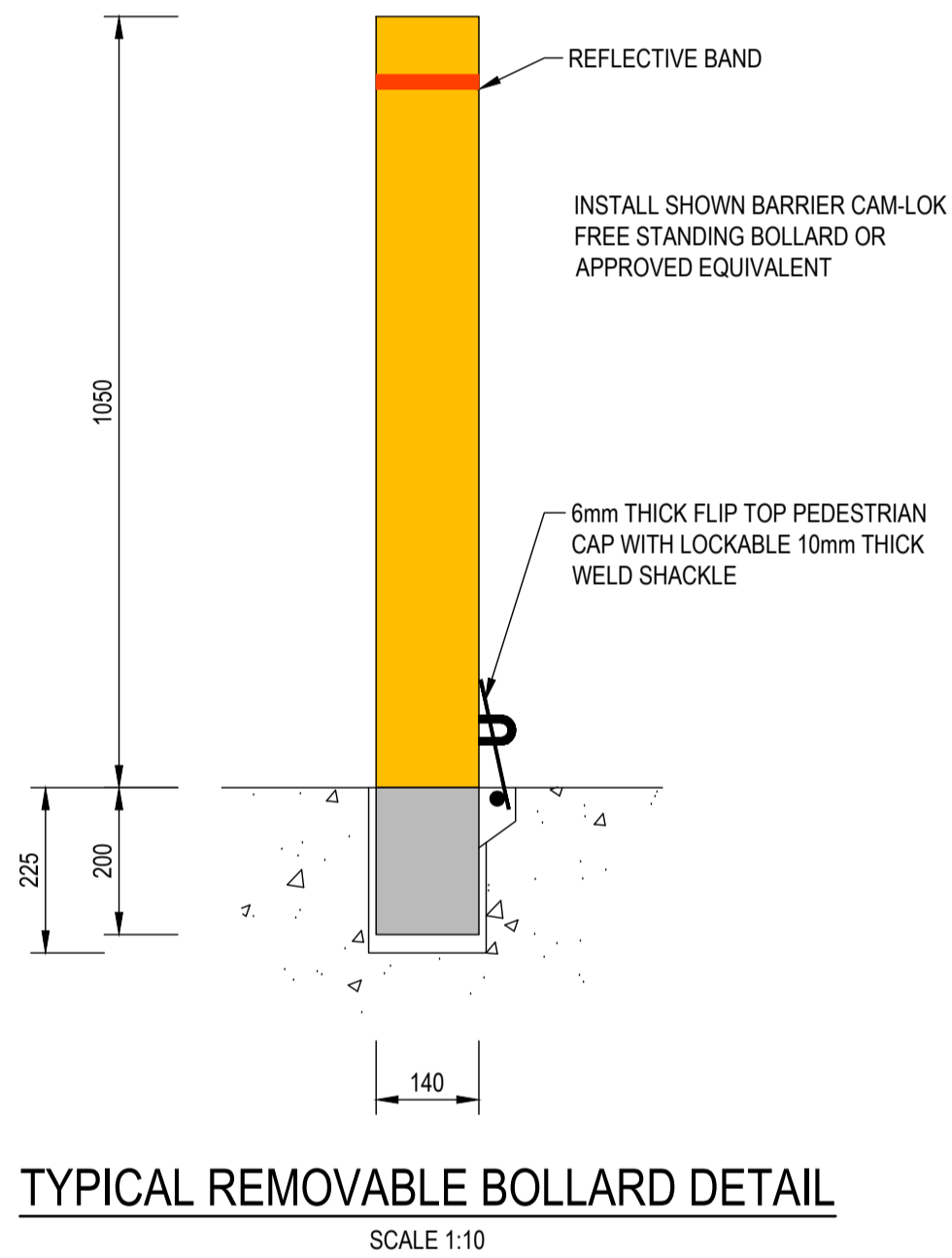
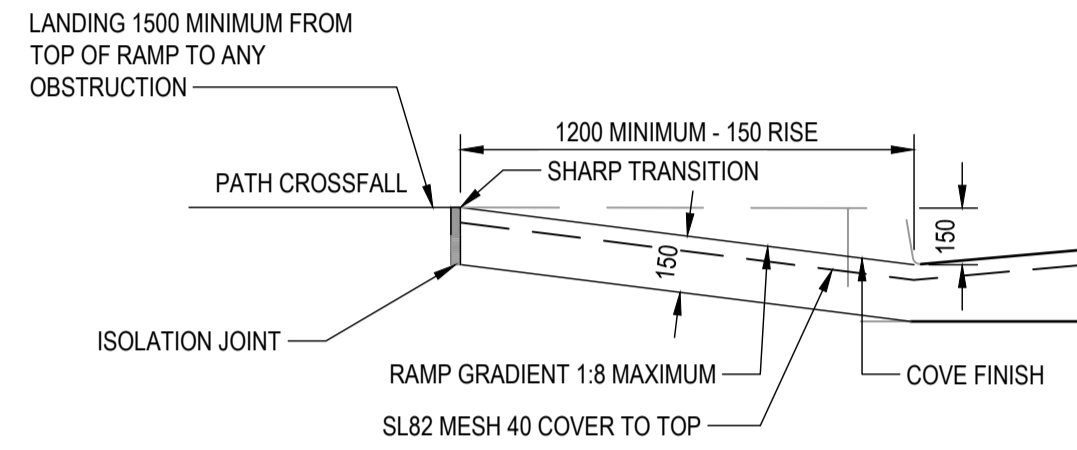
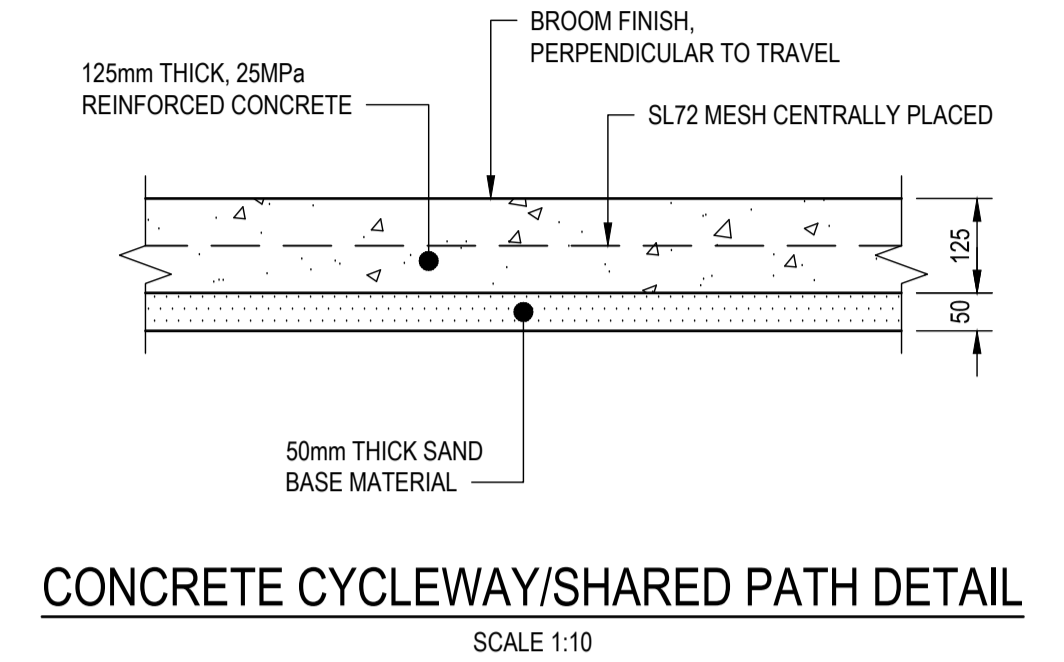
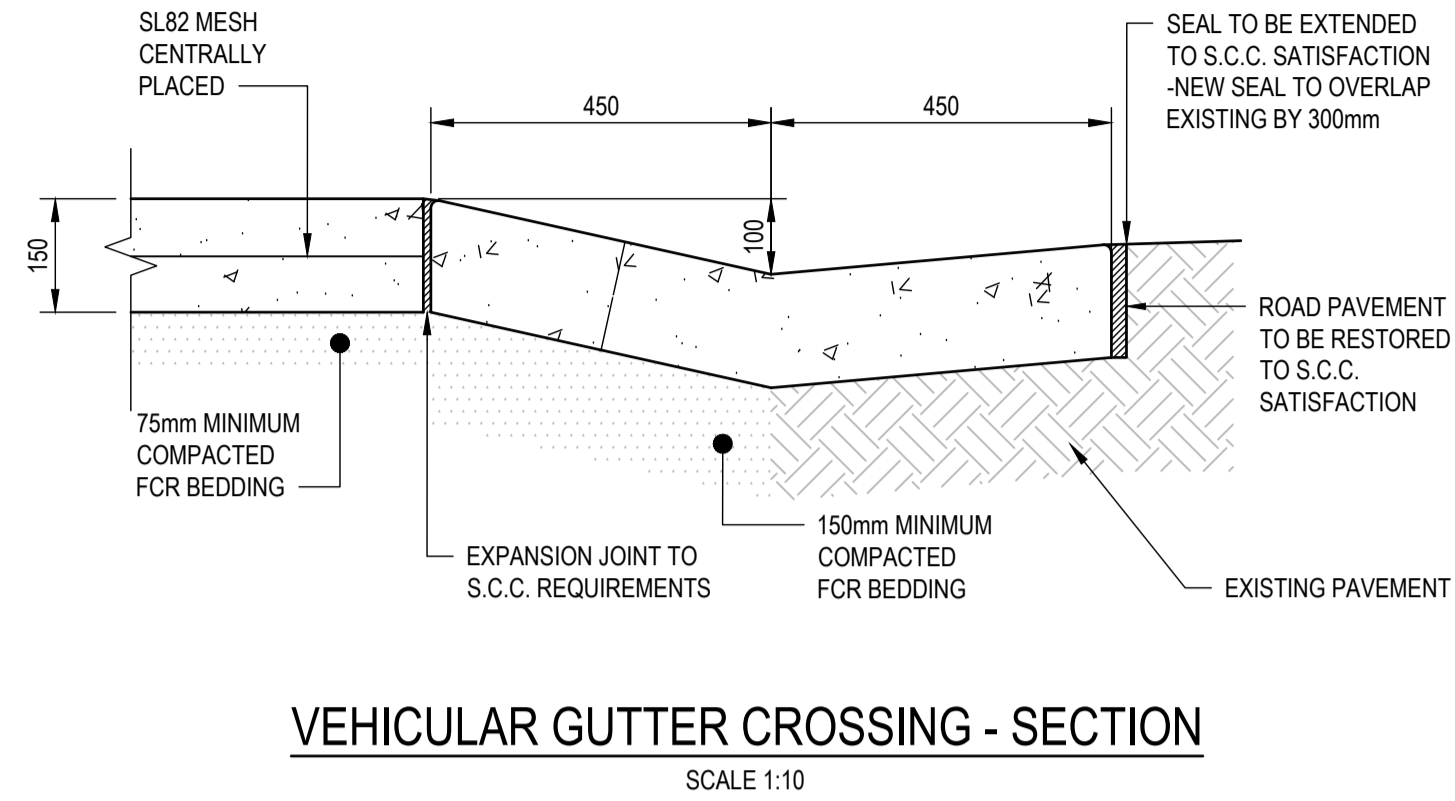
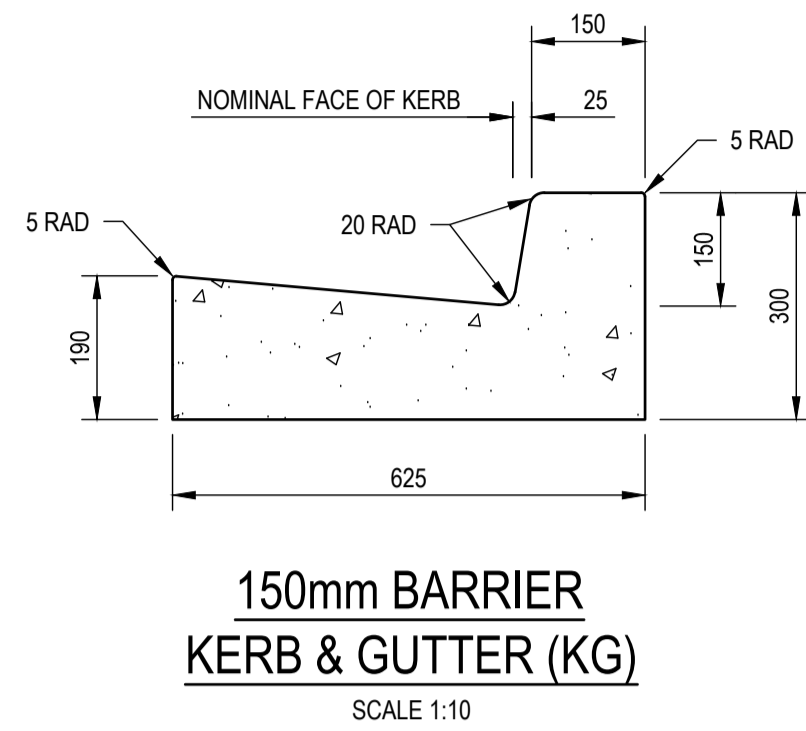
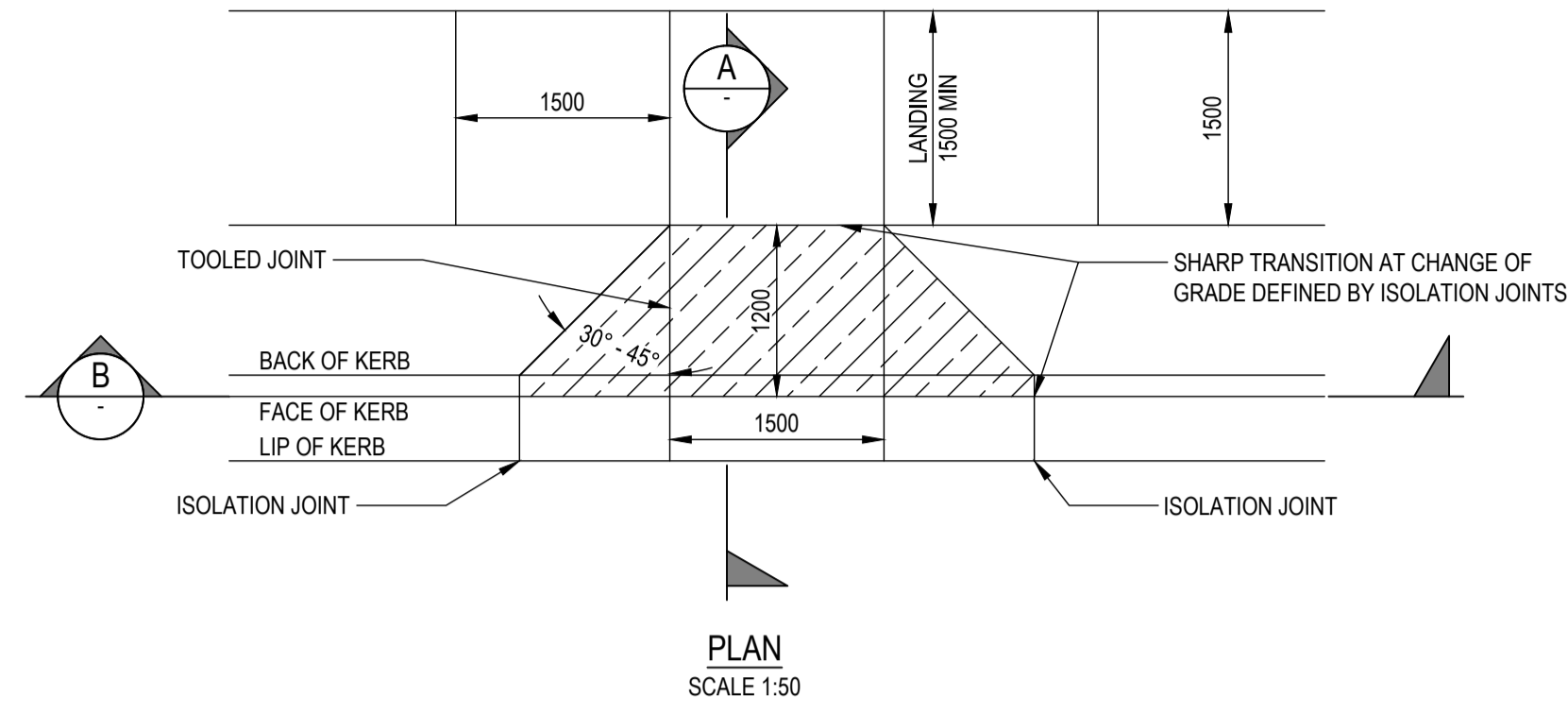
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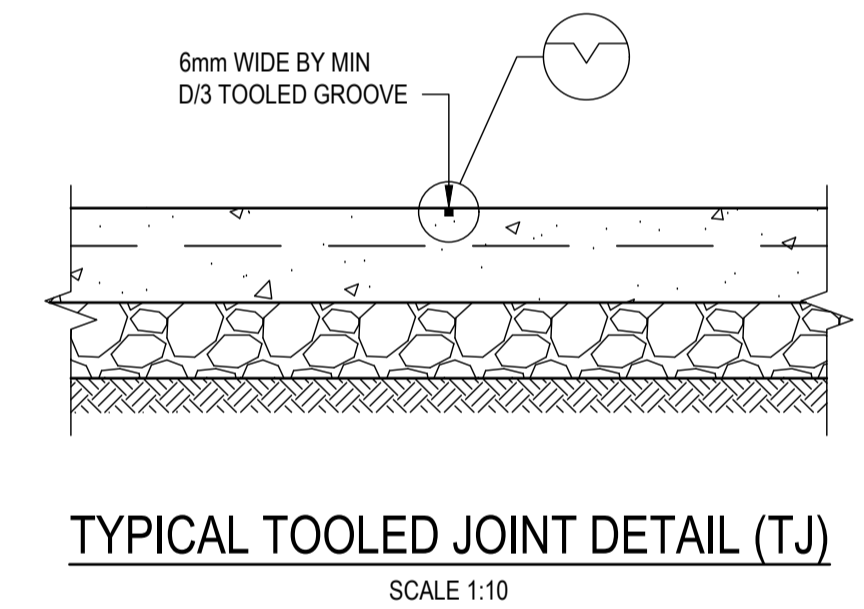


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION TYPICAL ROAD SECTIONS PLAN			
DRAWING NUMBER MKR00452-11-C0312	SHEET No. 3 OF 3	ORIG. SIZE A1	REVISION 3



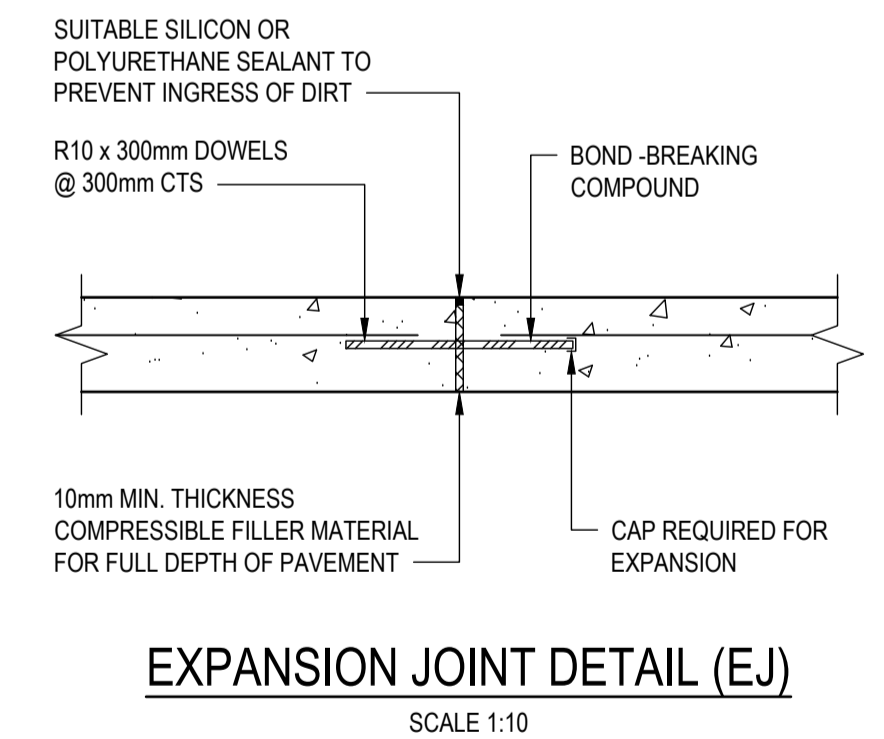
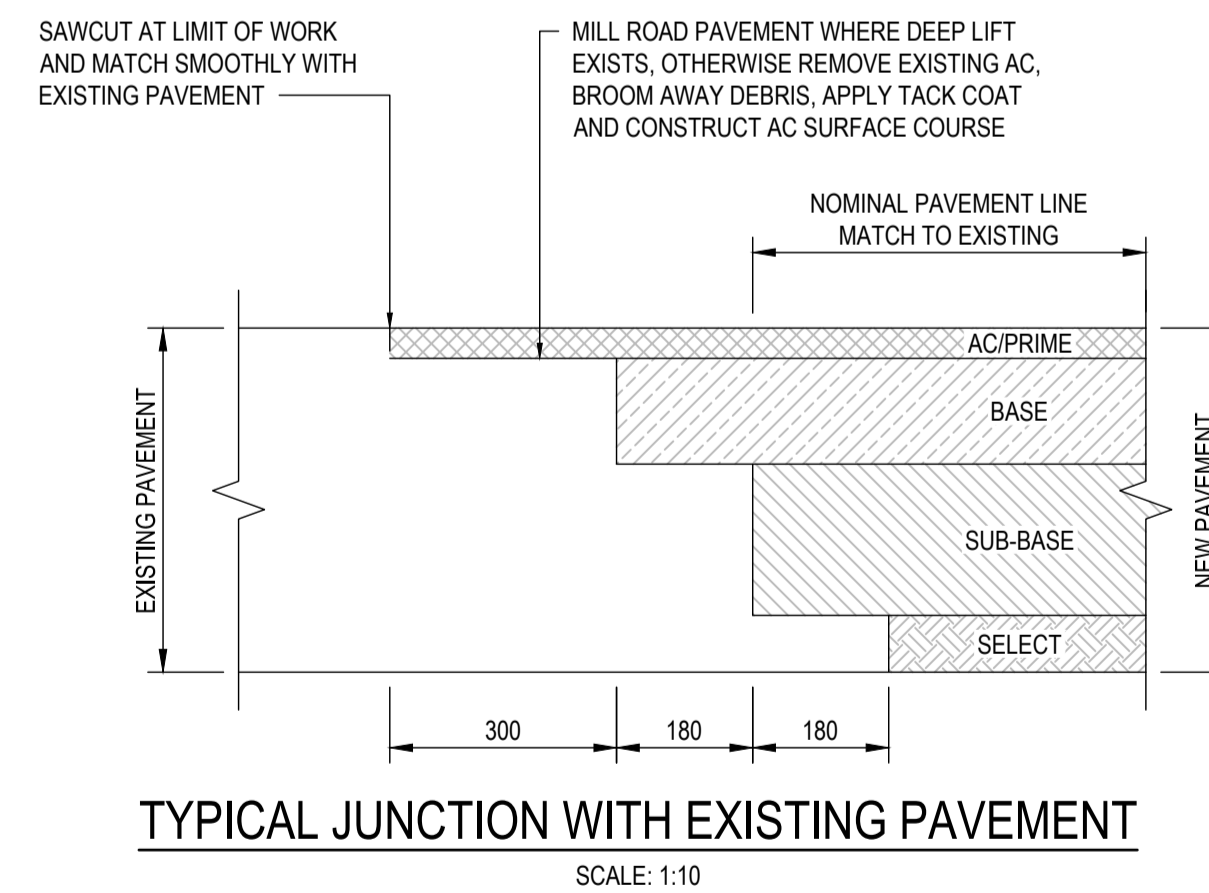
- NOTES:
- ISOLATION JOINT TO BE USED BETWEEN CONCRETE AND ALL EXISTING STRUCTURES THAT DOWELS CANNOT BE PLACED
 - REFER TO PAVEMENT DETAIL FOR STANDARD CONCRETE SLAB AND BASE COURSE THICKNESS



GENERAL CONSTRUCTION NOTES

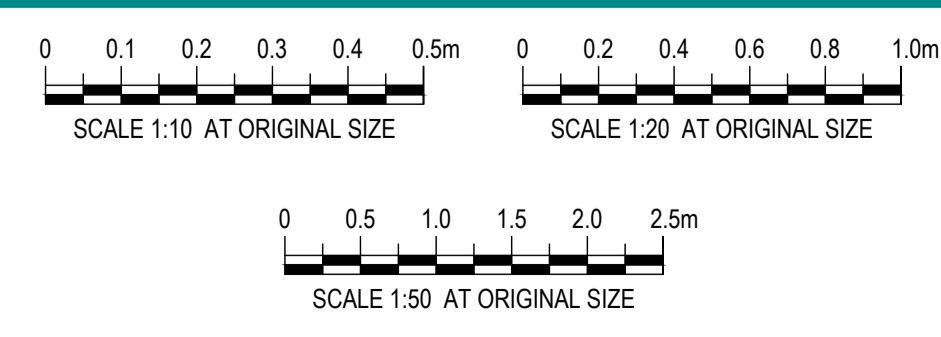
- ALL KERB RAMPS ARE TO BE CONSTRUCTED IN CONCRETE (MINIMUM 25 MPa) OF A CONTRASTING COLOUR TO ADJACENT PAVEMENT
 - IF FOOTPATH IS BRICK PAVING, OR COLOURED CONCRETE THE RAMP SHALL BE PLAIN CONCRETE
 - IF FOOTPATH IS PLAIN CONCRETE, THE RAMP SHALL BE COLOURED (SAHARA) YELLOW
 - THE GUTTER SECTION OF KERB RAMP IS TO REMAIN PLAIN CONCRETE AND IS NOT TO BE COLOURED UNDER ANY CIRCUMSTANCES
- ALL KERB RAMPS ARE TO BE ALIGNED WITH THE DIRECTION OF PEDESTRIAN TRAVEL. THE TOP OF RAMP SHALL BE CONSTRUCTED PARALLEL TO THE KERB LINE
- THE RAMP SHALL BE DEFINED BY SHARP TRANSITION JOINTS/CHANGES IN GRADE THAT WILL DIRECT PEDESTRIANS ALONG THE LINE OF THE CROSSING TOWARDS THE RAMP ON THE OPPOSITE KERB. THE CHANGE IN GRADE BETWEEN THE WINGS AND RAMP SHALL BE DEFINED BY A TOOLED JOINT ONLY.
- ISOLATION JOINTS TO BE PROVIDED WHERE ENDS OF KERB RAMP ABUTS KERB AND GUTTER OR FOOTPATH

**STANDARD WOLLONGONG CITY COUNCIL
KERB RAMP DETAILS**

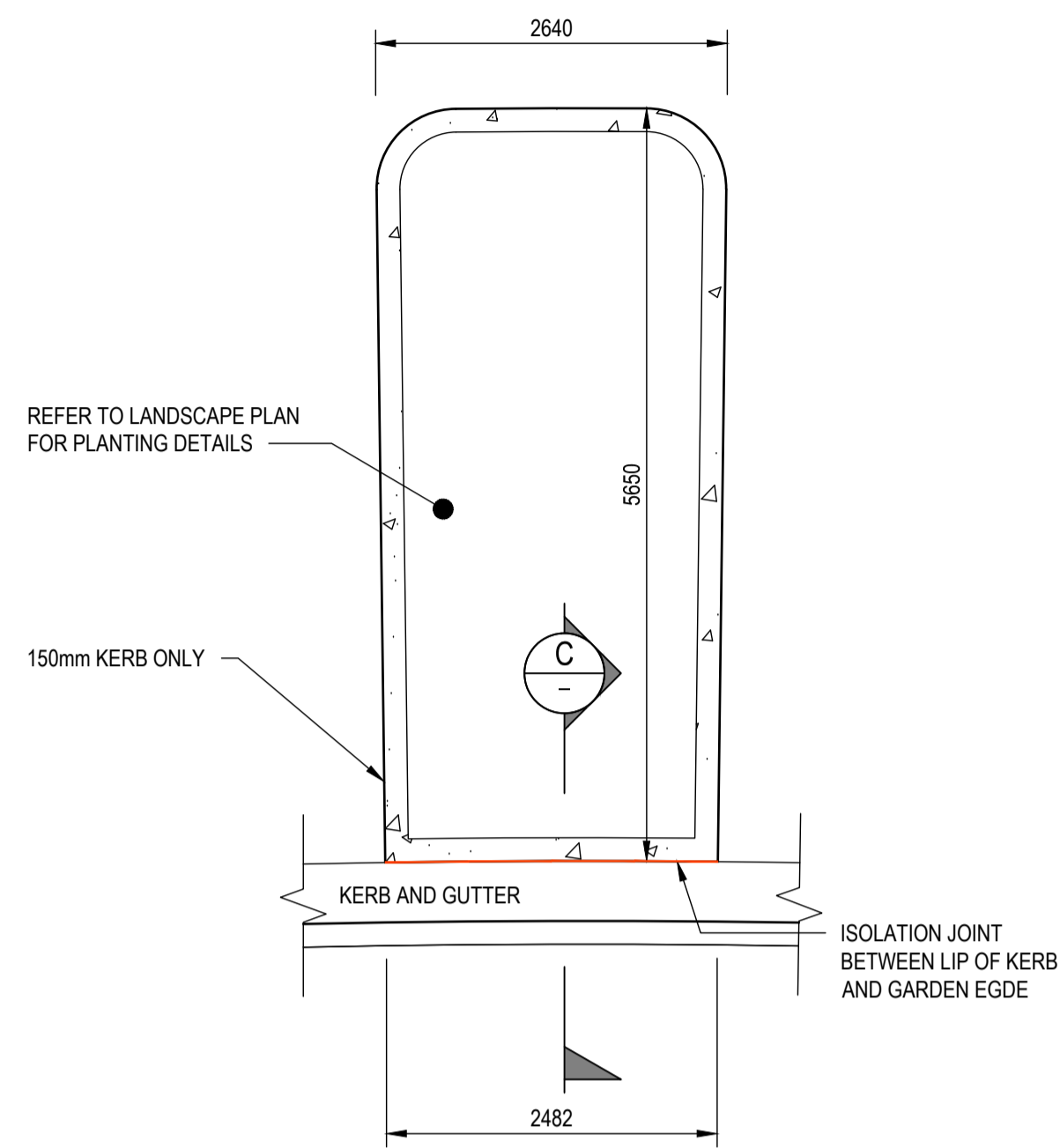


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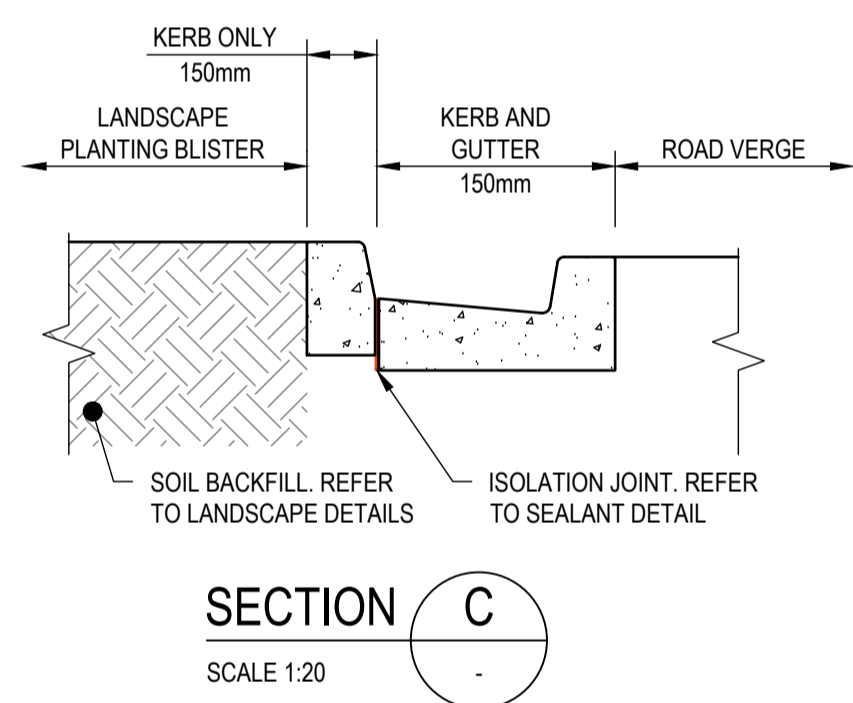
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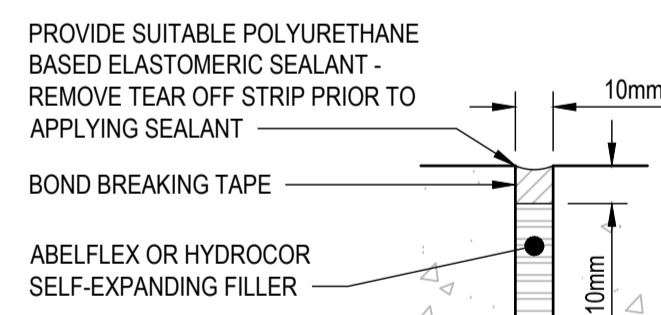
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DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN	APPROVED: A.GOLLAN	DRAWING NUMBER MKR00452-11-C0350	SHEET No. 1 OF 2
NOT FOR CONSTRUCTION		ORIG. SIZE A1	REVISION 3	



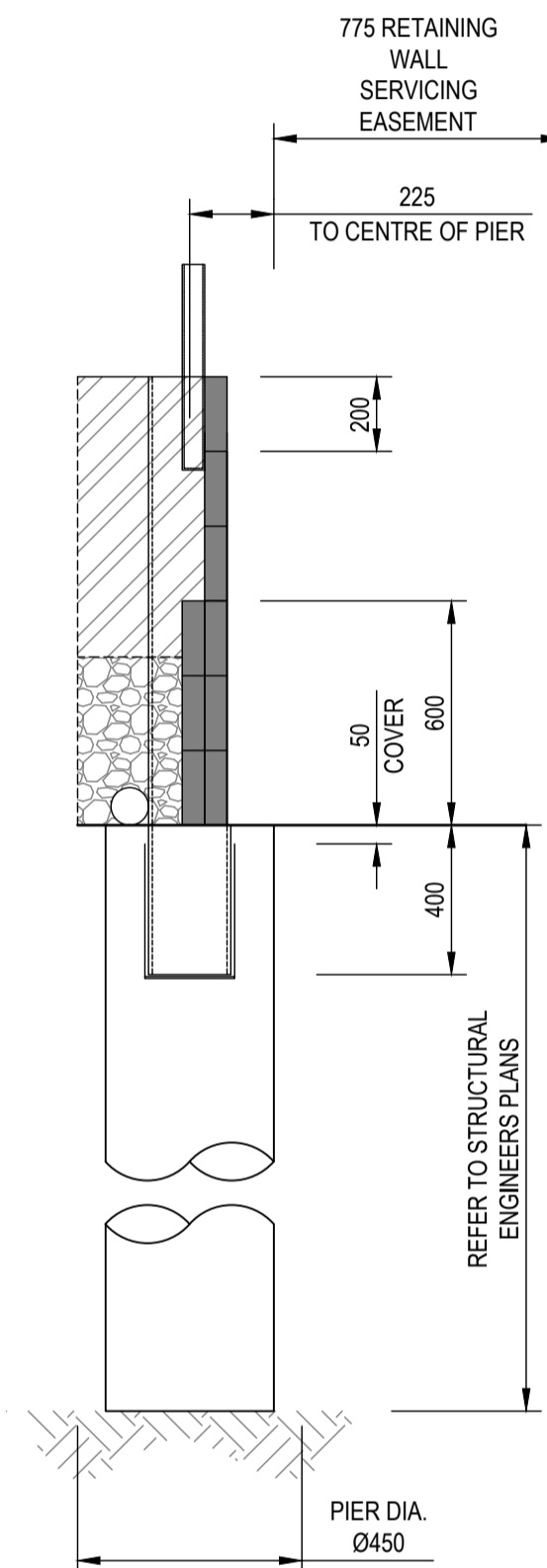
LANDSCAPE TREE BAYS
SCALE 1:50



SECTION C
SCALE 1:20



SEALANT DETAIL 1
N.T.S.

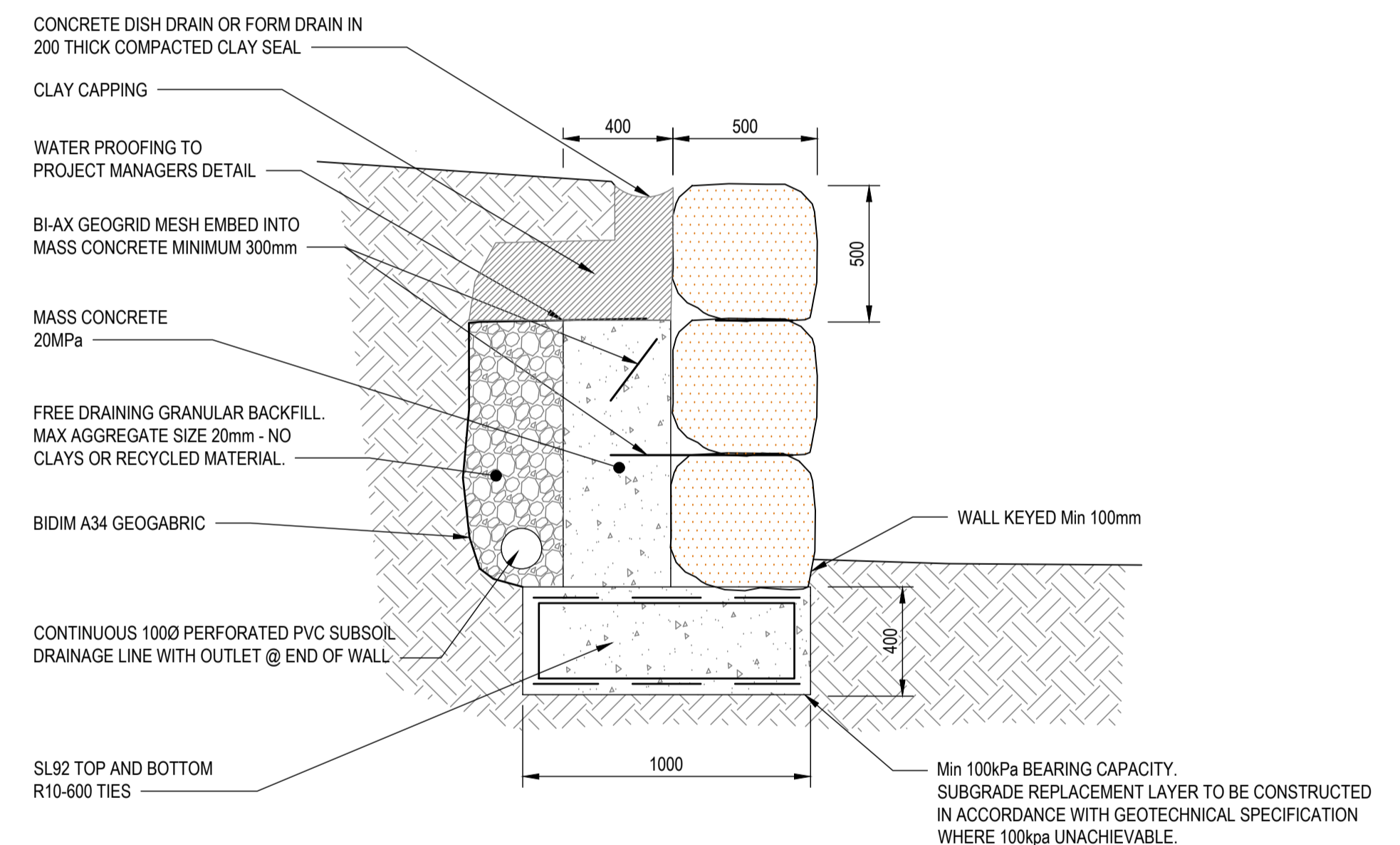


TYPICAL CONCRETE SLEEPER RETAINING WALL

SCALE 1:20

GENERAL RETAINING WALL NOTES

1. DETAILS SHOWN AS INDICATIVE DETAILS. REFER TO STRUCTURAL ENGINEERING NOTES FOR WALL SPECIFICS
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN



TYPICAL SANDSTONE LOG RETAINING WALL

NTS

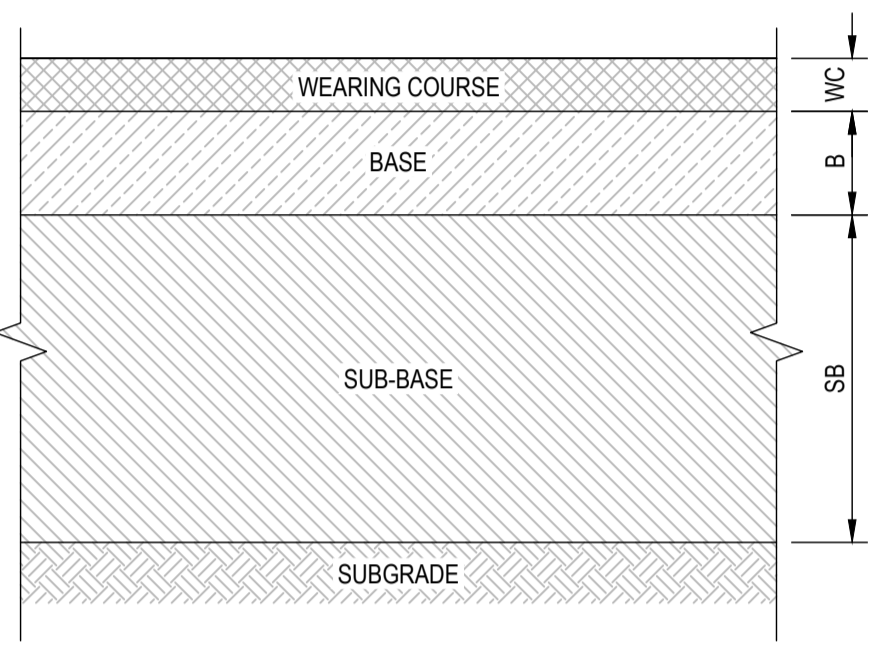


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	

CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
CIVIL DETAILS

NOT FOR CONSTRUCTION	DRAWING NUMBER MKR00452-11-C0351	SHEET No. 2 OF 2	ORIG. SIZE A1	REVISION 3
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ASPHALT PAVEMENT DETAILS								
PAVEMENT	CLASSIFICATION	ESA	MIN. CBR (%)	PAVEMENT THICKNESS (mm)	WEARING COURSE ON PRIMER SEAL [WC] (mm)	BASE [B] (mm) (DGB20) (98% MMDD)	SUB-BASE [SB] (mm) (DGB40) (98% MMDD)	SUB-GRADE REPLACEMENT (mm)
P1	COMMERCIAL/INDUSTRIAL	5 x 10 ⁶	5	475	50 (AC14 PRIMER SEAL)	150	275	500 (100% SMDD)
P2	COLLECTOR	1 x 10 ⁶	5	405	50 (AC14 PRIMER SEAL)	150	205	500 (100% SMDD)
P3	LOCAL ACCESS ROAD	3 x 10 ⁵	5	350	50 (AC14 PRIMER SEAL)	150	150	500 (100% SMDD)



TYPICAL PAVEMENT
NTS
* REFER TO TABLE FOR VALUES

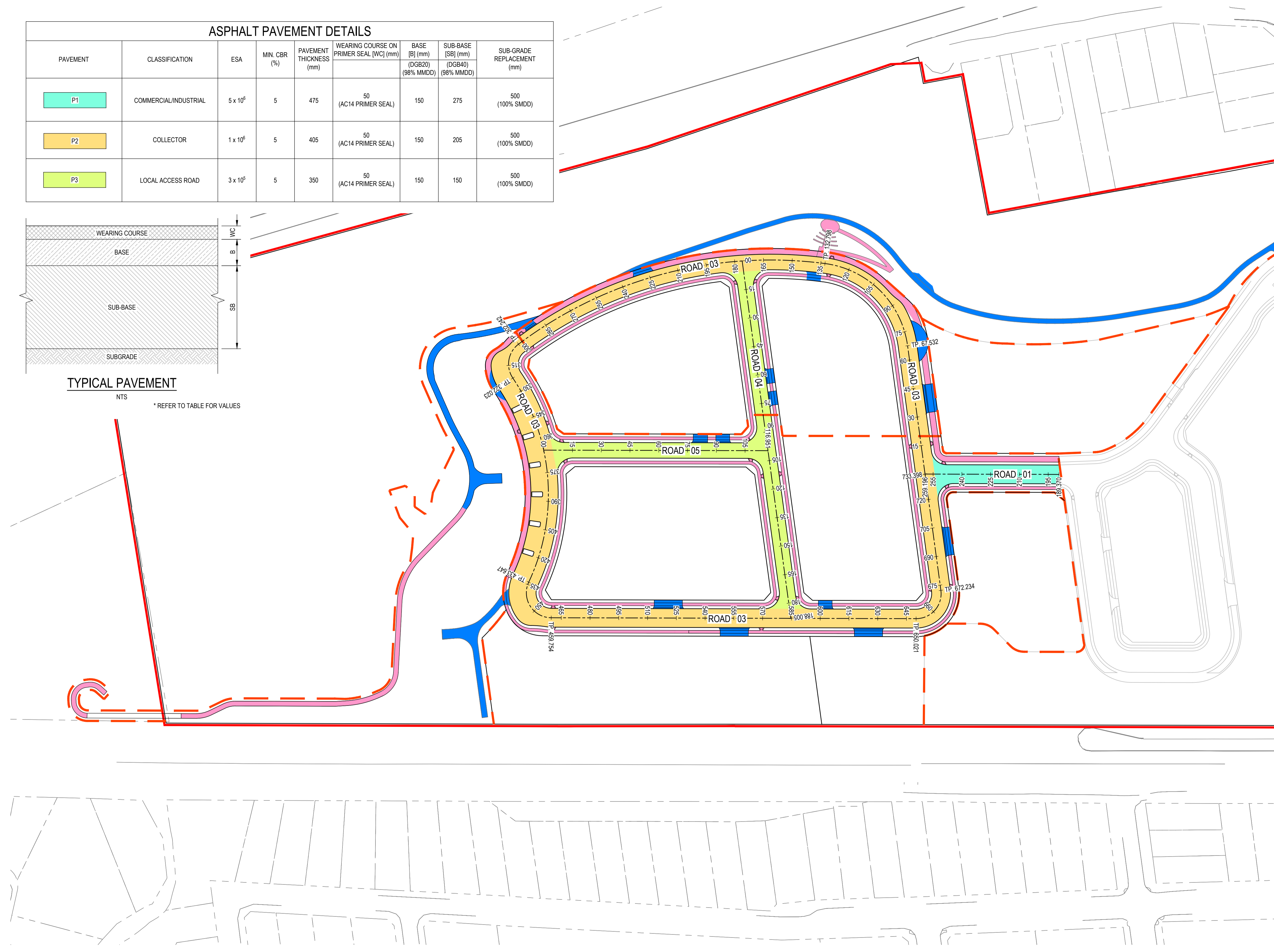
PROPOSED

- SITE BOUNDARY
- - - STAGING BOUNDARY
- P1 PAVEMENT TYPE 1
- P2 PAVEMENT TYPE 2
- P3 PAVEMENT TYPE 3
- CONCRETE CYCLEWAY/SHARED PATH
- CONCRETE VEHICLE PAVEMENT
- ROAD CENTERLINE AND CHAINAGE

EXISTING

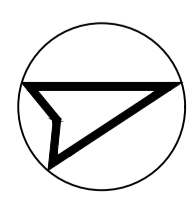
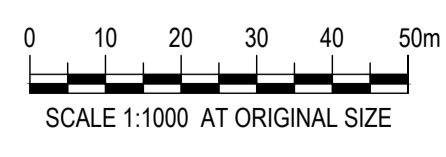
- - - LOT BOUNDARY
- - - EXISTING STAGE 1 LAYOUT

- NOTES:**
- PAVEMENT DESIGN SOURCED FROM REPORT ON PRELIMINARY PAVEMENT THICKNESS DESIGN BY DOUGLAS PARTNERS (16 SEPTEMBER 2025)
 - FINAL PAVEMENT DESIGN SUBJECT TO DETAILED DESIGN AND GEOTECHNICAL ADVICE BASED ON CBR VALUES ON SITE.



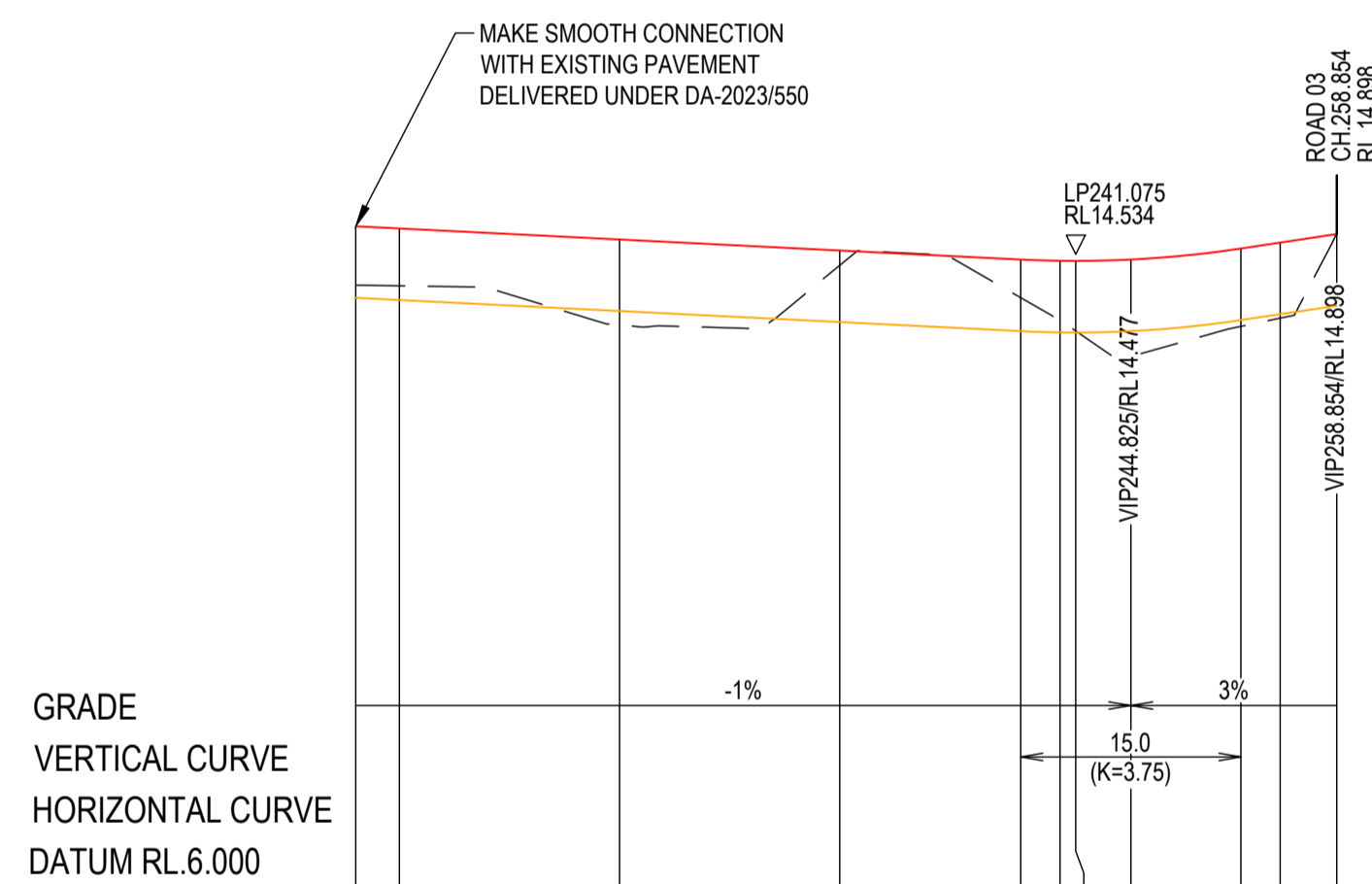
Alex Gollan, 30/10/2025 10:59 AM

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1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION PAVEMENT PLAN			
DRAWING NUMBER MKR00452-11-C0400	SHEET No.	ORIG. SIZE A1	REVISION 3



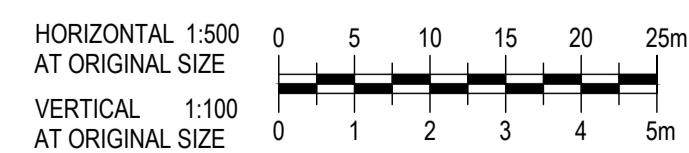
DESIGN SURFACE LEVEL	15.005	14.976	14.826	14.676	14.552	14.534	14.552	14.702	14.783	14.888
DESIGN ROAD BOXING LEVEL	14.030	14.001	13.851	13.701	13.577	13.550	13.540	13.647	13.749	13.888
EXISTING SURFACE LEVEL	14.203	14.194	13.660	14.473	14.093	13.725	13.233	13.642	13.754	14.906
CUT/FILL DEPTHS	-0.802	-0.781	-1.165	-0.202	-0.519	-0.202	-1.319	-1.060	-1.028	0.008
PEGGED CHAINAGE	192.028	195.000	210.000	225.000	237.325	241.075	244.825	252.325	255.000	258.854

HOR : 1 IN 500
VERT: 1 IN 100

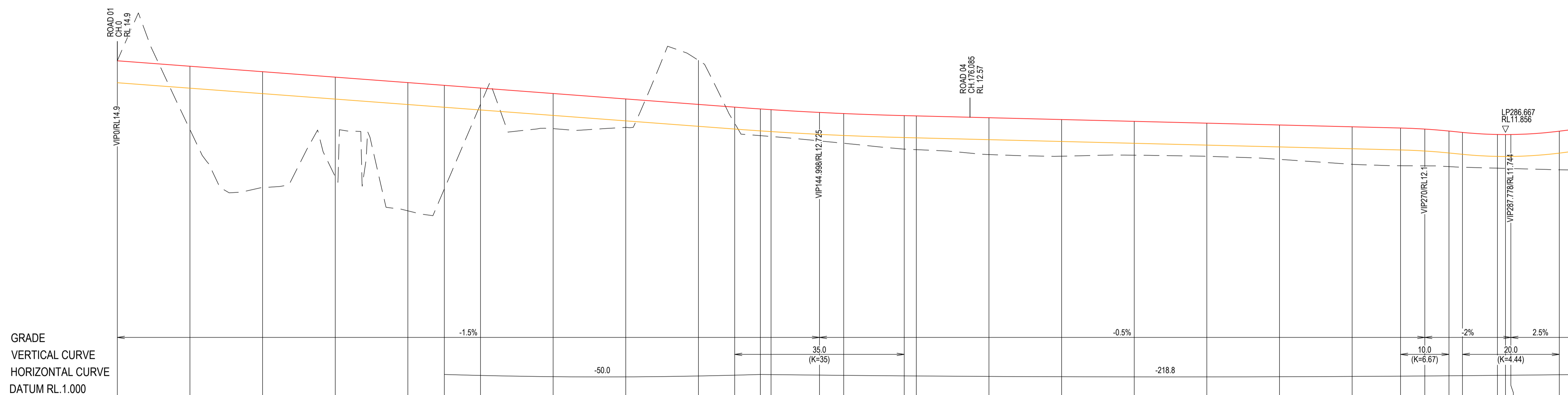
LONGITUDINAL SECTION - ROAD 01

Alec Gollan, 30/10/2025 10:59 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION LONGITUDINAL SECTIONS ROAD 01		
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN	DRAWING NUMBER MKR00452-11-C0500	SHEET No.	ORIG. SIZE A1
APPROVED: A.GOLLAN	NOT FOR CONSTRUCTION	REVISION 3		



PEGGED CHAINAGE	0.000	15.000	30.000	45.000	60.000	67.532	75.000	90.000	105.000	120.000	127.498	132.798	135.000	144.998	150.000	162.498	165.000	180.000	195.000	210.000	225.000	240.000	255.000	265.000	270.000	275.000	277.778	285.000	286.667	287.778	297.778	300.000
DESIGN SURFACE LEVEL	14.900	14.675	14.450	14.225	14.000	13.887	13.775	13.550	13.325	13.100	12.988	12.912	12.883	12.769	12.722	12.638	12.625	12.550	12.475	12.400	12.325	12.250	12.175	12.125	12.081	12.000	11.944	11.859	11.856	11.857	11.994	12.050
DESIGN ROAD BOXING LEVEL	13.995	13.770	13.545	13.320	13.095	12.992	12.870	12.645	12.420	12.195	12.083	12.007	11.978	11.864	11.817	11.733	11.720	11.645	11.570	11.495	11.420	11.345	11.270	11.220	11.176	11.095	11.039	10.954	10.951	10.952	11.089	11.145
EXISTING SURFACE LEVEL	14.906	12.060	9.664	10.115	8.706	9.608	13.105	12.069	12.150	14.921	12.317	11.810	11.775	11.593	11.496	11.254	11.232	11.030	10.961	11.003	10.958	10.831	10.627	10.569	10.563	10.531	10.506	10.469	10.459	10.453	10.400	10.396
CUT/FILL DEPTHS	0.006	-2.615	-4.786	-4.110	-5.294	-4.279	-0.670	-1.451	-1.175	1.821	-0.670	-1.102	-1.108	-1.176	-1.227	-1.384	-1.393	-1.520	-1.514	-1.397	-1.367	-1.419	-1.549	-1.556	-1.518	-1.469	-1.439	-1.391	-1.396	-1.404	-1.595	-1.654

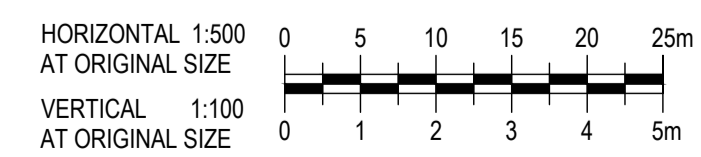
HOR: 1 IN 500
VERT: 1 IN 100

LONGITUDINAL SECTION - ROAD 03

FOR CONTINUATION REFER C0502

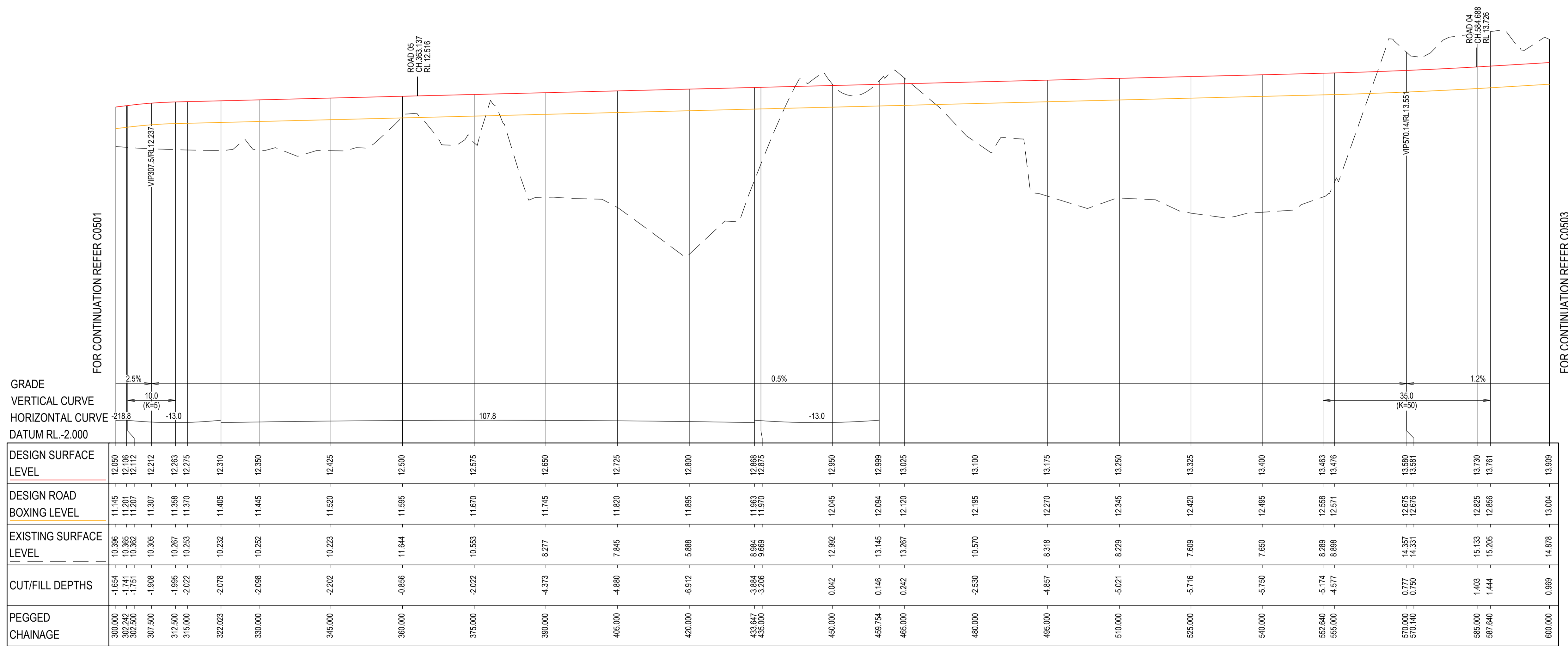
Alex Gollan, 30/10/2025 10:59 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNIS
DRAFT CHECK: S.McINNIS	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION LONGITUDINAL SECTIONS ROAD 03			
DRAWING NUMBER MKR00452-11-C0501	SHEET No. 1 OF 3	ORIG. SIZE A1	REVISION 3



GRADE
VERTICAL CURVE
HORIZONTAL CURVE
DATUM RL -2.000

	300.000	302.202	305.500	307.500	312.500	315.000	322.023	330.000	345.000	360.000	375.000	390.000	405.000	420.000	435.647	435.000	450.000	459.754	465.000	480.000	495.000	510.000	525.000	540.000	552.640	555.000	570.000	585.000	597.640	600.000
DESIGN SURFACE LEVEL	12.050	12.086	12.106	12.112	12.212	12.263	12.275	12.310	12.350	12.425	12.500	12.575	12.650	12.725	12.800	12.868	12.875	12.900	12.999	13.000	13.175	13.250	13.325	13.400	13.463	13.476	13.580	13.581	13.730	13.909
DESIGN ROAD BOXING LEVEL	11.145	11.201	11.207	11.307	11.358	11.370	11.405	11.445	11.520	11.595	11.670	11.745	11.820	11.895	11.953	11.970	12.045	12.094	12.120	12.195	12.270	12.345	12.420	12.495	12.558	12.571	12.675	12.676	12.825	13.004
EXISTING SURFACE LEVEL	10.396	10.385	10.362	10.305	10.267	10.253	10.232	10.252	10.223	11.644	10.553	8.277	7.845	5.888	8.084	9.669	12.992	13.145	13.267	10.570	8.318	8.229	7.609	7.650	8.289	8.898	14.357	14.351	15.193	14.878
CUT/FILL DEPTHS	-1.544	-1.741	-1.751	-1.908	-1.995	-2.022	-2.078	-2.098	-2.202	-0.856	-2.022	-4.373	-4.880	-6.912	-3.884	-3.206	0.042	0.146	0.242	-2.630	-4.857	-5.021	-5.716	-5.750	-5.174	-4.577	0.777	0.150	1.403	0.969
PEGGED CHAINAGE	300.000	302.202	305.500	307.500	312.500	315.000	322.023	330.000	345.000	360.000	375.000	390.000	405.000	420.000	435.647	435.000	450.000	459.754	465.000	480.000	495.000	510.000	525.000	540.000	552.640	555.000	570.000	585.000	597.640	600.000

FOR CONTINUATION REFER C0501

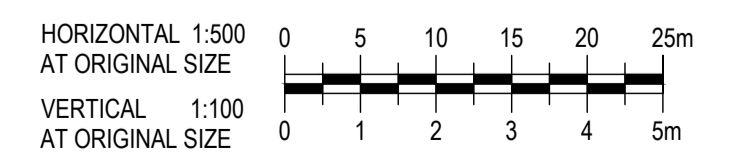
FOR CONTINUATION REFER C0503

LONGITUDINAL SECTION - ROAD 03

HOR: 1 IN 500
VERT: 1 IN 100

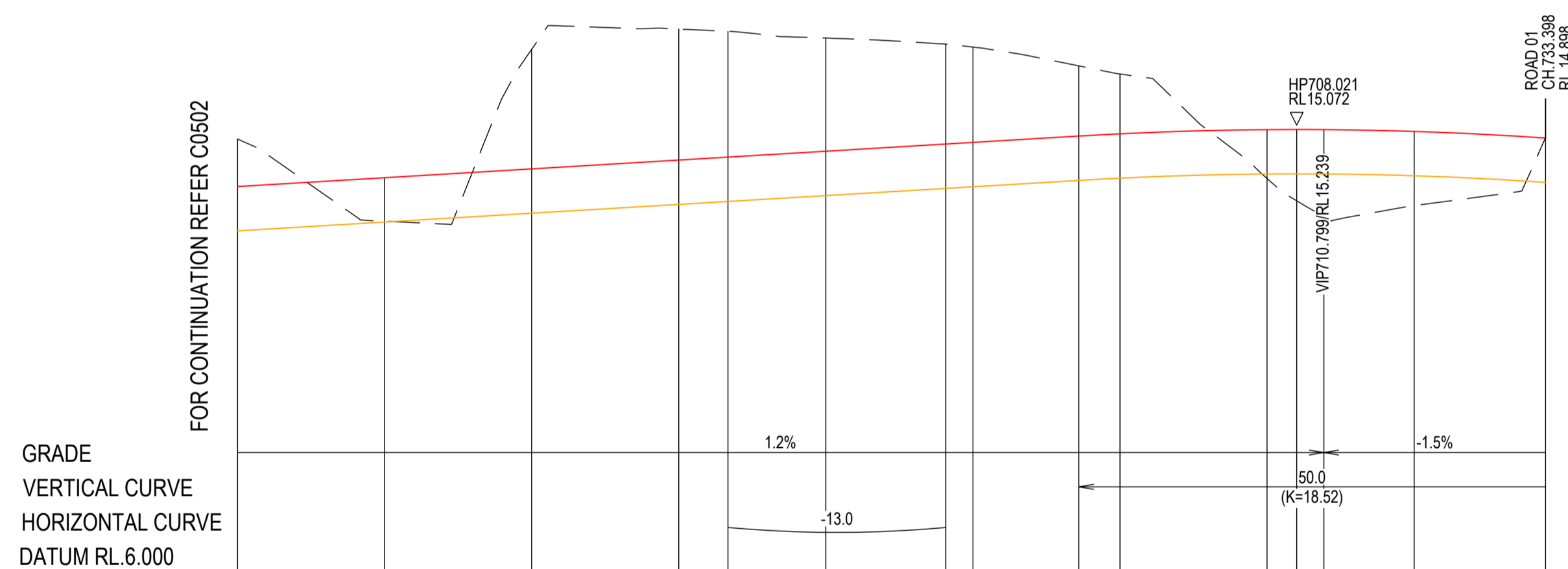
Alvin Gollan, 30/10/2025 10:59 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION LONGITUDINAL SECTIONS ROAD 03			
DRAWING NUMBER MKR00452-11-C0502	SHEET No. 2 OF 3	ORIG. SIZE A1	REVISION 3



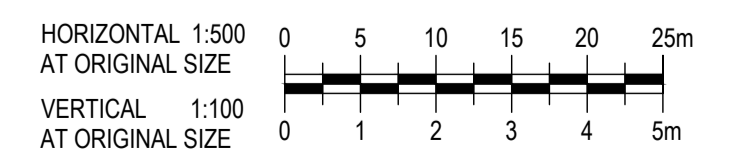
DESIGN SURFACE LEVEL	DESIGN ROAD BOXING LEVEL	EXISTING SURFACE LEVEL	CUT/FILL DEPTHS	PEGGED CHAINAGE
13.909	13.004	14.878	0.969	600.000
14.089	13.184	13.201	-0.888	615.000
14.269	13.364	16.711	2.441	630.000
14.449	13.544	17.122	2.673	645.000
14.509	13.604	17.076	2.566	650.021
14.629	13.724	16.938	2.309	660.000
14.776	13.871	16.815	2.039	672.234
14.809	13.904	16.754	1.945	675.000
14.939	14.034	16.370	1.432	685.799
14.984	14.079	16.205	1.221	690.000
15.070	14.165	14.072	-0.997	705.000
15.072	14.167	13.617	-1.455	708.021
15.070	14.165	13.295	-1.775	710.799
15.033	14.128	13.519	-1.515	720.000
14.888	13.993	14.906	0.008	733.398

LONGITUDINAL SECTION - ROAD 03

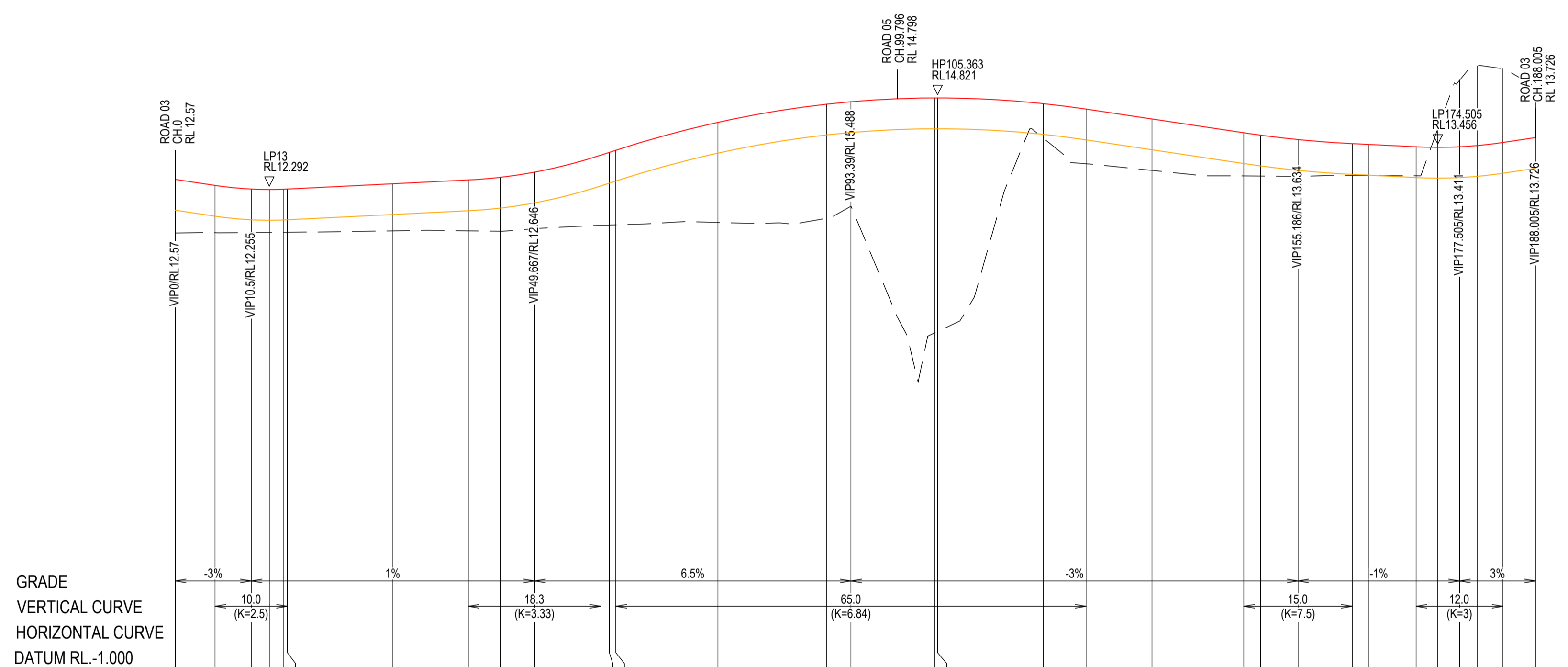
HOR : 1 IN 500
VERT: 1 IN 100

Alec Gollan, 30/10/2025 10:59 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION LONGITUDINAL SECTIONS ROAD 03			
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN	DRAWING NUMBER MKR00452-11-C0503	SHEET No. 3 OF 3	ORIG. SIZE A1	REVISION 3
APPROVED: A.GOLLAN		NOT FOR CONSTRUCTION			

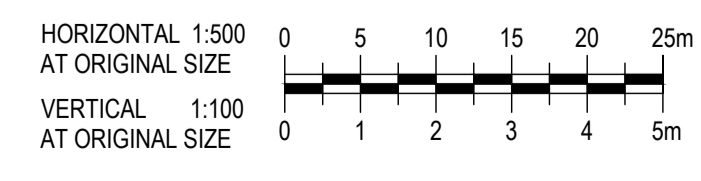


DESIGN SURFACE LEVEL	DESIGN ROAD BOXING LEVEL	EXISTING SURFACE LEVEL	CUT/FILL DEPTHS	PEGGED CHAINAGE
12.570	11.720	11.089	-1.480	0.000
12.405	11.555	11.098	-1.306	5.000
12.305	11.455	11.103	-1.202	10.500
12.292	11.442	11.107	-1.186	13.000
12.300	11.450	11.110	-1.191	15.000
12.305	11.455	11.110	-1.194	15.500
12.450	11.600	11.149	-1.300	30.000
12.555	11.705	11.149	-1.405	40.500
12.630	11.780	11.137	-1.493	45.000
12.772	11.922	11.209	-1.564	49.667
13.242	12.382	11.303	-1.939	58.833
13.316	12.468	11.310	-2.008	60.000
13.376	12.526	11.315	-2.061	60.880
14.147	13.297	11.381	-2.767	75.000
14.649	13.799	11.496	-3.153	90.000
14.716	13.866	11.829	-2.888	93.390
14.821	13.971	8.335	-6.486	105.000
14.821	13.971	8.369	-6.452	105.363
14.665	13.815	13.708	-0.896	120.000
14.513	13.663	13.002	-1.511	125.890
14.240	13.390	12.820	-1.420	135.000
13.859	13.009	12.688	-1.191	147.686
13.794	12.944	12.663	-1.130	150.000
13.672	12.822	12.652	-1.020	155.186
13.559	12.709	12.680	-0.880	162.686
13.536	12.686	12.677	-0.859	165.000
13.471	12.621	12.671	-0.800	171.505
13.456	12.606	13.970	0.514	174.505
13.471	12.621	15.306	1.835	177.505
13.506	12.656	15.705	2.189	180.000
13.591	12.741	15.628	2.037	183.505
13.726	12.876	15.125	1.398	188.005

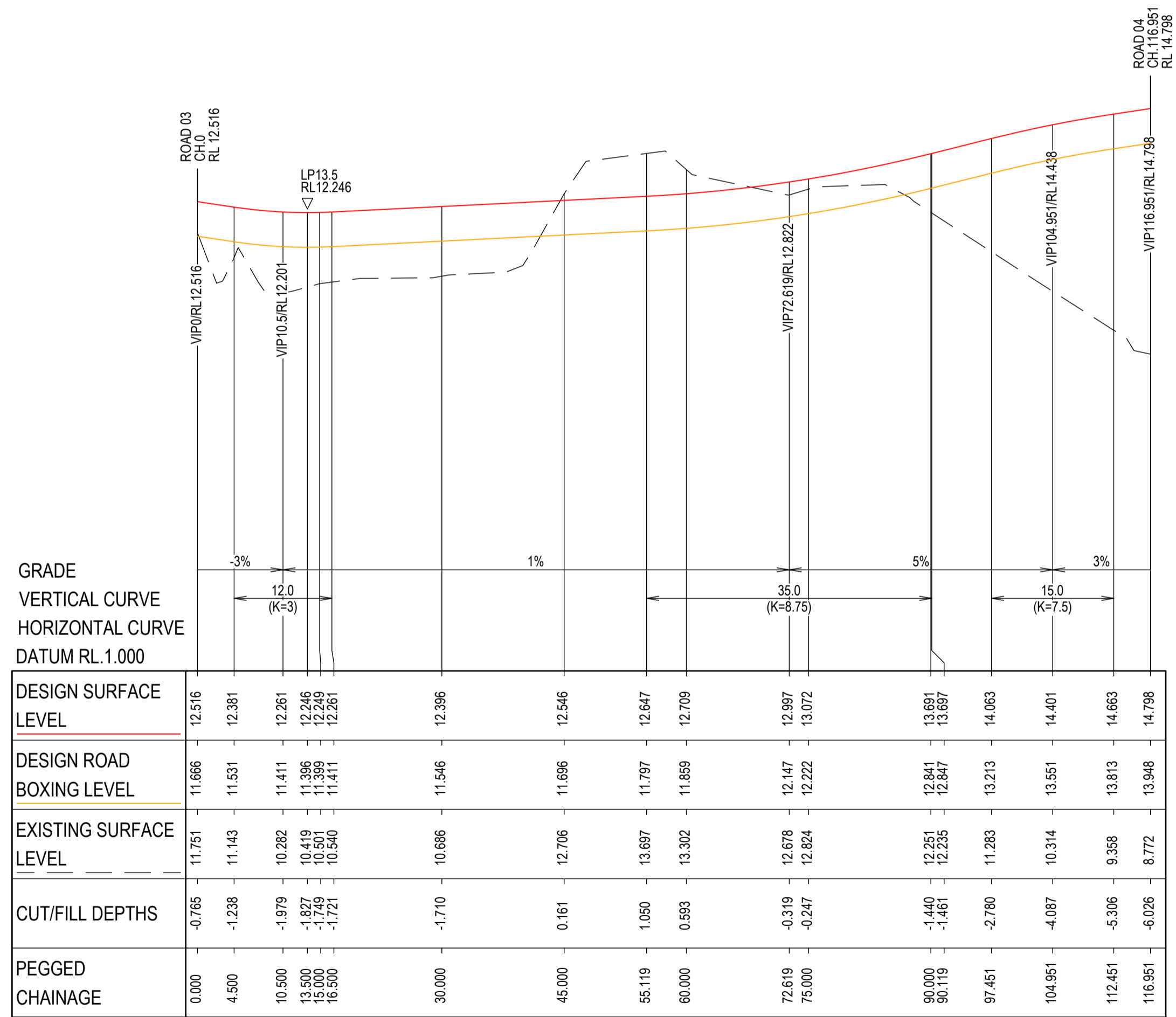
HOR: 1 IN 500
VERT: 1 IN 100

LONGITUDINAL SECTION - ROAD 04

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION LONGITUDINAL SECTIONS ROAD 04			
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN	DRAWING NUMBER MKR00452-11-C0504	SHEET No.	ORIG. SIZE A1	REVISION 3
APPROVED: A.GOLLAN		NOT FOR CONSTRUCTION			



GRADE
VERTICAL CURVE
HORIZONTAL CURVE
DATUM RL.1.000

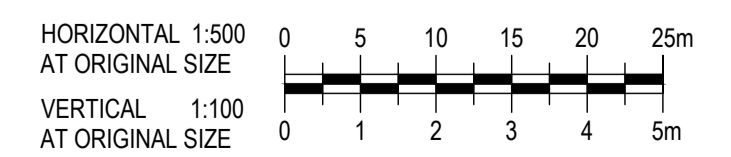
DESIGN SURFACE LEVEL	12.516	12.381	12.261	12.246	12.249	12.261		12.396	12.546	12.647	12.709	12.897	13.072	13.691	13.897	14.063	14.401	14.663	14.798
DESIGN ROAD BOXING LEVEL	11.666	11.531	11.411	11.396	11.399	11.411		11.546	11.696	11.797	11.859	12.147	12.222	12.841	12.847	13.213	13.551	13.813	13.948
EXISTING SURFACE LEVEL	11.751	11.143	10.282	10.419	10.501	10.540		10.686	12.706	13.697	13.302	12.678	12.824	12.251	12.235	11.283	10.314	9.358	8.772
CUT/FILL DEPTHS	-0.765	-1.238	-1.979	-1.827	-1.749	-1.721		-1.710	0.161	1.050	0.583	-0.319	-0.247	-1.440	-1.461	-2.780	-4.087	-5.306	-6.026
PEGGED CHAINAGE	0.000	4.500	10.500	13.500	15.000	16.500		30.000	45.000	55.119	60.000	72.619	75.000	90.000	90.119	97.451	104.951	112.451	116.951

HOR: 1 IN 500
VERT: 1 IN 100

LONGITUDINAL SECTION - ROAD 05

Alex Gollan, 30/10/2025 10:59 AM

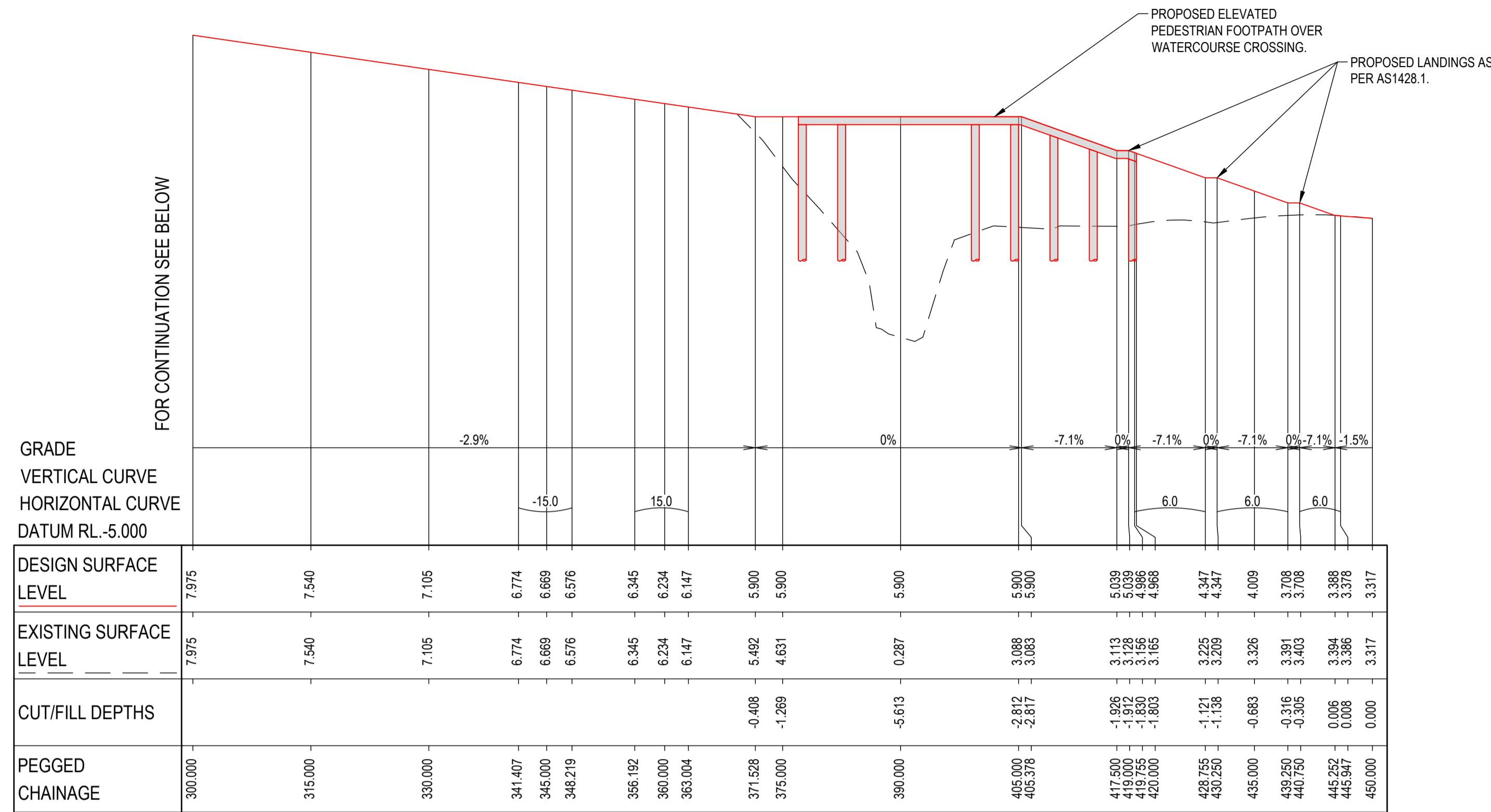
REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
LONGITUDINAL SECTIONS
ROAD 05

DRAWING NUMBER MKR00452-11-C0505	SHEET No.	ORIG. SIZE A1	REVISION 3
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LONGITUDINAL SECTION - PATH 01

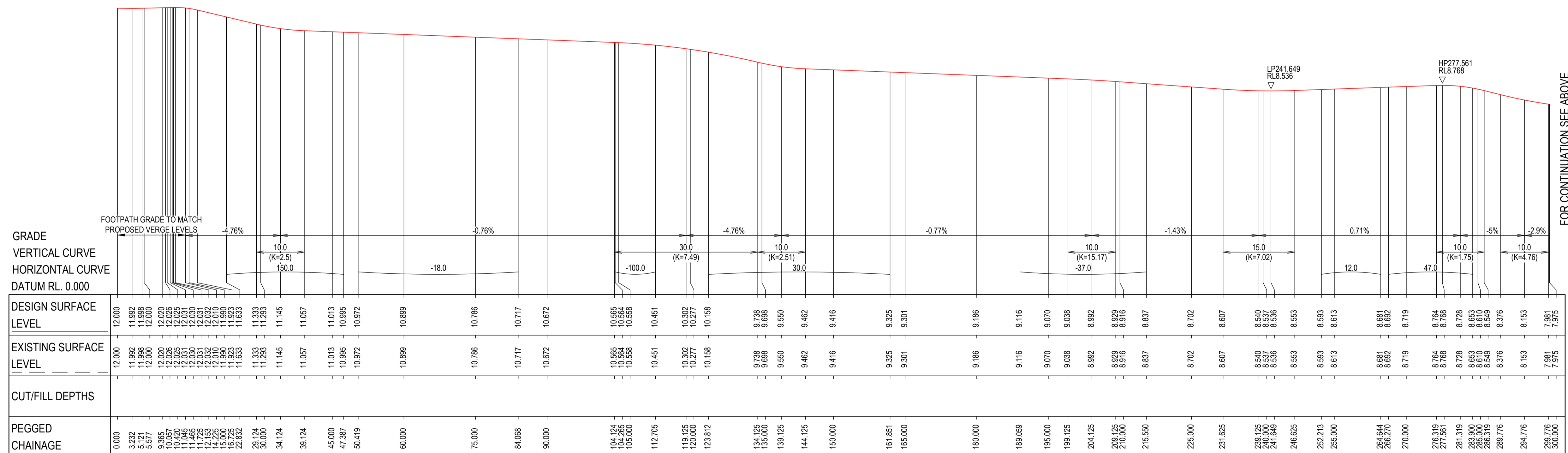
PROPOSED PEDESTRIAN WATER COURSE CROSSING REQUIREMENTS:

THE BELOW OUTCOMES ARE CONCEPTUAL ONLY TO ACHIEVE PEDESTRIAN ACCESS, EARTHWORKS AND FLOODING REQUIREMENTS. THEY ARE SUBJECT TO CHANGE UNDER DETAILED STRUCTURAL DESIGN.

<CH377: CONCRETE FOOTPATH WITH 1:4 BATTERS OR RETAINING WALLS.
 CH377-382: ELEVATED FOOTPATH DECK WITH SMALL SPANS. SPAN LENGTH AND CONSTRUCTION TYPE TO BE CONFIRMED AT DETAILED DESIGN.
 CH382-400: ELEVATED FOOTPATH DECK WITH 18m SINGLE SPAN FOR FLOOD CONVEYANCE. RL 5.90m ALLOWS FOR IMMUNITY TO 10% AEP FLOOD EVENT.
 CH400-405: ELEVATED FOOTPATH DECK WITH SMALL SPANS TO ALLOW FOR 2.8m CLEARANCE OF ANY FUTURE UNDERPASS FOOTPATHS. SPAN LENGTH AND CONSTRUCTION TYPE TO BE CONFIRMED AT DETAILED DESIGN.
 CH405-420: ELEVATED FOOTPATH DECK WITH SMALL SPANS TO AVOID EXCESSIVE EARTHWORKS IN FLOOD ZONE.
 >CH420: CONCRETE FOOTPATH WITH 1:4 BATTERS OR RETAINING WALLS.

REFER TO BRIDGE DESIGN PACKAGE BY "FORGE" REFERENCE NUMBER 12132 FOR FURTHER DETAILS.

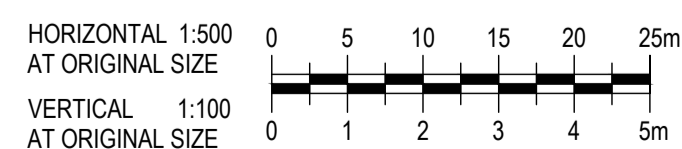
NOTE:
 CHAINAGE 0-377 OF PATH 01 EARTHWORKS PROVIDED UNDER BULK EARTHWORKS APPROVAL DA2023 / 823.



LONGITUDINAL SECTION - PATH 01

Alec Gollan, 30/10/2025 10:59 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

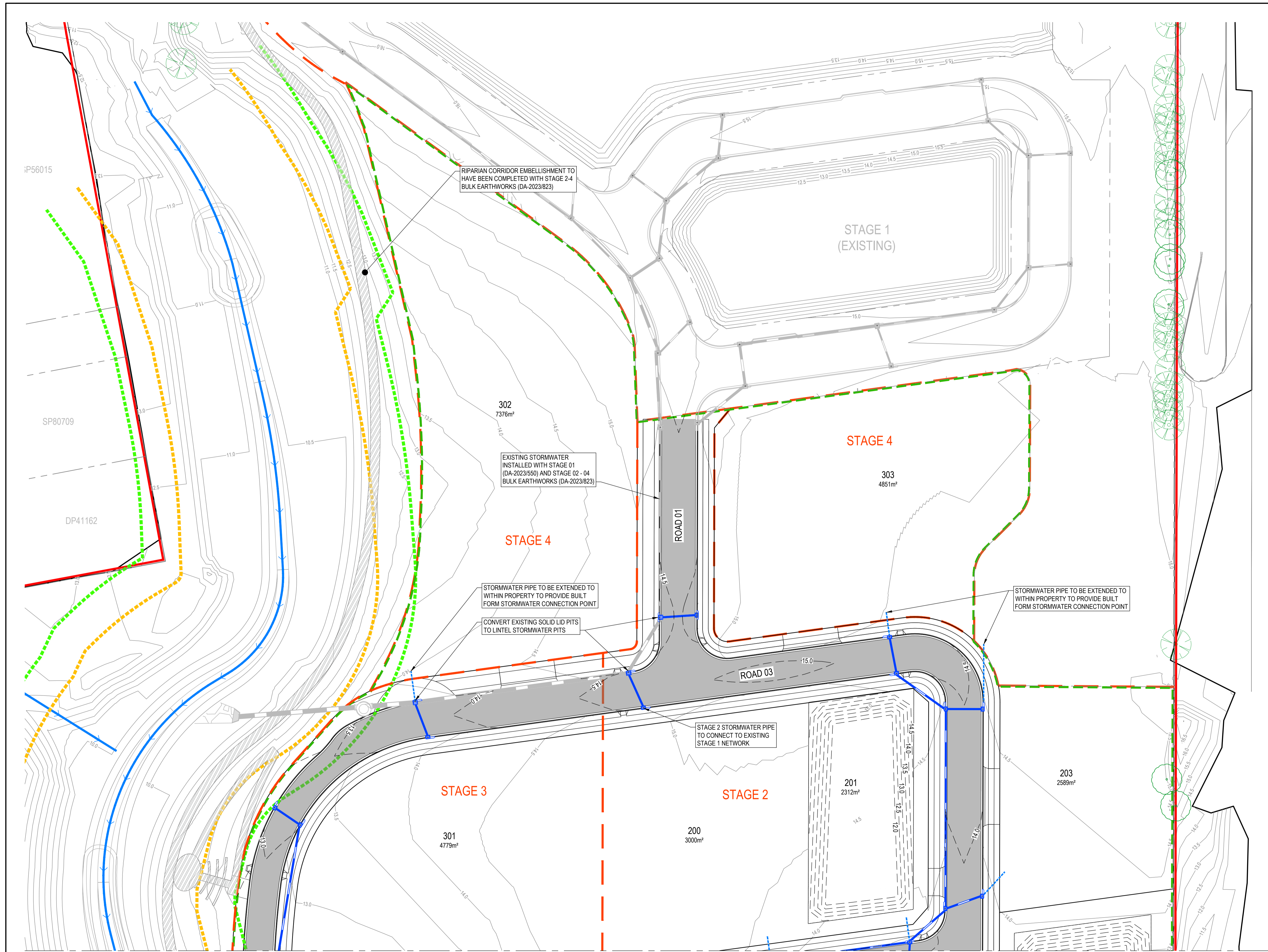


DRAWN: J.BADI
 DESIGNED: S.McINNES
 DRAFT CHECK: S.McINNES
 DESIGN CHECK: A.GOLLAN
 APPROVED: A.GOLLAN

NOT FOR CONSTRUCTION

CORRIMAL COKE WORKS
 STAGE 2-4 RESIDENTIAL SUBDIVISION
 LONGITUDINAL SECTIONS
 PATH 01

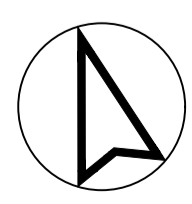
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C0560		A1	3



PROPOSED		LEGEND	
	SITE BOUNDARY		WORKS EXTENTS
	STAGING BOUNDARY		LOT BOUNDARY
	LOT BOUNDARY		INDICATIVE FUTURE BUILT FORM OUTLINE
	EASEMENT		EASEMENT
	7.0 CONTOURS (0.5m)		7.0 CONTOURS (0.5m)
	ROAD CENTERLINE AND CHAINAGE		RIPARIAN ZONE INNER BOUNDARY
	RIPARIAN ZONE INNER BOUNDARY		RIPARIAN ZONE OUTER BOUNDARY
	BASIN EXTENTS		BASIN EXTENTS
	STORMWATER PIPES		STORMWATER PIPES
	STORMWATER STRUCTURES		STORMWATER STRUCTURES
	BASIN		BASIN
	RIP RAP		RIP RAP
	RETAINING WALL		RETAINING WALL
EXISTING			LOT BOUNDARY
	EASEMENT		EASEMENT
	EXISTING STAGE 1 LAYOUT		EXISTING STAGE 1 LAYOUT
	7.0 CONTOURS (0.5m)		7.0 CONTOURS (0.5m)
	STORMWATER PIPES		STORMWATER PIPES
	STORMWATER STRUCTURES		STORMWATER STRUCTURES
	RIP RAP		RIP RAP
	OPEN DRAIN		OPEN DRAIN
	CONCRETE SURFACE		CONCRETE SURFACE
	RETAINING WALL		RETAINING WALL
	TREE (TO BE RETAINED)		TREE (TO BE RETAINED)

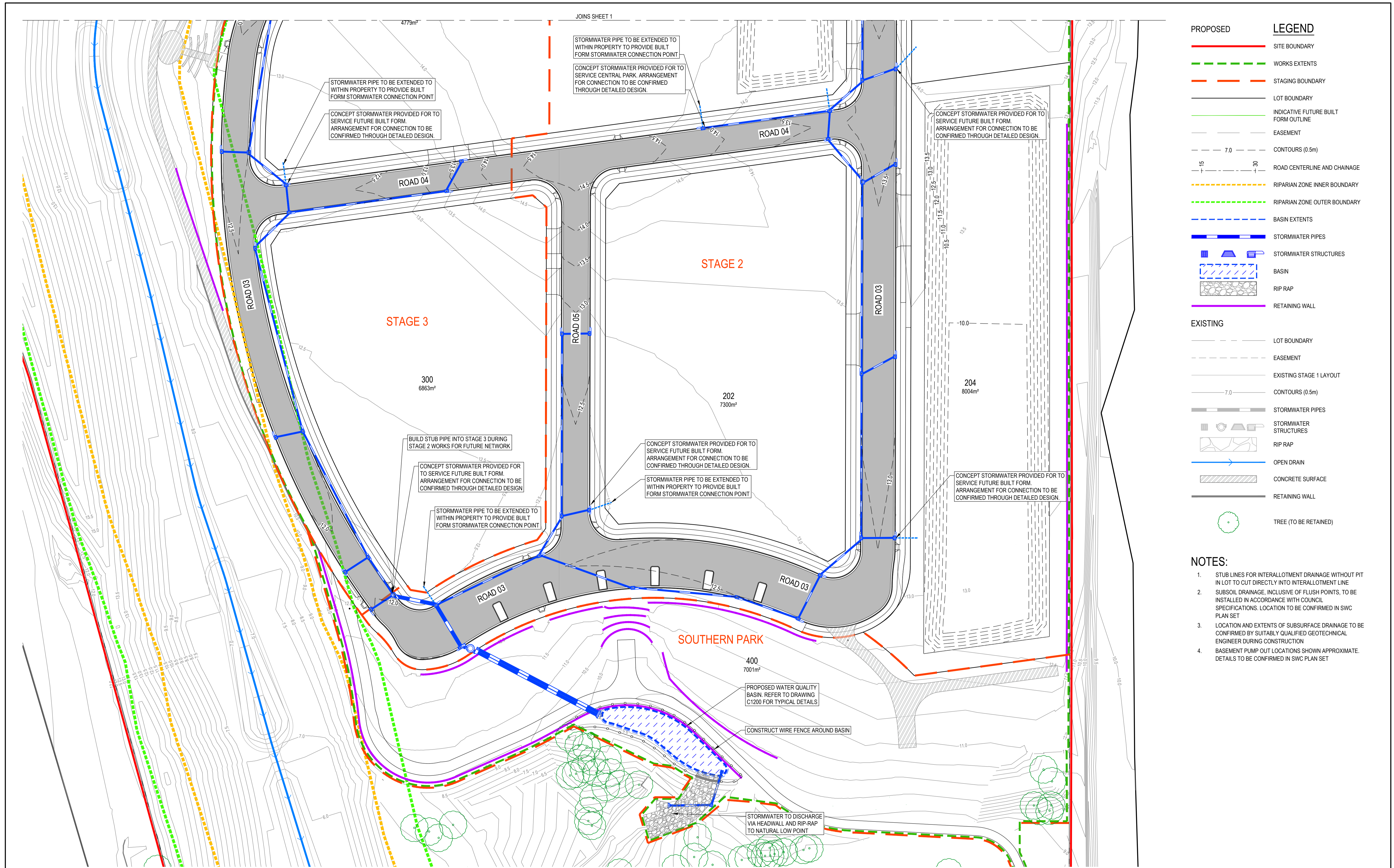
- NOTES:**
1. STUB LINES FOR INTERALLOTMENT DRAINAGE WITHOUT PIT IN LOT TO CUT DIRECTLY INTO INTERALLOTMENT LINE
 2. SUBSOIL DRAINAGE, INCLUSIVE OF FLUSH POINTS, TO BE INSTALLED IN ACCORDANCE WITH COUNCIL SPECIFICATIONS. LOCATION TO BE CONFIRMED IN SWC PLAN SET
 3. LOCATION AND EXTENTS OF SUBSURFACE DRAINAGE TO BE CONFIRMED BY SUITABLY QUALIFIED GEOTECHNICAL ENGINEER DURING CONSTRUCTION
 4. BASEMENT PUMP OUT LOCATIONS SHOWN APPROXIMATE. DETAILS TO BE CONFIRMED IN SWC PLAN SET

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	
NOT FOR CONSTRUCTION	

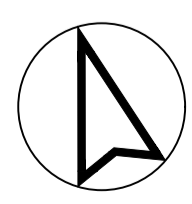
CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION STORMWATER LAYOUT PLAN			
DRAWING NUMBER MKR00452-11-C0800	SHEET No. 1 OF 2	ORIG. SIZE A1	REVISION 3



PROPOSED		LEGEND	
	SITE BOUNDARY		WORKS EXTENTS
	STAGING BOUNDARY		LOT BOUNDARY
	INDICATIVE FUTURE BUILT FORM OUTLINE		EASEMENT
	CONTOURS (0.5m)		EXISTING STAGE 1 LAYOUT
	ROAD CENTERLINE AND CHAINAGE		CONTOURS (0.5m)
	RIPARIAN ZONE INNER BOUNDARY		STORMWATER PIPES
	RIPARIAN ZONE OUTER BOUNDARY		STORMWATER STRUCTURES
	BASEIN EXTENTS		BASIN
	STORMWATER PIPES		RIP RAP
	STORMWATER STRUCTURES		RETAINING WALL
	BASIN		
	RIP RAP		
	RETAINING WALL		
EXISTING			LOT BOUNDARY
	LOT BOUNDARY		EASEMENT
	EASEMENT		EXISTING STAGE 1 LAYOUT
	EXISTING STAGE 1 LAYOUT		CONTOURS (0.5m)
	CONTOURS (0.5m)		STORMWATER PIPES
	STORMWATER PIPES		STORMWATER STRUCTURES
	STORMWATER STRUCTURES		RIP RAP
	RIP RAP		OPEN DRAIN
	OPEN DRAIN		CONCRETE SURFACE
	CONCRETE SURFACE		RETAINING WALL
	RETAINING WALL		TREE (TO BE RETAINED)
	TREE (TO BE RETAINED)		

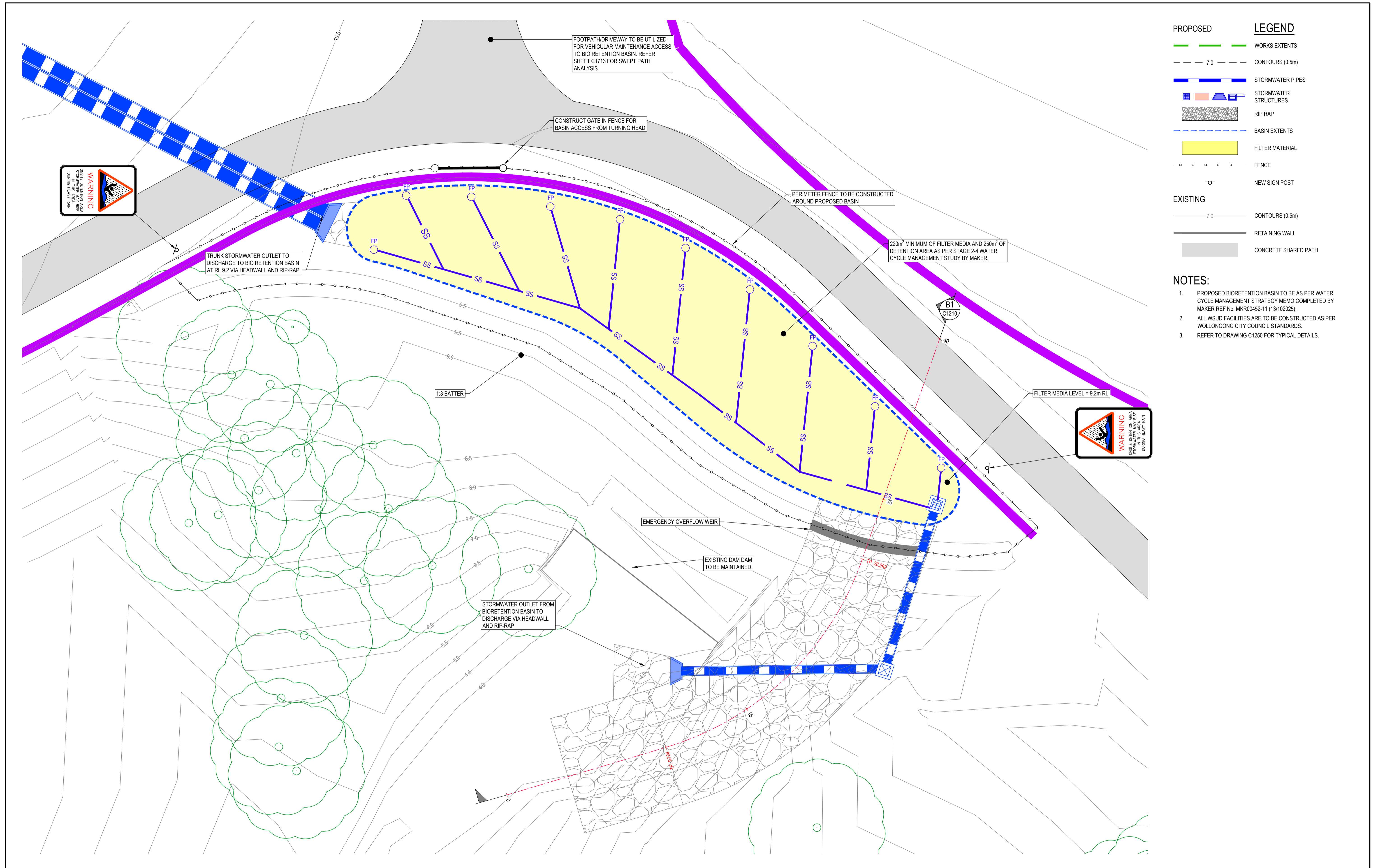
- NOTES:**
- STUB LINES FOR INTERALLOTMENT DRAINAGE WITHOUT PIT IN LOT TO CUT DIRECTLY INTO INTERALLOTMENT LINE
 - SUBSOIL DRAINAGE, INCLUSIVE OF FLUSH POINTS, TO BE INSTALLED IN ACCORDANCE WITH COUNCIL SPECIFICATIONS. LOCATION TO BE CONFIRMED IN SWC PLAN SET
 - LOCATION AND EXTENTS OF SUBSURFACE DRAINAGE TO BE CONFIRMED BY SUITABLY QUALIFIED GEOTECHNICAL ENGINEER DURING CONSTRUCTION
 - BASEMENT PUMP OUT LOCATIONS SHOWN APPROXIMATE. DETAILS TO BE CONFIRMED IN SWC PLAN SET

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION STORMWATER LAYOUT PLAN			
DRAWING NUMBER MKR00452-11-C0801	SHEET No. 2 OF 2	ORIG. SIZE A1	REVISION 3

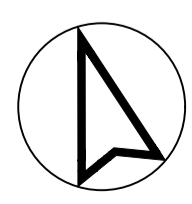


PROPOSED		LEGEND	
	WORKS EXTENTS		CONTOURS (0.5m)
	STORMWATER PIPES		STORMWATER STRUCTURES
	STORMWATER STRUCTURES		RIP RAP
	BASIN EXTENTS		FILTER MATERIAL
	FENCE		NEW SIGN POST
	CONTOURS (0.5m)		RETAINING WALL
	RETAINING WALL		CONCRETE SHARED PATH

- NOTES:**
1. PROPOSED BIORETENTION BASIN TO BE AS PER WATER CYCLE MANAGEMENT STRATEGY MEMO COMPLETED BY MAKER REF No. MKR00452-11 (13/10/2025).
 2. ALL WSUD FACILITIES ARE TO BE CONSTRUCTED AS PER WOLLONGONG CITY COUNCIL STANDARDS.
 3. REFER TO DRAWING C1250 FOR TYPICAL DETAILS.

Alex Gollan, 30/10/2025 11:00 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SSJ	SS



DRAWN: S.JOHNSON	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION CONCEPT BIORETENTION BASIN LAYOUT PLAN			
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1200		A1	3

BASIN DESIGN NOTES

1. GEOTEXTILE FABRICS MUST NOT BE USED BETWEEN THE FILTER MEDIA, TRANSITION AND DRAINAGE LAYERS IN BIORETENTION SYSTEMS DUE TO THE RISK OF CLOGGING. THE SOIL SPECIFICATIONS ARE DESIGNED TO LIMIT THE MIGRATION OF PARTICLES THROUGH THE SYSTEM
2. NO GEOTEXTILE SOCKS TO BE INSTALLED ON THE SLOTTED DRAINAGE PIPES
3. FILTER MEDIA, TRANSITION AND DRAINAGE LAYERS SHALL BE PROVIDED IN ACCORDANCE WITH THE SPECIFICATION ON THIS SHEET
4. TOPSOIL SHALL COMPLY WITH AS4419. SITE TOPSOILS MAY BE REUSED PROVIDED THEY HAVE BEEN ASSESSED BY A QUALIFIED HORTICULTURIST OR SOIL SCIENTIST AND AMELIORATED ACCORDING TO THEIR RECOMMENDATIONS
5. GEOSYNTHETIC CLAY LINED BASIN OR HDPE WATERTIGHT MEMBRANE 1.5m THICK

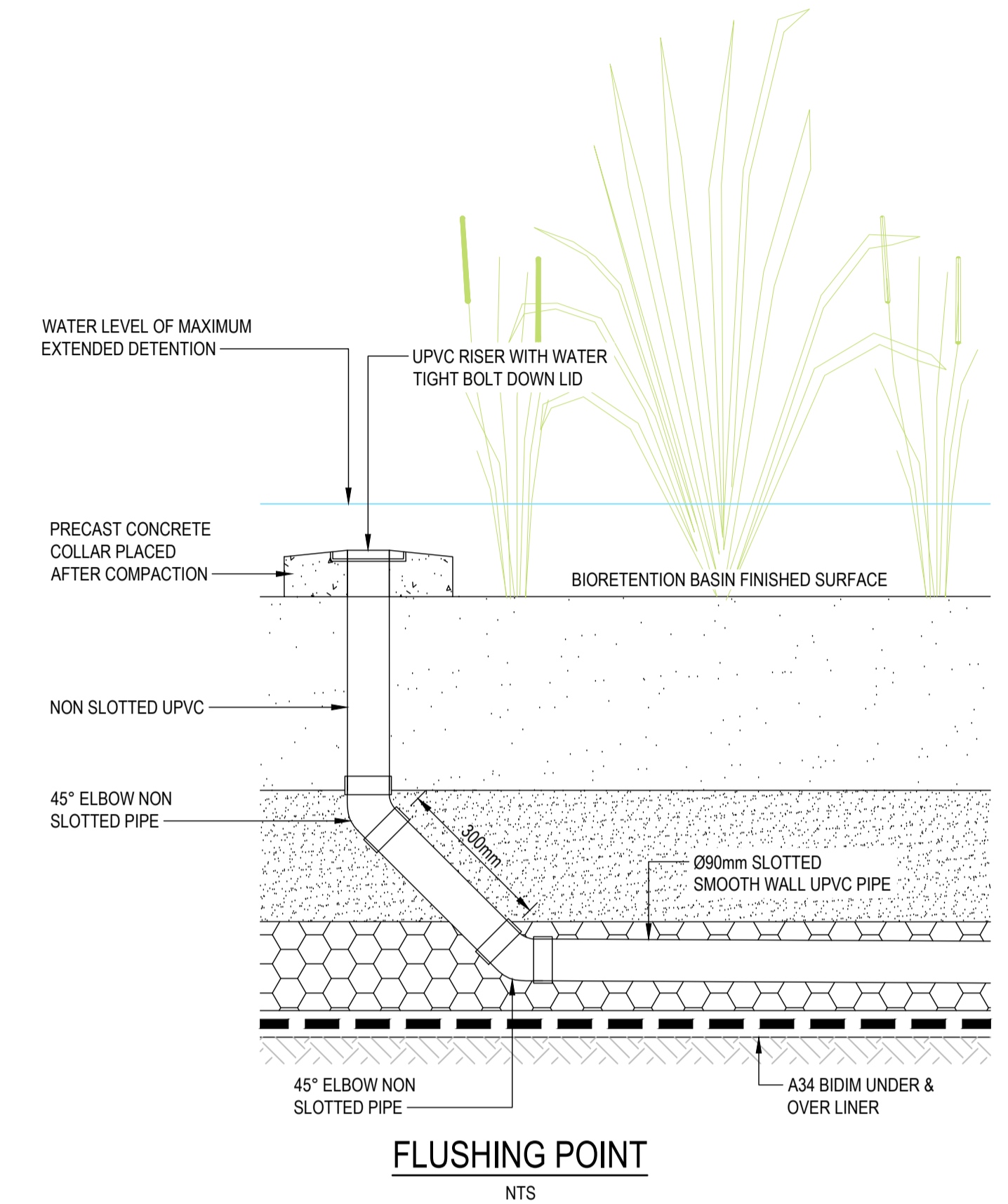
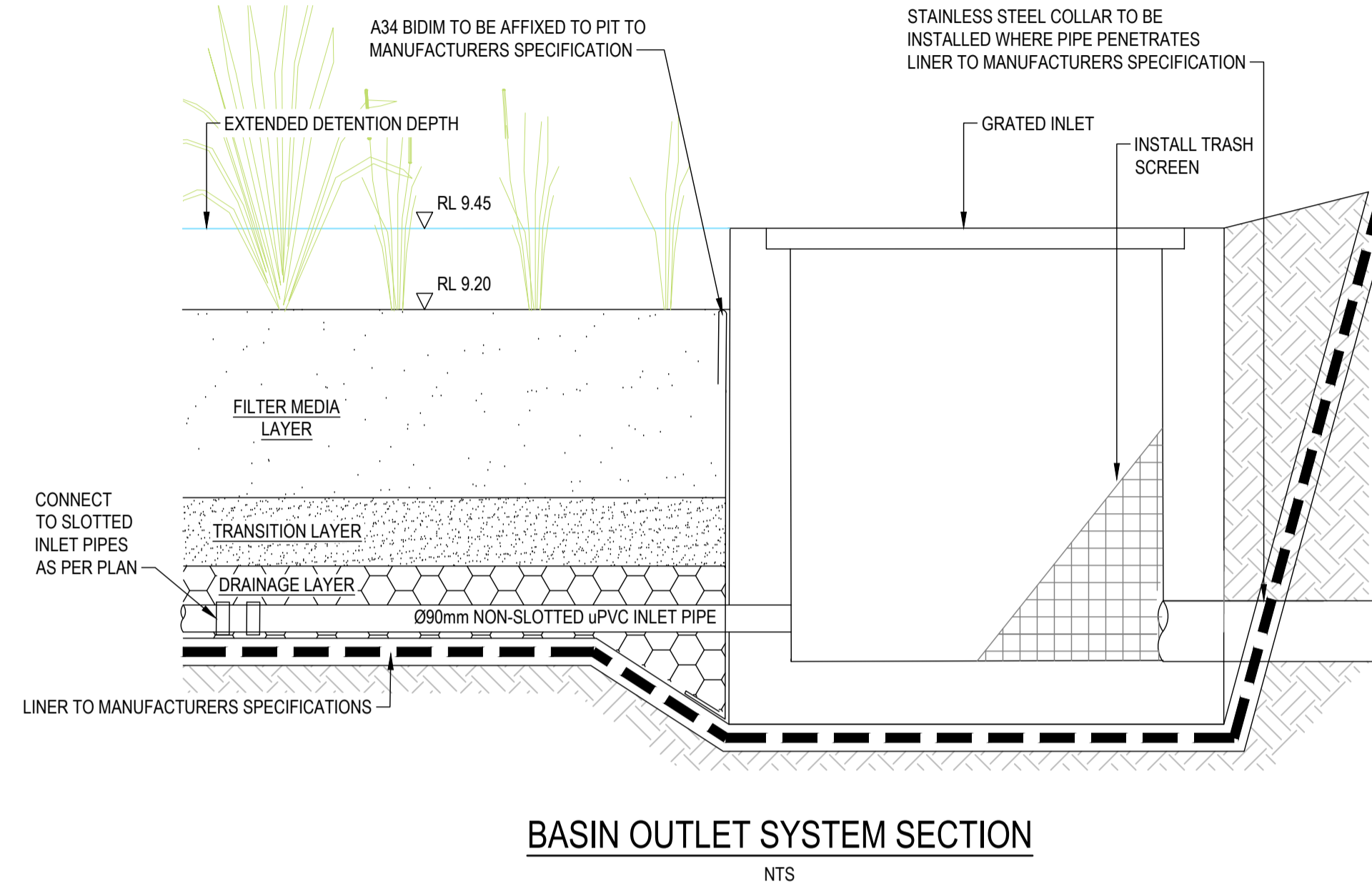
MEDIA PROPERTIES

1. A TYPICAL BIORETENTION SYSTEM HAS 3 LAYERS; A DRAINAGE LAYER, A TRANSITION LAYER AND THE FILTER MEDIA LAYER. GEOTEXTILE FABRIC IS NOT TO BE PLACED BETWEEN THE LAYERS OF MEDIA, OR SOCKS PLACED ON SUB-SOIL DRAINAGE
2. THE MEDIA SHOULD BE PLACED IN LIFTS NO DEEPER THAN 250mm THICK AND LIGHTLY COMPACTED. A MAXIMUM OF ONE PASS WITH A SMALL VIBRATING COMPACTOR OR EQUIVALENT. EQUIPMENT SHOULD NOT BE USED FOR MEDIA PLACEMENT THAT WOULD INADVERTENTLY COMPACT THE LAYERS AND AFFECT THE INFILTRATION RATED OF WATER THROUGH THE MEDIA.

FILTER MEDIA SPECIFICATIONS

1. THE FILTER MEDIA IS THE TOP LAYER AND THE GROWING MEDIUM. THE FILTER MEDIA, TRANSITION LAYER AND DRAINAGE LAYER SHALL BE IN ACCORDANCE WITH THE PROPERTIES LISTED IN TABLE 3 ADOPTION GUIDELINES FOR STORMWATER BIOFILTRATION SYSTEMS (CRC FOR WSC, 2015) EXCEPT AS MODIFIED BELOW:

DEPTH	600mm																						
MATERIAL	EITHER AN ENGINEERED MATERIAL - A WASHED, WELL GRADED SAND - OR NATURALLY OCCURRING SAND. A MIXTURE IS PERMITTED. IT SHOULD BE FREE OF RUBBISH AND WEEDS AND NOT BE HYDROPHOBIC. AN APPROVED FILTER MEDIA IS THE (M165) MEDIA FROM BENEDICT SAND AND GRAVEL OR SOILCO BIORETENTION MEDIA OR APPROVED EQUIVALENT																						
HYDRAULIC CONDUCTIVITY	HYDRAULIC CONDUCTIVITY: TARGET, AS BUILT OR IN-SITU SATURATED HYDRAULIC CONDUCTIVITY RATE OF THE FILTER MEDIA IS A MINIMUM OF 100mm/hr. THE EX-SITU (EX BIN) RATE SHALL BE A MINIMUM OF 250mm/hr AND VERIFIED, WITH INDEPENDENT NATA REGISTERED LABORATORY TEST DATA NO LONGER THAN ONE MONTH OLD. TESTING OF MEDIA SHALL CONFORM TO ASTM-F1815-11. EVERY 100m ³ OF MEDIA SHALL BE TESTED FOR COMPLIANCE WITH ALL SPECIFIED CRITERIA IN THIS TABLE.																						
PH	5.5 - 7 AS SPECIFIED FOR "NATURAL SOILS AND BLENDS" (PH : IN WATER)																						
NUTRIENT CONTENT	LOW NUTRIENT CONTENT TOTAL NITROGEN (TN) < 1000mg/kg NITROGEN DRAWDOWN > 0.5 (NDI) AVAILABLE PHOSPHATE (COLWELL) < 80mg/kg ORTHOPHOSPHATE < 40mg/kg																						
GRADING OF PARTICLES	SMOOTH GRADING - ALL PARTICLE SIZE CLASSES SHOULD BE REPRESENTED ACROSS SIEVE SIZES FROM THE 0.05mm TO THE 3.4mm SIEVE AS PER ASTM F 1632-03 (2010). <table border="1"> <thead> <tr> <th>ACCEPTABLE RANGE (%W/W)</th> <th>RETAINED (< 0.05 mm)</th> </tr> </thead> <tbody> <tr> <td>CLAY & SILT</td> <td><3%</td> </tr> <tr> <td>VERY FINE SAND</td> <td>(0.05 - 0.15 mm)</td> </tr> <tr> <td>FINE SAND</td> <td>(0.15 - 0.25 mm)</td> </tr> <tr> <td>MEDIUM SAND</td> <td>(0.25 - 0.5 mm)</td> </tr> <tr> <td>COARSE SAND</td> <td><25%</td> </tr> <tr> <td>VERY COARSE SAND</td> <td>(0.5 - 1.0 mm)</td> </tr> <tr> <td>FINE GRAVEL</td> <td>(1.0 - 2.0 mm)</td> </tr> <tr> <td>ORGANIC CONTENT</td> <td><3%</td> </tr> <tr> <td></td> <td>(2.0 - 3.4 mm)</td> </tr> <tr> <td></td> <td><5%</td> </tr> </tbody> </table> IMMEDIATELY PRIOR TO DELIVERY TO SITE A PSD TEST (AS1141) SHALL BE UNDERTAKEN. IF THE PSD DOES NOT COMPLY A HYDRAULIC CONDUCTIVITY TEST SHALL BE UNDERTAKEN. DELIVERY SHALL NOT BE APPROVED UNTIL THE MEDIA IS APPROVED. THERE SHOULD BE NO GAP IN THE PARTICLE SIZE GRADING AND THE COMPOSITION SHOULD NOT BE DOMINATED BY A SMALL PARTICLE SIZE RANGE. ORGANIC MATTER CONTENT SHALL BE 3% TO 5% TO SUPPORT VEGETATION.	ACCEPTABLE RANGE (%W/W)	RETAINED (< 0.05 mm)	CLAY & SILT	<3%	VERY FINE SAND	(0.05 - 0.15 mm)	FINE SAND	(0.15 - 0.25 mm)	MEDIUM SAND	(0.25 - 0.5 mm)	COARSE SAND	<25%	VERY COARSE SAND	(0.5 - 1.0 mm)	FINE GRAVEL	(1.0 - 2.0 mm)	ORGANIC CONTENT	<3%		(2.0 - 3.4 mm)		<5%
ACCEPTABLE RANGE (%W/W)	RETAINED (< 0.05 mm)																						
CLAY & SILT	<3%																						
VERY FINE SAND	(0.05 - 0.15 mm)																						
FINE SAND	(0.15 - 0.25 mm)																						
MEDIUM SAND	(0.25 - 0.5 mm)																						
COARSE SAND	<25%																						
VERY COARSE SAND	(0.5 - 1.0 mm)																						
FINE GRAVEL	(1.0 - 2.0 mm)																						
ORGANIC CONTENT	<3%																						
	(2.0 - 3.4 mm)																						
	<5%																						



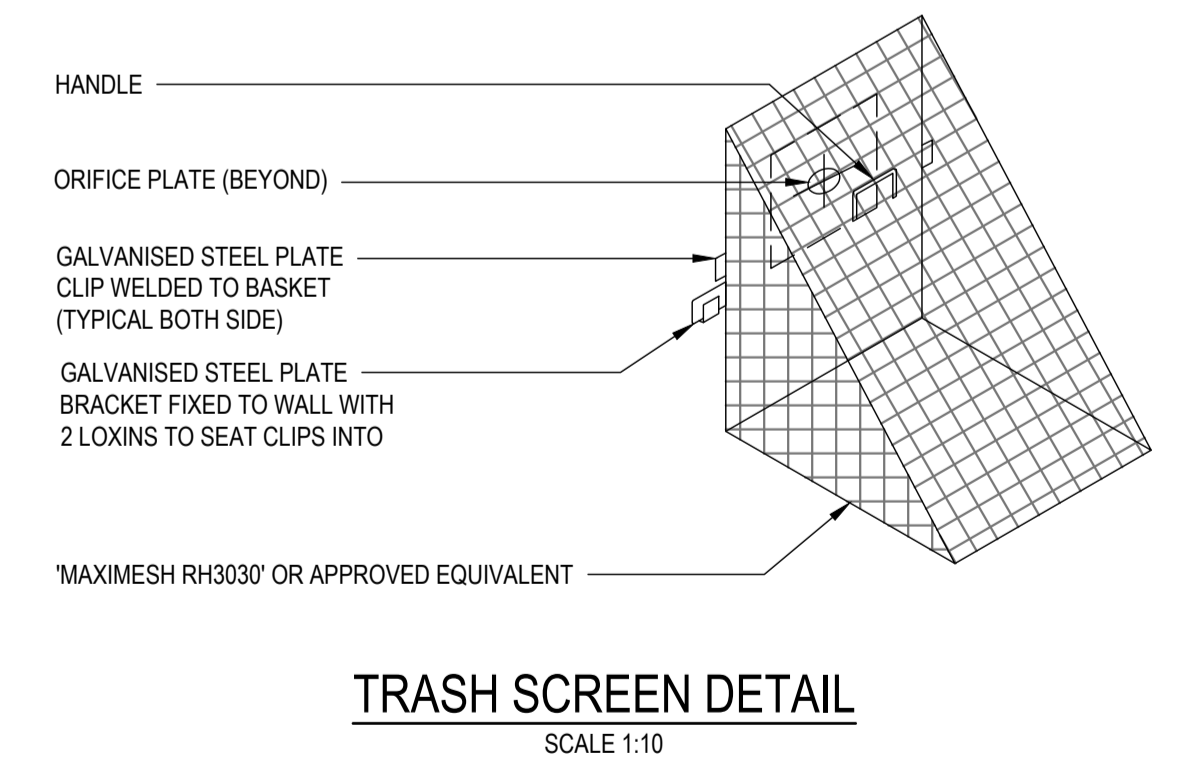
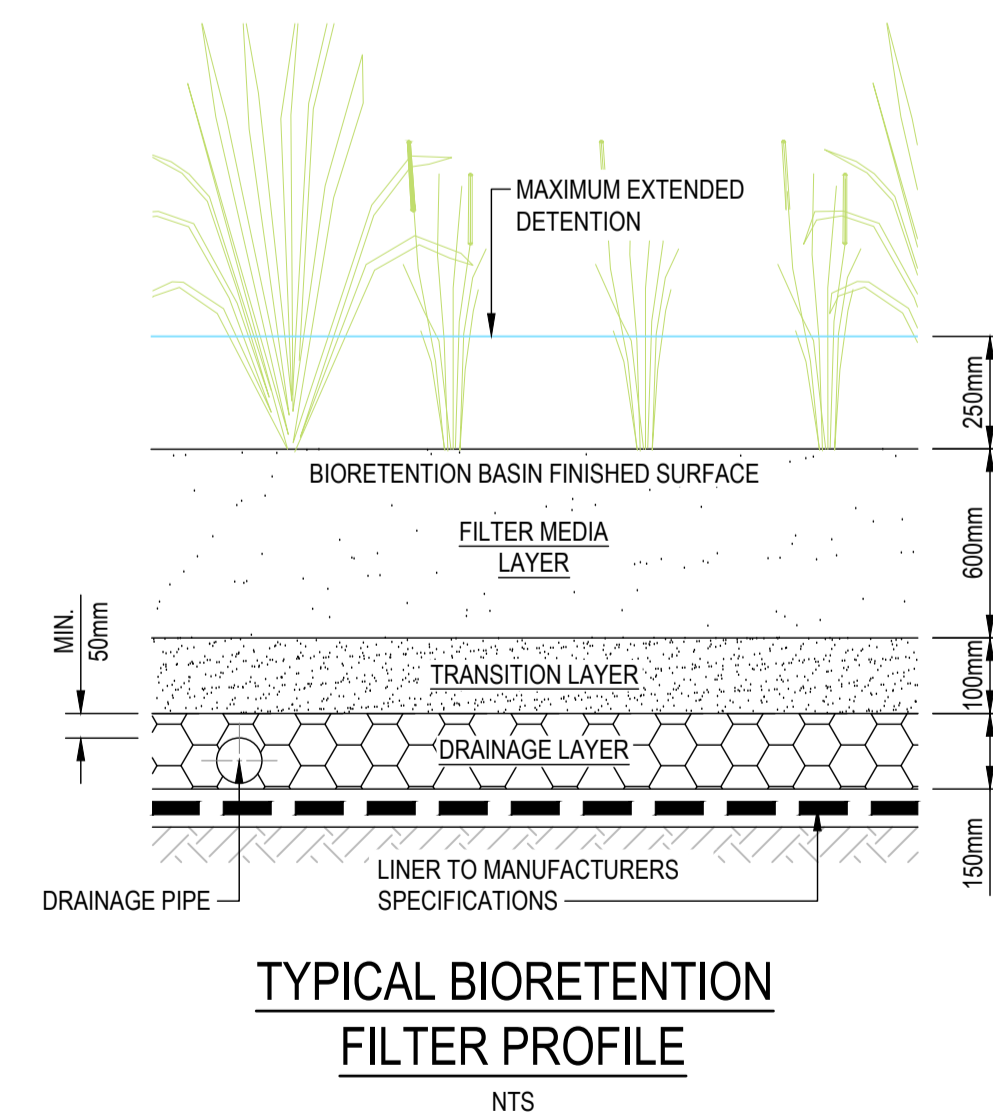
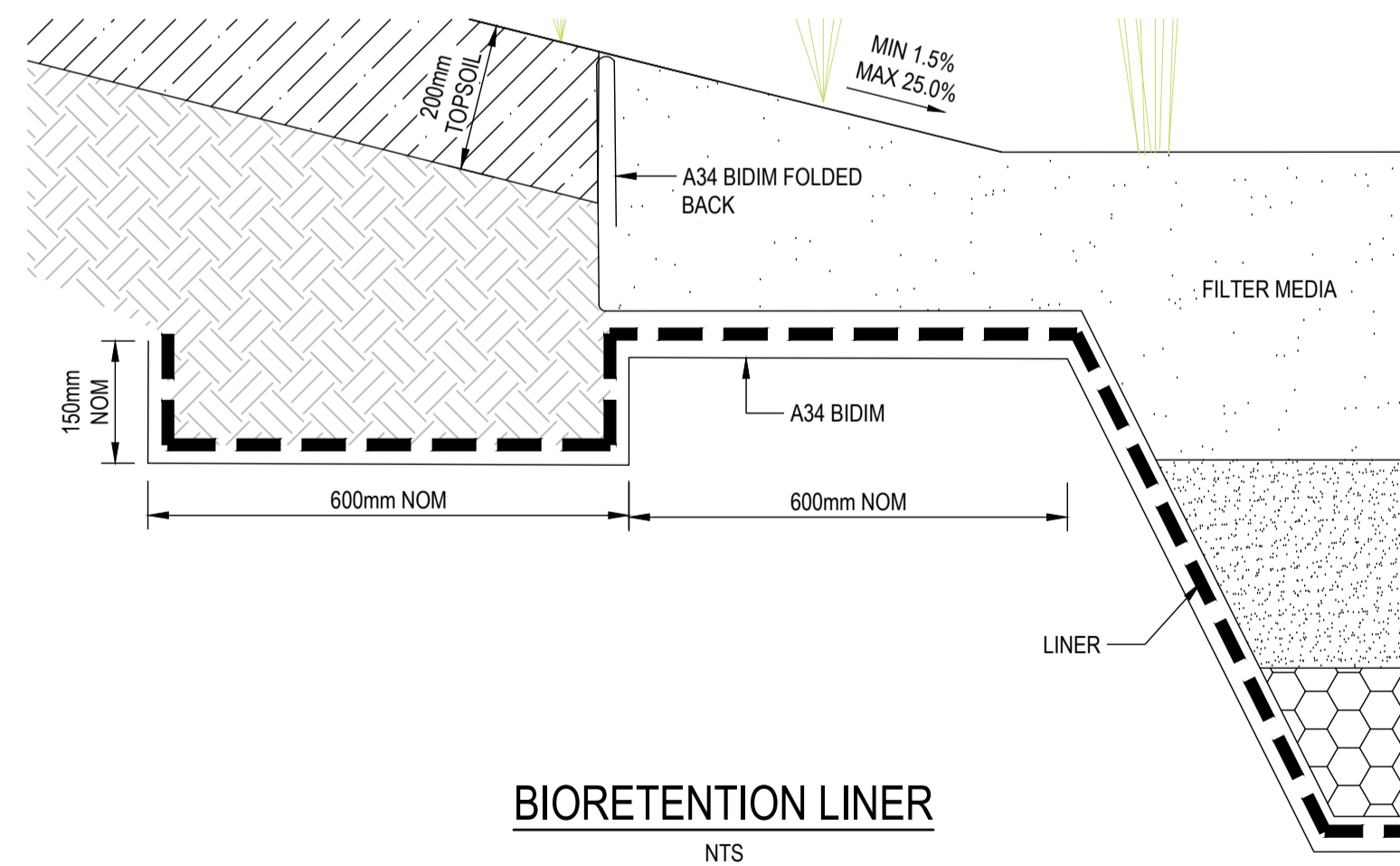
2. TO AVOID MIGRATION OF THE FILTER MEDIA INTO THE TRANSITION LAYER THE PARTICLE SIZE DISTRIBUTION SHOULD BE ASSESSED TO MEET BRIDGING CRITERIA. THE SMALLEST 15% (D15) OF THE TRANSITION LAYER PARTICLES MUST BE NO GREATER THAN 5 TIMES THE SIZE OF THE LARGEST 15% (D85) OF THE FILTER MEDIA PARTICLES. THAT IS: D15(TRANSITION) ≤ 5 x D85(FILTER)
3. ALTERNATIVE MEDIA MAY BE APPROVED AT THE DISCRETION OF THE ENGINEER. AS MINIMUM DETAILED MATERIAL TESTING AND DEMONSTRATED PERFORMANCE WILL BE REQUIRED. IF ANY RECYCLED MATERIAL IS TO BE USED IT MUST BE DEMONSTRATED AT THE CONTRACTOR'S EXPENSE THAT THE MATERIAL IS BOTH INERT AND FREE OF CONTAMINANTS.
4. THE CONTRACTOR SHALL ARRANGE FOR IN-SITU TESTING THE SPECIFIED HYDRAULIC CONDUCTIVITY AT A RATE OF 2 TESTS PER 50m² OR PART OF & 1 TEST PER 200m² THEREAFTER OF FILTER MEDIA AREA FOR COMPLIANCE WITH THE ABOVE SPECIFICATIONS.

TRANSITION LAYER (MIDDLE) SPECIFICATION

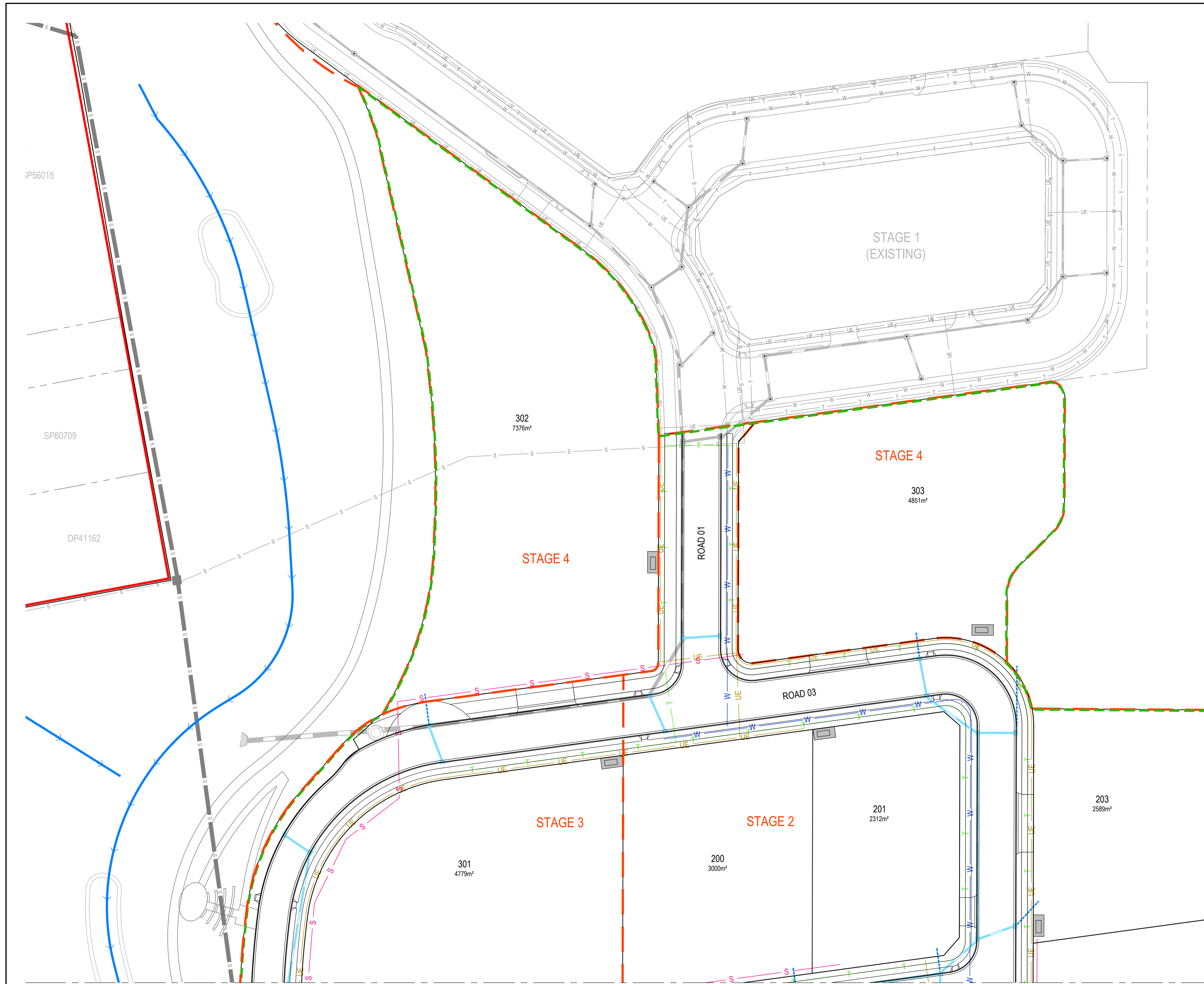
1. THE PURPOSE OF THE TRANSITION LAYER IS TO PREVENT THE MIGRATION OF THE FILTER MEDIA INTO THE DRAINAGE LAYER. IT CREATES A LAYER BETWEEN THE FILTER MEDIA AND THE DRAINAGE LAYER. THE LAYER DEPTH IS TO BE A MIN OF 100mm THICK.
2. THE MATERIAL MUST BE CLEAN, WELL GRADED SAND/COARSE MATERIAL CONTAINING LITTLE OR NO FINES. USE OF WELL WASHED RECYCLED GLASS IS ACCEPTABLE. AN INDICATIVE PARTICLE SIZE DISTRIBUTION IS BETWEEN 0.5mm AND 1.4mm. FINE PARTICLES CONTENT < 2%. THE PARTICLE SIZE DISTRIBUTION SHOULD ALSO ENSURE THAT THE D15 FOR THE TRANSITION LAYER IS MORE THAN FIVE TIMES LARGER THAN THE D15 FOR THE FILTER MEDIA AND LESS THAN FIVE TIMES BIGGER THAN THE D85 FOR THE FILTER MEDIA [5 X D15 (FILTER) < D15 (TRANSITION) < 5 X D85 (FILTER)] TO ENSURE THE TRANSITION LAYER HAS GREATER HYDRAULIC CONDUCTIVITY THAN THE FILTER MEDIA BUT PREVENT MIGRATION OF THE FILTER MEDIA INTO THE TRANSITION LAYER
3. THE CONTRACTOR SHALL ARRANGE FOR TESTING OF THE PSD & COMPLIANCE WITH BRIDGING CRITERIA & HYDRAULIC CONDUCTIVITY OF A RATE OF 1 TEST PER 1000m² OF FILTER MEDIA AREA

DRAINAGE LAYER SPECIFICATION

1. THIS LAYER COLLECTS, STORES, AND CONVEYS TREATED STORMWATER INTO A SLOTTED COLLECTION PIPE BEDDED INTO THE DRAINAGE LAYER. IT CONSISTS OF A CLEAN GRAVEL 5-7mm WASHED SCREENINGS (NOT SCORIA). THE LAYER DEPTH SHALL MAINTAIN A MINIMUM 50mm COVER OVER THE SUB SURFACE DRAINAGE PIPE AND BE MINIMUM 150mm THICK. RECYCLED CONCRETE OR BRICK PRODUCTS WILL NOT BE ACCEPTED.
2. THE PARTICLE SIZE DISTRIBUTION SHOULD ENSURE THAT THE D15 FOR THE DRAINAGE LAYER IS MORE THAN FIVE TIMES LARGER THAN THE D15 FOR THE TRANSITION LAYER AND LESS THAN FIVE TIMES BIGGER THAN THE D85 FOR THE TRANSITION LAYER [5 X D15 (TRANSITION) < D15 (DRAINAGE) < 5 X D85 (TRANSITION)] TO ENSURE THE TRANSITION LAYER HAS GREATER HYDRAULIC CONDUCTIVITY THAN THE TRANSITION LAYER BUT PREVENT MIGRATION OF THE TRANSITION LAYER INTO THE DRAINAGE LAYER
3. THE CONTRACTOR SHALL ARRANGE FOR TESTING OF THE PSD & COMPLIANCE WITH BRIDGING CRITERIA & HYDRAULIC CONDUCTIVITY OF A RATE OF 1 TEST PER 1000m² OF FILTER MEDIA AREA & AND MINIMUM OF 1 TEST



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1	22.07.25	ISSUED FOR APPROVAL	SSJ	SS



PROPOSED

- SITE BOUNDARY
- - - WORKS EXTENTS
- - - STAGING BOUNDARY
- LOT BOUNDARY
- INDICATIVE FUTURE BUILT FORM OUTLINE
- EASEMENT
- W POTABLE WATER
- S SEWER
- G GAS
- T TELE COMMUNICATIONS
- UE UNDERGROUND ELECTRICITY
- SUBSTATION
- E ELECTRICAL ABOVE GROUND
- OPT OPTIC FIBER
- STORMWATER PIPES
- STORMWATER STRUCTURES
- RETAINING WALL
- - - RIPARIAN ZONE INNER BOUNDARY
- - - RIPARIAN ZONE OUTER BOUNDARY
- INLINE POND

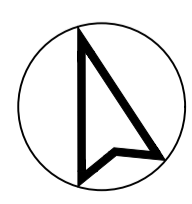
EXISTING

- W POTABLE WATER
- S SEWER
- S SEWER LEAD-IN
- G GAS
- T TELE COMMUNICATIONS
- UE ELECTRICAL UNDERGROUND
- E ELECTRICAL ABOVE GROUND
- OPT OPTIC FIBER
- X X X SERVICE (TO BE REMOVED)
- LOT BOUNDARY
- EASEMENT
- STORMWATER PIPES
- STORMWATER STRUCTURES
- OPEN DRAIN
- RETAINING WALL
- TREE (TO BE RETAINED)

NOTES:

- SCHEMATIC PLAN ONLY. SERVICES INFORMATION SHOWN MAY BE INCOMPLETE AND/OR INACCURATE. PLAN TO BE READ IN CONJUNCTION WITH APPROVED PLANS BY RELEVANT SERVICE AUTHORITY

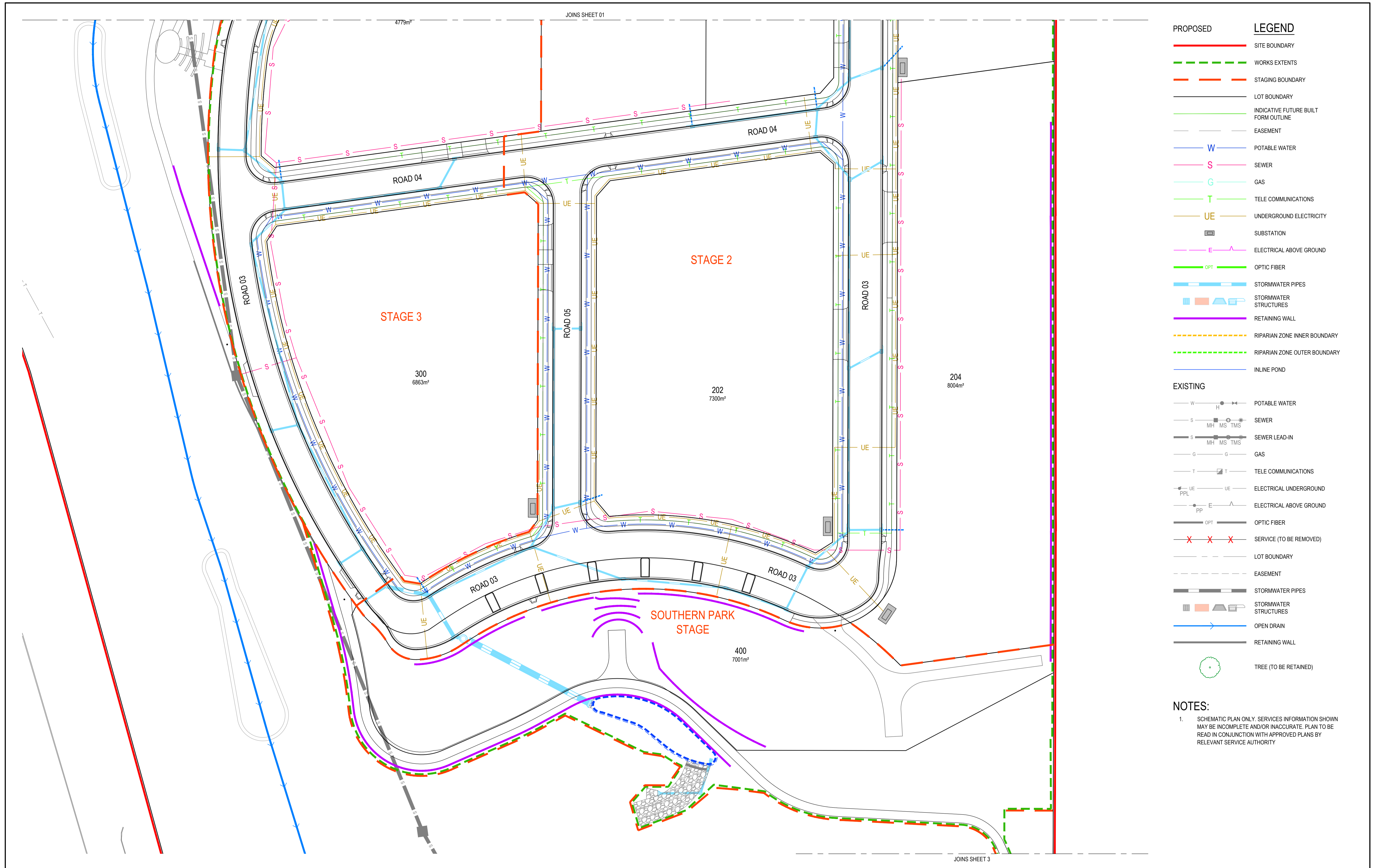
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DRAWN: J.BADI
DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES
DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN

NOT FOR CONSTRUCTION

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION CONCEPTUAL ALLOCATIONS LAYOUT PLAN			
DRAWING NUMBER MKR00452-11-C1300	SHEET No. 1 OF 3	ORIG. SIZE A1	REVISION 3

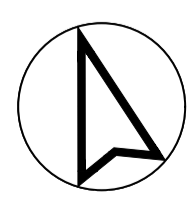


PROPOSED		LEGEND	
	SITE BOUNDARY		WORKS EXTENTS
	STAGING BOUNDARY		LOT BOUNDARY
	INDICATIVE FUTURE BUILT FORM OUTLINE		EASEMENT
	POTABLE WATER		SEWER
	GAS		TELE COMMUNICATIONS
	UNDERGROUND ELECTRICITY		SUBSTATION
	ELECTRICAL ABOVE GROUND		OPTIC FIBER
	STORMWATER PIPES		STORMWATER STRUCTURES
	RETAINING WALL		RIPARIAN ZONE INNER BOUNDARY
	RIPARIAN ZONE OUTER BOUNDARY		INLINE POND
EXISTING			
	POTABLE WATER		SEWER
	SEWER LEAD-IN		GAS
	TELE COMMUNICATIONS		ELECTRICAL UNDERGROUND
	ELECTRICAL ABOVE GROUND		OPTIC FIBER
	SERVICE (TO BE REMOVED)		LOT BOUNDARY
	EASEMENT		STORMWATER PIPES
	STORMWATER STRUCTURES		OPEN DRAIN
	RETAINING WALL		TREE (TO BE RETAINED)

NOTES:

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DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN	

**CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
CONCEPTUAL ALLOCATIONS
LAYOUT PLAN**

DRAWING NUMBER MKR00452-11-C1301	SHEET No. 2 OF 3	ORIG. SIZE A1	REVISION 3
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Alec Gollan, 30/10/2025 11:00 AM



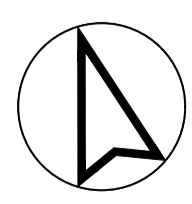
PROPOSED		LEGEND	
	SITE BOUNDARY		WORKS EXTENTS
	STAGING BOUNDARY		LOT BOUNDARY
	LOT BOUNDARY		INDICATIVE FUTURE BUILT FORM OUTLINE
	EASEMENT		EASEMENT
	POTABLE WATER		SUBSTATION
	SEWER		ELECTRICAL ABOVE GROUND
	GAS		OPTIC FIBER
	TELE COMMUNICATIONS		STORMWATER PIPES
	UNDERGROUND ELECTRICITY		STORMWATER STRUCTURES
	SUBSTATION		RETAINING WALL
	ELECTRICAL ABOVE GROUND		RIPARIAN ZONE INNER BOUNDARY
	OPTIC FIBER		RIPARIAN ZONE OUTER BOUNDARY
	STORMWATER PIPES		INLINE POND
	STORMWATER STRUCTURES	EXISTING	
	RETAINING WALL		POTABLE WATER
	RIPARIAN ZONE INNER BOUNDARY		SEWER
	RIPARIAN ZONE OUTER BOUNDARY		SEWER LEAD-IN
	INLINE POND		GAS
	POTABLE WATER		TELE COMMUNICATIONS
	SEWER		ELECTRICAL UNDERGROUND
	SEWER LEAD-IN		ELECTRICAL ABOVE GROUND
	GAS		OPTIC FIBER
	TELE COMMUNICATIONS		SERVICE (TO BE REMOVED)
	ELECTRICAL UNDERGROUND		LOT BOUNDARY
	ELECTRICAL ABOVE GROUND		EASEMENT
	OPTIC FIBER		STORMWATER PIPES
	SERVICE (TO BE REMOVED)		STORMWATER STRUCTURES
	LOT BOUNDARY		OPEN DRAIN
	EASEMENT		RETAINING WALL
	STORMWATER PIPES		TREE (TO BE RETAINED)
	STORMWATER STRUCTURES		
	OPEN DRAIN		
	RETAINING WALL		
	TREE (TO BE RETAINED)		

NOTES:

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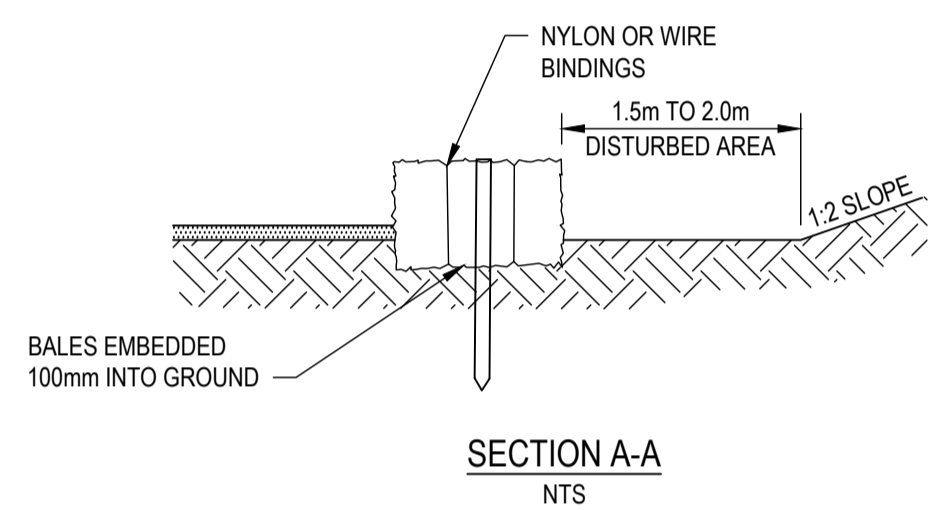
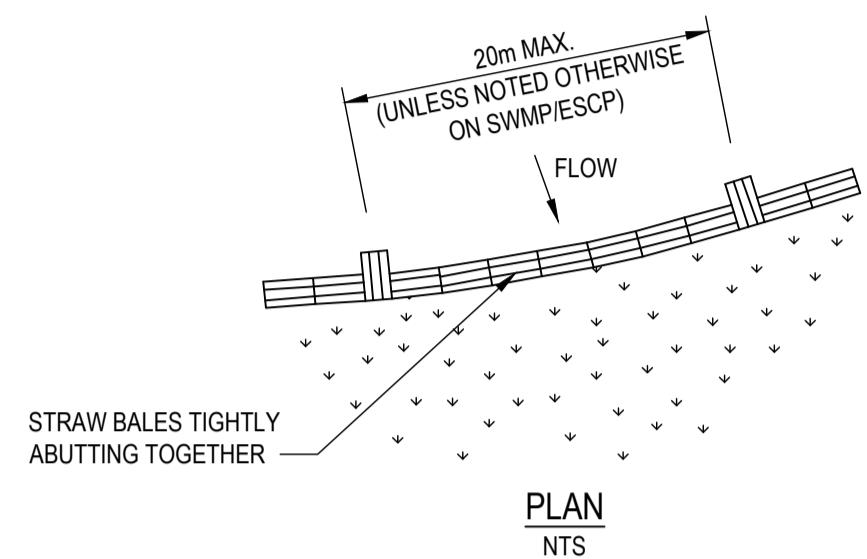
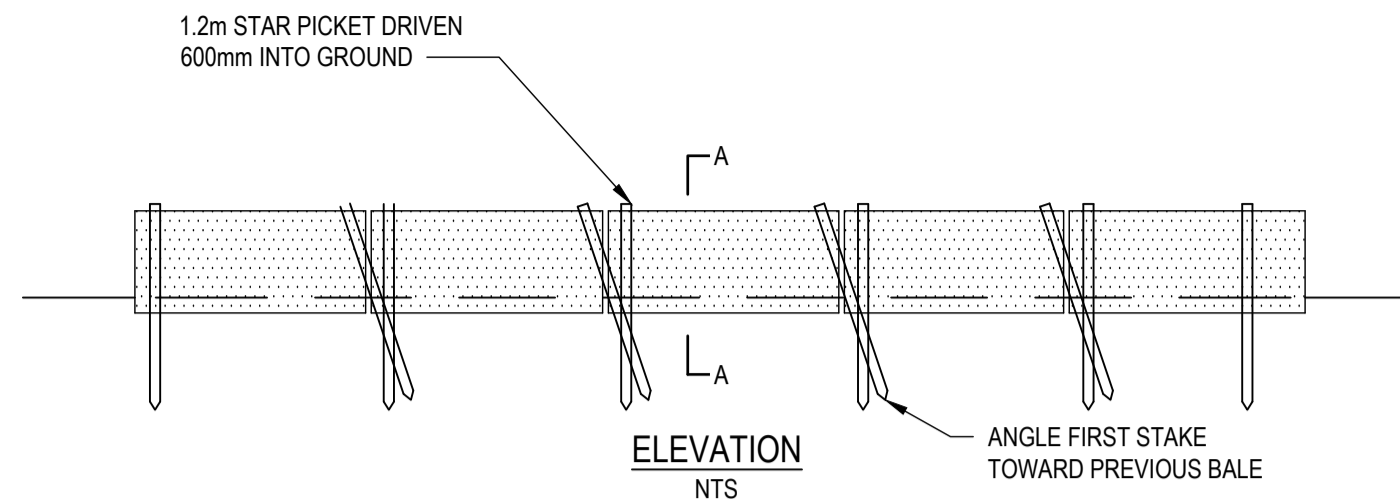
Alec Gollan, 30/10/2025 11:01 AM

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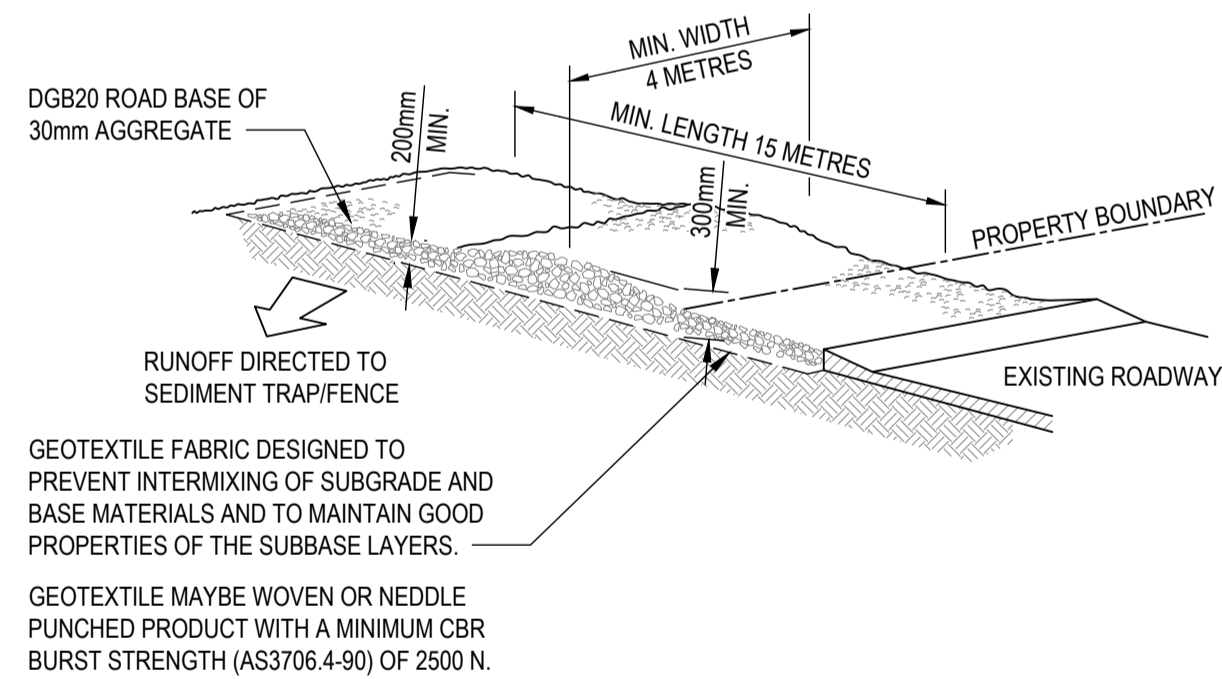
CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION CONCEPTUAL ALLOCATIONS LAYOUT PLAN			
DRAWING NUMBER MKR00452-11-C1302	SHEET No. 3 OF 3	ORIG. SIZE A1	REVISION 3



GENERAL CONSTRUCTION NOTES:

- CONSTRUCT STRAW BALE FILTER AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE OR THE TOE OF A SLOPE
- PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STAIRS TO BE PLACED PARALLEL TO GROUND
- MAXIMUM HEIGHT OF FILTER IS ONE BALE
- ON SOFT MATERIALS, EMBED EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH TWO 1.2 STAR PICKETS. ANGLE THE FIRST STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE STAKES 600mm INTO THE GROUND AND FLUSH WITH THE TOP OF THE BALES
- WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM THE TOE OF THE BATTER

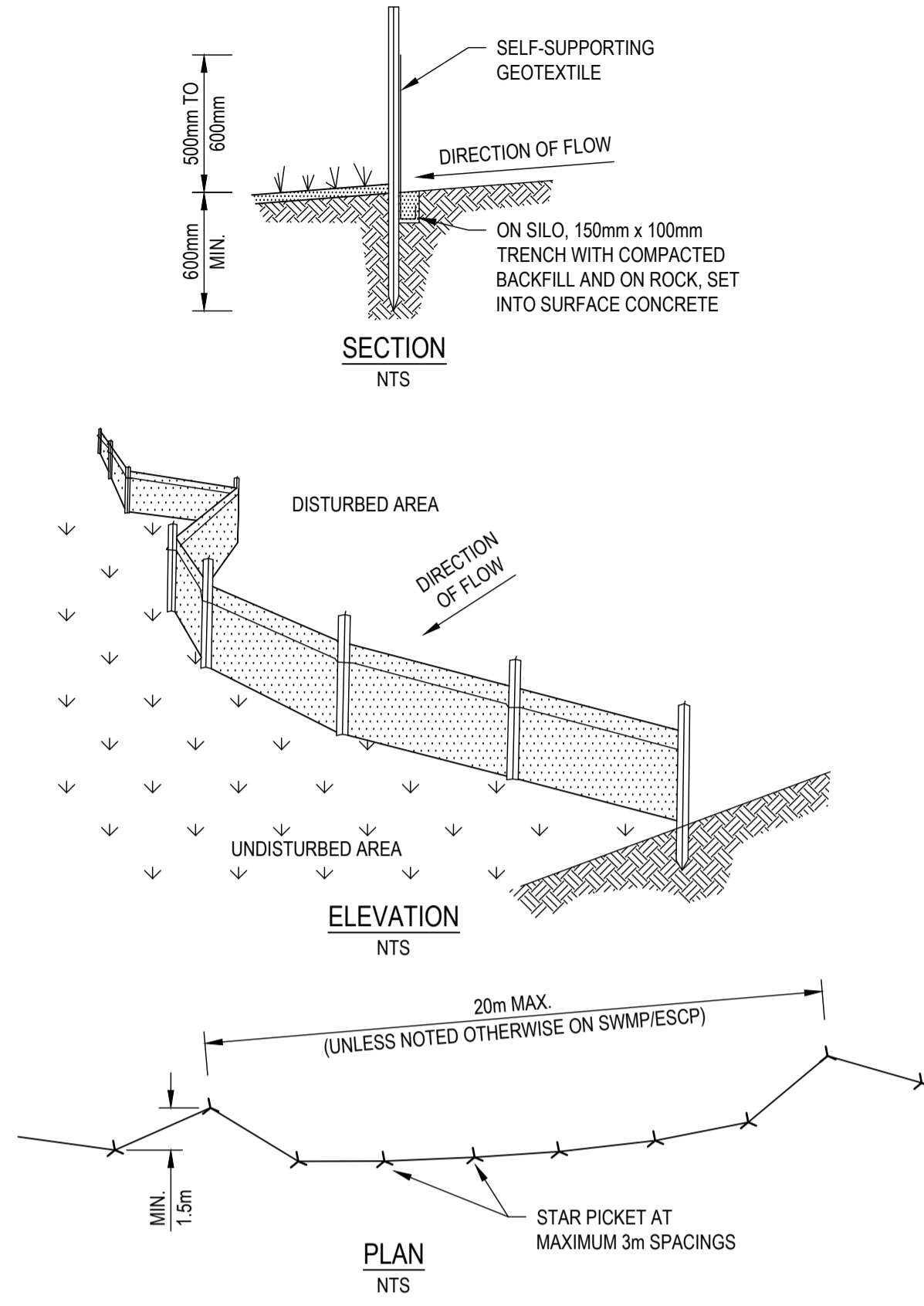
STRAW BALE FILTER SD 6-7
NTS



GENERAL CONSTRUCTION NOTES:

- STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
- COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
- CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
- ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
- WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO SEDIMENT FENCE.

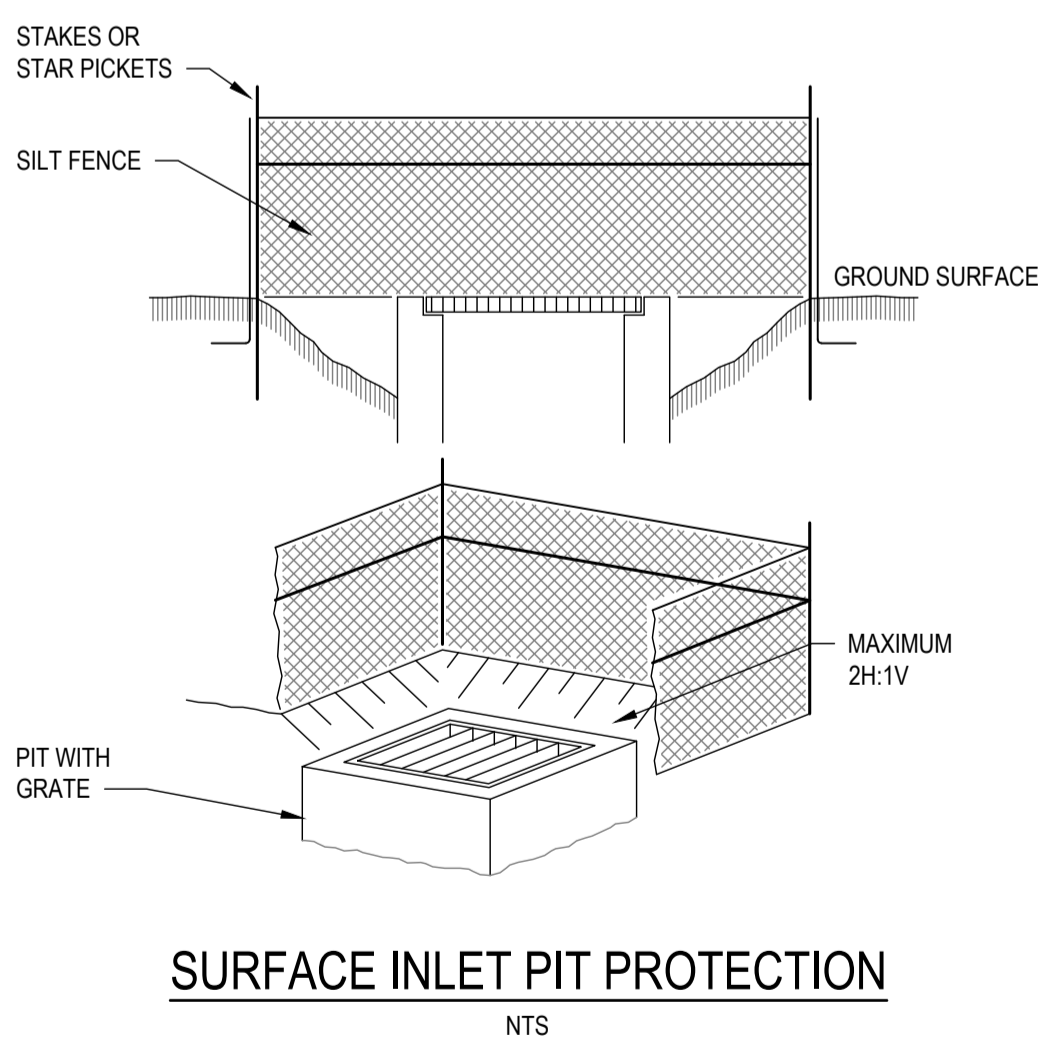
STABILISED SITE ACCESS
NTS



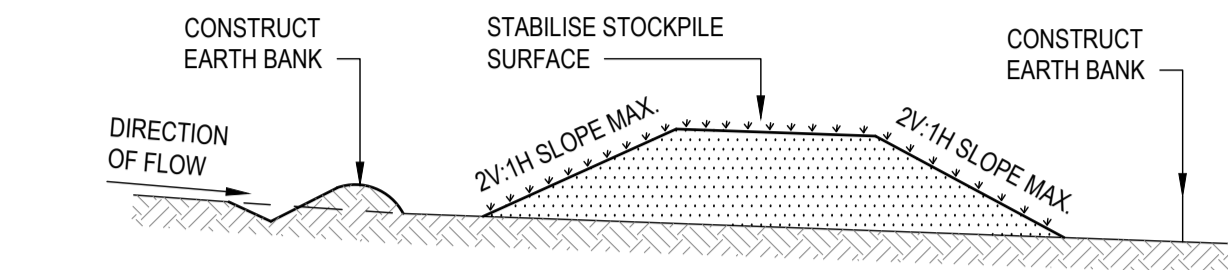
GENERAL CONSTRUCTION NOTES

- CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE
- DIVE 1.5m LONG STAR PICKETS INTO GROUND, 3m APART
- DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED
- BACKFILL TRENCH OVER BASE OF FABRIC
- FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER
- JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP

SEDIMENT FENCE SD 6-8
NTS



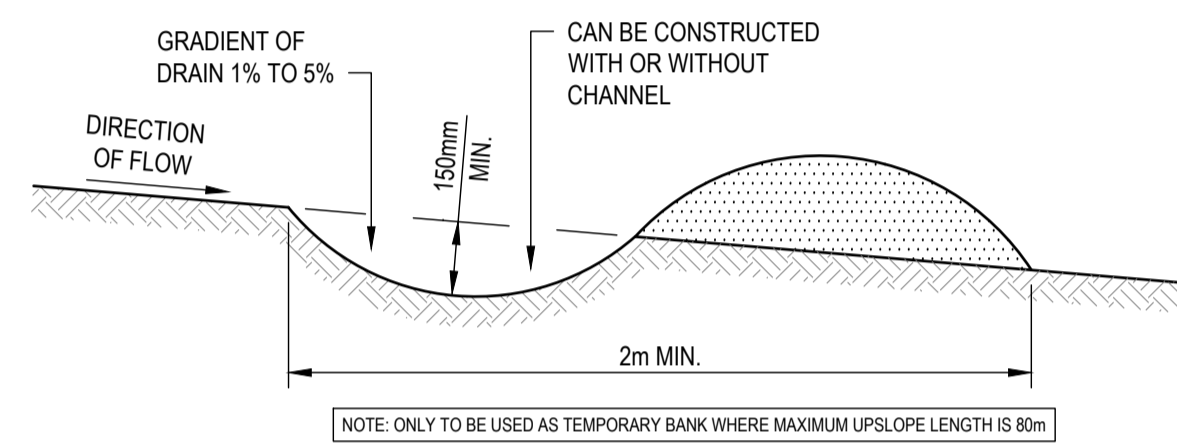
SURFACE INLET PIT PROTECTION
NTS



GENERAL CONSTRUCTION NOTES

- LOCATE STOCKPILE AT LEAST 5m FROM EXISTING VEGETATION, CONCENTRATED WATER FLOWS, ROADS AND HAZARD AREAS
- CONSTRUCT ON THE CONTOUR AS A LOW, FLAT, ELONGATED MOUND
- WHERE THERE IS SUFFICIENT AREA TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT
- REHABILITATE IN ACCORDANCE WITH THE SWMPIESCP
- CONSTRUCT EARTH BANK (SD 5-2) ON THE UPSLOPE SIDE TO DIVERT RUN OFF AROUND THE STOCKPILE AND A SEDIMENT FENCE (SD 6-7) 1 TO 2m DOWNSLOPE OF STOCKPILE

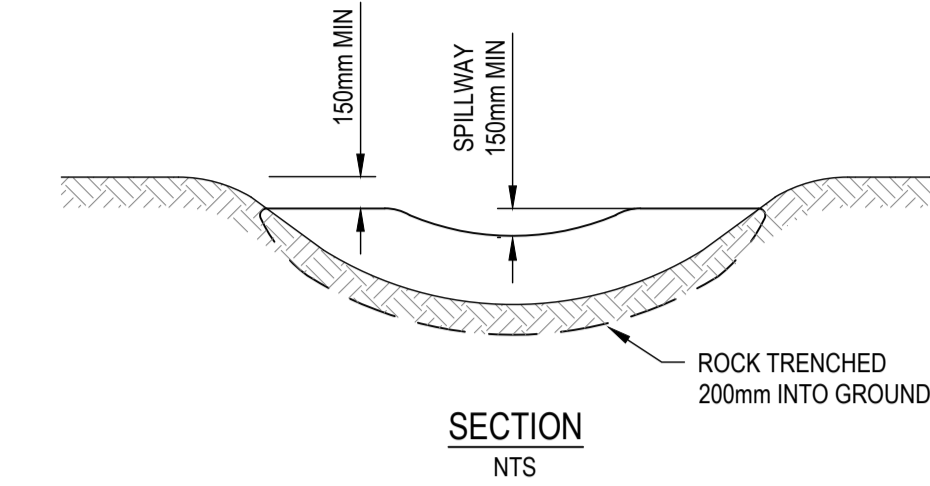
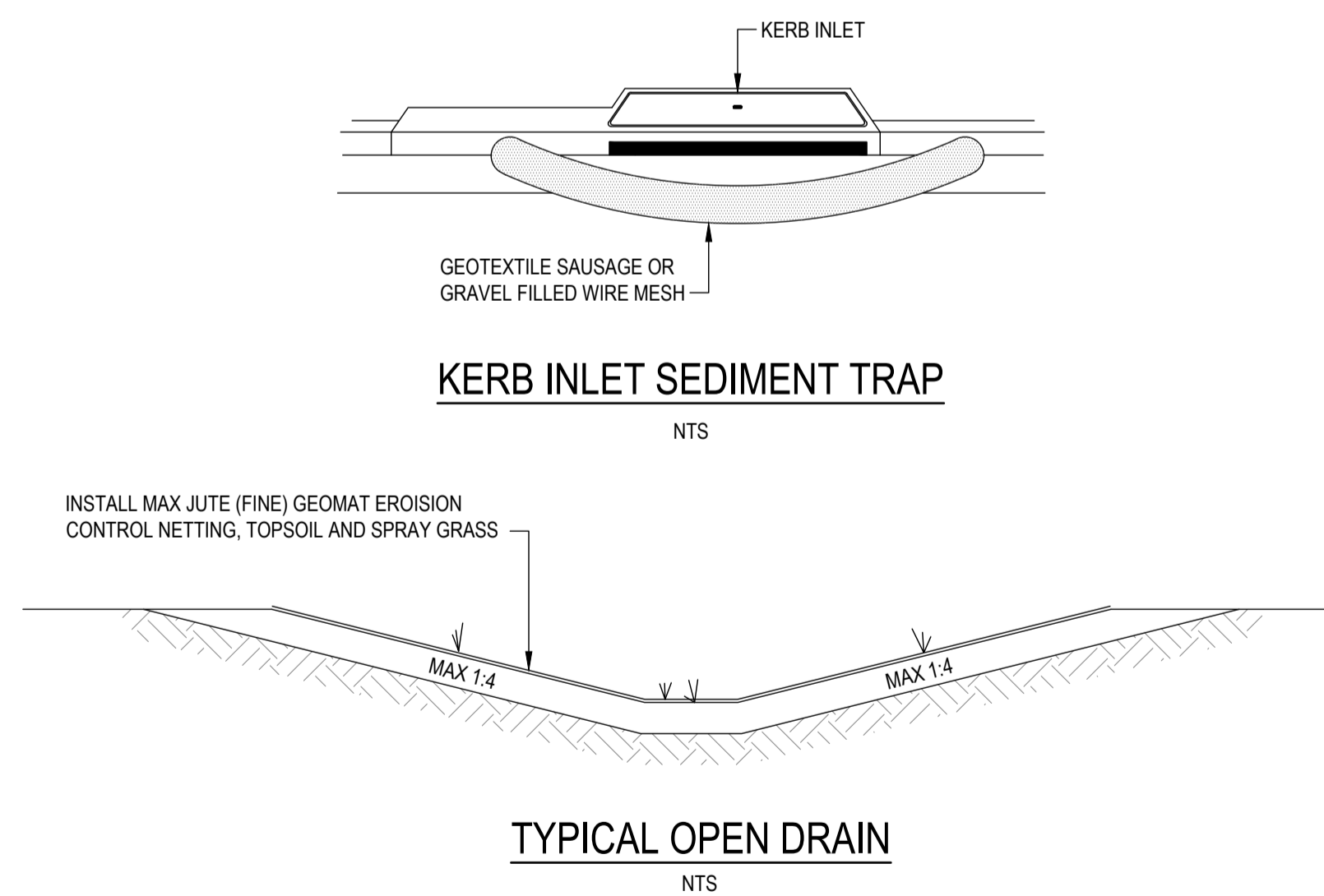
STOCKPILES SD 4-1
NTS



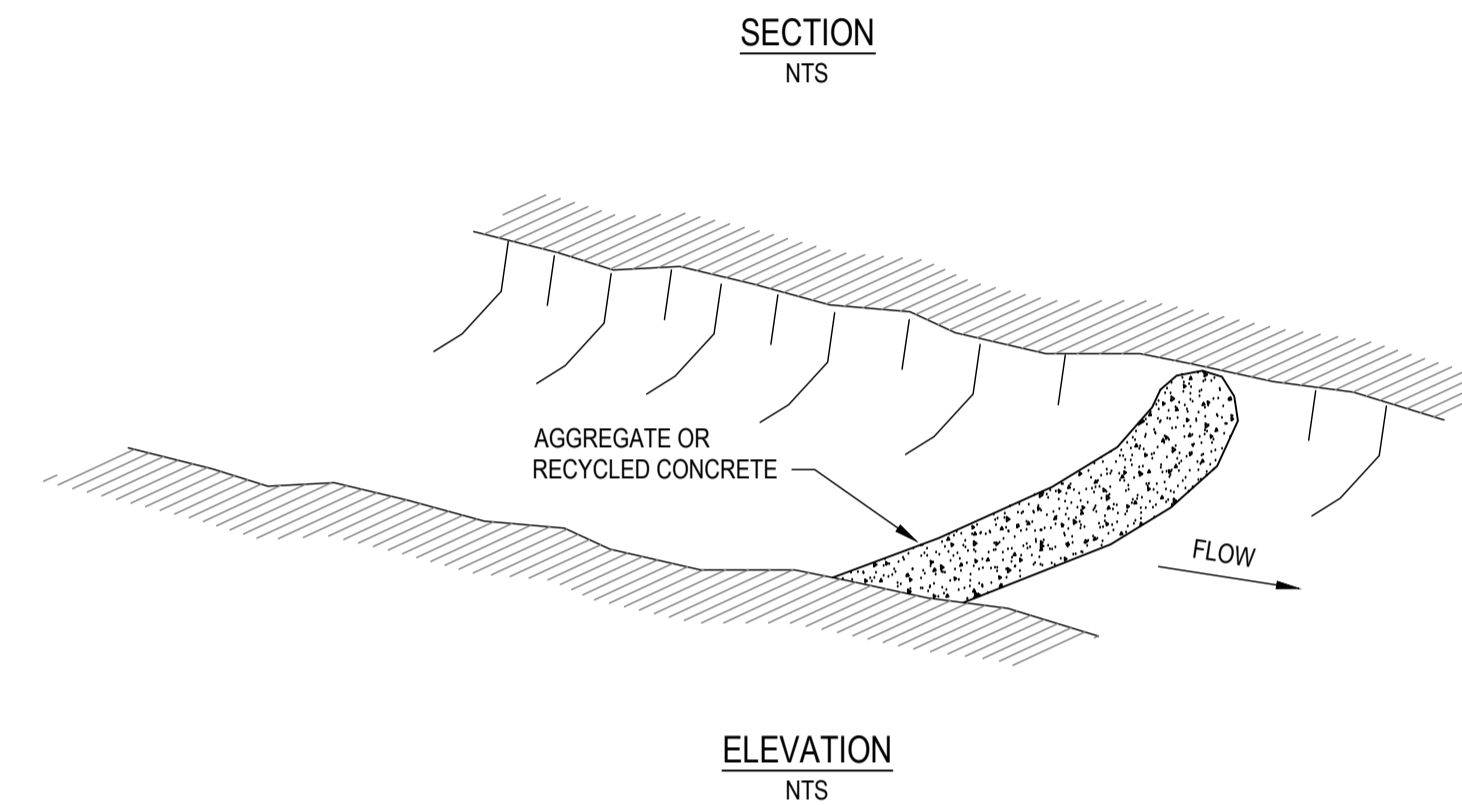
GENERAL CONSTRUCTION NOTES

- CONSTRUCT WITH GRADIENT OF 1% TO 5%
- AVOID REMOVING TREES AND SHRUBS IF POSSIBLE
- DRAINS TO BE CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED
- EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE
- PERMANENT OR TEMPORARY STABILISATION OF THE EARTH BANK TO BE COMPLETED WITHIN 10 DAYS OF CONSTRUCTION
- ALL OUTLETS FROM DISTURBED LANDS ARE TO FEED INTO A SEDIMENT BASIN OR SIMILAR
- DISCHARGE RUNOFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILISED OR AN UNDISTURBED DISPOSAL SITE WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED
- COMPACT BANK WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS
- EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDED NORMAL FLOW

EARTH BANK (LOW FLOW) SD 5-5
NTS



SPACING OF CHECK DAMS ALONG CENTRELINE AND SCOUR PROTECTION BELOW EACH CHECK DAM TO BE SPECIFIED ON SWMPIESCP



GENERAL CONSTRUCTION NOTES

- TRENCH STRUCTURE 200mm INTO GROUND SURFACE WHEREVER THE STRUCTURE CONTACTS THE GULLY BASE. FILL TRENCHES TO 100mm ABOVE GROUND SURFACE TO REDUCE RISK OF UNDERCUTTING.
- ENSURE HEIGHT OF SPILLWAY IS LESS THAN 1m ABOVE THE GULLY FLOOR.
- SPACE CHECKS SO THE TOE OF THE UPSTREAM DAM IS LEVEL WITH THE SPILLWAY OF THE NEXT DOWNSTREAM DAM.

ROCK CHECK DAM SD 5-1
NTS

EROSION CONTROL

- THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH LOCAL COUNCIL'S DEVELOPMENT CONTROL PLAN FOR ENVIRONMENTAL MANAGEMENT AND WITH THE 'MANAGING URBAN STORMWATER' (3rd EDITION, AUGUST 1998) BY THE NSW DEPARTMENT OF HOUSING.
- ALL EROSION CONTROL DEVICES ARE TO BE MAINTAINED/REPAIRED DAILY.
- GRADE FINISHED SURFACE TO SHED WATER EVENLY WITHOUT CHANNELLING (UNTIL PIPED STORMWATER SYSTEM IS ADDED IN LATER STAGE).
- THE PLACEMENT OF EROSION AND SEDIMENT CONTROL MEASURES MAY VARY DEPENDENT UPON THE CONSTRUCTION TECHNIQUE AND PROGRAM.
- PROVIDE SECURITY FENCES IF BASIN BATTER SLOPE EXCEEDS 1:4

TREES

- THE TREES IDENTIFIED FOR RETENTION SHALL BE PROTECTED BY THE FOLLOWING MEASURES:
- PROTECTIVE FENCING CONSTRUCTED OF 1.8m HIGH CHAIN WIRE MESH SUPPORTED BY ROBUST POSTS SHALL BE INSTALLED AT A MINIMUM RADIUS OF 3m FROM THE TRUNK OF EACH TREE. THIS FENCING SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY WORKS AND REMAIN IN PLACE UNTIL ALL WORKS ARE COMPLETED. SIGNAGE SHALL BE ERECTED ON THE FENCE WITH THE FOLLOWING WORDS CLEARLY DISPLAYED "TREE PROTECTION ZONE, DO NOT ENTER."
 - THE TREE PROTECTION ZONE WITHIN THE PROTECTIVE FENCING SHALL BE MULCHED WITH A MAXIMUM DEPTH 75mm OF SUITABLE ORGANIC MULCH (WOOD CHIPS OR COMPOST LEAF CHIP MULCH) AND KEPT REGULARLY WATERED FOR THE DURATION OF THE WORKS.
 - NO DEVELOPMENT OR ASSOCIATED ACTIVITY IS PERMITTED WITHIN THE FENCED TREE PROTECTION ZONE FOR THE DURATION OF THE WORKS.
 - ANY APPROVED WORKS WITHIN THIS TREE PROTECTION ZONE SHALL BE UNDER THE DIRECTION OF AND TO THE SATISFACTION OF, A SUITABLY QUALIFIED AND EXPERIENCED ARBORIST. PLANT EIGHT (8) INDIGENOUS CANOPY TREES (ANGOPHORA) WITHIN LOT 7 BUT NOT WITHIN 3 METRES OF A BUILDING, WITH A MINIMUM POT SIZE OF 25 LITRES.

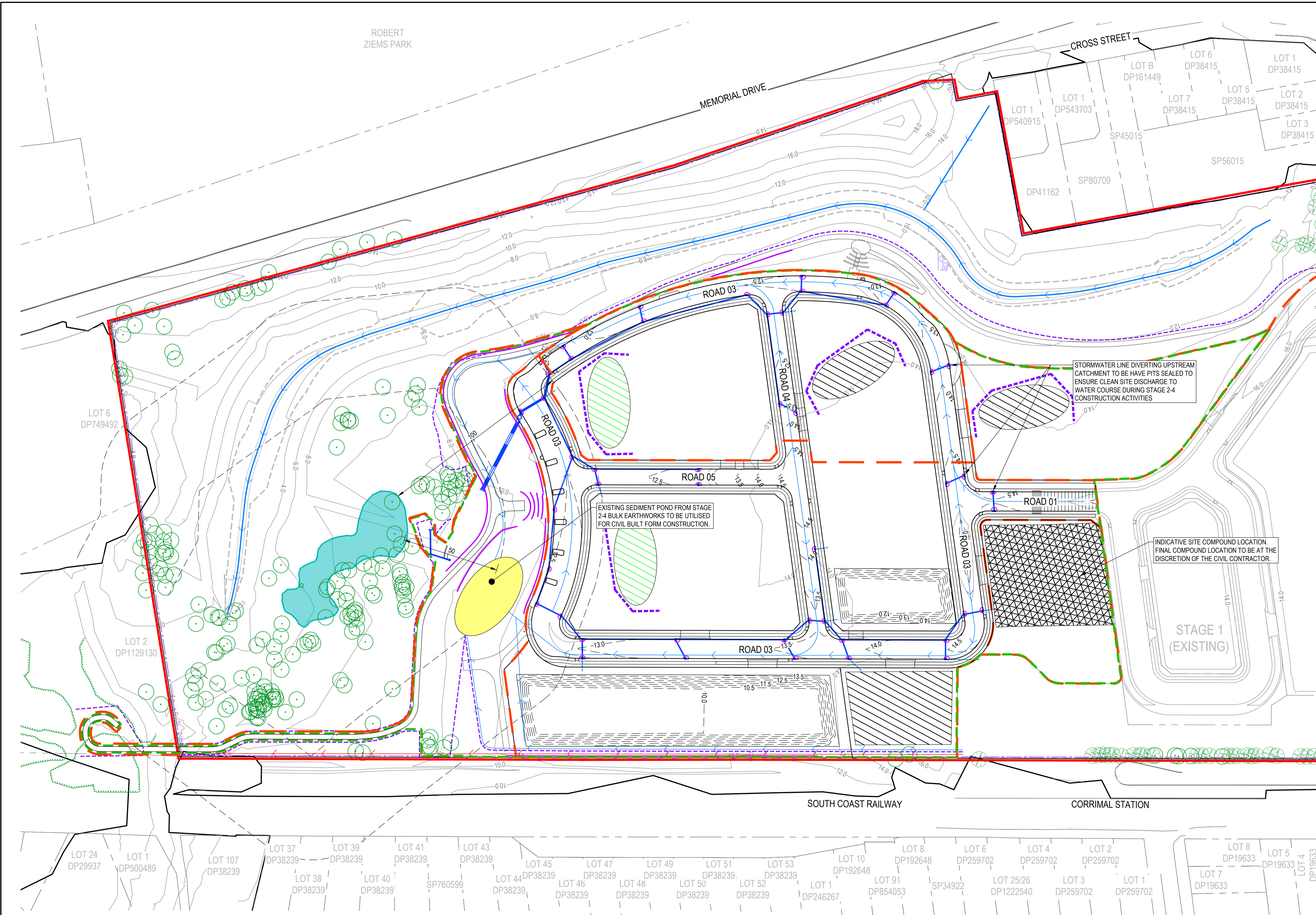
ALL NOTES ARE TO BE READ IN CONJUNCTION WITH WOLLONGONG CITY COUNCIL ENGINEERING SPECIFICATIONS

Alex Gollan, 30/10/2025 11:01 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION SOIL AND WATER MANAGEMENT NOTES AND DETAILS			
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN	APPROVED: A.GOLLAN	DRAWING NUMBER MKR00452-11-C1500	SHEET No.	ORIG. SIZE A1
NOT FOR CONSTRUCTION			REVISION 3		



PROPOSED

- SITE BOUNDARY
- WORKS EXTENTS
- STAGING BOUNDARY
- LOT BOUNDARY
- CONTOURS (0.5m)
- OPEN DRAIN
- CUT-OFF DRAIN
- TEMPORARY FENCING
- SEDIMENT FENCE
- SEDIMENT BASIN
- SITE STOCKPILE
- STABILIZED SITE ACCESS
- SITE COMPOUND
- RIP RAP
- SHAKER GRID
- KERB INLET SEDIMENT TRAP
- STORMWATER PIPES
- STORMWATER STRUCTURES

EXISTING

- LOT BOUNDARY
- CONTOURS (2.0m)
- EXISTING STAGE 1 LAYOUT
- OPEN DRAIN
- BAT HABITAT EXTENT

NOTES:

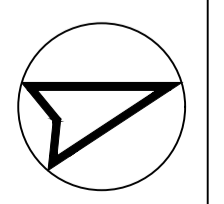
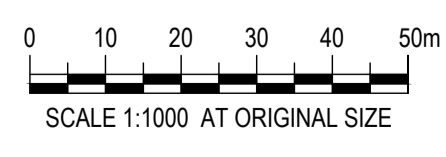
- TEMP STOCKPILES SHOWN IN SUPER LOTS TO ALL FLEXIBILITY IN USE DURING BULK EARTHWORKS AND CIVIL WORKS STAGES

SEDIMENT BASIN CALCS

SITE	TOTAL CATCHMENT AREA (ha)	SETTLING ZONE VOLUME (m3)	SEDIMENT STORAGE VOLUME (m3)	TOTAL BASIN VOLUME REQUIRED (m3)	TOTAL BASIN VOLUME PROVIDED (m3)
BASIN 01	7.880	1014	507	1521	1550

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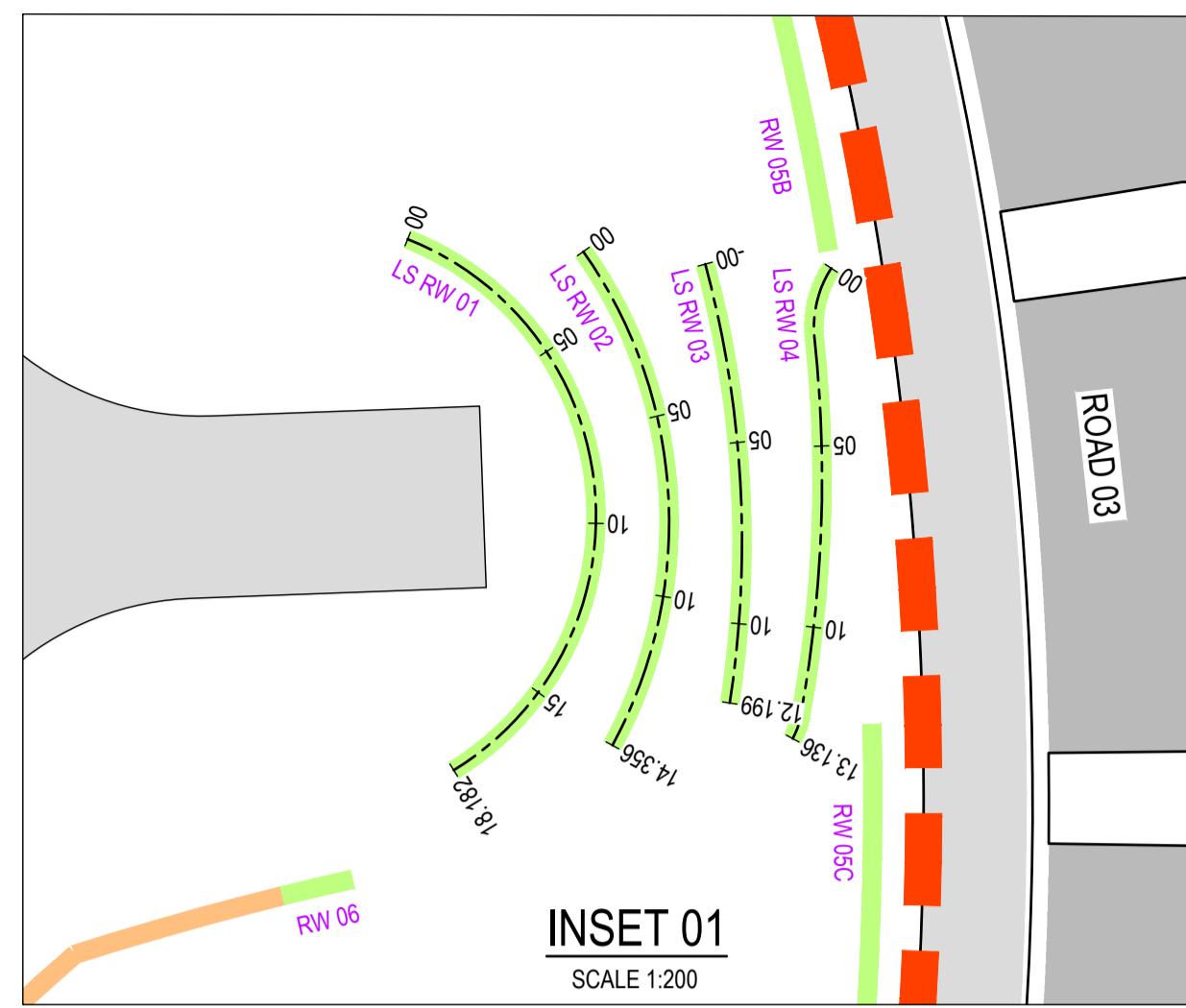


DRAWN: J.BADI
DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES
DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN

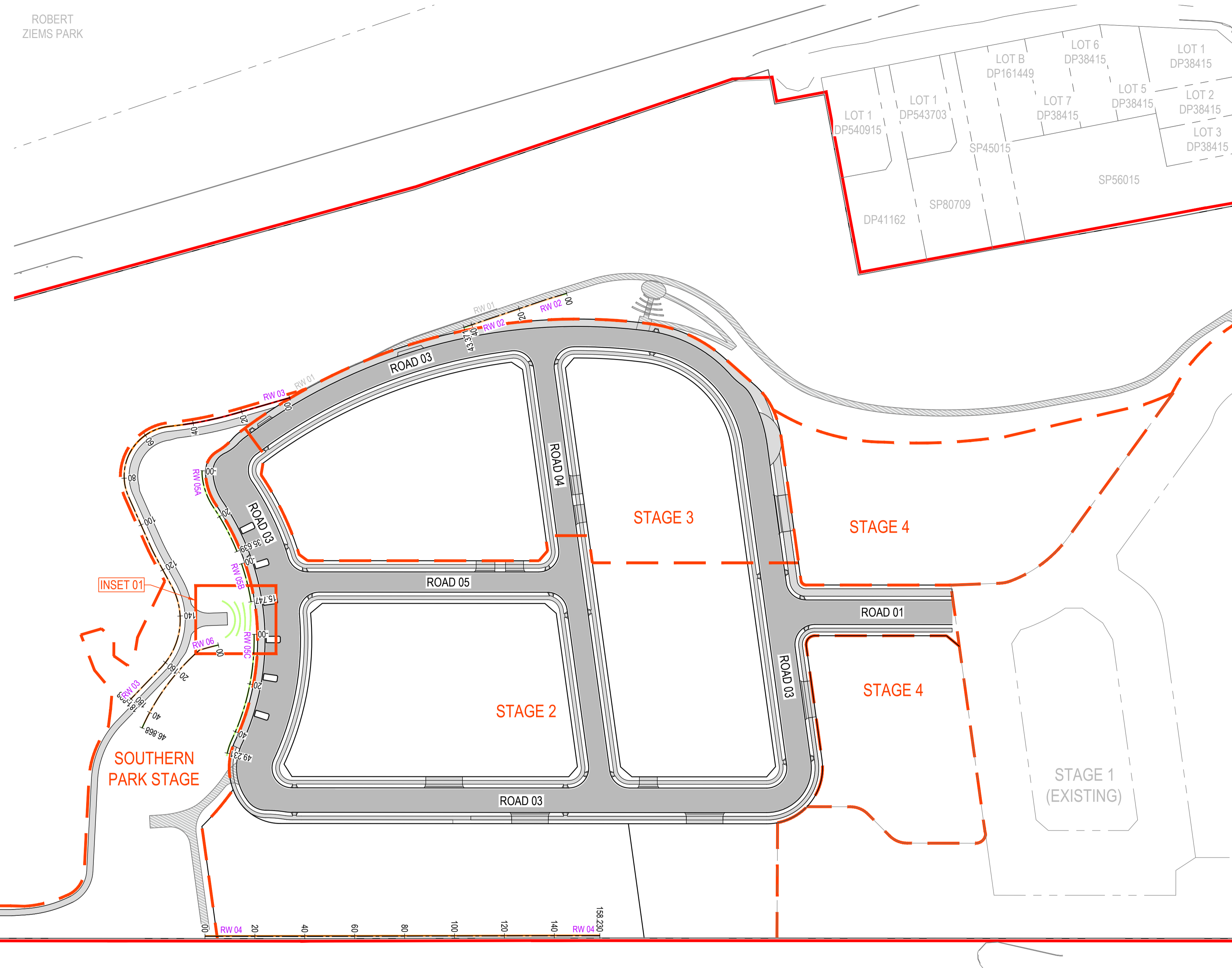
NOT FOR CONSTRUCTION

**CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
SOIL AND WATER MANAGEMENT
LAYOUT PLAN**

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1501		A1	3

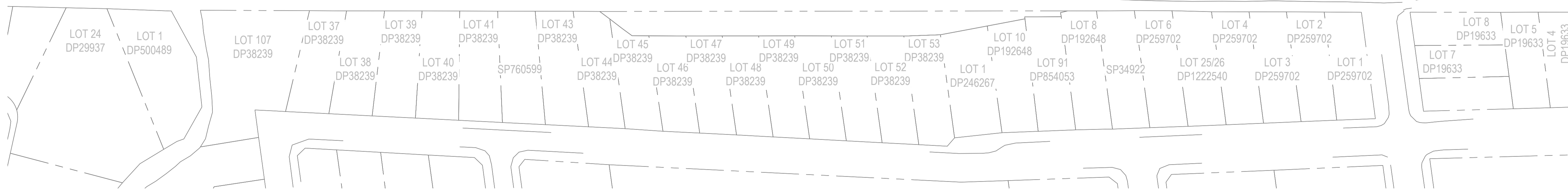


ROBERT
ZIEMS PARK

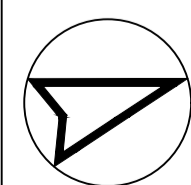
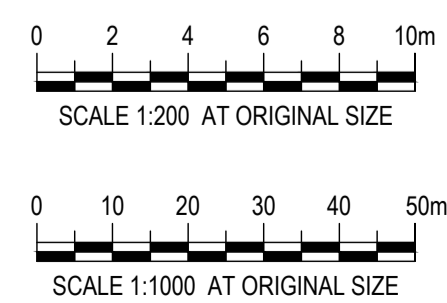


PROPOSED		LEGEND	
	SITE BOUNDARY		STAGING BOUNDARY
	LOT BOUNDARY		MAX 0.5m RETAINING WALL
	MAX 0.9m RETAINING WALL		MAX 1.5m RETAINING WALL
	MAX 1.7m RETAINING WALL		ROAD PAVEMENT
	FOOTPATH / SHARED PATH		LOT BOUNDARY
	LOT BOUNDARY		CONCRETE SURFACE

- NOTES:**
1. FINAL HEIGHTS OF RETAINING WALLS TO BE CONFIRMED IN SWC PLAN SET
 2. RETAINING WALL TYPE TO BE CONFIRMED IN SWC PLAN SET



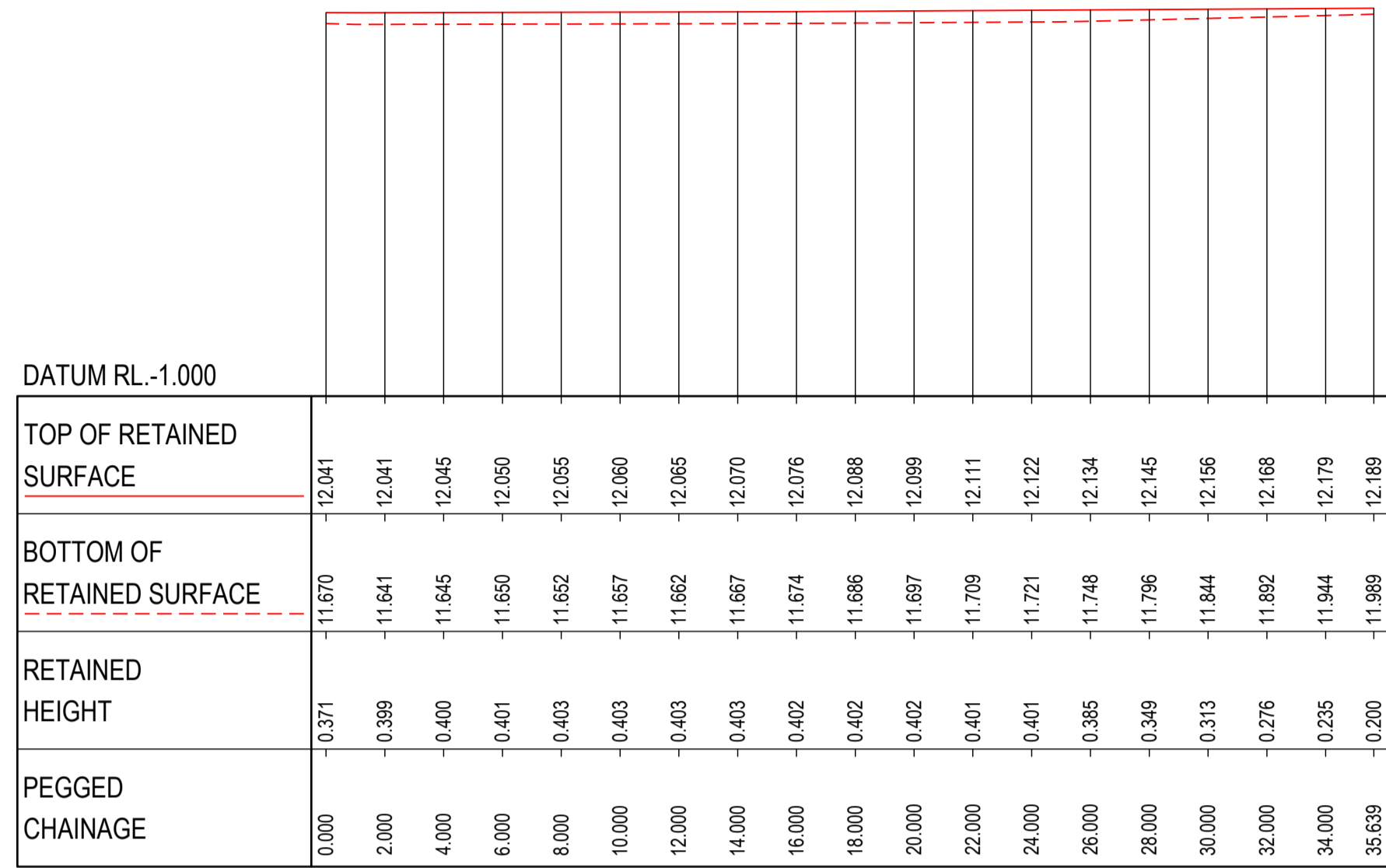
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1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

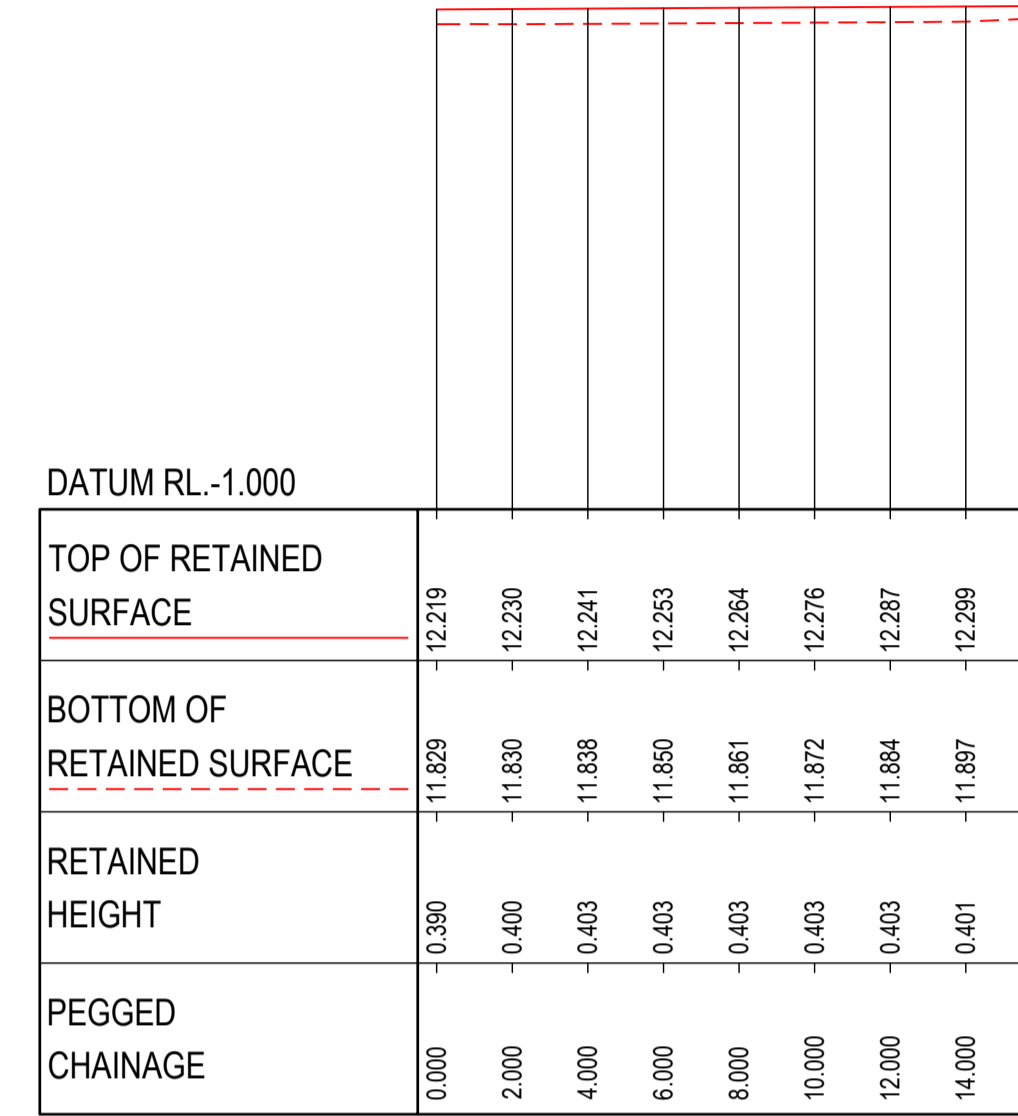
CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
RETAINING WALL
LAYOUT PLAN

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1600		A1	3



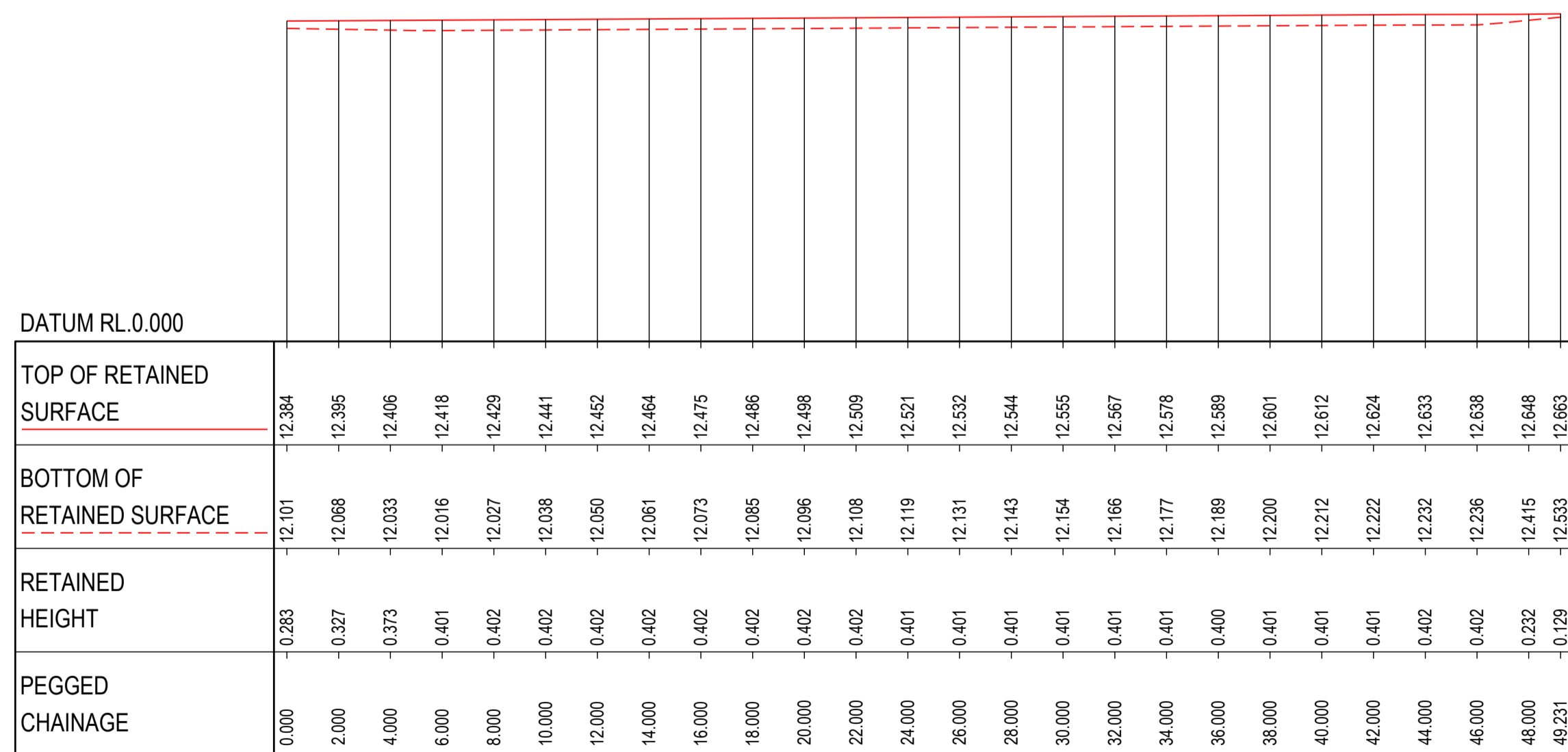
HOR : 1 IN 200
VERT: 1 IN 200

LONGITUDINAL SECTION - RW 05A



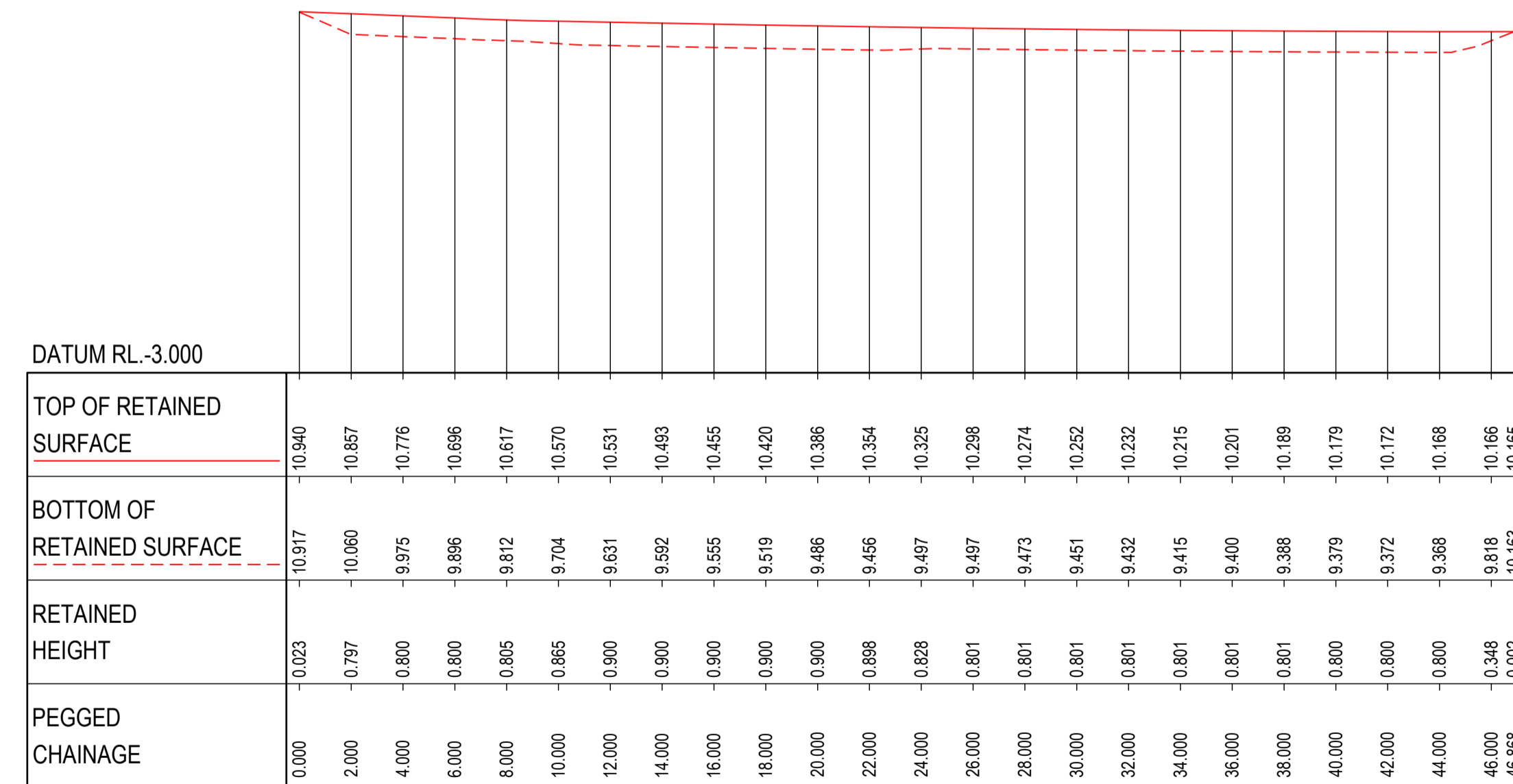
HOR : 1 IN 200
VERT: 1 IN 200

LONGITUDINAL SECTION - RW 05B



HOR : 1 IN 200
VERT: 1 IN 200

LONGITUDINAL SECTION - RW 05C



HOR : 1 IN 200
VERT: 1 IN 200

LONGITUDINAL SECTION - RW 06



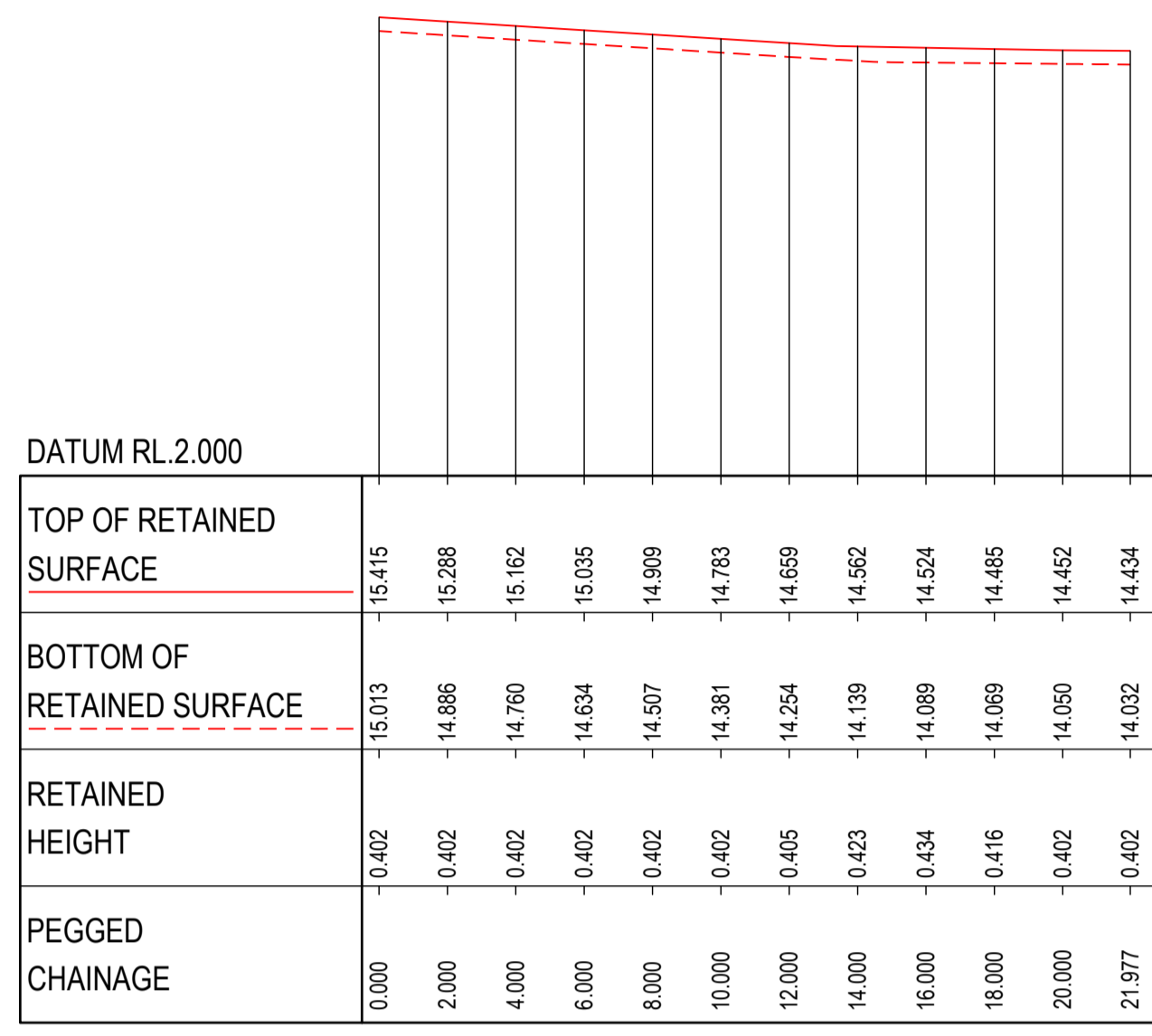
DRAWN: J.BADI
DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES
DESIGN CHECK: A.GOLLAN
APPROVED: A.GOLLAN

CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
RETAINING WALL
LONGSECTION

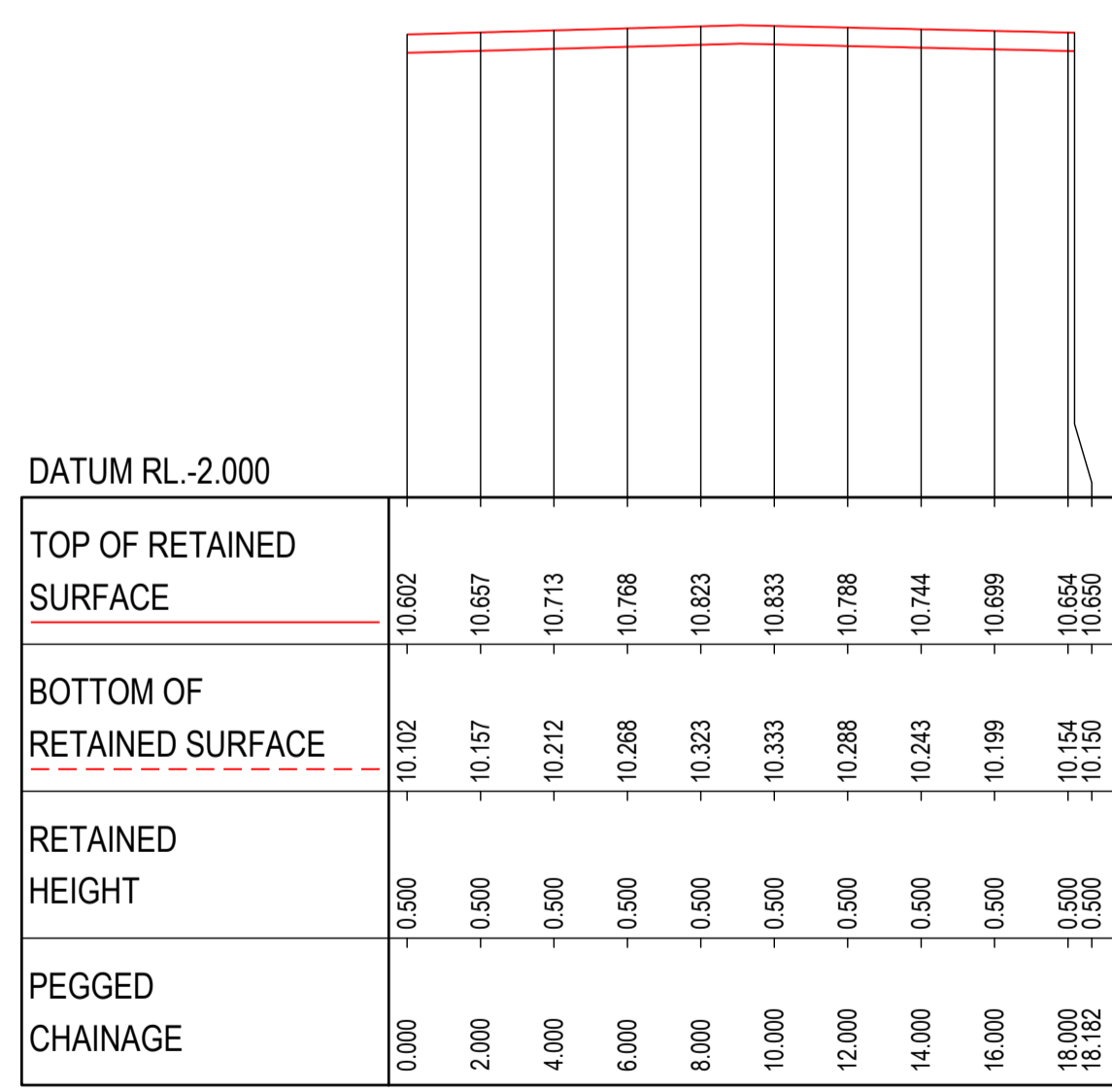
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DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1651	2 OF 3	A1	3

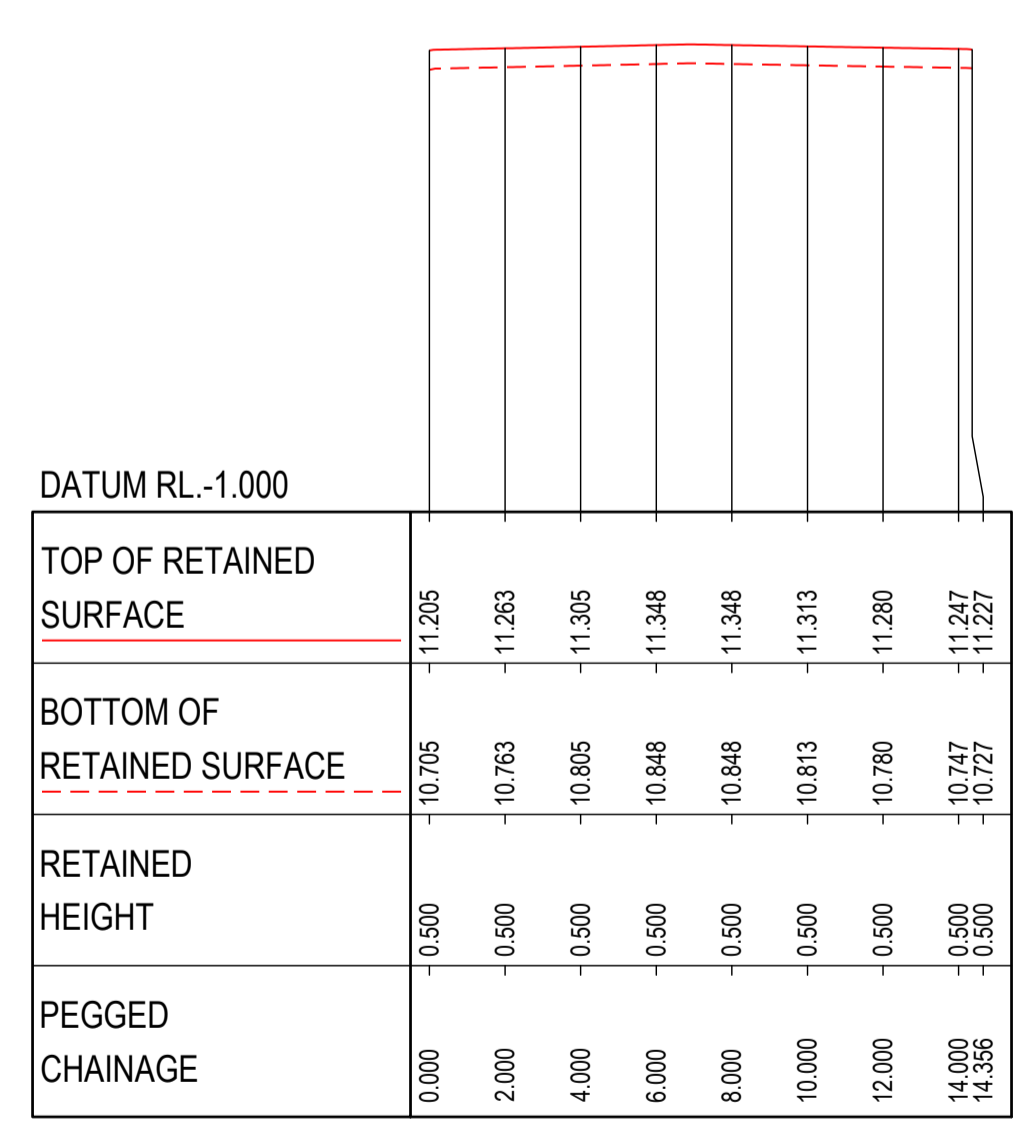
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2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



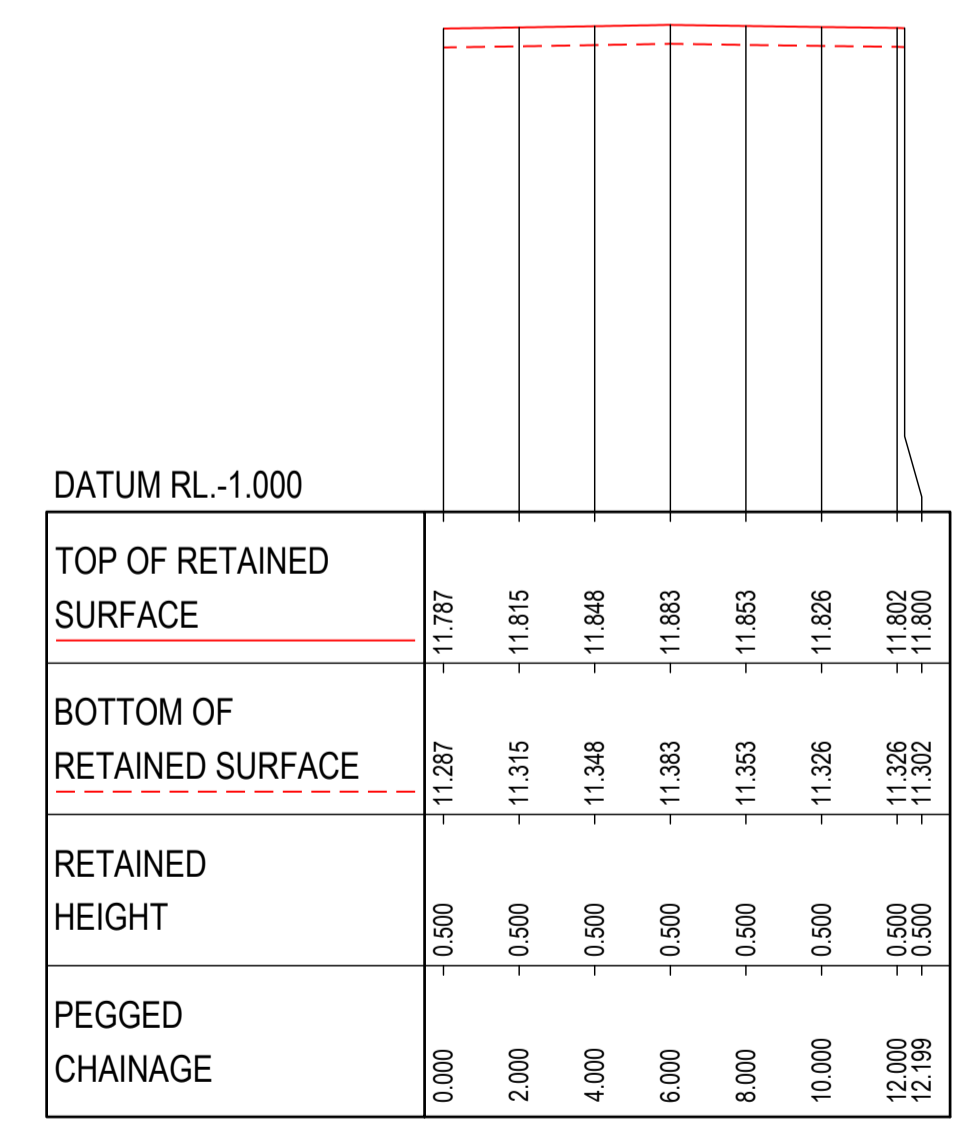
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VERT: 1 IN 200
LONGITUDINAL SECTION - RW 07



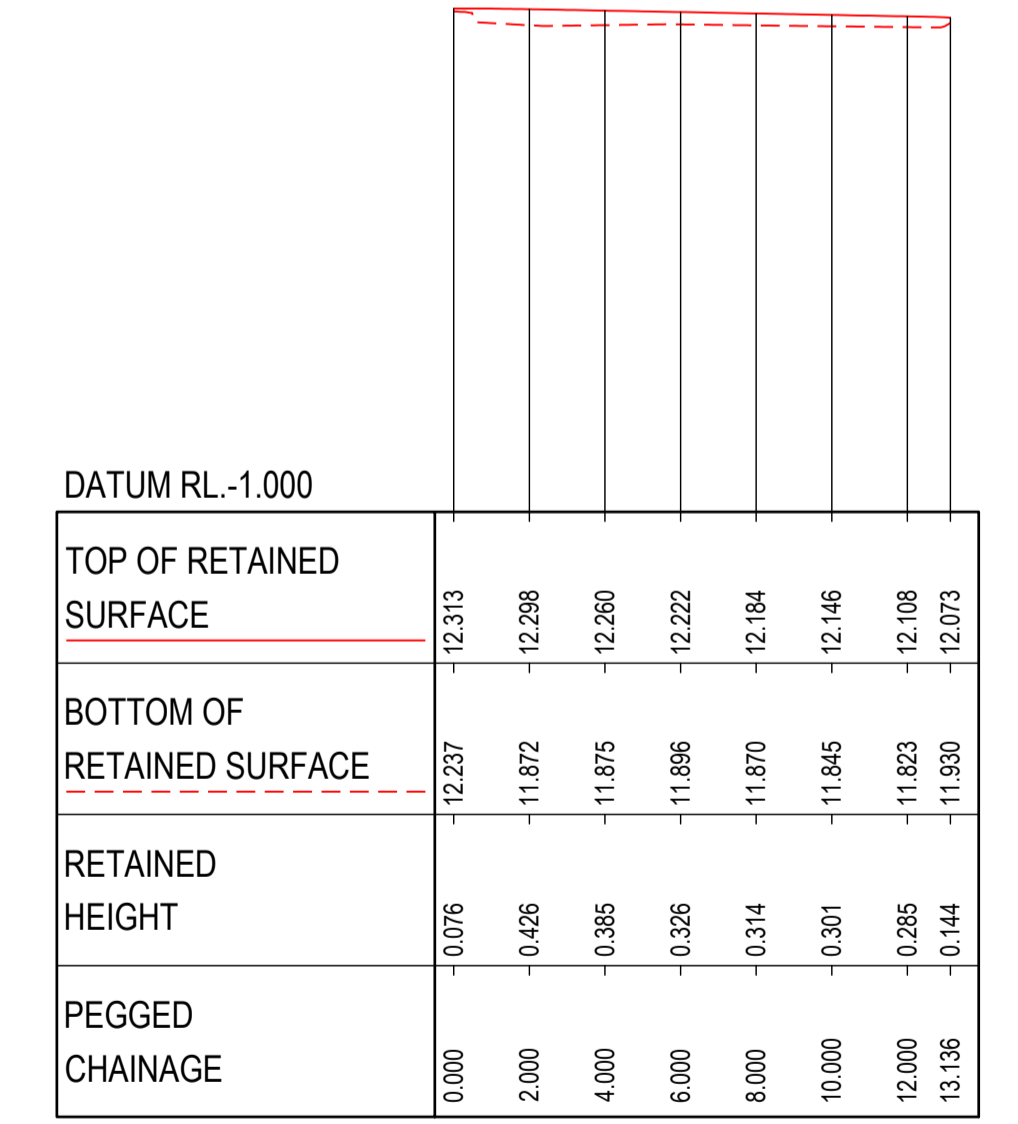
HOR : 1 IN 200
VERT: 1 IN 200
LONGITUDINAL SECTION - LS RW 01



HOR : 1 IN 200
VERT: 1 IN 200
LONGITUDINAL SECTION - LS RW 02



HOR : 1 IN 200
VERT: 1 IN 200
LONGITUDINAL SECTION - LS RW 03



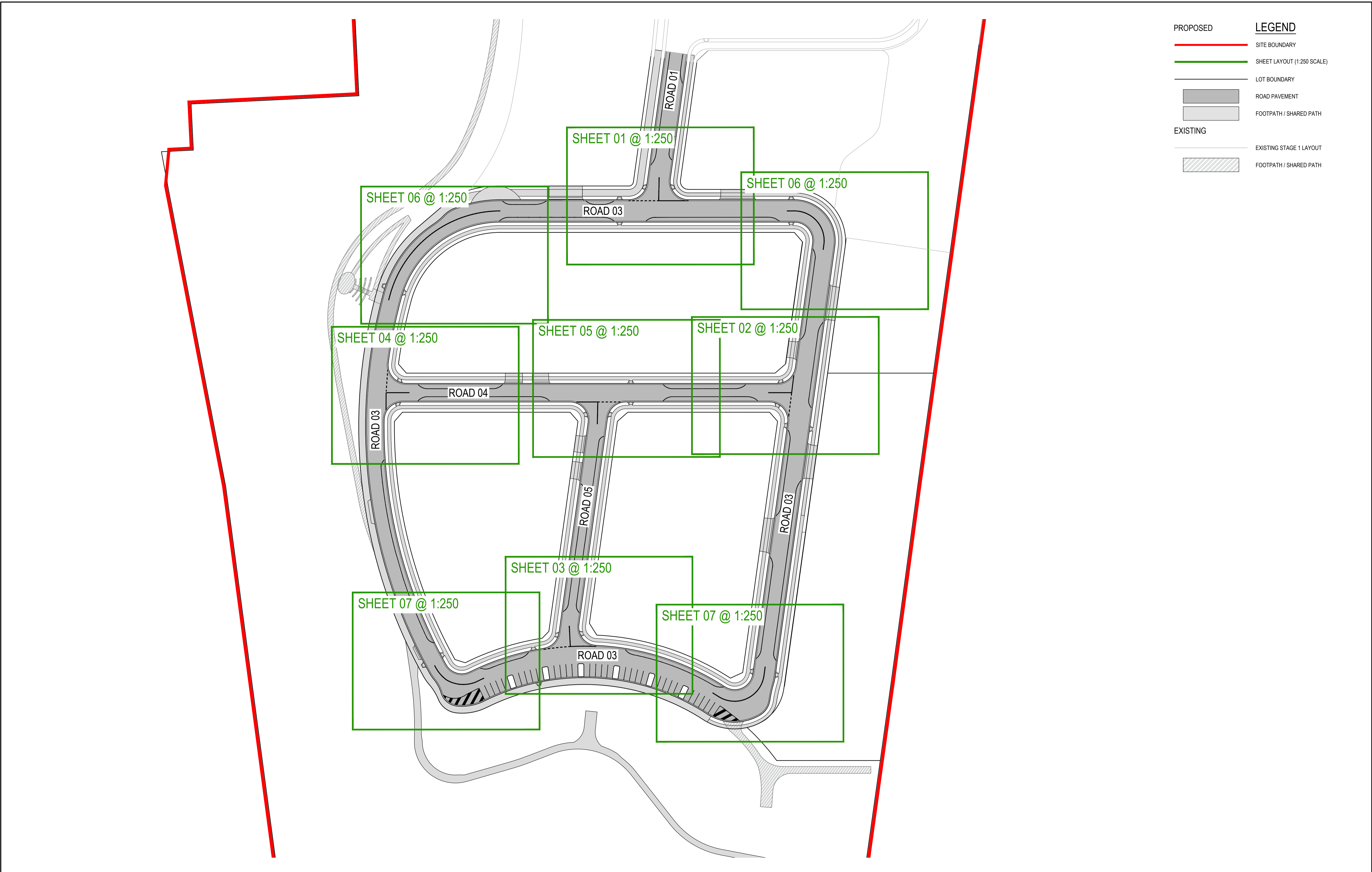
HOR : 1 IN 200
VERT: 1 IN 200
LONGITUDINAL SECTION - LS RW 04



DRAWN: J.BADI	DESIGNED: S.McINNES	CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION RETAINING WALL LONGSECTION
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN	
APPROVED: A.GOLLAN		DRAWING NUMBER MKR00452-11-C1652
NOT FOR CONSTRUCTION		SHEET No. 3 OF 3
		ORIG. SIZE A1
		REVISION 3

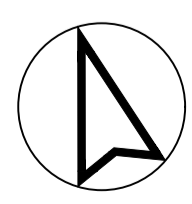
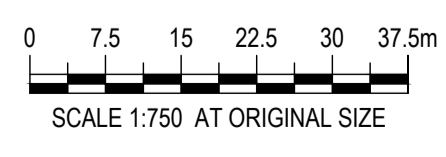
Alec Gollan, 10/30/2025 11:01 AM

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LEGEND	
PROPOSED	
	SITE BOUNDARY
	SHEET LAYOUT (1:250 SCALE)
	LOT BOUNDARY
	ROAD PAVEMENT
	FOOTPATH / SHARED PATH
EXISTING	
	EXISTING STAGE 1 LAYOUT
	FOOTPATH / SHARED PATH

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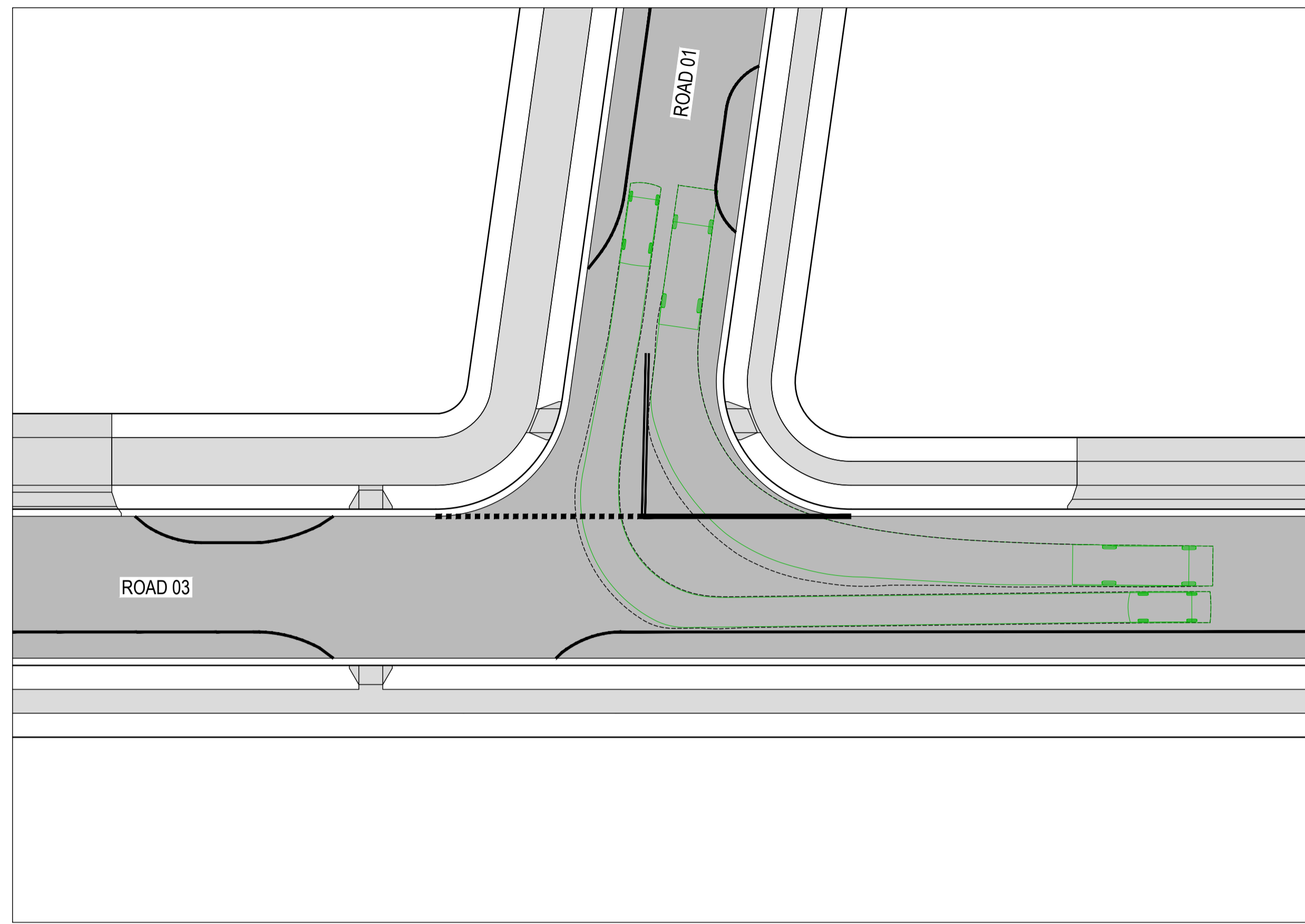


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APPROVED:	A.GOLLAN
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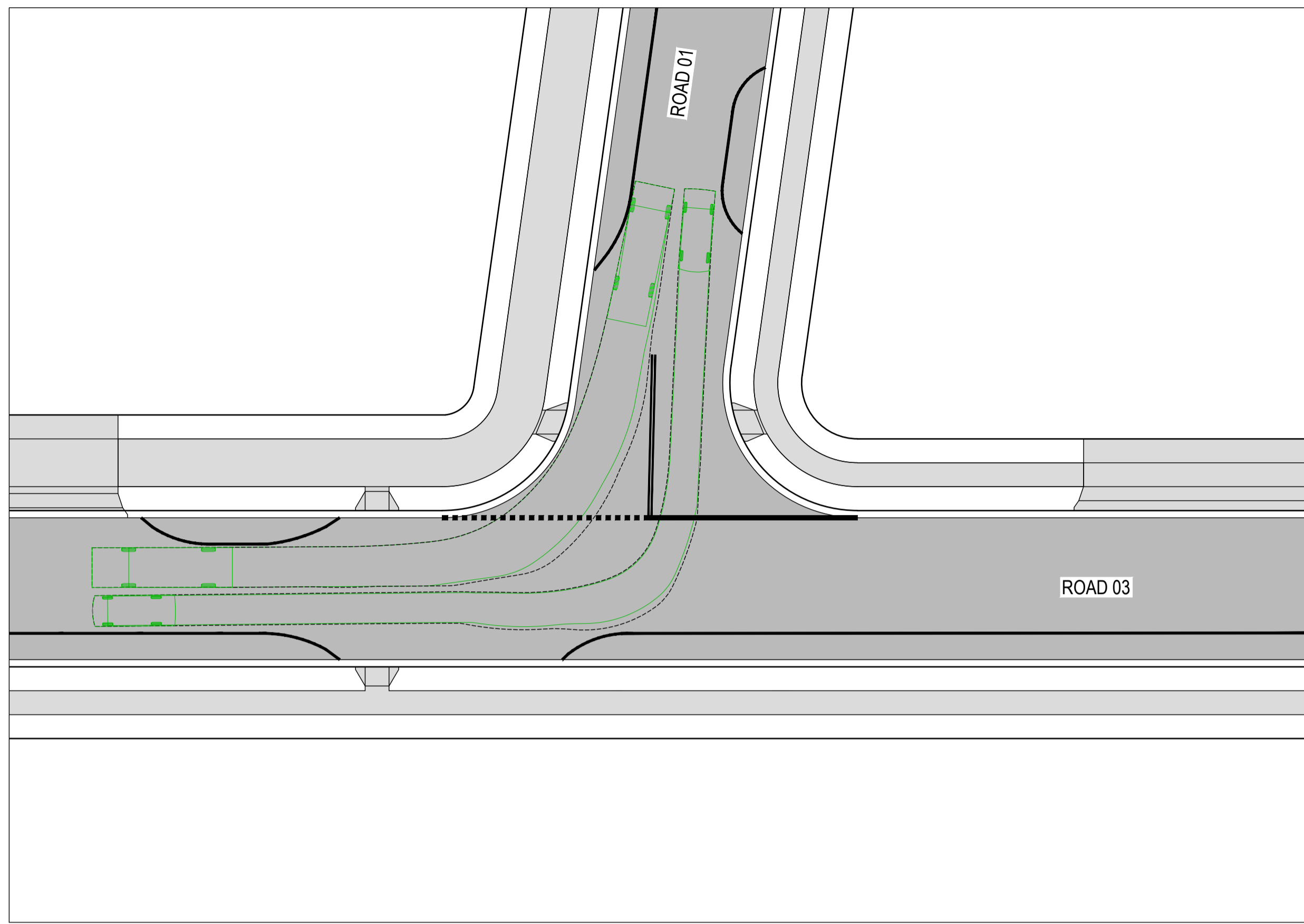
CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
SWEEP PATH KEY PLAN

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1700		A1	3

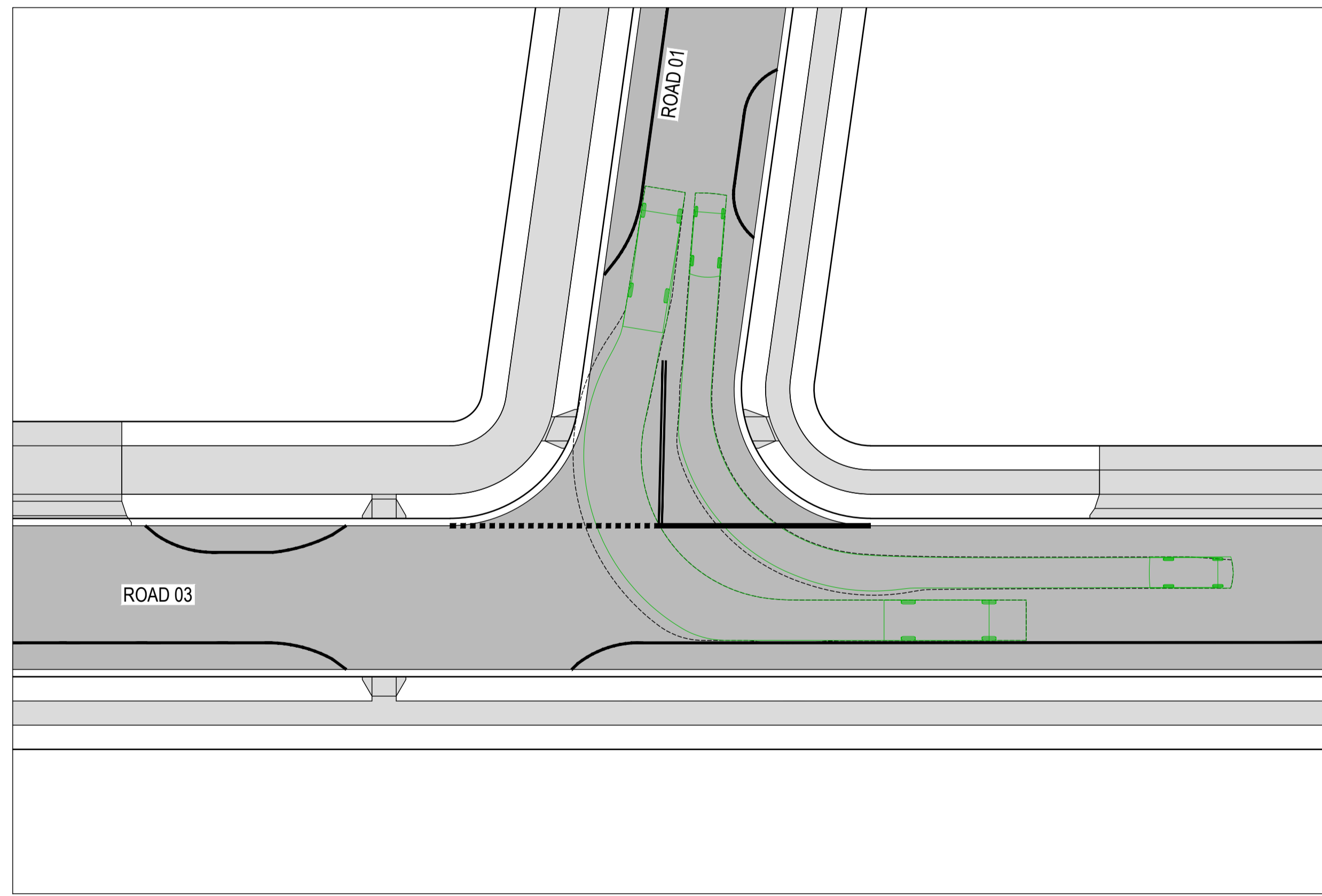
Alec Gollan, 30/10/2025 11:02 AM



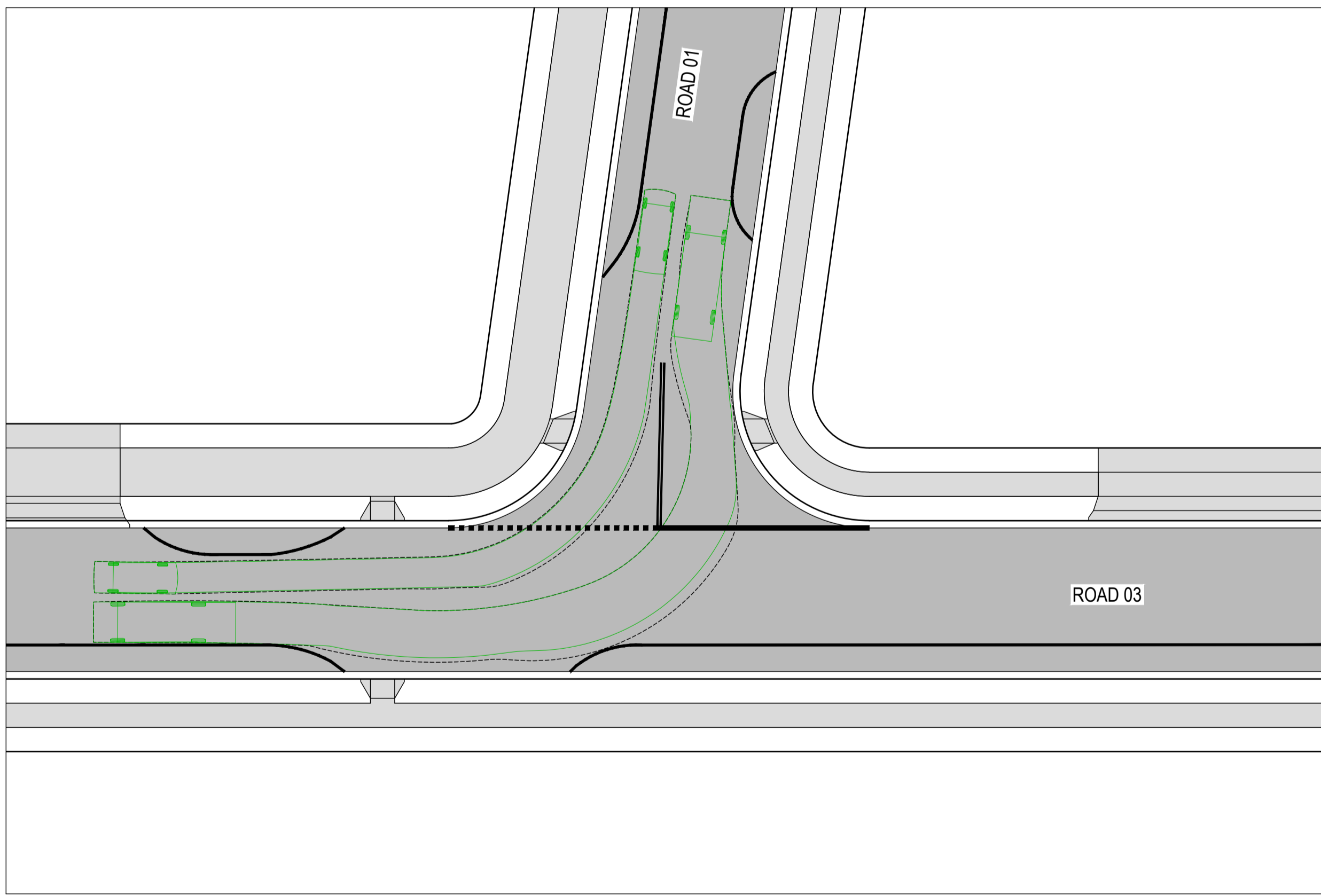
ROAD 01 - ROAD 03 SWEPT PATH 01
SCALE 1:250



ROAD 01 - ROAD 03 SWEPT PATH 02
SCALE 1:250



ROAD 01 - ROAD 03 SWEPT PATH 03
SCALE 1:250



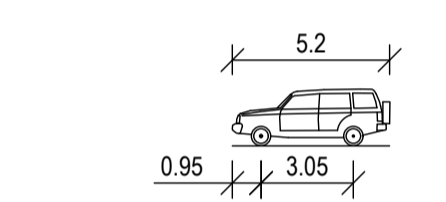
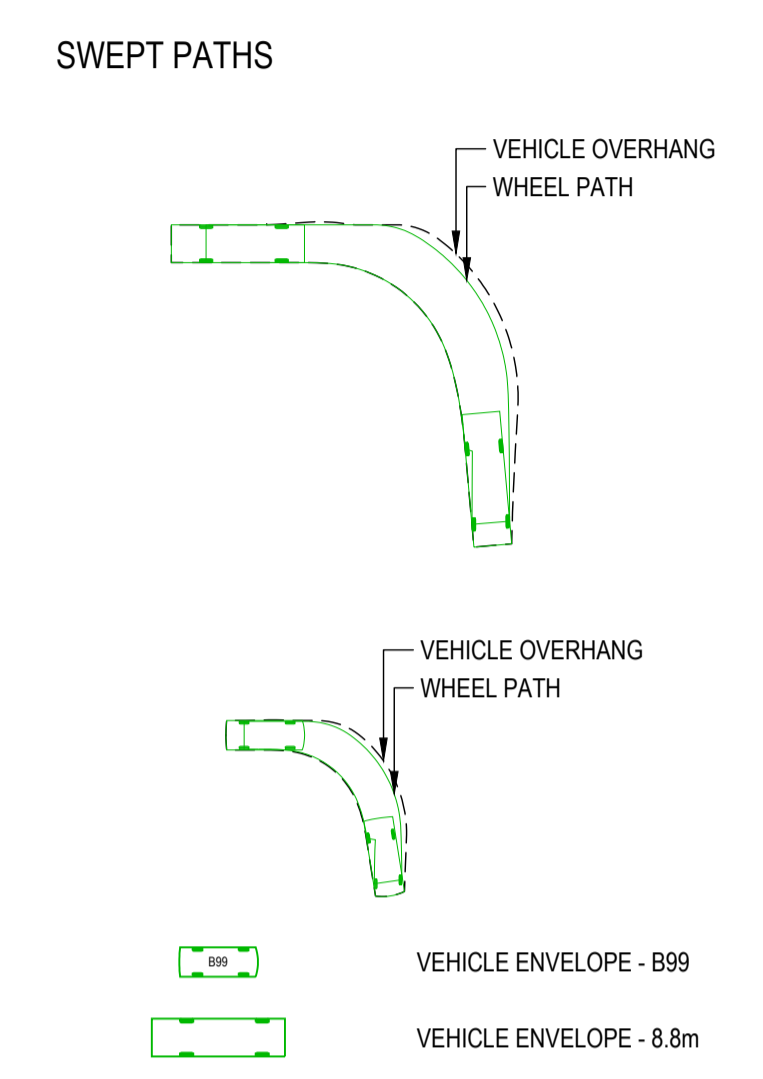
ROAD 01 - ROAD 03 SWEPT PATH 04
SCALE 1:250

PROPOSED

	SITE BOUNDARY
	LOT BOUNDARY
	ROAD PAVEMENT
	FOOTPATH / SHARED PATH

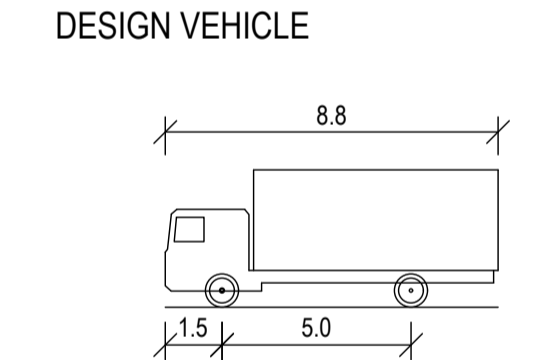
EXISTING

	LOT BOUNDARY
--	--------------



B99 VEHICLE

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.272m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m



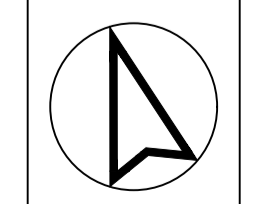
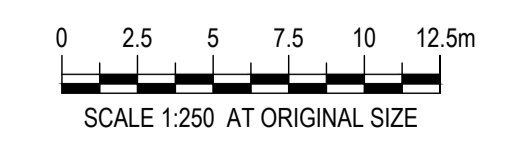
MRV - MEDIUM RIGID VEHICLE

OVERALL LENGTH	8.800m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.633m
MIN BODY GROUND CLEARANCE	0.428m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	10.000m

DESIGN VEHICLE

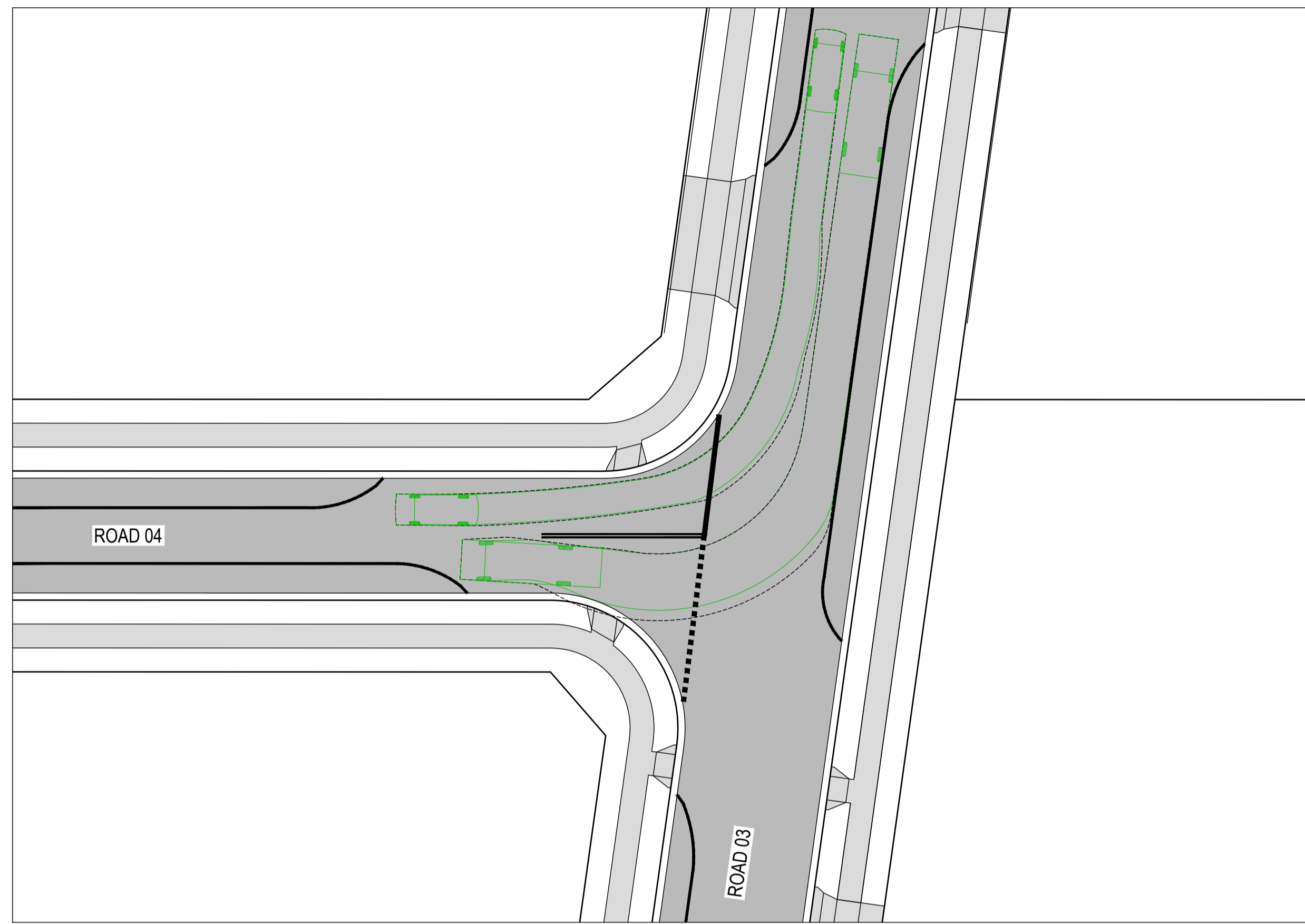
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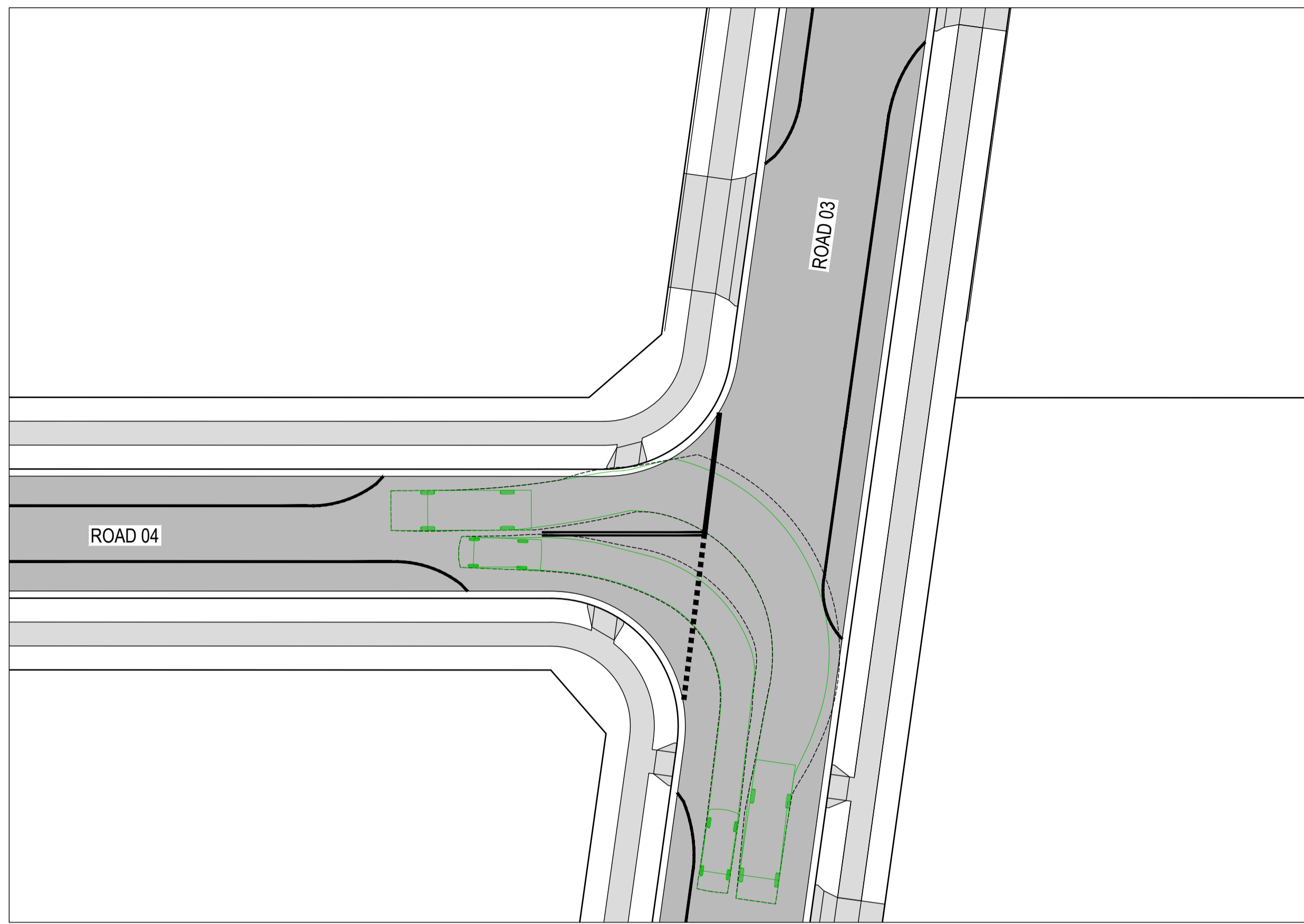


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

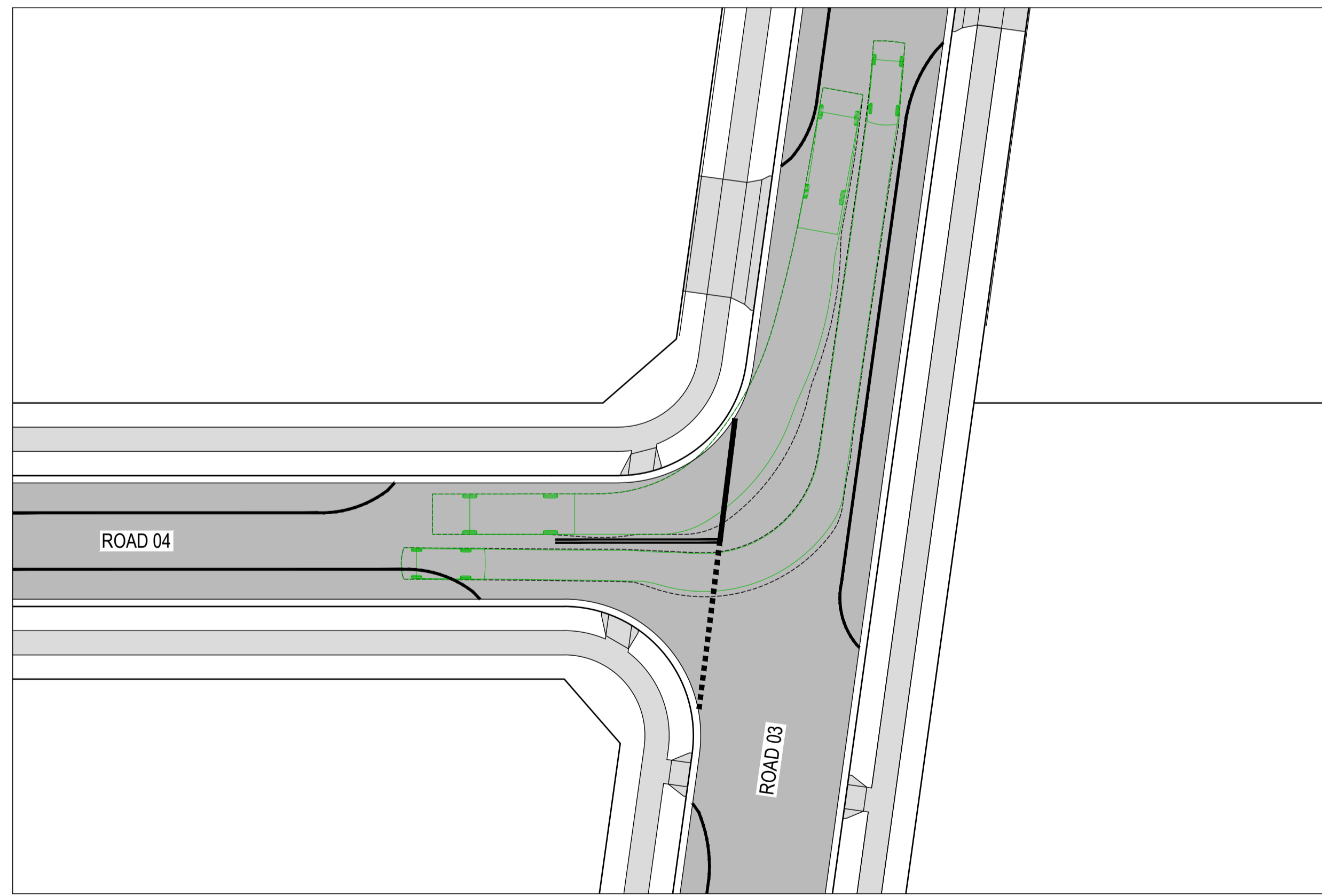
CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION SWEPT PATH LAYOUT PLAN DESIGN VEHICLES			
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1701	1 OF 7	A1	3



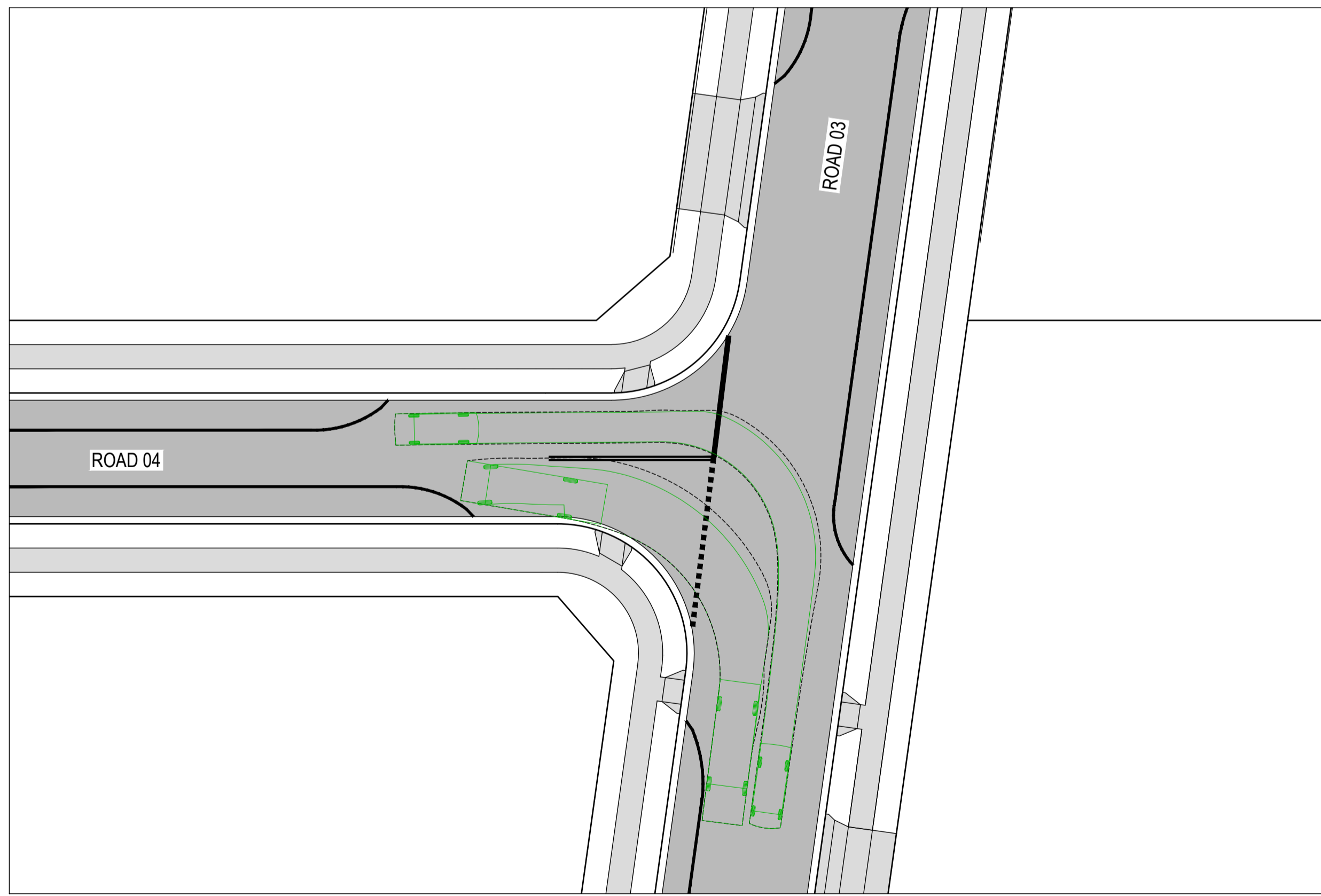
ROAD 04 - ROAD 03 SWEPT PATH 01
SCALE 1:250



ROAD 04 - ROAD 03 SWEPT PATH 02
SCALE 1:250



ROAD 04 - ROAD 03 SWEPT PATH 03
SCALE 1:250



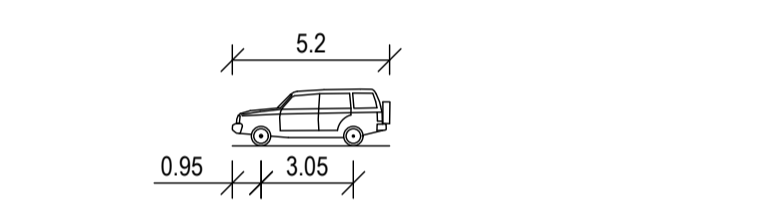
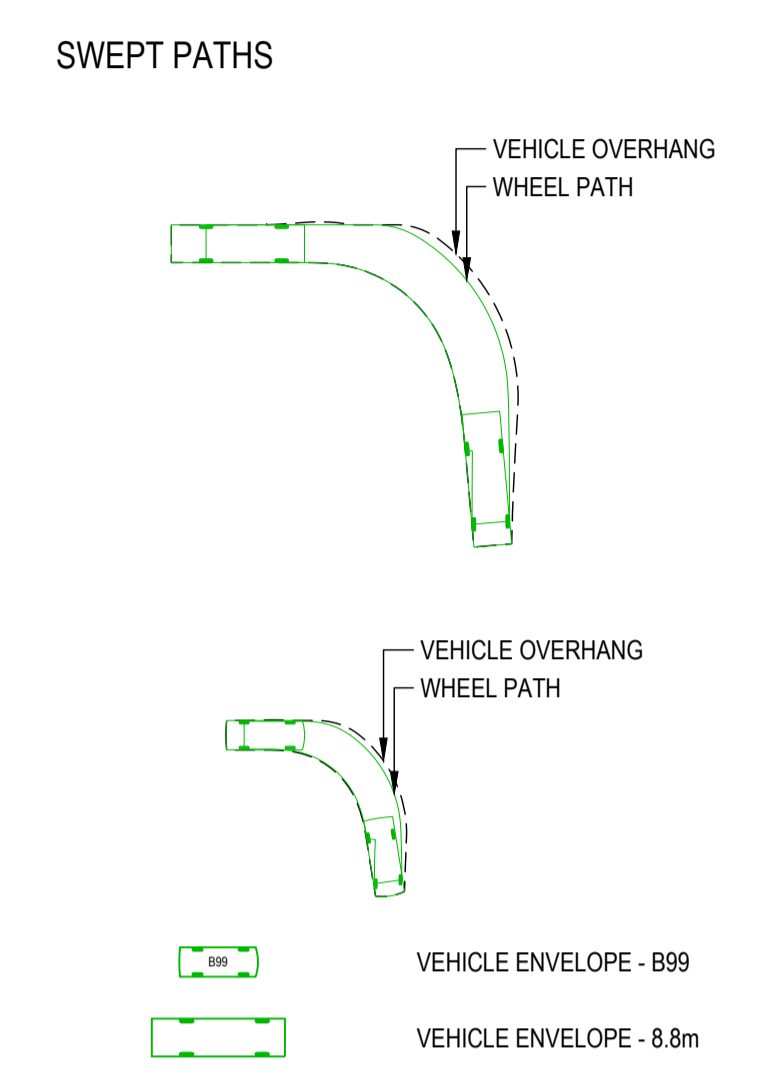
ROAD 04 - ROAD 03 SWEPT PATH 04
SCALE 1:250

PROPOSED

	SITE BOUNDARY
	LOT BOUNDARY
	ROAD PAVEMENT
	FOOTPATH / SHARED PATH

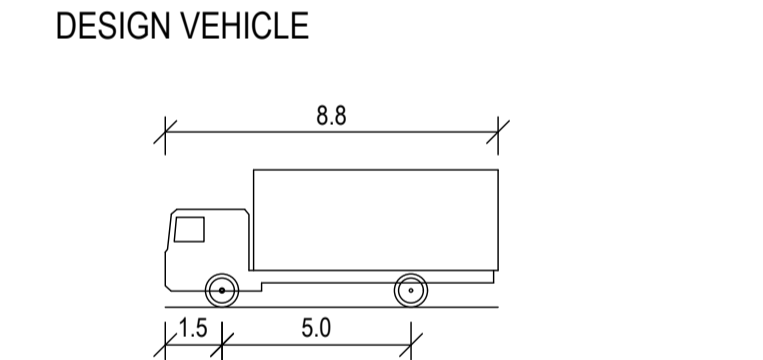
EXISTING

	LOT BOUNDARY
--	--------------



B99 VEHICLE

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.272m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m



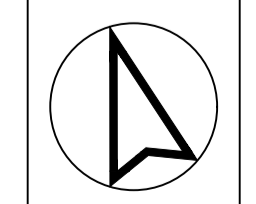
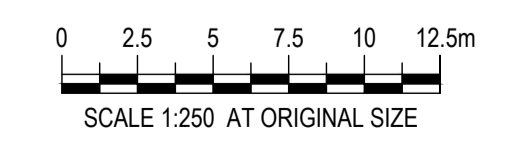
MRV - MEDIUM RIGID VEHICLE

OVERALL LENGTH	8.800m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.633m
MIN BODY GROUND CLEARANCE	0.428m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	10.000m

DESIGN VEHICLE

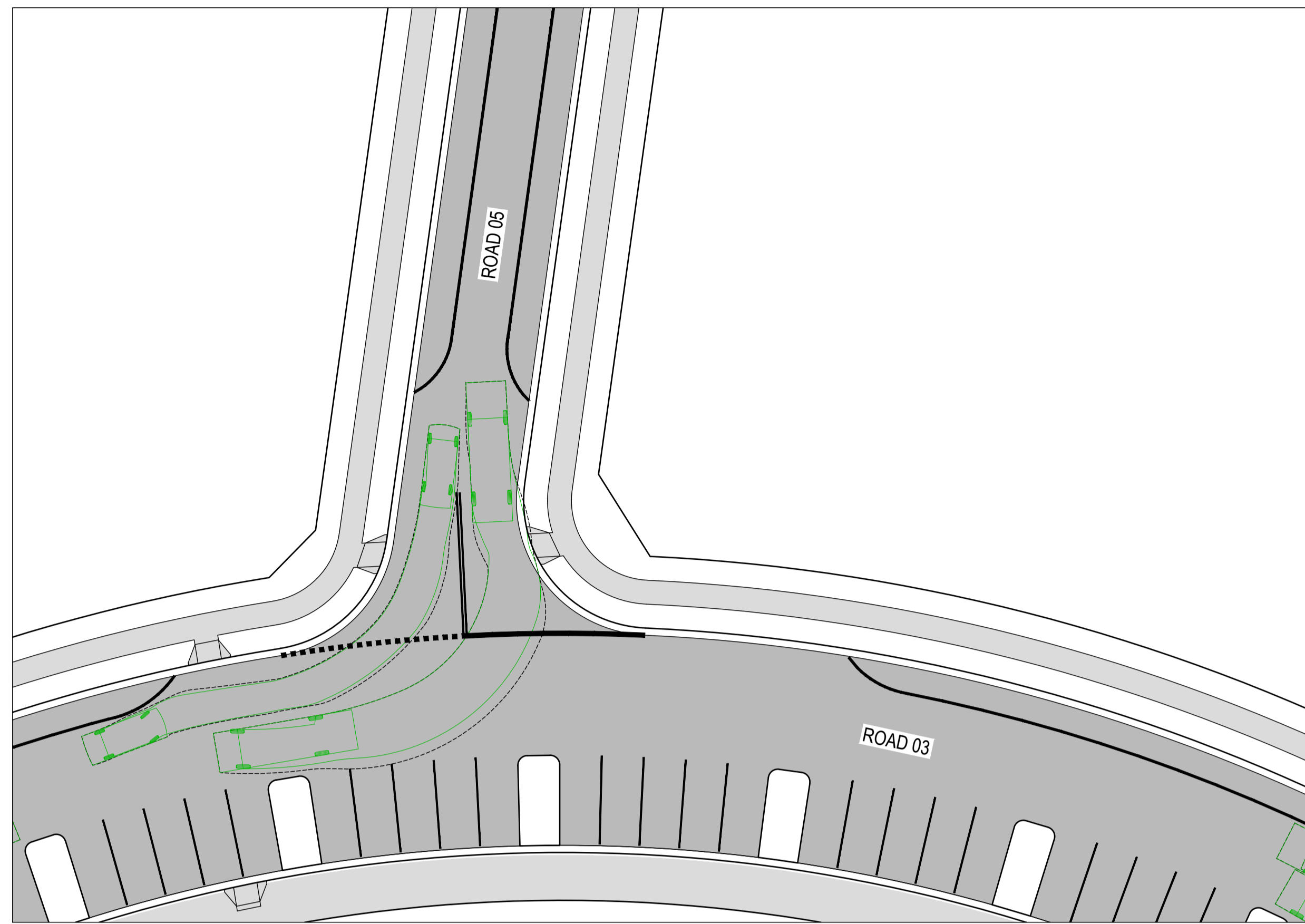
Alec Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



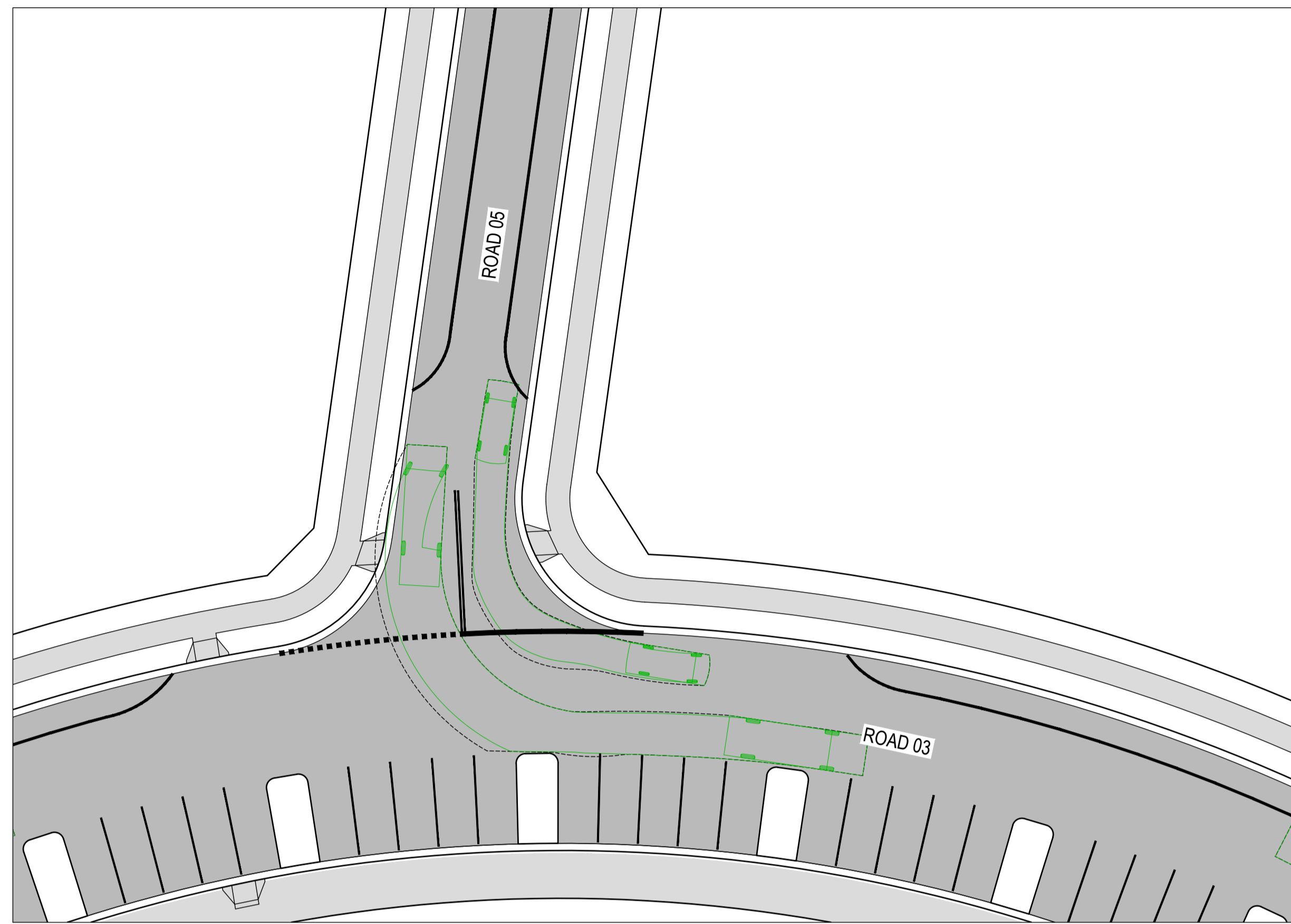
DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION SWEPT PATH LAYOUT PLAN DESIGN VEHICLES			
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1702	2 OF 7	A1	3



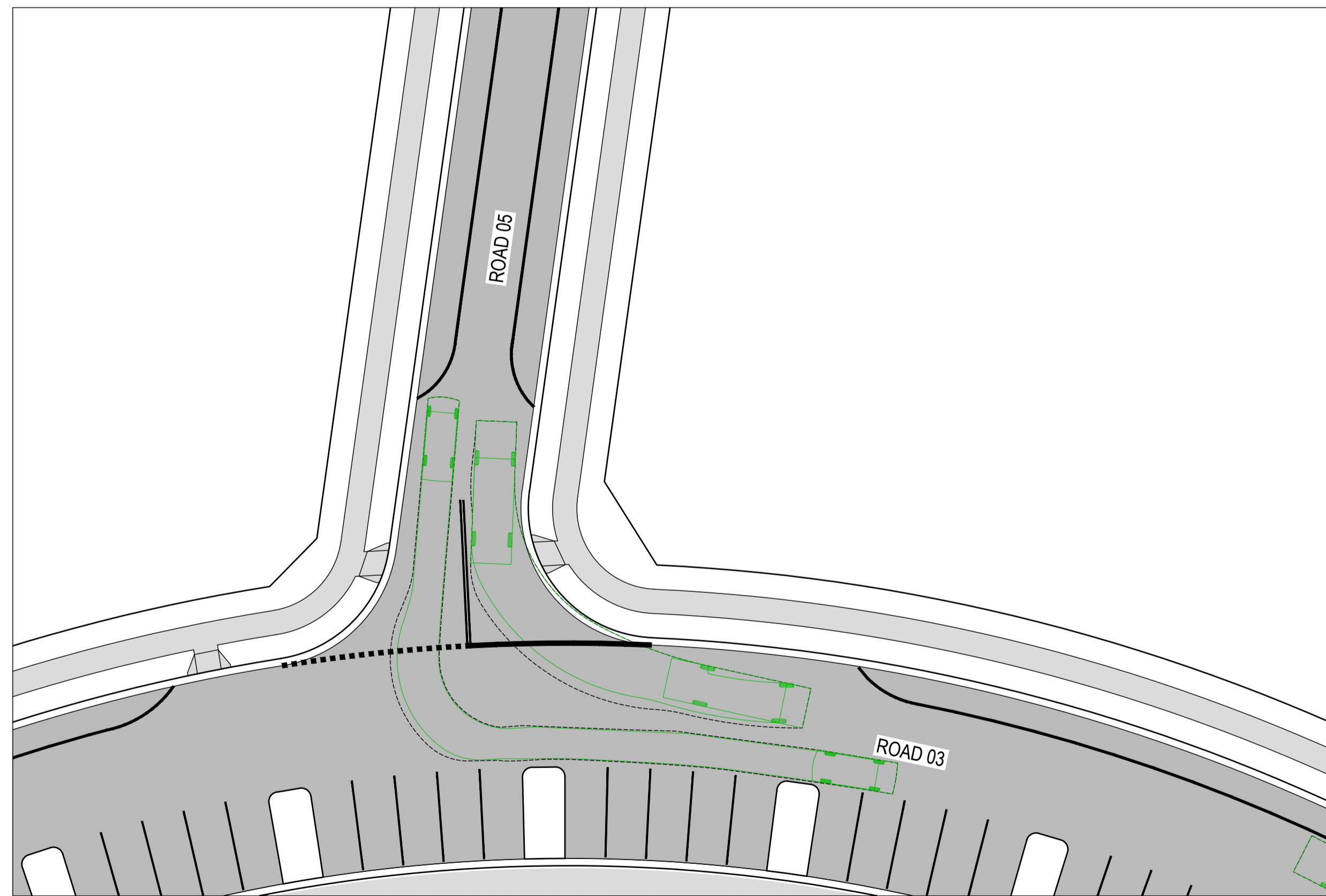
ROAD 05 - ROAD 03 SWEEP PATH 01

SCALE 1:250



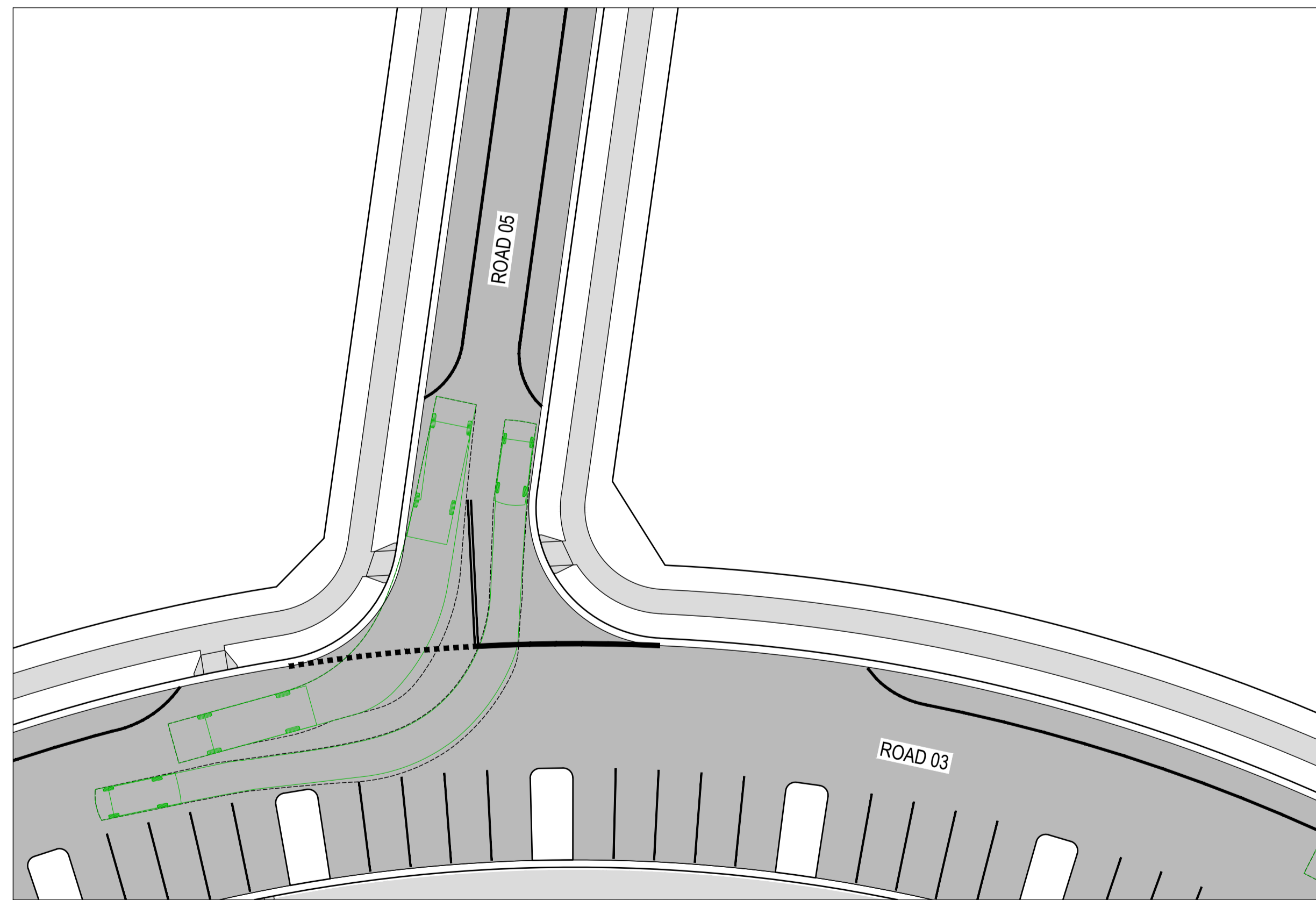
ROAD 05 - ROAD 03 SWEEP PATH 02

SCALE 1:250



ROAD 05 - ROAD 03 SWEEP PATH 03

SCALE 1:250



ROAD 05 - ROAD 03 SWEEP PATH 04

SCALE 1:250

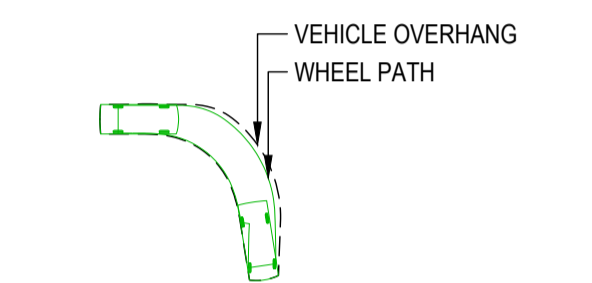
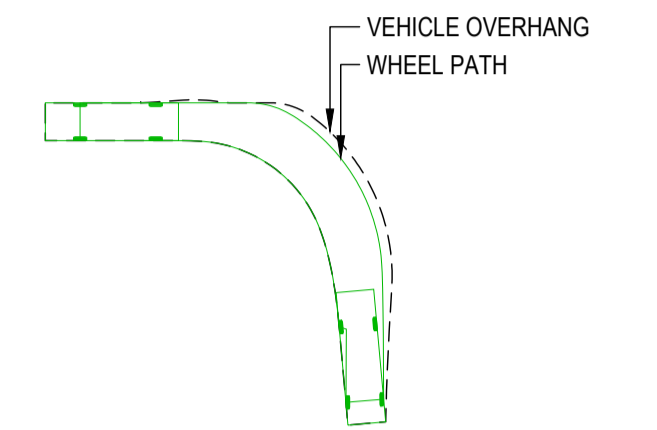
PROPOSED

	SITE BOUNDARY
	LOT BOUNDARY
	ROAD PAVEMENT
	FOOTPATH / SHARED PATH

EXISTING

	LOT BOUNDARY
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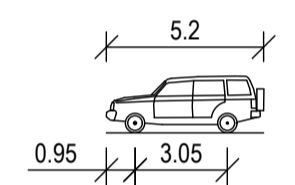
SWEPT PATHS



VEHICLE OVERHANG
WHEEL PATH

VEHICLE ENVELOPE - B99

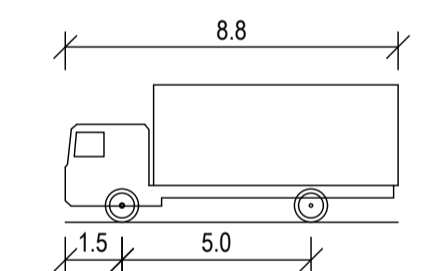
VEHICLE ENVELOPE - 8.8m



B99 VEHICLE

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.272m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m

DESIGN VEHICLE



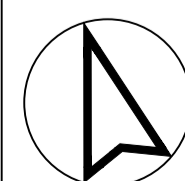
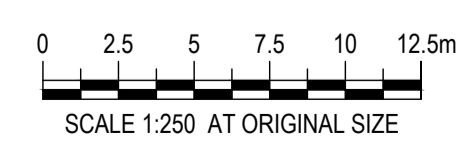
MRV - MEDIUM RIGID VEHICLE

OVERALL LENGTH	8.800m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.633m
MIN BODY GROUND CLEARANCE	0.428m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	10.000m

DESIGN VEHICLE

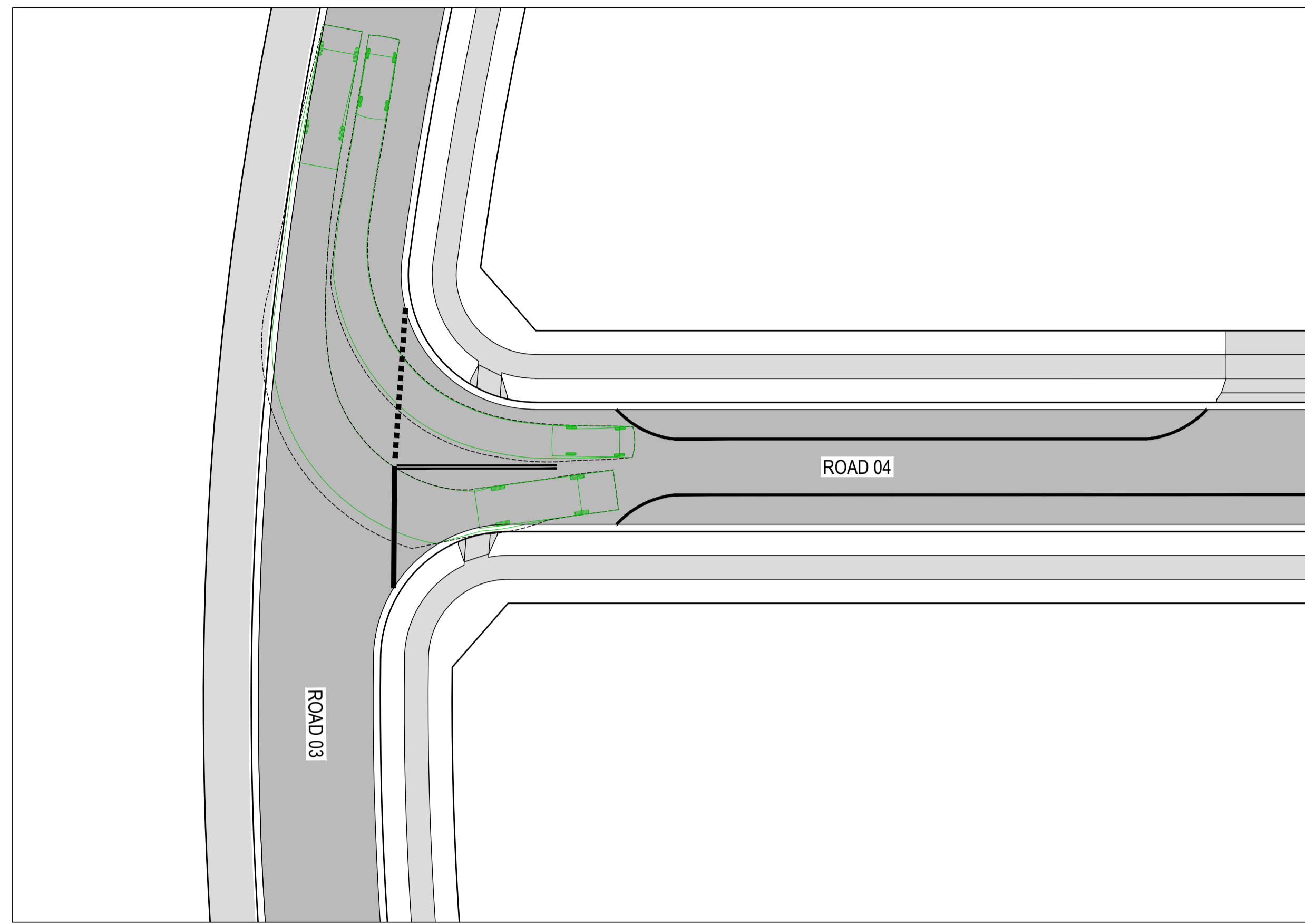
Alex Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

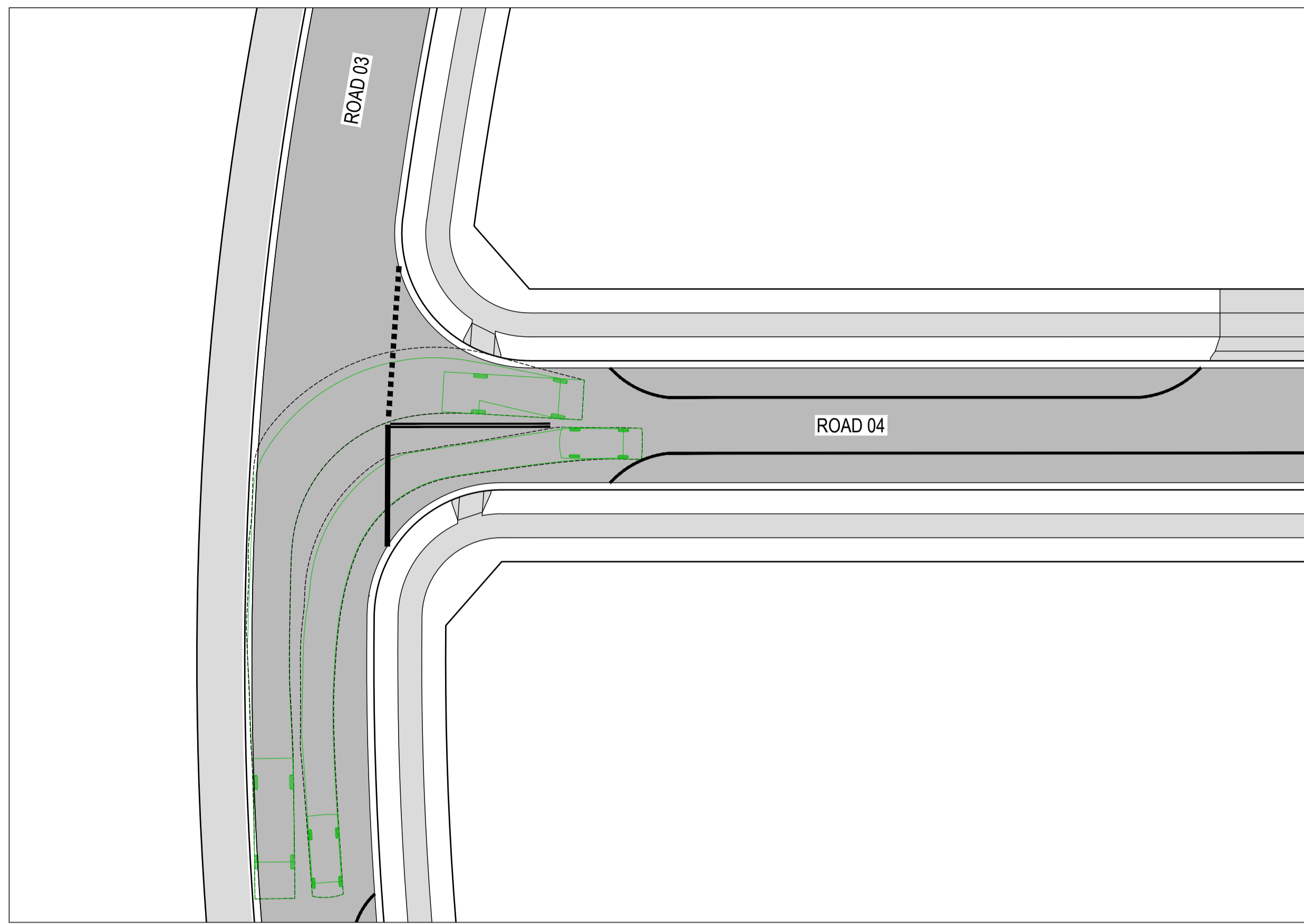


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

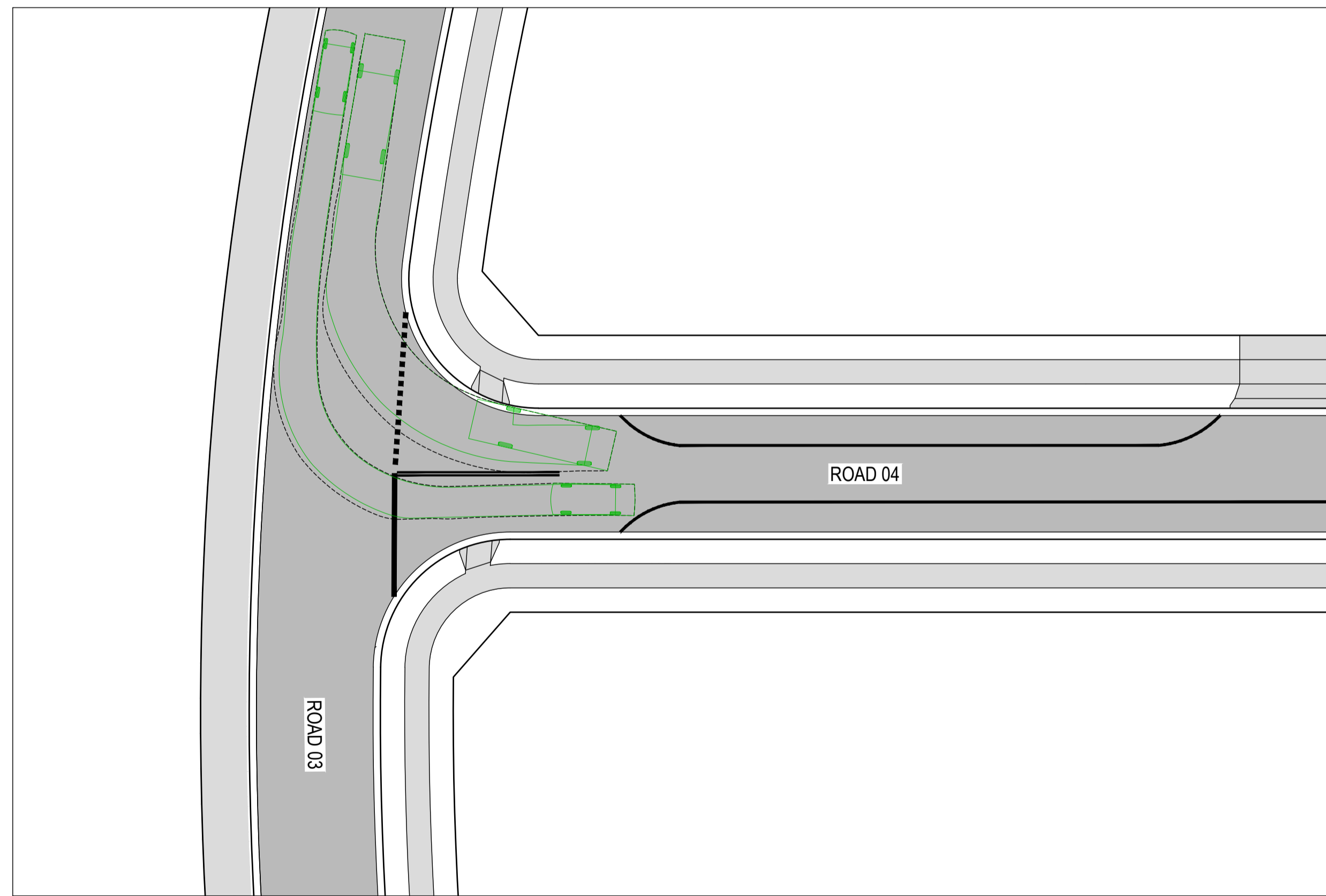
CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION SWEEP PATH LAYOUT PLAN DESIGN VEHICLES			
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1703	3 OF 7	A1	3



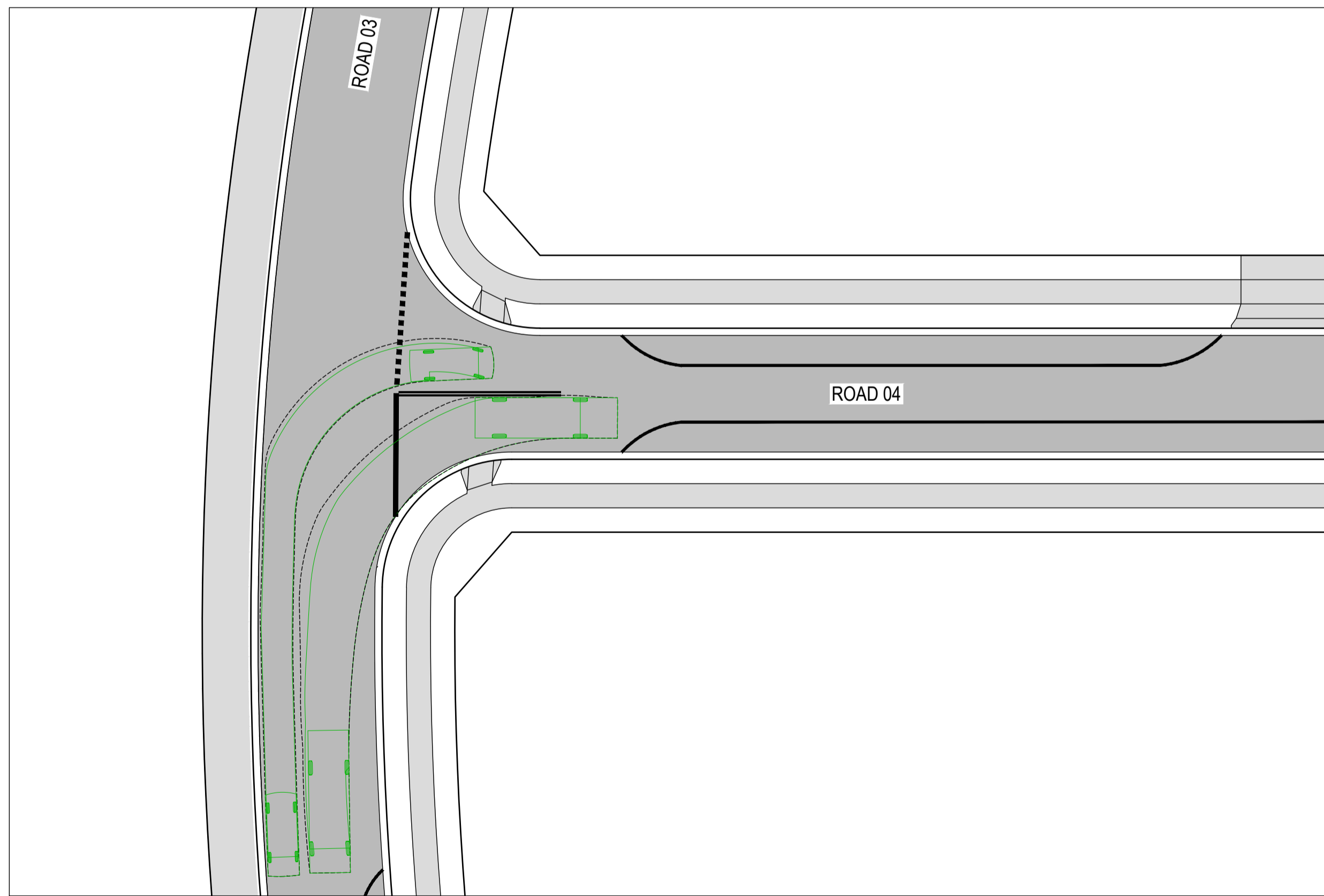
ROAD 03 - ROAD 04 SWEEP PATH 01
SCALE 1:250



ROAD 03 - ROAD 04 SWEEP PATH 02
SCALE 1:250



ROAD 03 - ROAD 04 SWEEP PATH 03
SCALE 1:250



ROAD 03 - ROAD 04 SWEEP PATH 04
SCALE 1:250

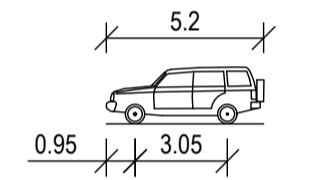
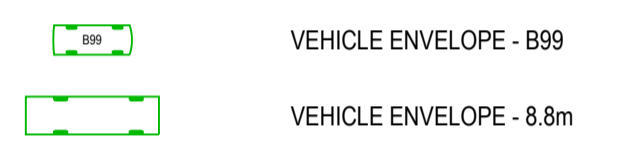
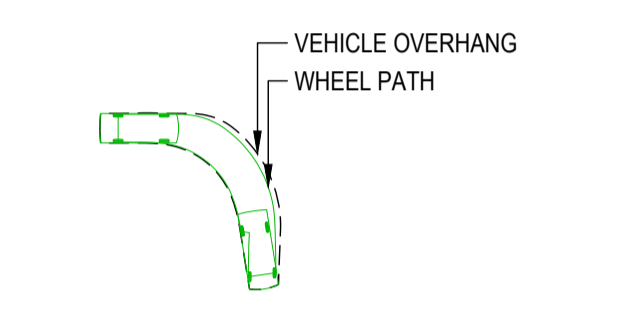
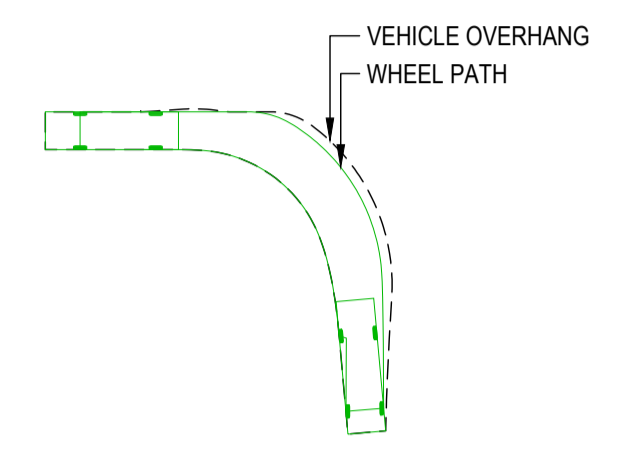
PROPOSED

	SITE BOUNDARY
	LOT BOUNDARY
	ROAD PAVEMENT
	FOOTPATH / SHARED PATH

EXISTING

	LOT BOUNDARY
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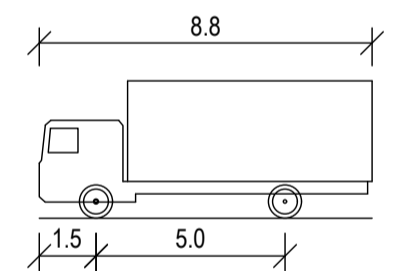
SWEPT PATHS



B99 VEHICLE

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.272m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m

DESIGN VEHICLE



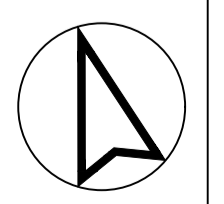
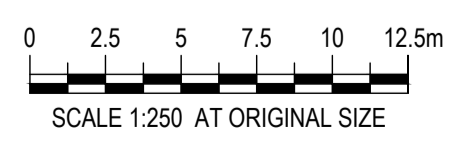
MRV - MEDIUM RIGID VEHICLE

OVERALL LENGTH	8.800m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.633m
MIN BODY GROUND CLEARANCE	0.428m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	10.000m

DESIGN VEHICLE

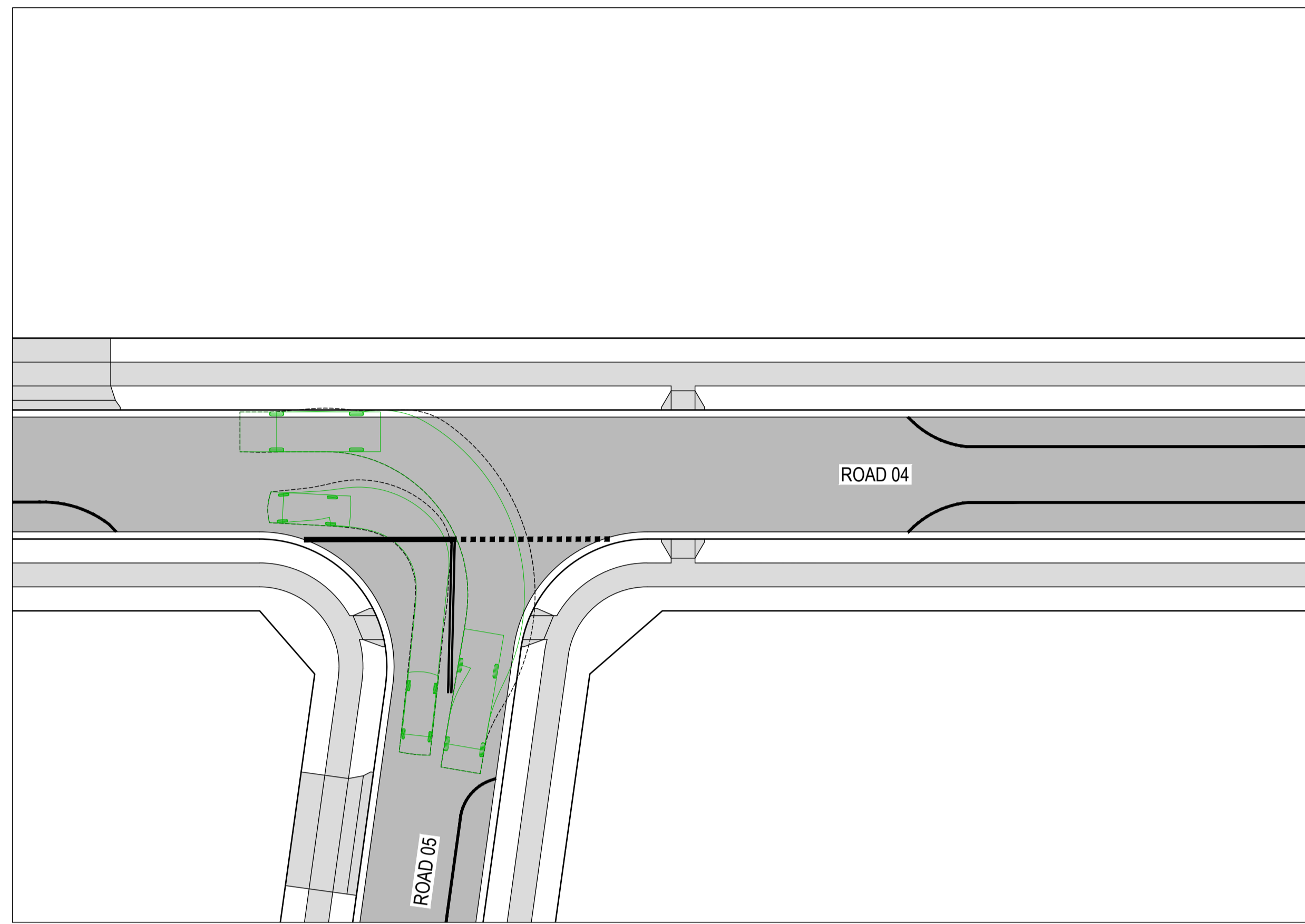
Alec Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

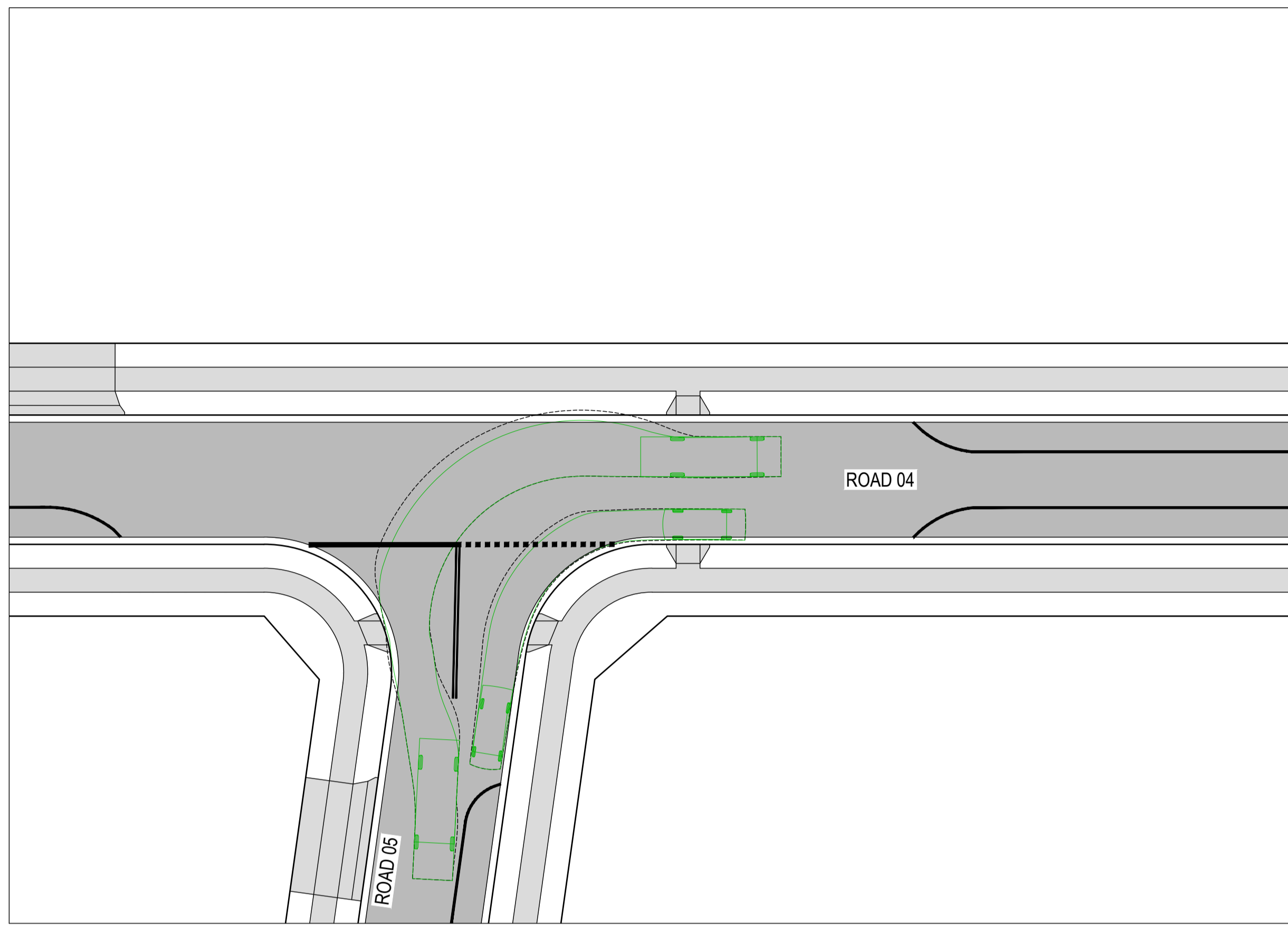


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

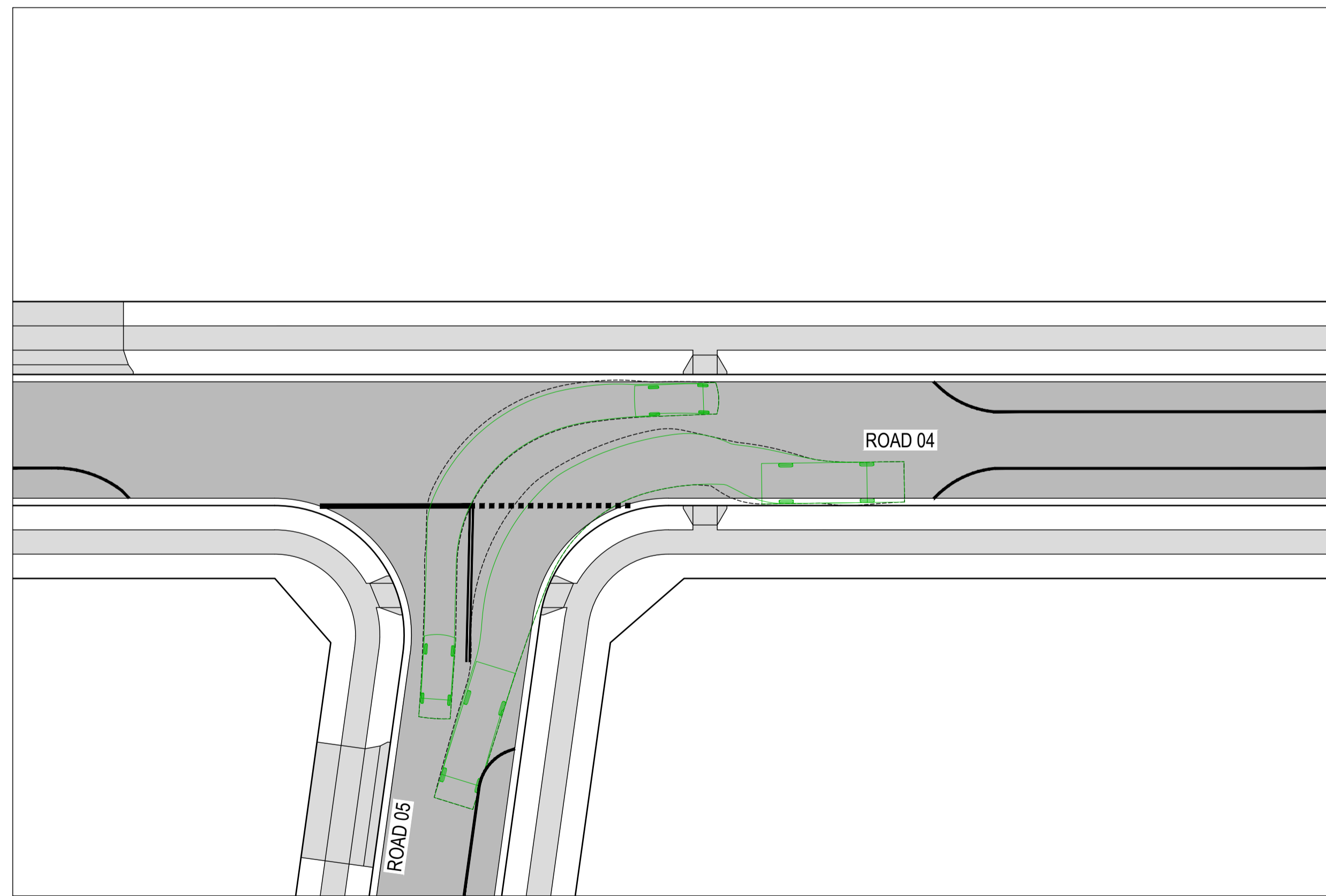
CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION SWEEP PATH LAYOUT PLAN DESIGN VEHICLES			
DRAWING NUMBER MKR00452-11-C1704	SHEET No. 4 OF 7	ORIG. SIZE A1	REVISION 3



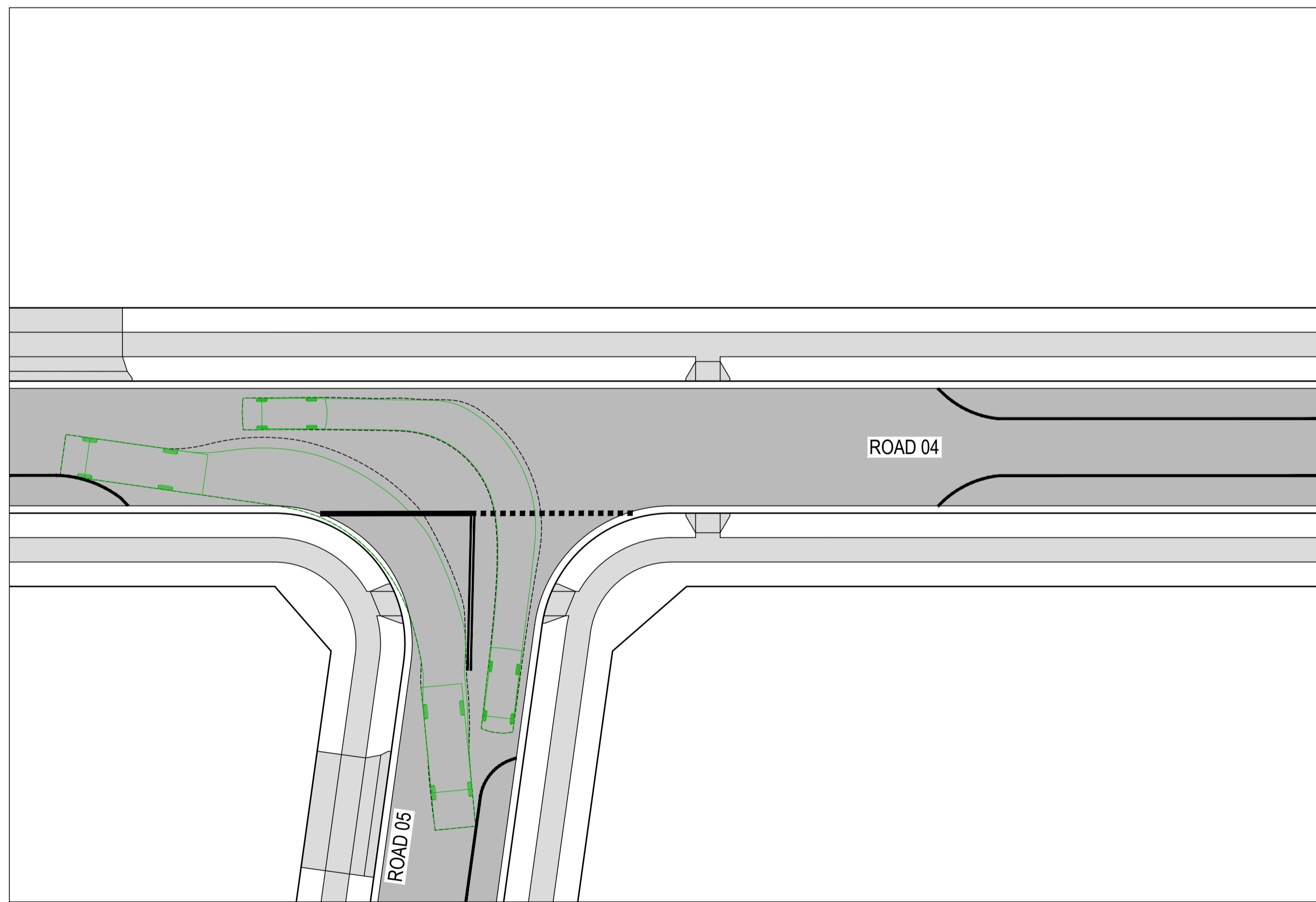
ROAD 05 - ROAD 04 SWEPT PATH 01
SCALE 1:250



ROAD 05 - ROAD 04 SWEPT PATH 02
SCALE 1:250



ROAD 04 - ROAD 05 SWEPT PATH 03
SCALE 1:250



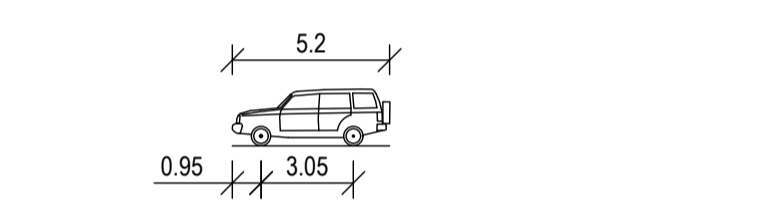
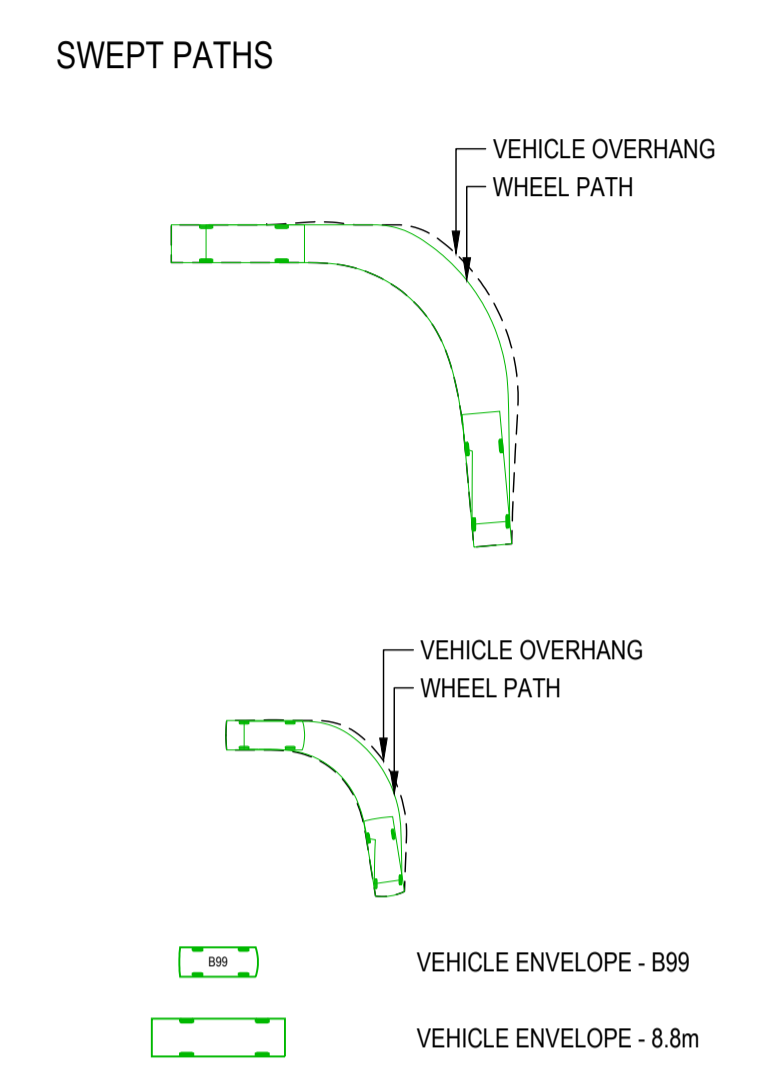
ROAD 04 - ROAD 05 SWEPT PATH 04
SCALE 1:250

PROPOSED

	SITE BOUNDARY
	LOT BOUNDARY
	ROAD PAVEMENT
	FOOTPATH / SHARED PATH

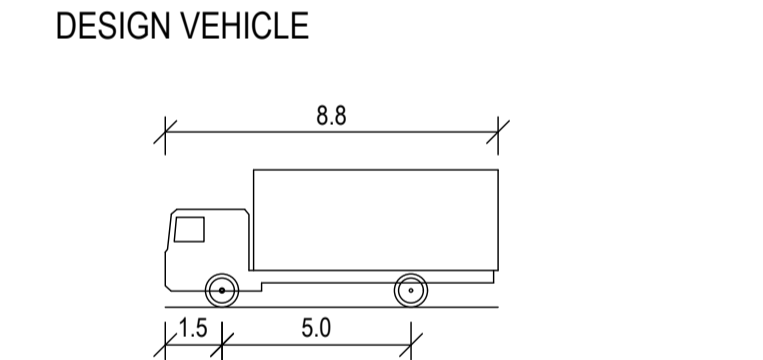
EXISTING

	LOT BOUNDARY
--	--------------



B99 VEHICLE

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.272m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m



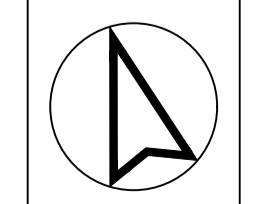
MRV - MEDIUM RIGID VEHICLE

OVERALL LENGTH	8.800m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.633m
MIN BODY GROUND CLEARANCE	0.428m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	10.000m

DESIGN VEHICLE

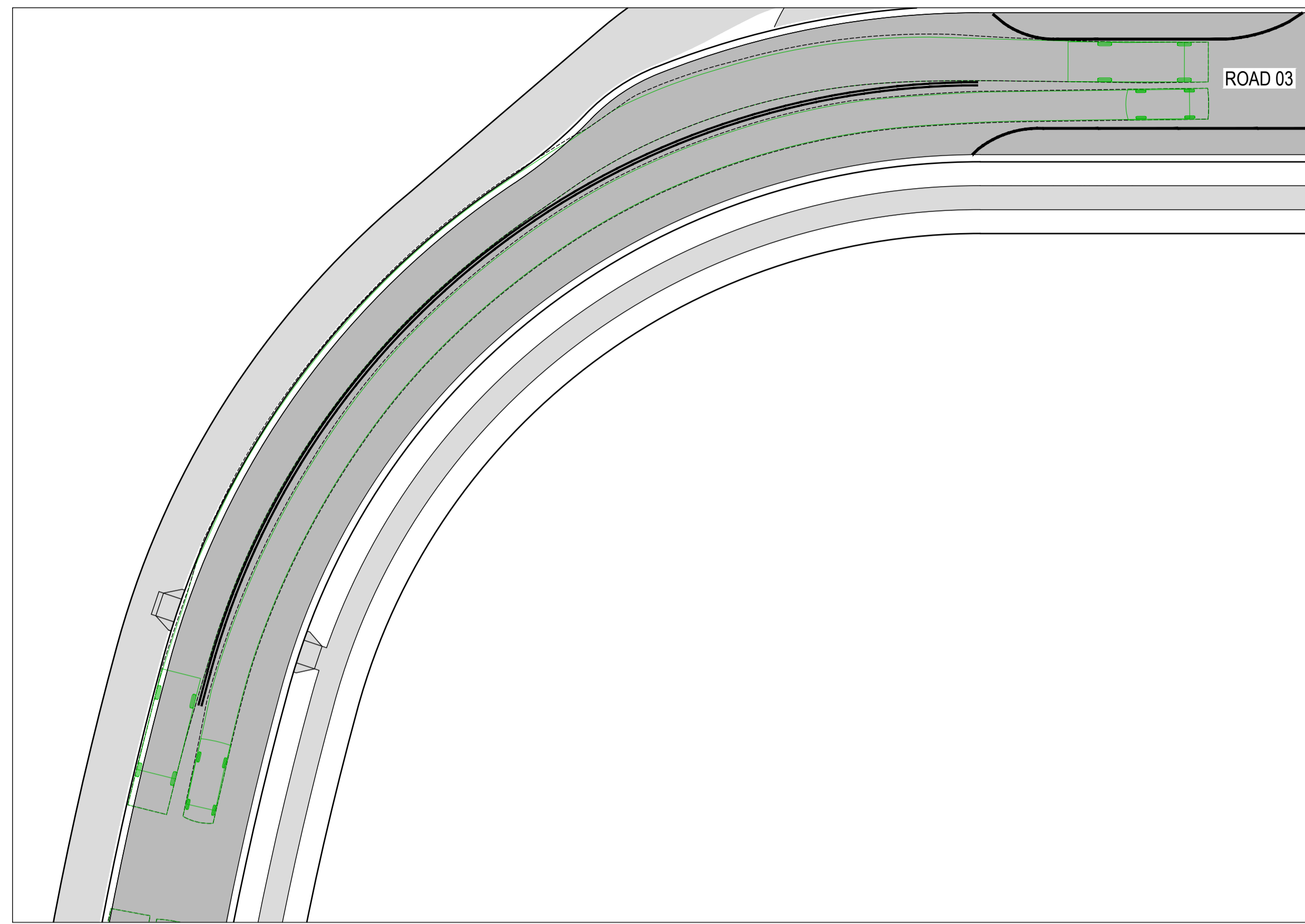
Alex Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

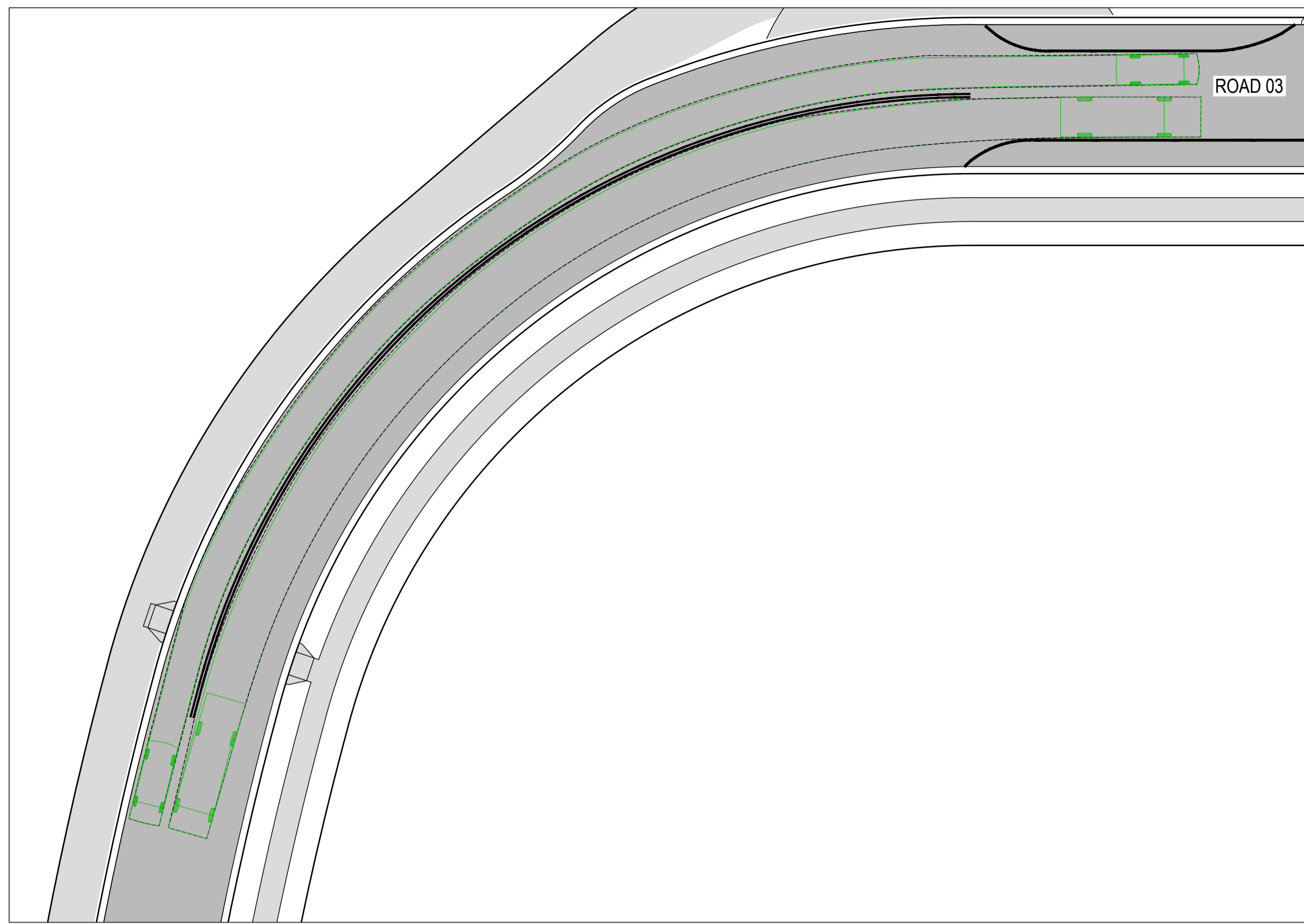


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN

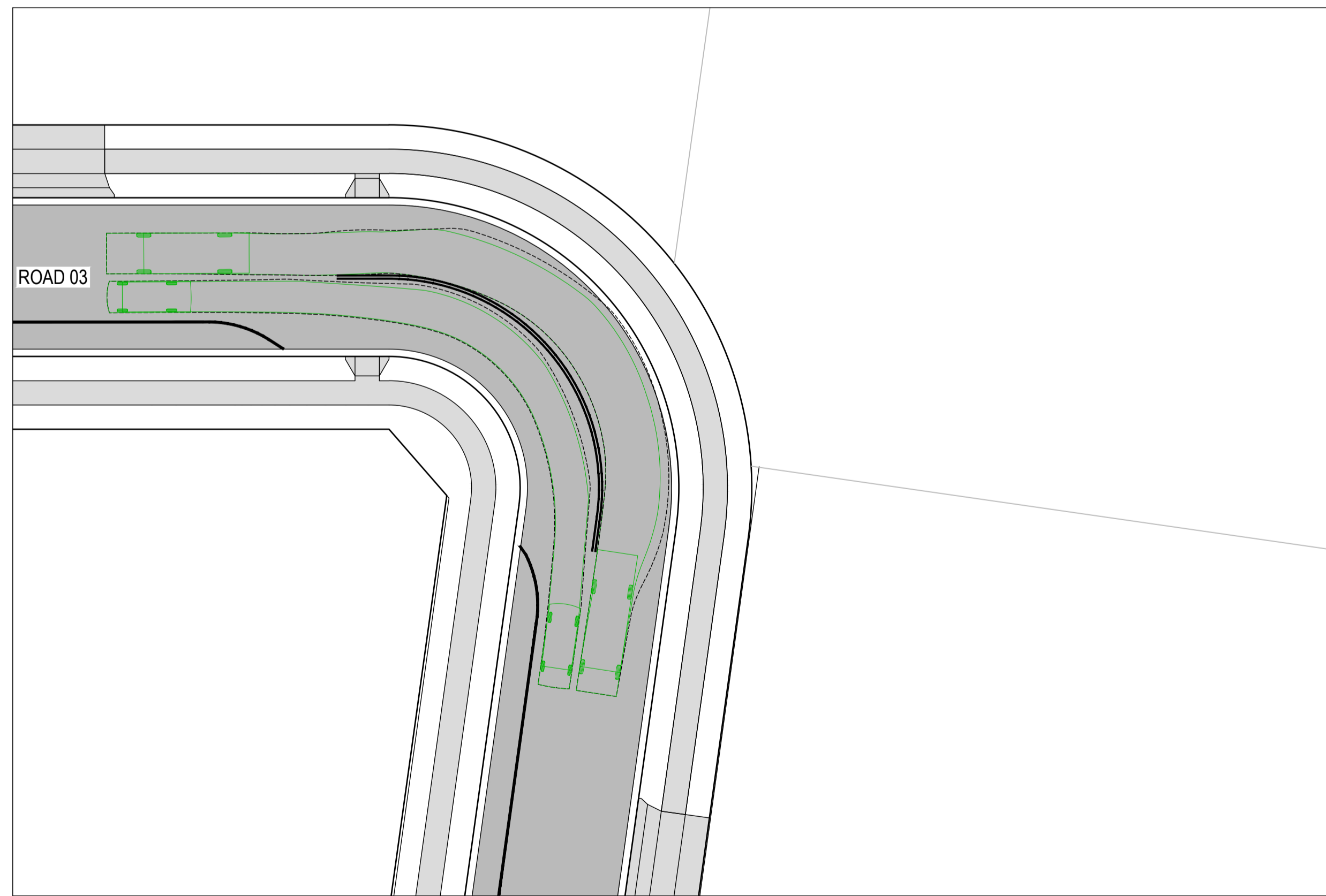
CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION SWEPT PATH LAYOUT PLAN DESIGN VEHICLES			
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1705	5 OF 7	A1	3



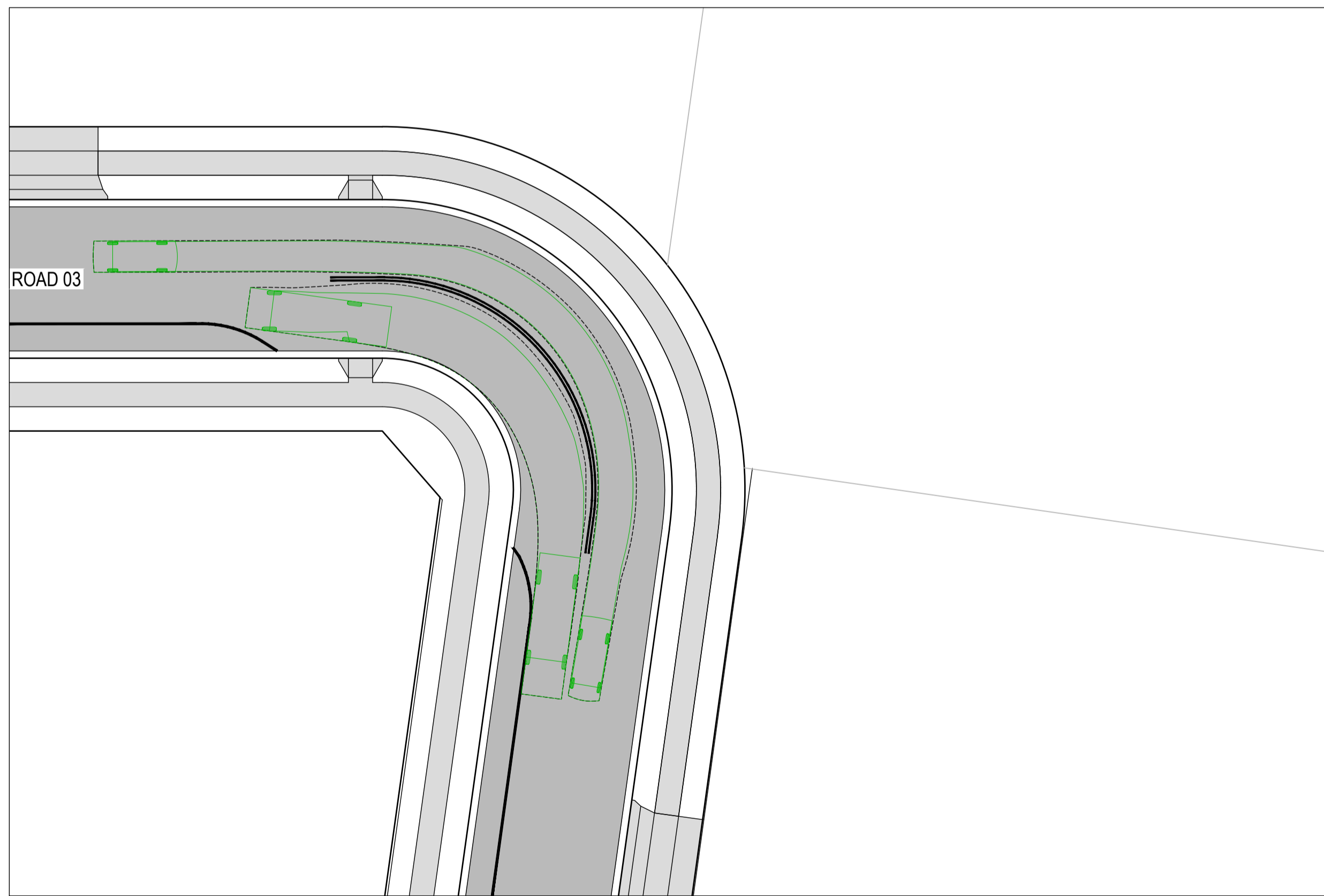
ROAD 03 SWEPT PATH 01
SCALE 1:250



ROAD 03 SWEPT PATH 02
SCALE 1:250

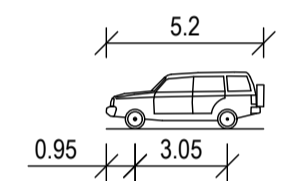
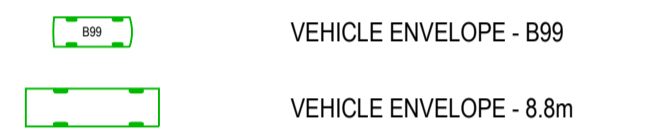
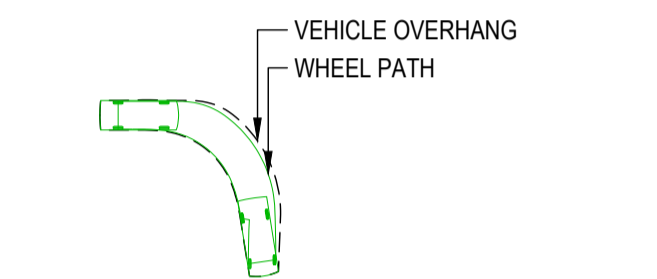
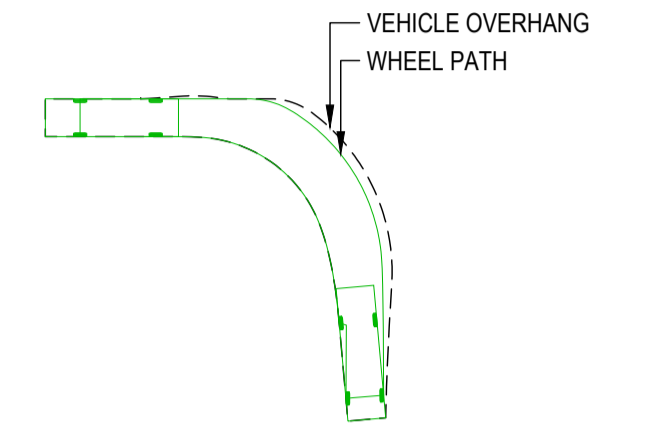


ROAD 03 SWEPT PATH 03
SCALE 1:250



ROAD 03 SWEPT PATH 04
SCALE 1:250

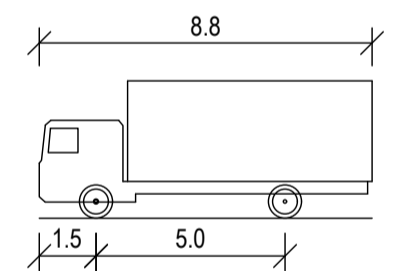
- PROPOSED**
- SITE BOUNDARY
 - LOT BOUNDARY
 - ROAD PAVEMENT
 - FOOTPATH / SHARED PATH
- EXISTING**
- LOT BOUNDARY
- SWEPT PATHS**



B99 VEHICLE

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.272m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m

DESIGN VEHICLE



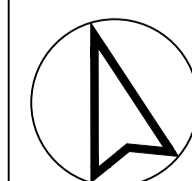
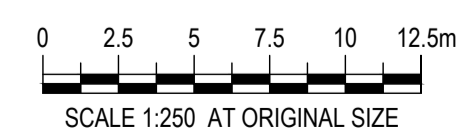
MRV - MEDIUM RIGID VEHICLE

OVERALL LENGTH	8.800m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.633m
MIN BODY GROUND CLEARANCE	0.428m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	10.000m

DESIGN VEHICLE

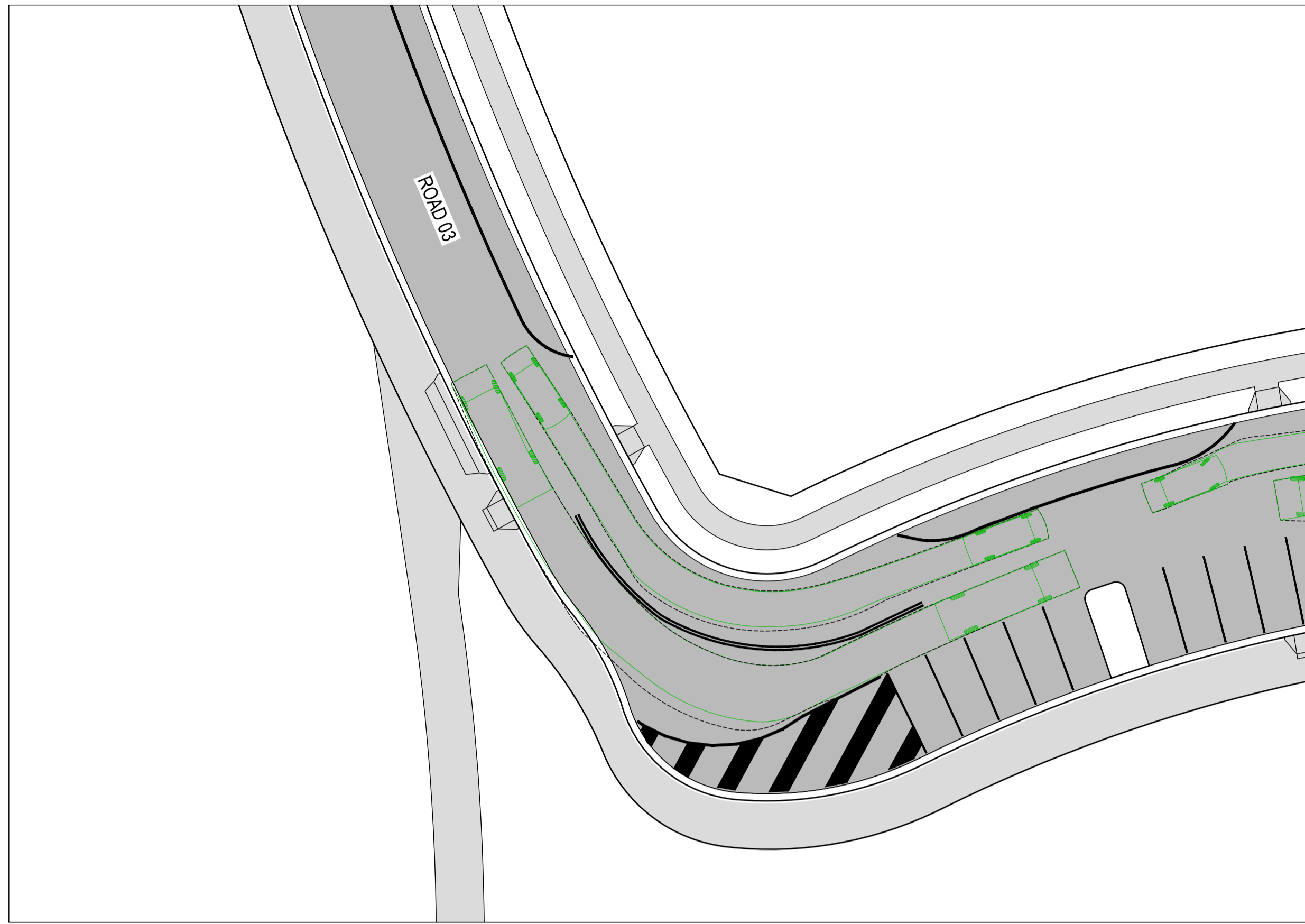
Alec Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

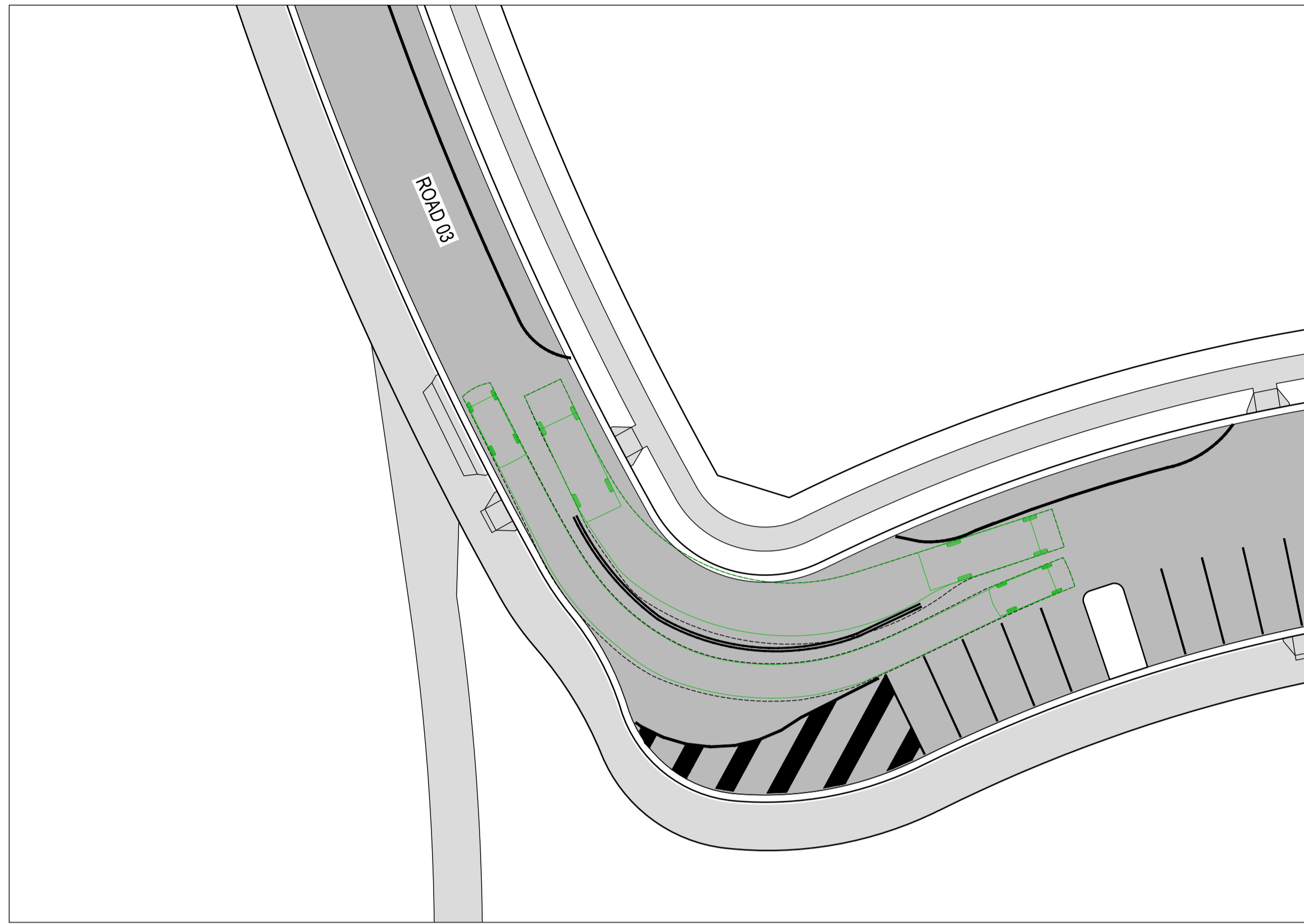


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

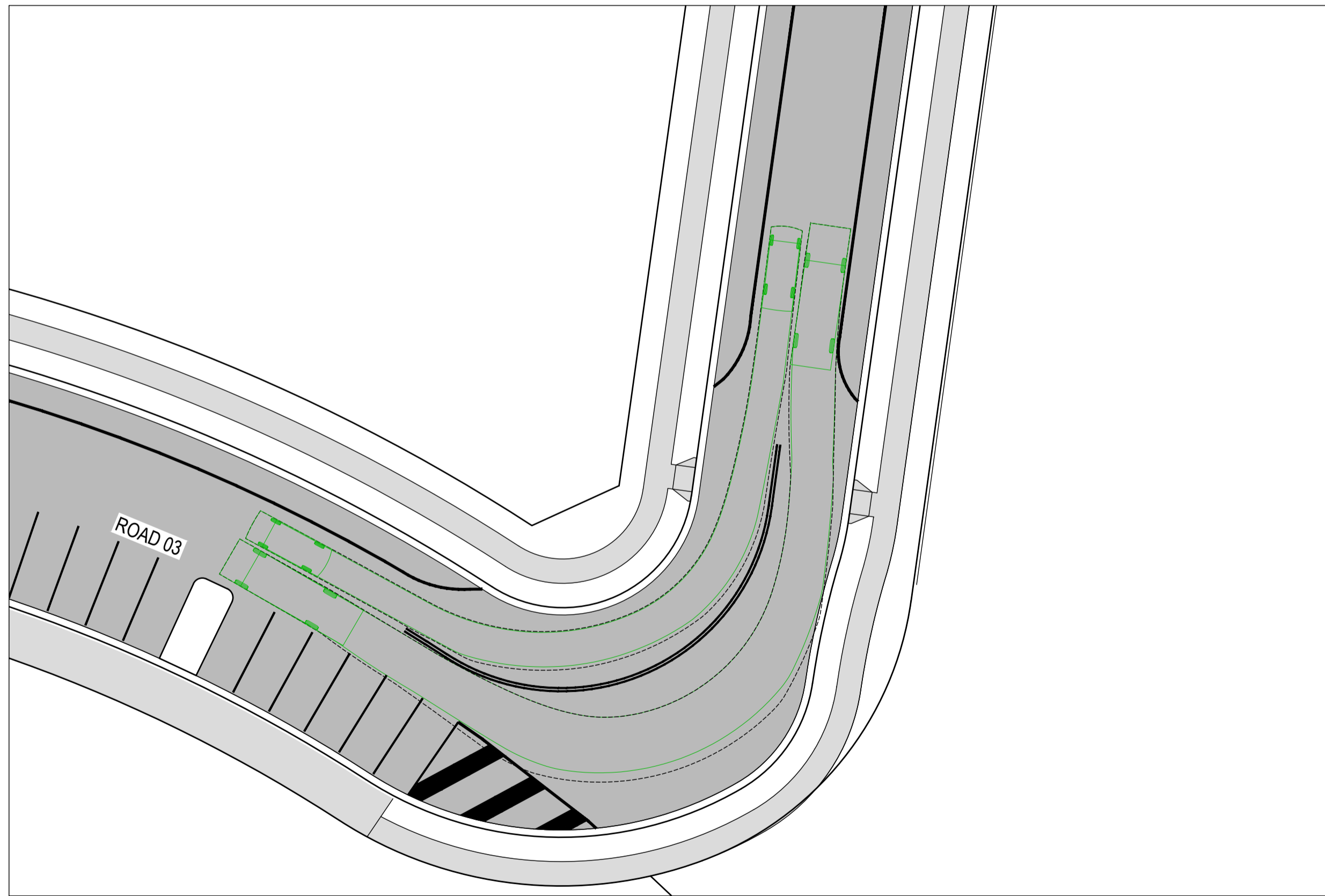
CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION SWEPT PATH LAYOUT PLAN DESIGN VEHICLES			
DRAWING NUMBER MKR00452-11-C1706	SHEET No. 6 OF 7	ORIG. SIZE A1	REVISION 3



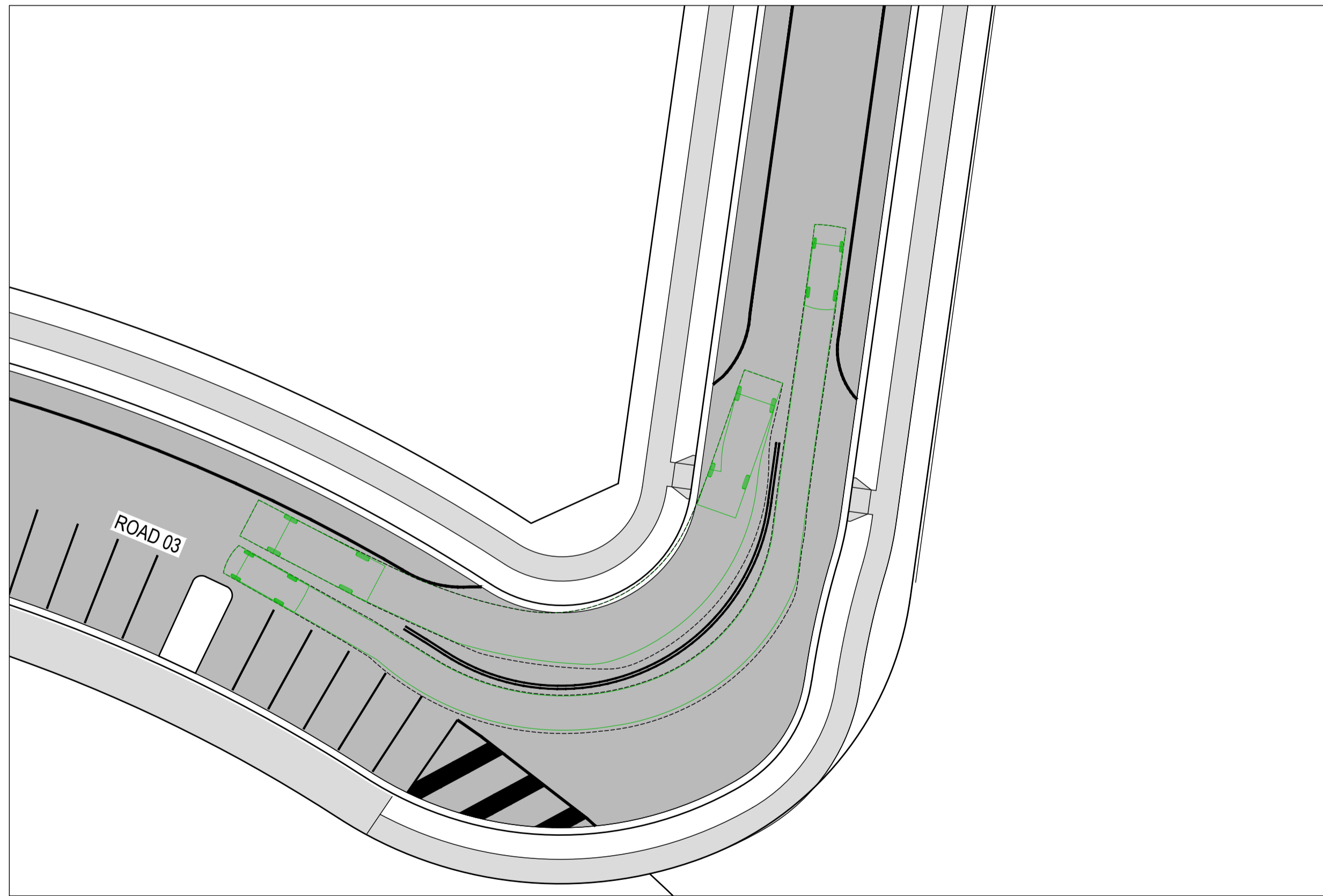
ROAD 03 SWEPT PATH 05
SCALE 1:250



ROAD 03 SWEPT PATH 06
SCALE 1:250

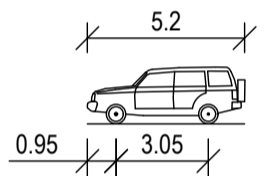
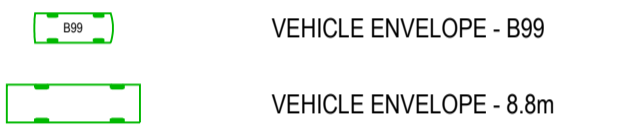
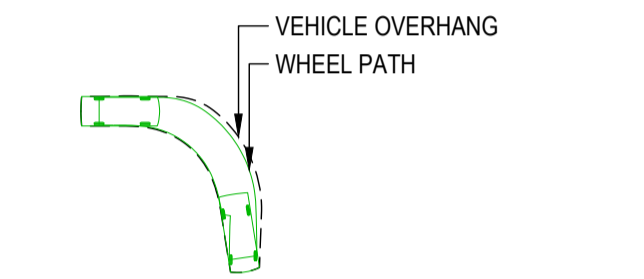
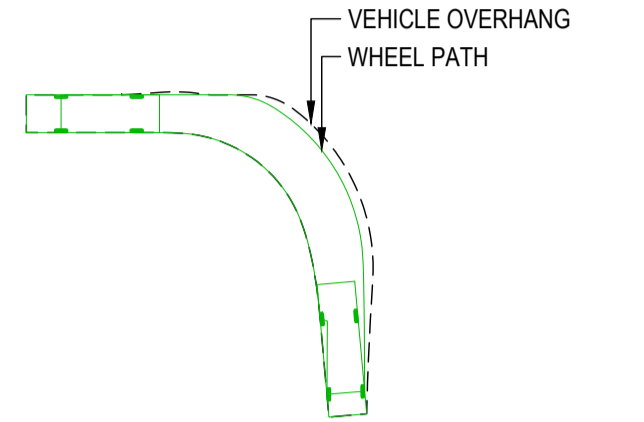


ROAD 03 SWEPT PATH 07
SCALE 1:250



ROAD 03 SWEPT PATH 08
SCALE 1:250

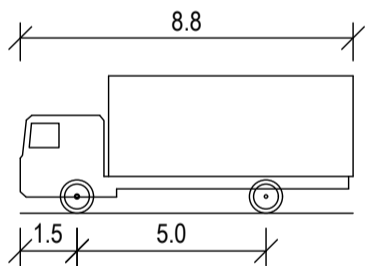
- PROPOSED**
- SITE BOUNDARY
 - LOT BOUNDARY
 - ROAD PAVEMENT
 - FOOTPATH / SHARED PATH
- EXISTING**
- LOT BOUNDARY
- SWEPT PATHS**



B99 VEHICLE

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
MIN BODY GROUND CLEARANCE	0.272m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m

DESIGN VEHICLE



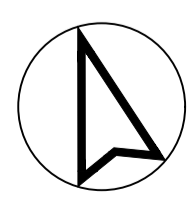
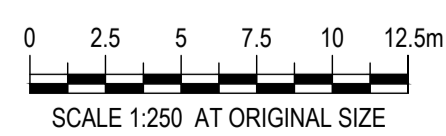
MRV - MEDIUM RIGID VEHICLE

OVERALL LENGTH	8.800m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.633m
MIN BODY GROUND CLEARANCE	0.428m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	10.000m

DESIGN VEHICLE

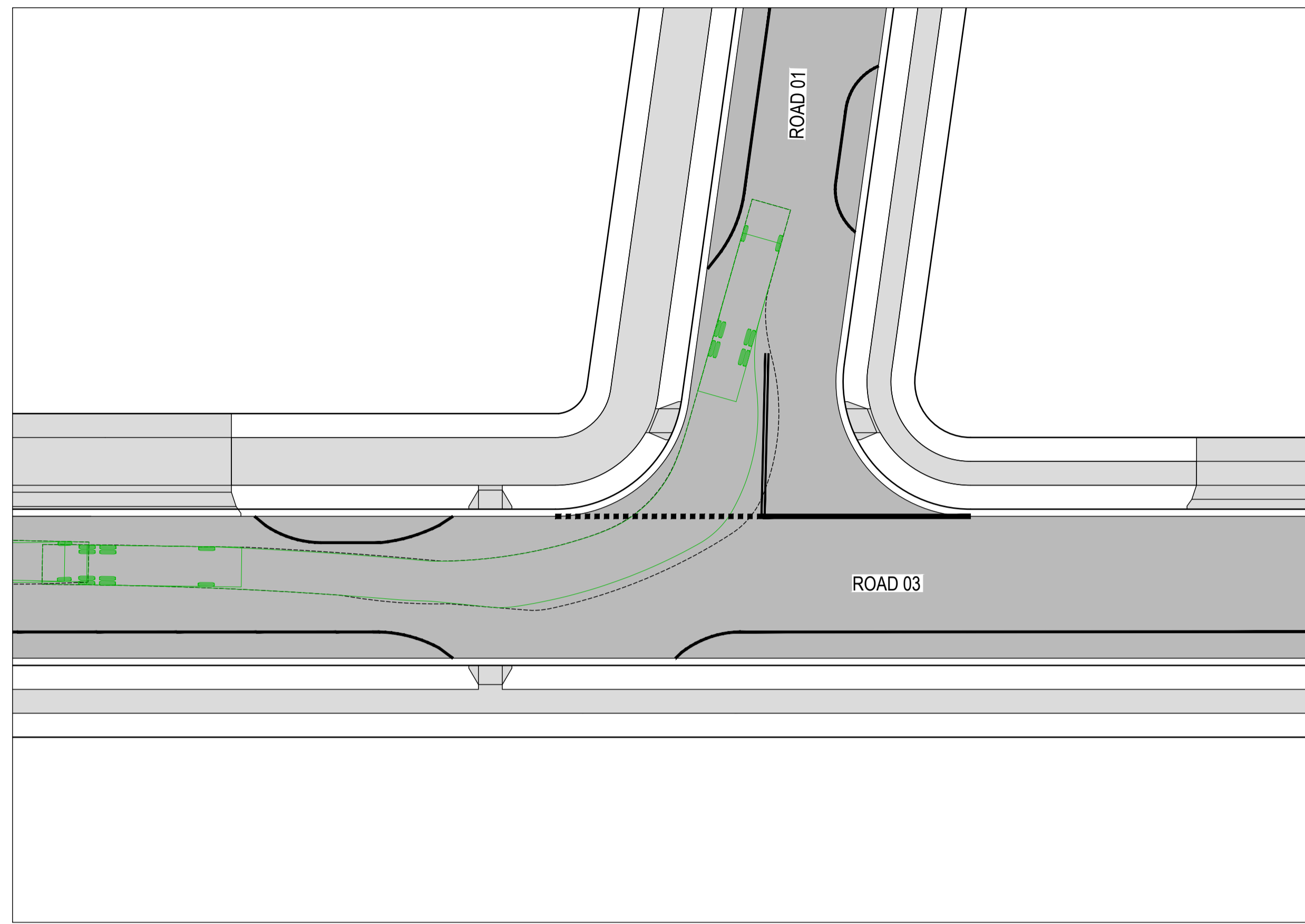
Alec Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



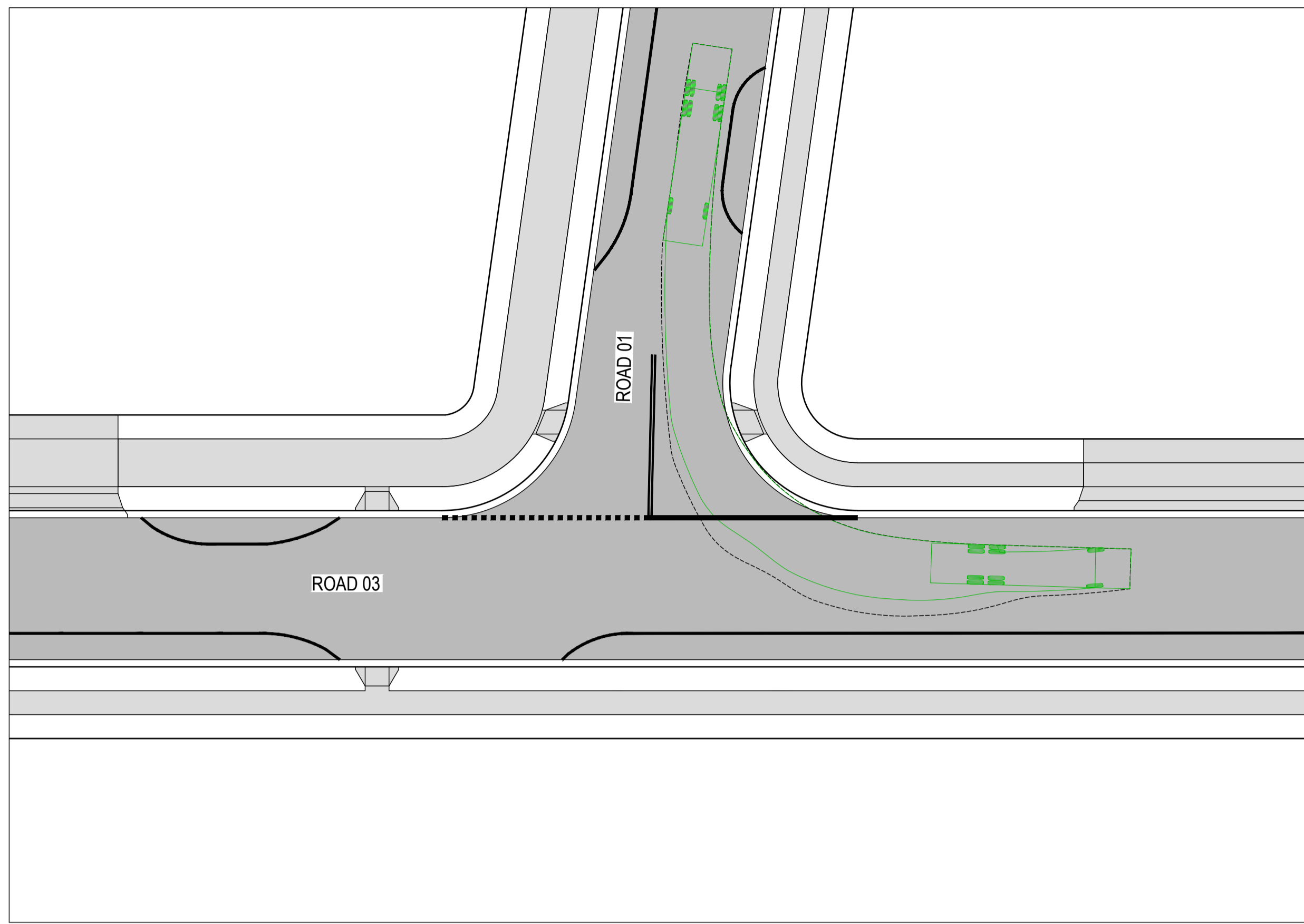
DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION SWEPT PATH LAYOUT PLAN DESIGN VEHICLES			
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1707	7 OF 7	A1	3



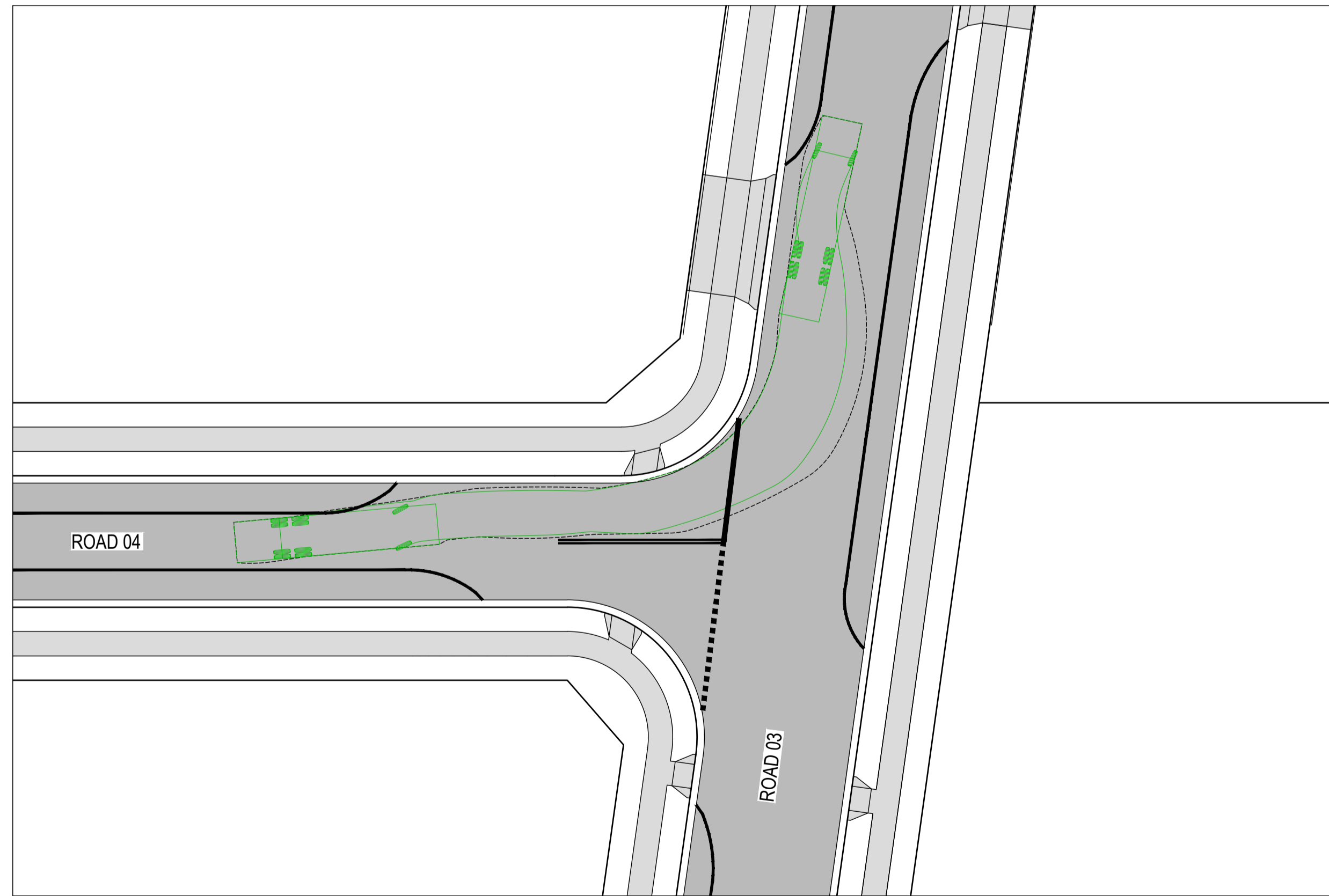
ROAD 01 - ROAD 03 CHECK VEHICLE PATH 01

SCALE 1:250



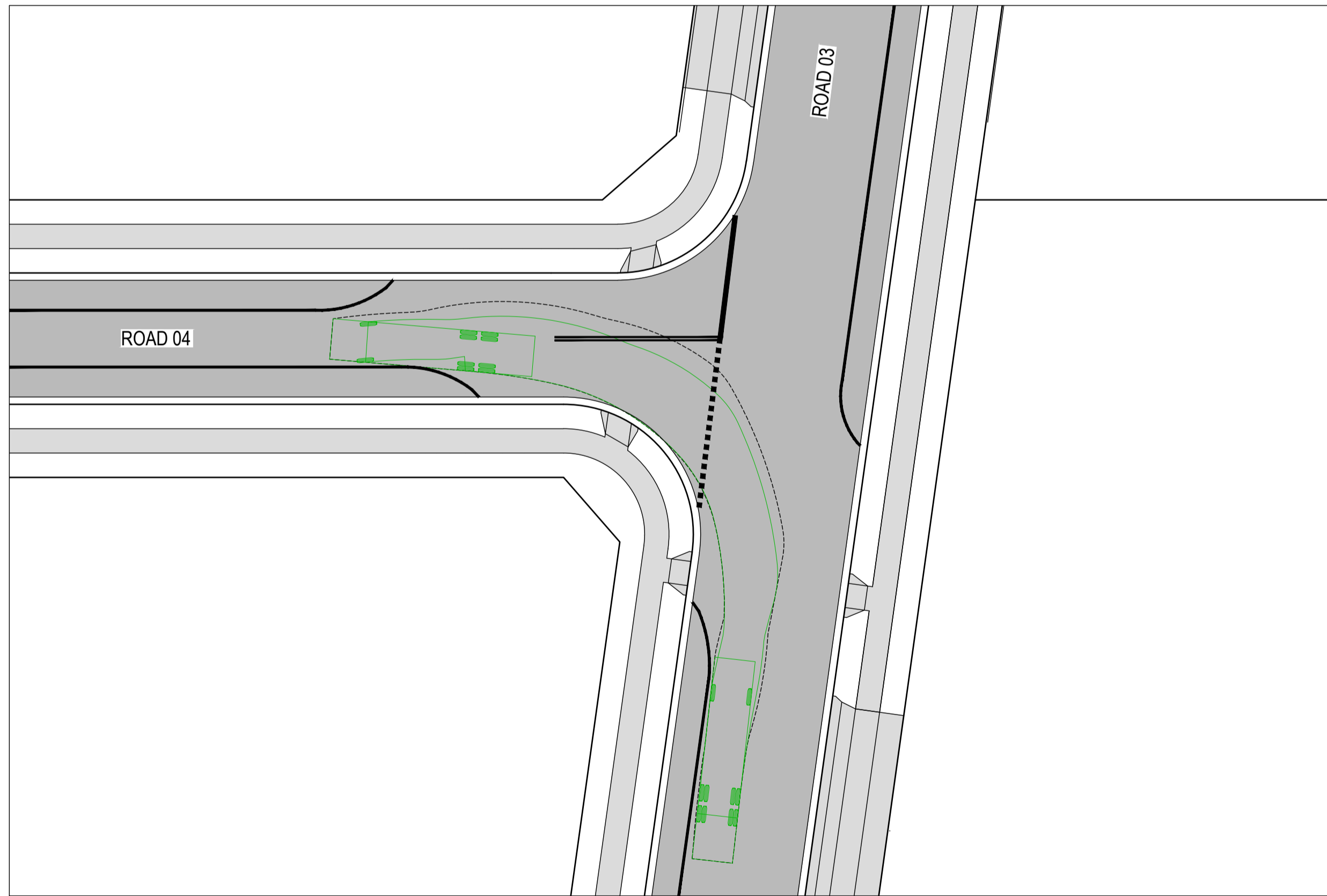
ROAD 01 - ROAD 03 CHECK VEHICLE PATH 02

SCALE 1:250



ROAD 04 - ROAD 03 CHECK VEHICLE PATH 01

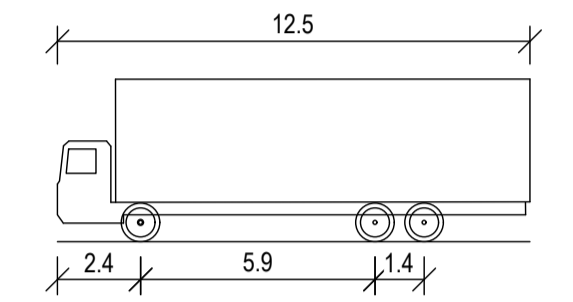
SCALE 1:250



ROAD 04 - ROAD 03 CHECK VEHICLE PATH 02

SCALE 1:250

PROPOSED		LEGEND	
	SITE BOUNDARY		LOT BOUNDARY
	ROAD PAVEMENT		FOOTPATH / SHARED PATH
EXISTING			
	LOT BOUNDARY		
SWEEP PATHS			
	VEHICLE ENVELOPE - 12.5m		

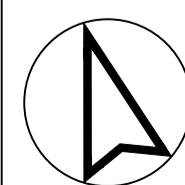
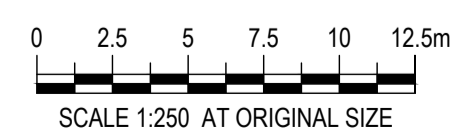


HRV - HEAVY RIGID VEHICLE	
OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.417m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
KERB TO KERB TURNING RADIUS	12.500m

CHECK VEHICLE

Alec Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

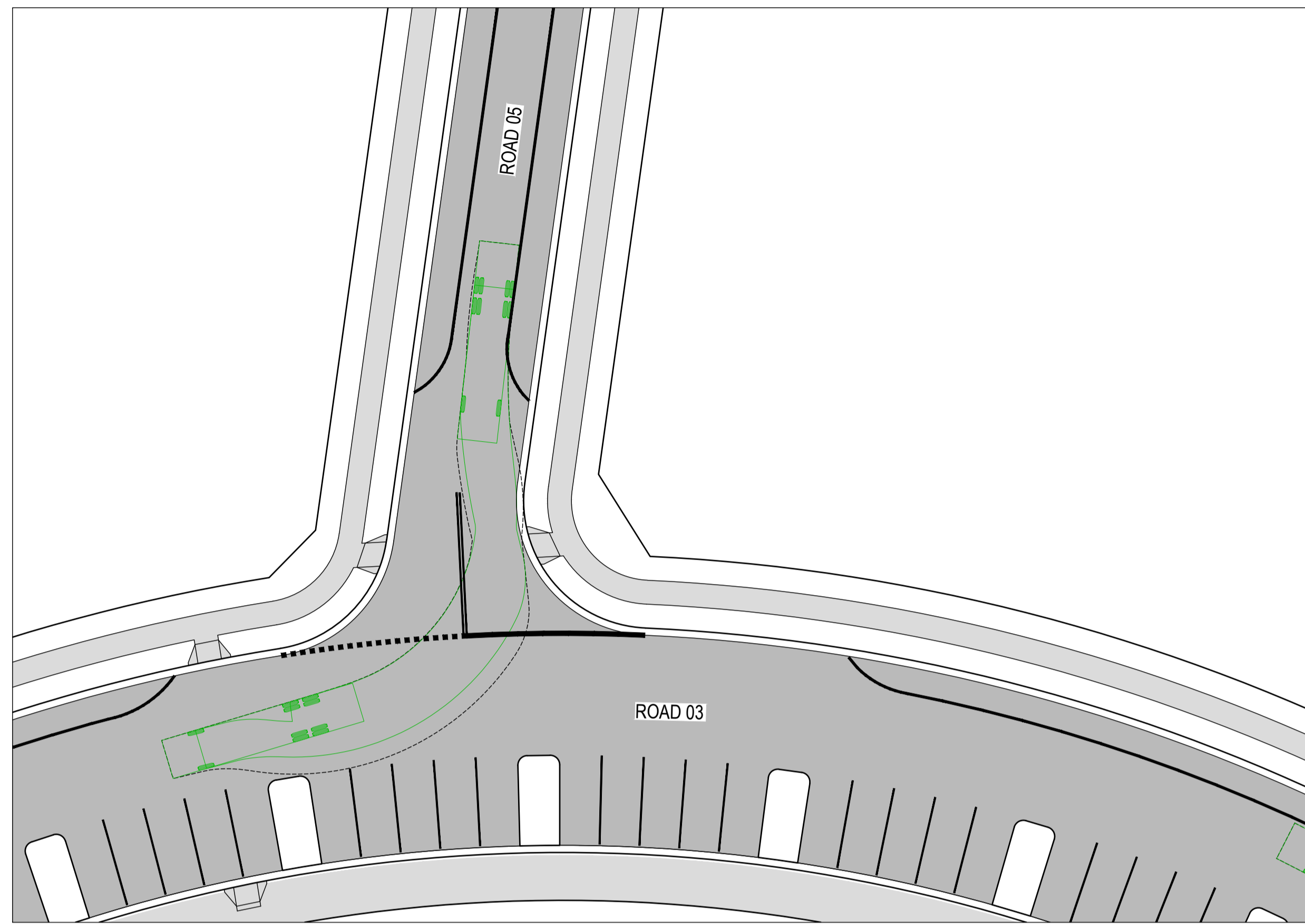


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN

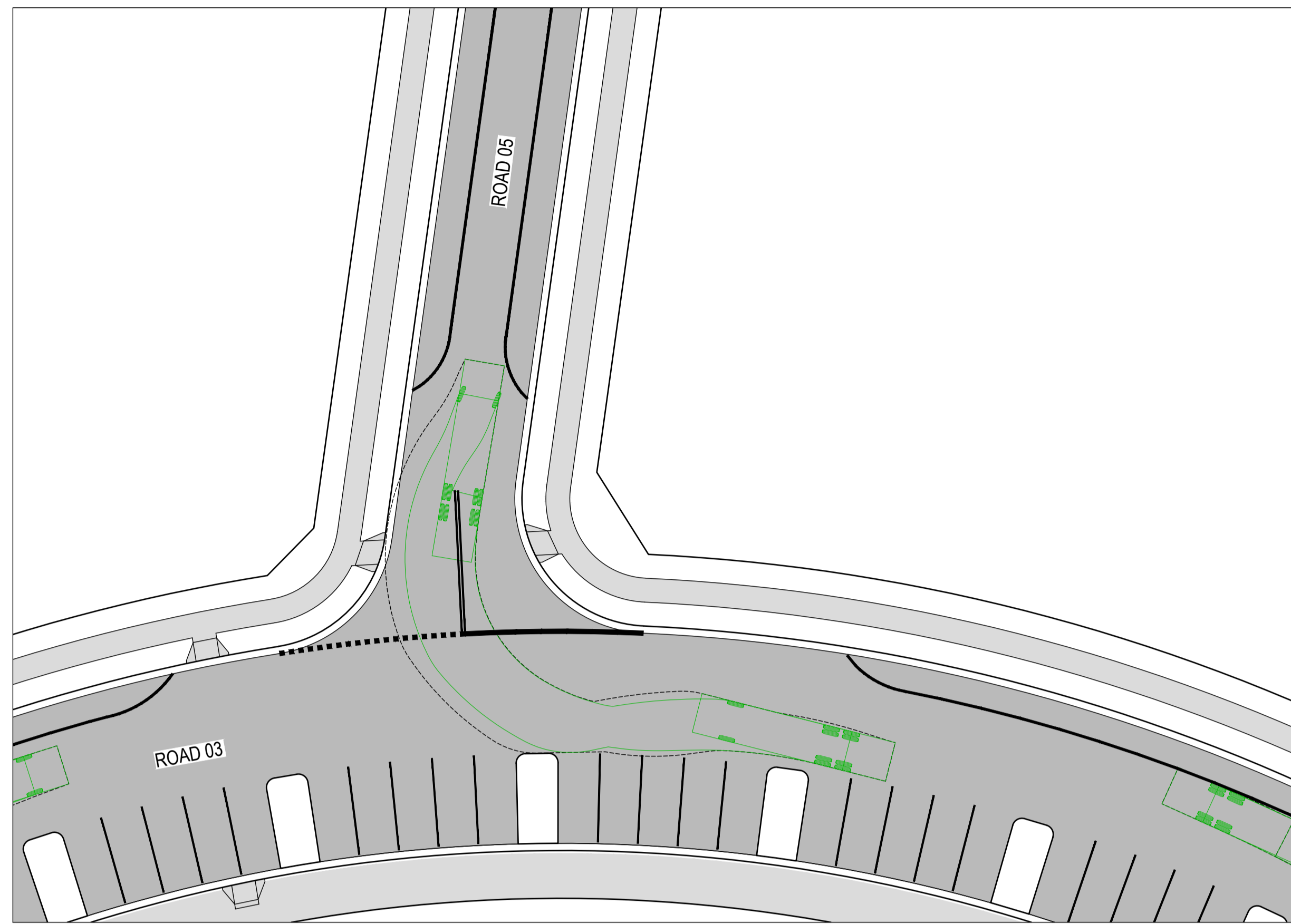
NOT FOR CONSTRUCTION

CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
SWEEP PATH LAYOUT PLAN
CHECK VEHICLES

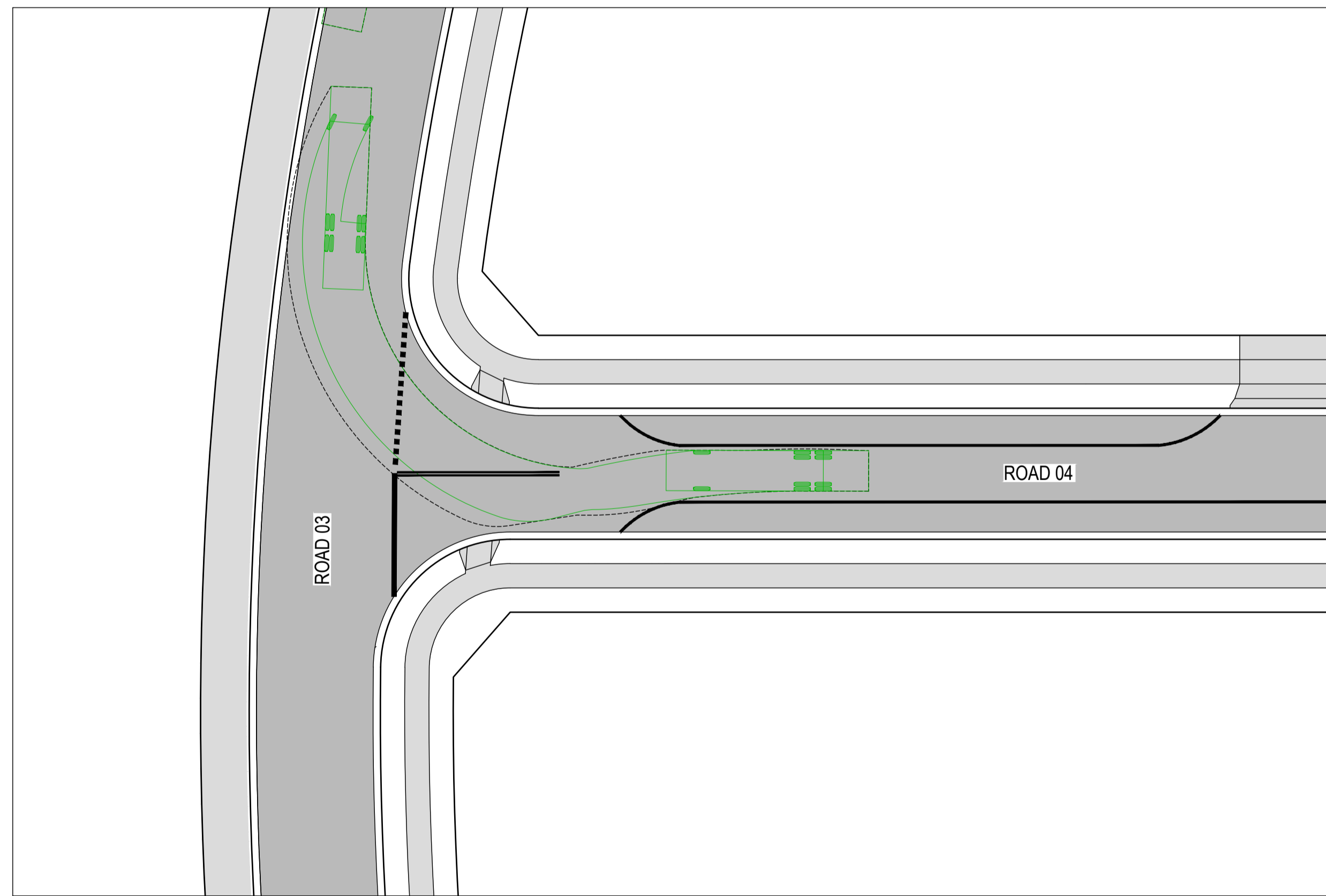
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1708	1 OF 5	A1	3



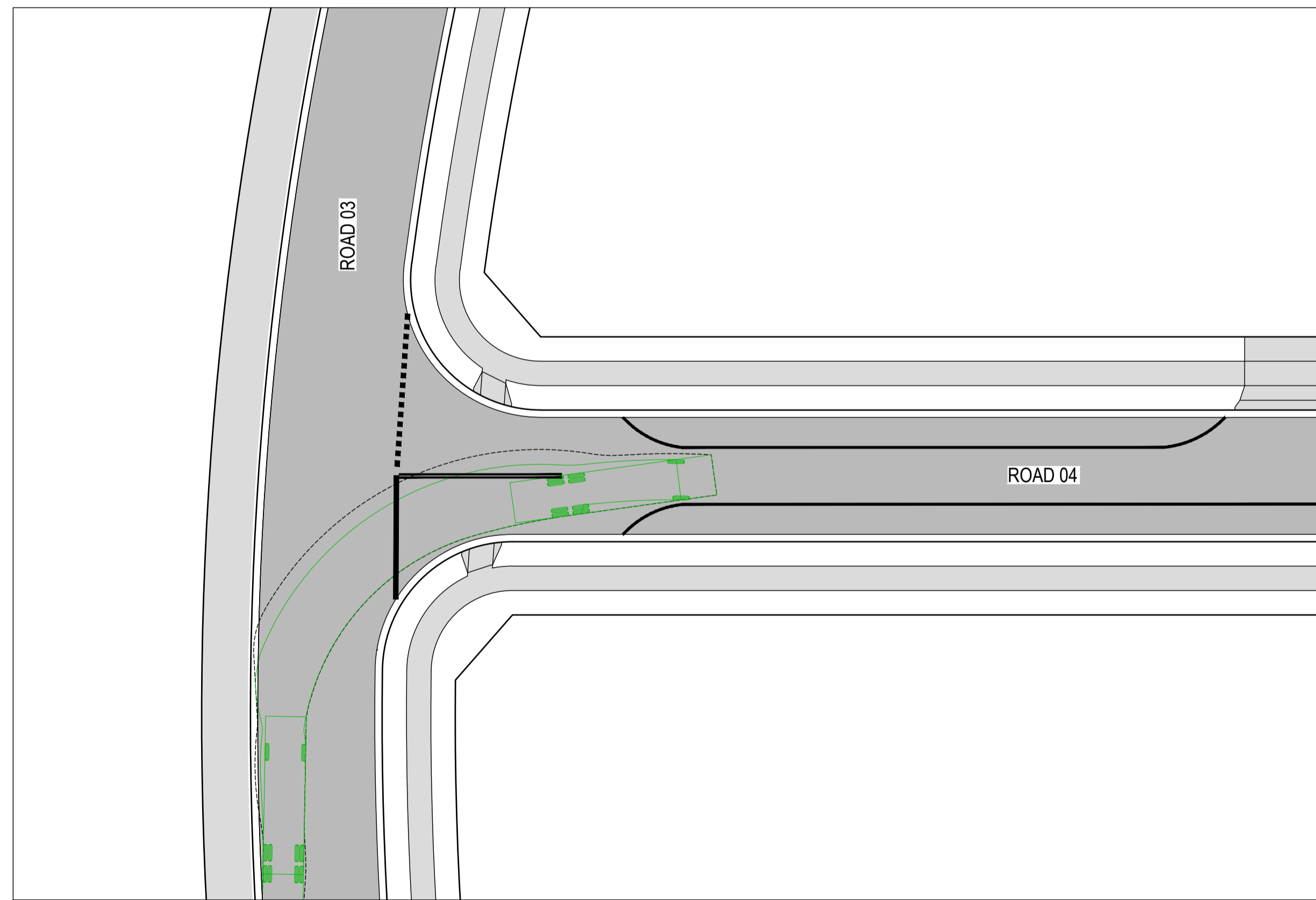
ROAD 05 - ROAD 03 CHECK VEHICLE PATH 01
SCALE 1:250



ROAD 05 - ROAD 03 CHECK VEHICLE PATH 02
SCALE 1:250

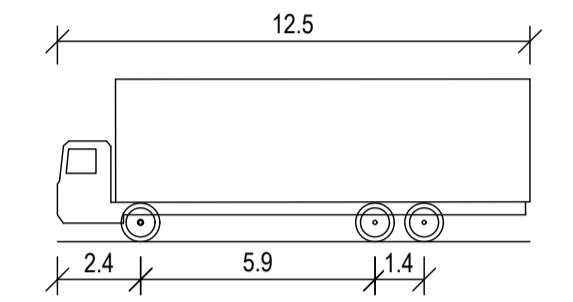


ROAD 03 - ROAD 04 CHECK VEHICLE 01
SCALE 1:250



ROAD 03 - ROAD 04 CHECK VEHICLE PATH 02
SCALE 1:250

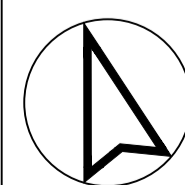
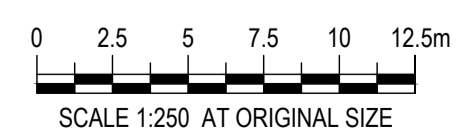
PROPOSED		LEGEND	
	SITE BOUNDARY		LOT BOUNDARY
	ROAD PAVEMENT		FOOTPATH / SHARED PATH
EXISTING			
	LOT BOUNDARY		
SWEPT PATHS			
	VEHICLE ENVELOPE - 12.5m		



HRV - HEAVY RIGID VEHICLE	
OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.417m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
KERB TO KERB TURNING RADIUS	12.500m
CHECK VEHICLE	

Alec Gollan, 30/10/2025 11:02 AM

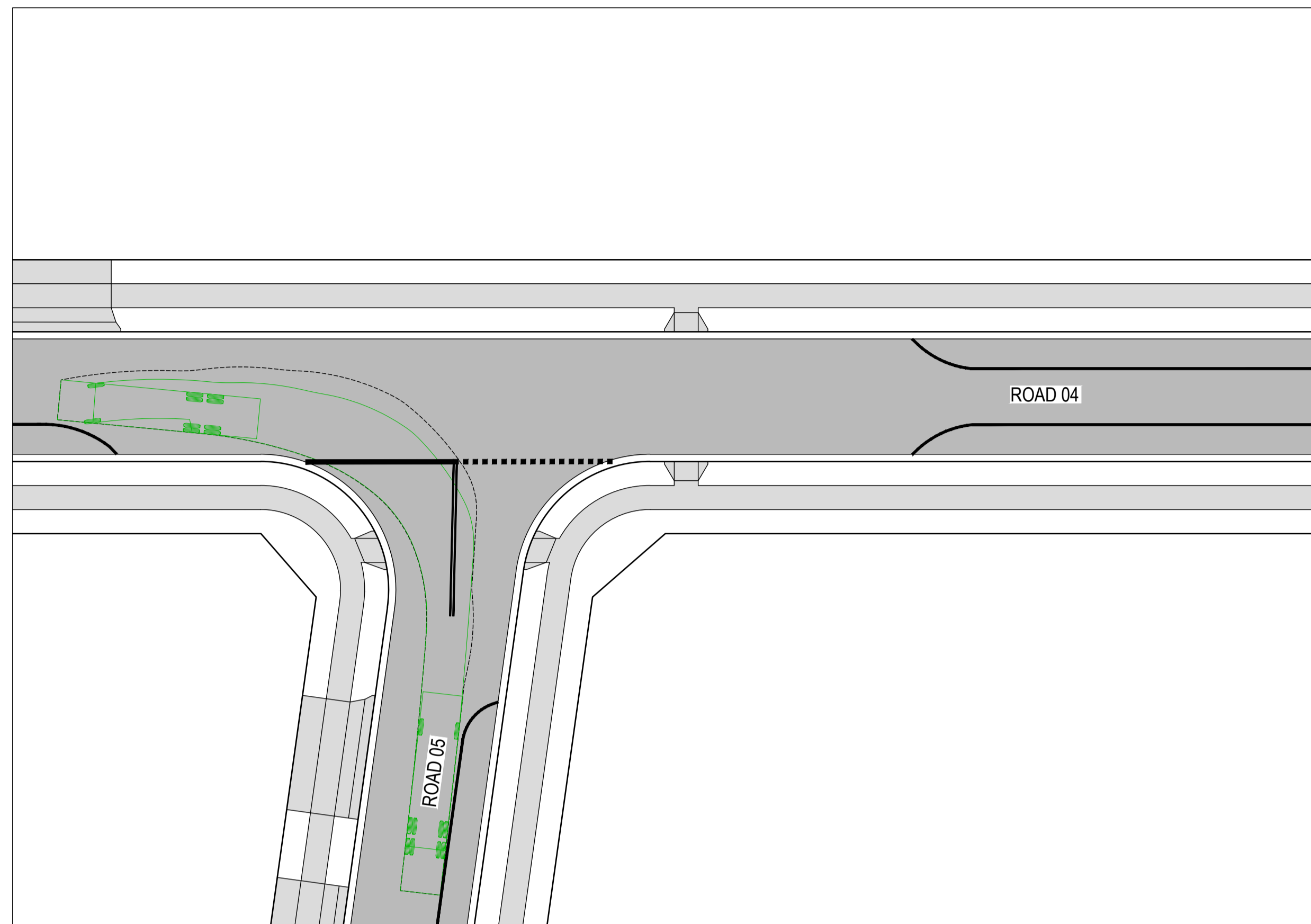
REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

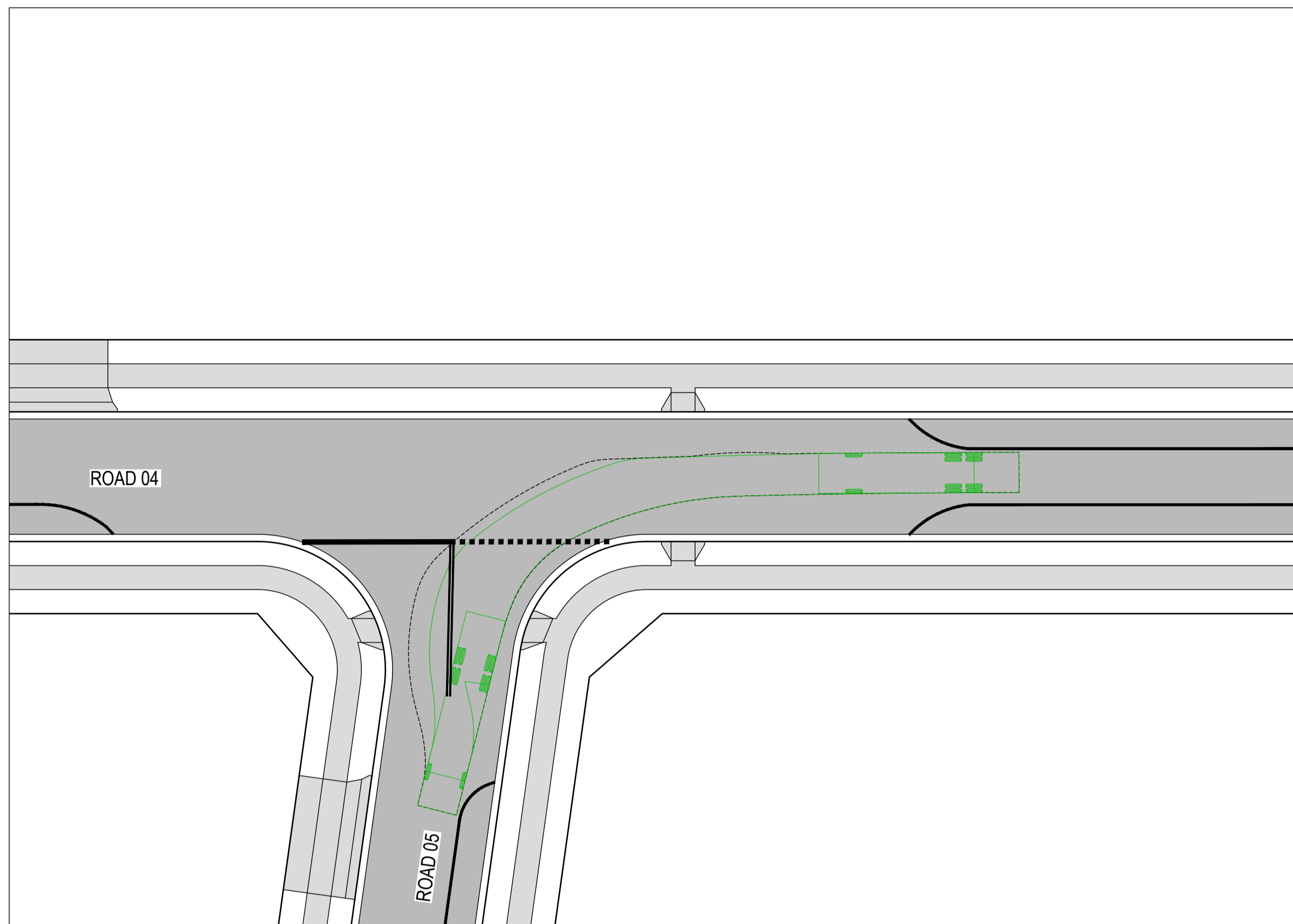
**CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
SWEPT PATH LAYOUT PLAN
CHECK VEHICLES**

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1709	2 OF 5	A1	3



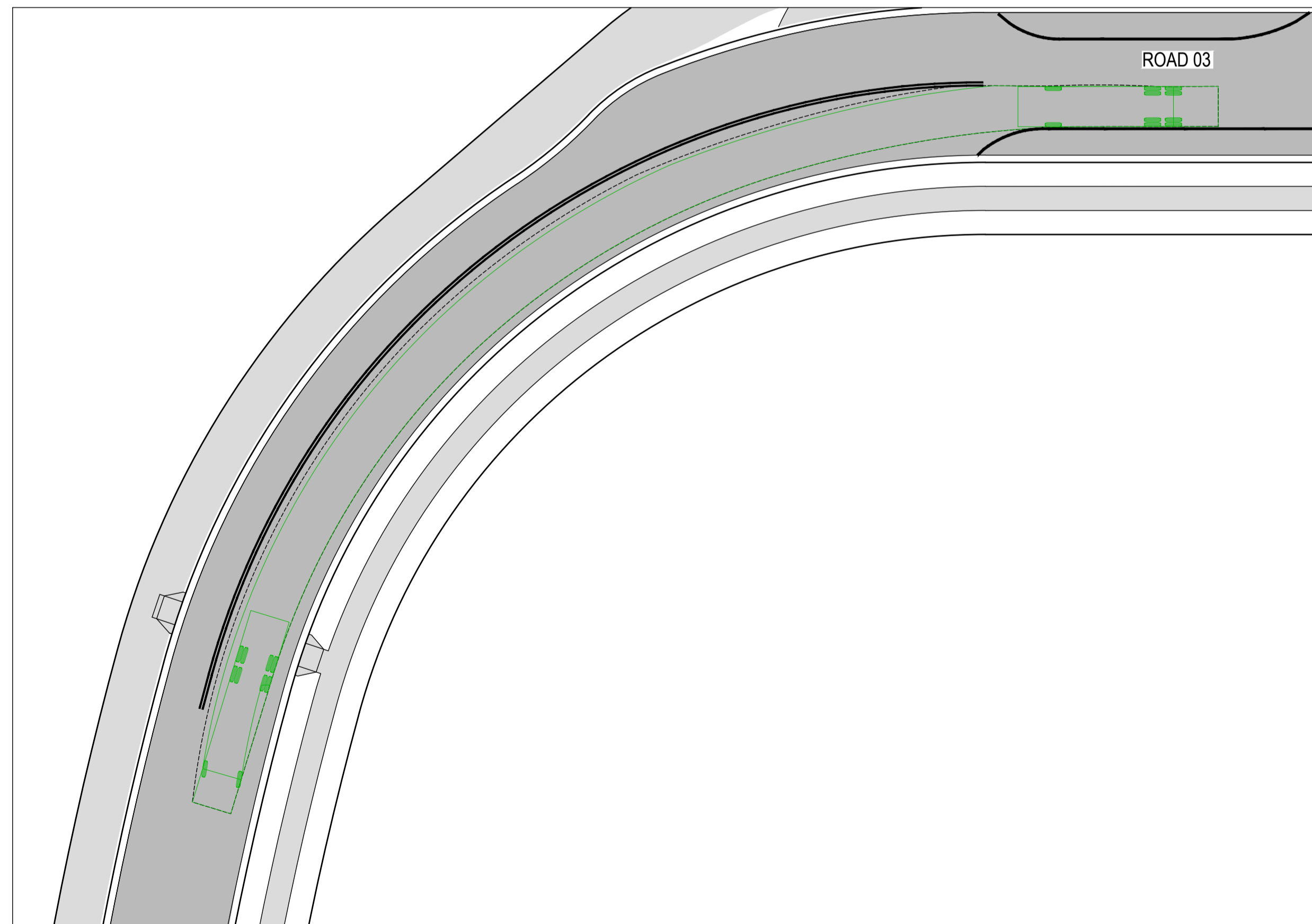
ROAD 04 - ROAD 05 CHECK VEHICLE 01

SCALE 1:250



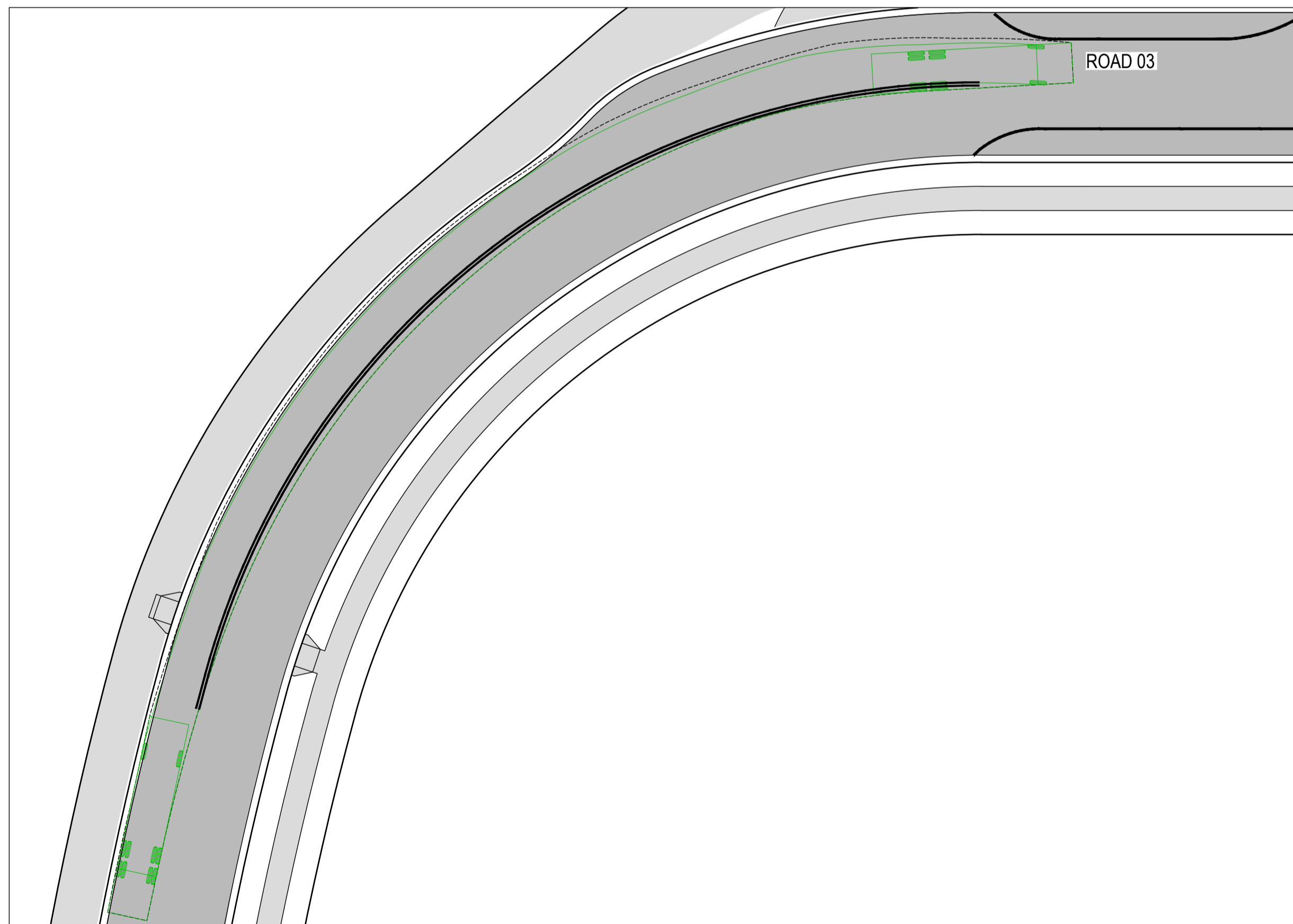
ROAD 04 - ROAD 05 CHECK VEHICLE 02

SCALE 1:250



ROAD 03 CHECK VEHICLE 01

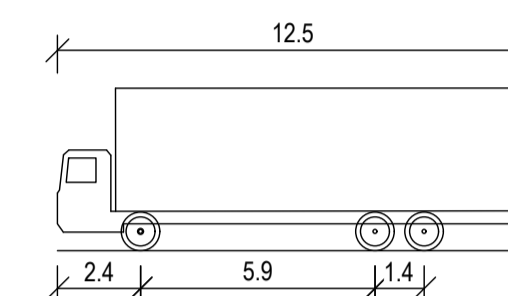
SCALE 1:250



ROAD 03 CHECK VEHICLE 01

SCALE 1:250

- PROPOSED**
- SITE BOUNDARY
 - LOT BOUNDARY
 - ROAD PAVEMENT
 - FOOTPATH / SHARED PATH
- EXISTING**
- LOT BOUNDARY
- SWEPT PATHS**
- VEHICLE ENVELOPE - 12.5m

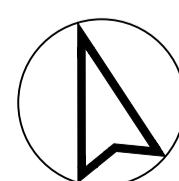


- HRV - HEAVY RIGID VEHICLE**
- OVERALL LENGTH 12.500m
 - OVERALL WIDTH 2.500m
 - OVERALL BODY HEIGHT 4.300m
 - MIN BODY GROUND CLEARANCE 0.417m
 - TRACK WIDTH 2.500m
 - LOCK-TO-LOCK TIME 6.00s
 - KERB TO KERB TURNING RADIUS 12.500m

CHECK VEHICLE

Alec Gollan, 30/10/2025 11:02 AM

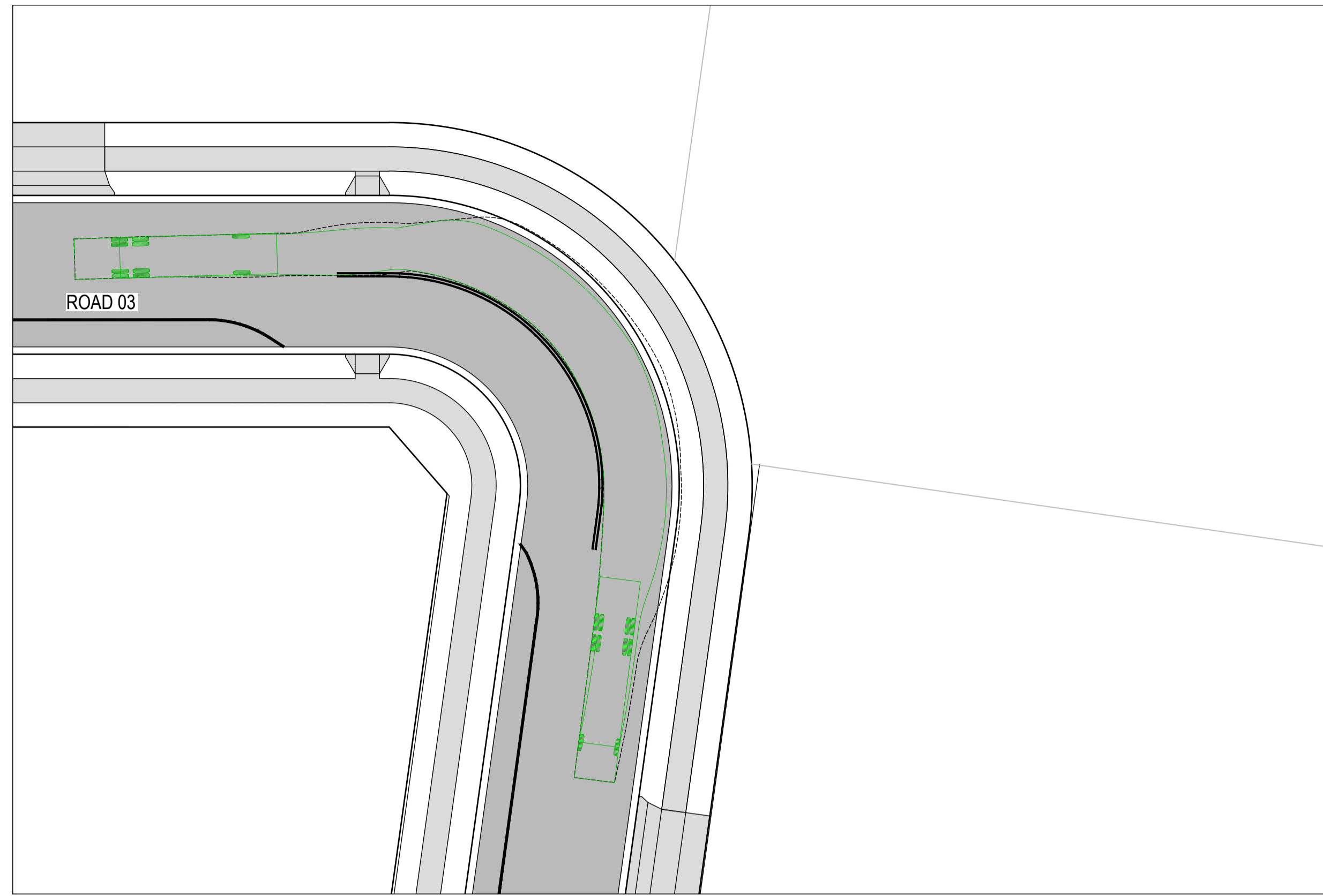
REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

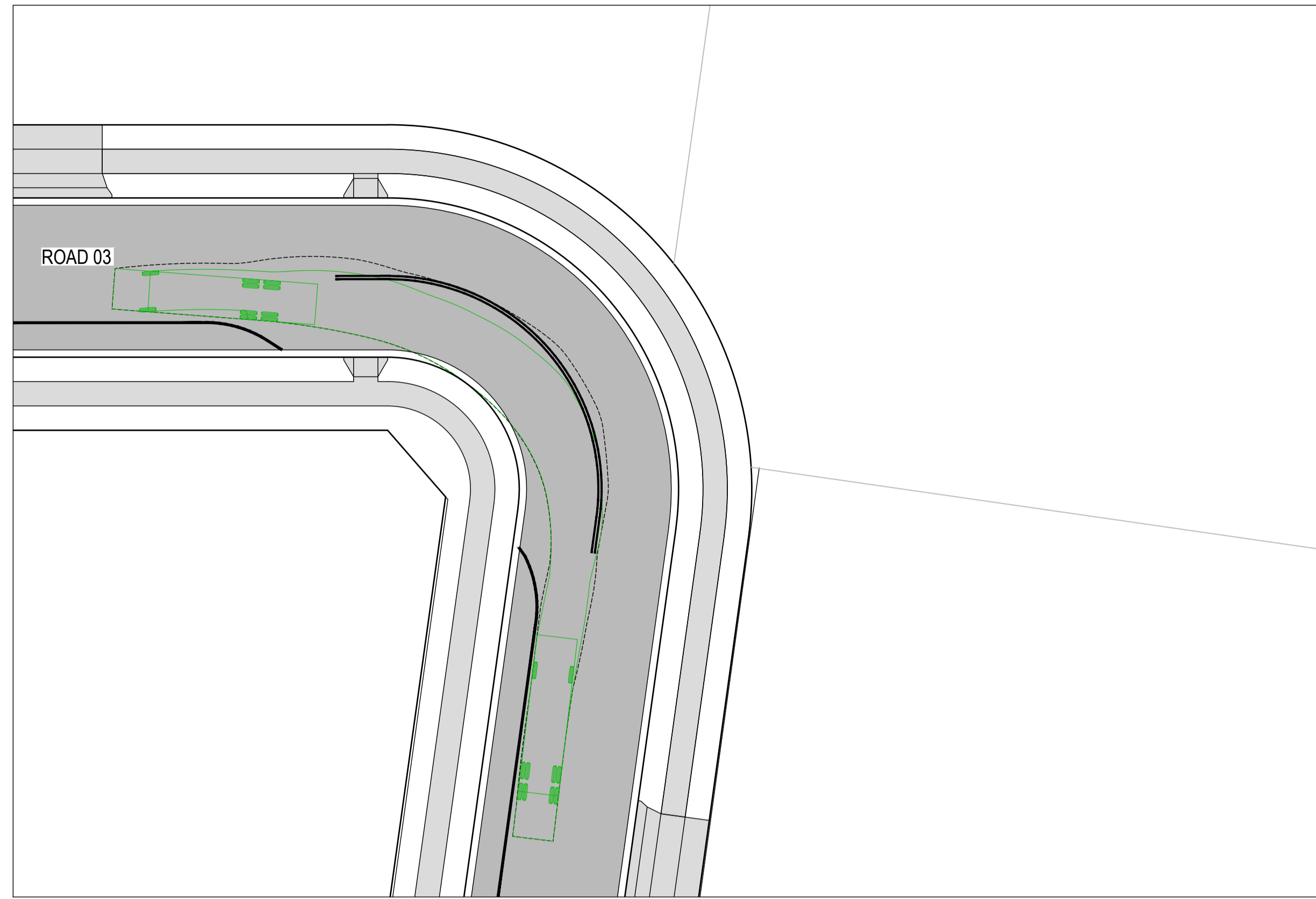
CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
SWEPT PATH LAYOUT PLAN
CHECK VEHICLES

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1710	3 OF 5	A1	3



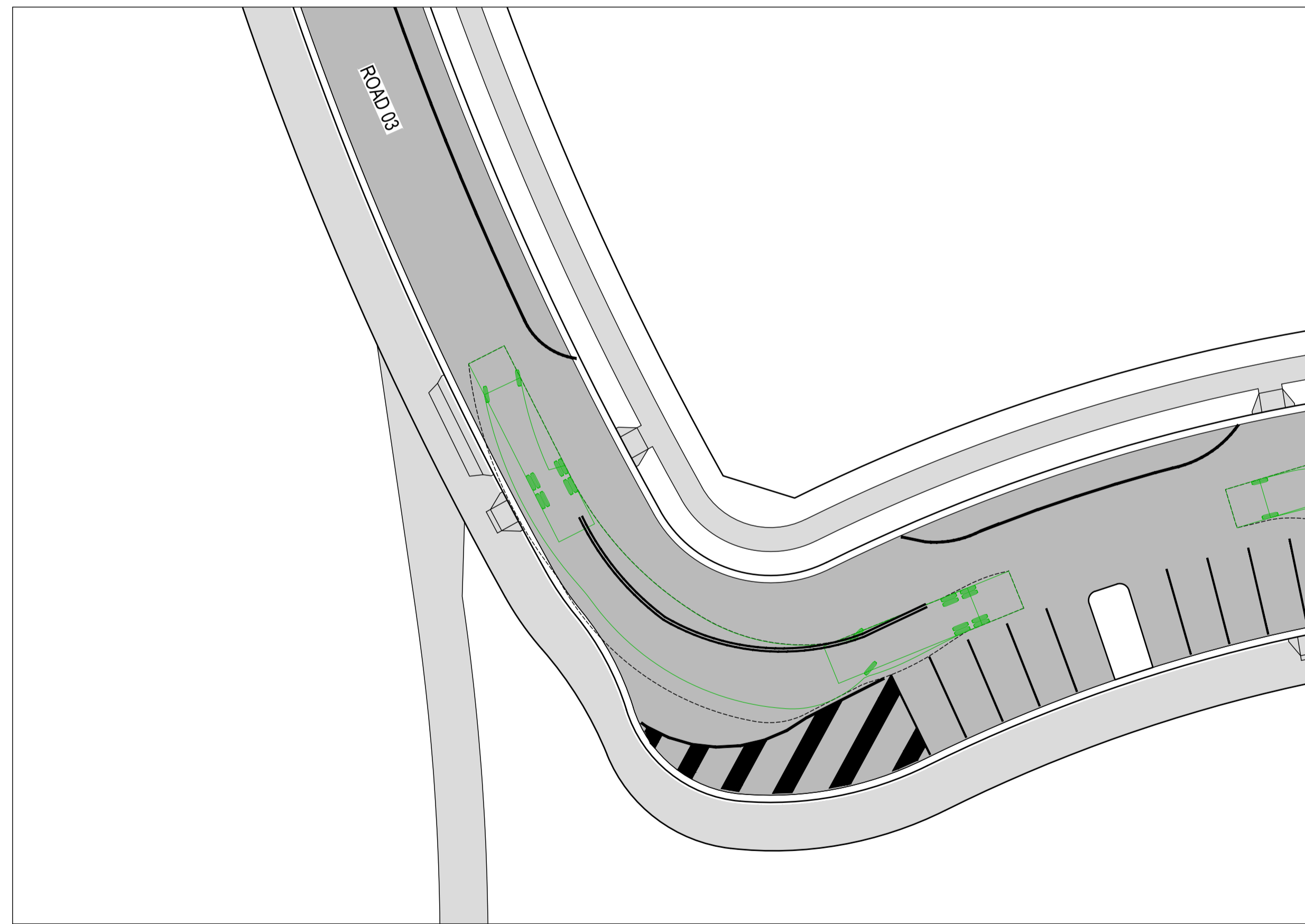
ROAD 03 CHECK VEHICLE PATH 03

SCALE 1:250



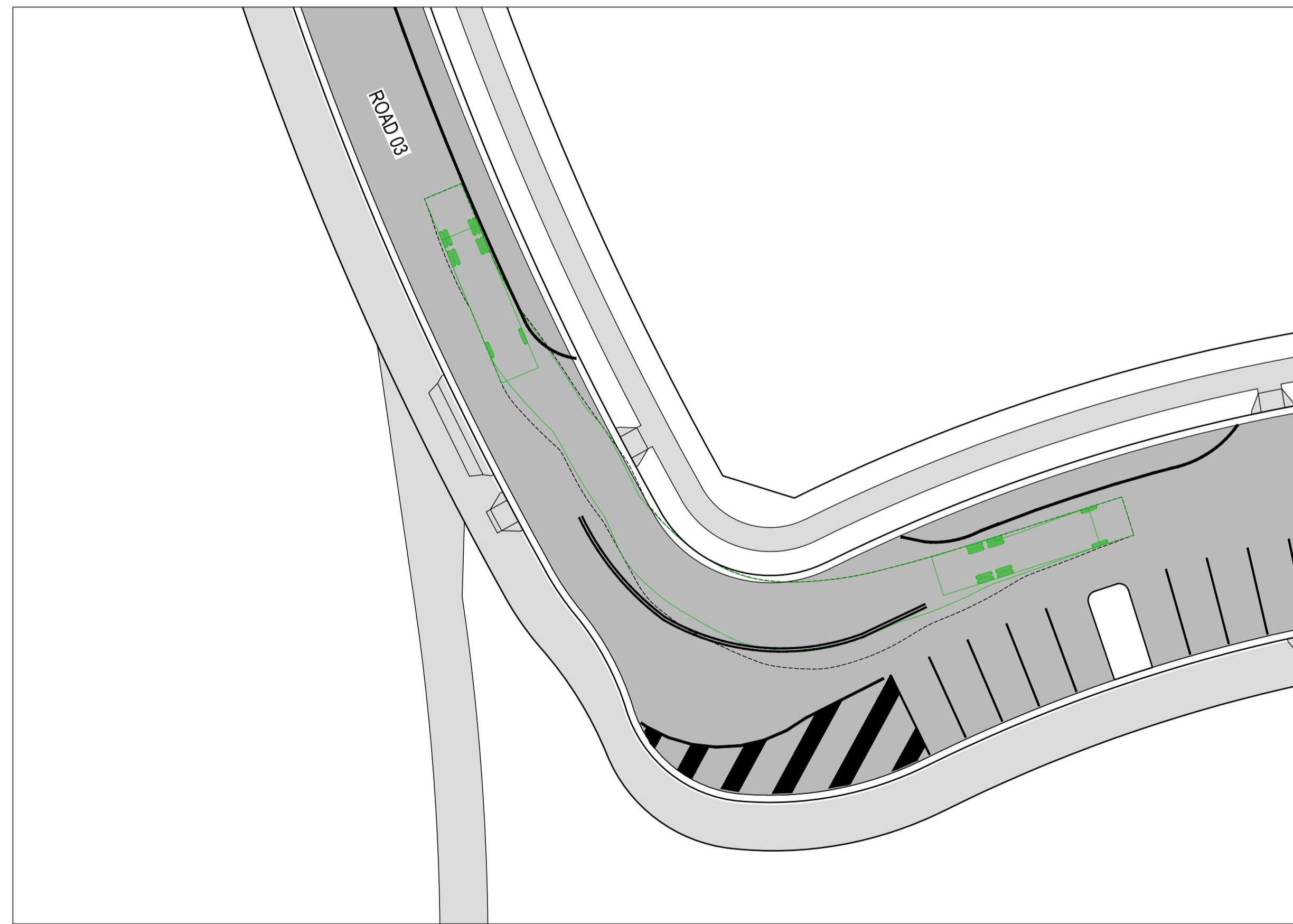
ROAD 03 CHECK VEHICLE PATH 04

SCALE 1:250



ROAD 03 CHECK VEHICLE PATH 05

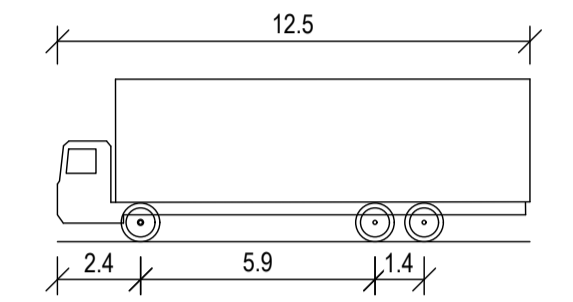
SCALE 1:250



ROAD 03 CHECK VEHICLE PATH 06

SCALE 1:250

- PROPOSED**
- SITE BOUNDARY
 - LOT BOUNDARY
 - ROAD PAVEMENT
 - FOOTPATH / SHARED PATH
- EXISTING**
- - - LOT BOUNDARY
- SWEPT PATHS**
- - - VEHICLE ENVELOPE - 12.5m

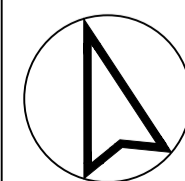
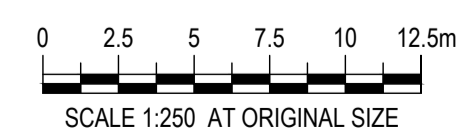


- HRV - HEAVY RIGID VEHICLE**
- OVERALL LENGTH 12.500m
 - OVERALL WIDTH 2.500m
 - OVERALL BODY HEIGHT 4.300m
 - MIN BODY GROUND CLEARANCE 0.417m
 - TRACK WIDTH 2.500m
 - LOCK-TO-LOCK TIME 6.00s
 - KERB TO KERB TURNING RADIUS 12.500m

CHECK VEHICLE

Alec Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

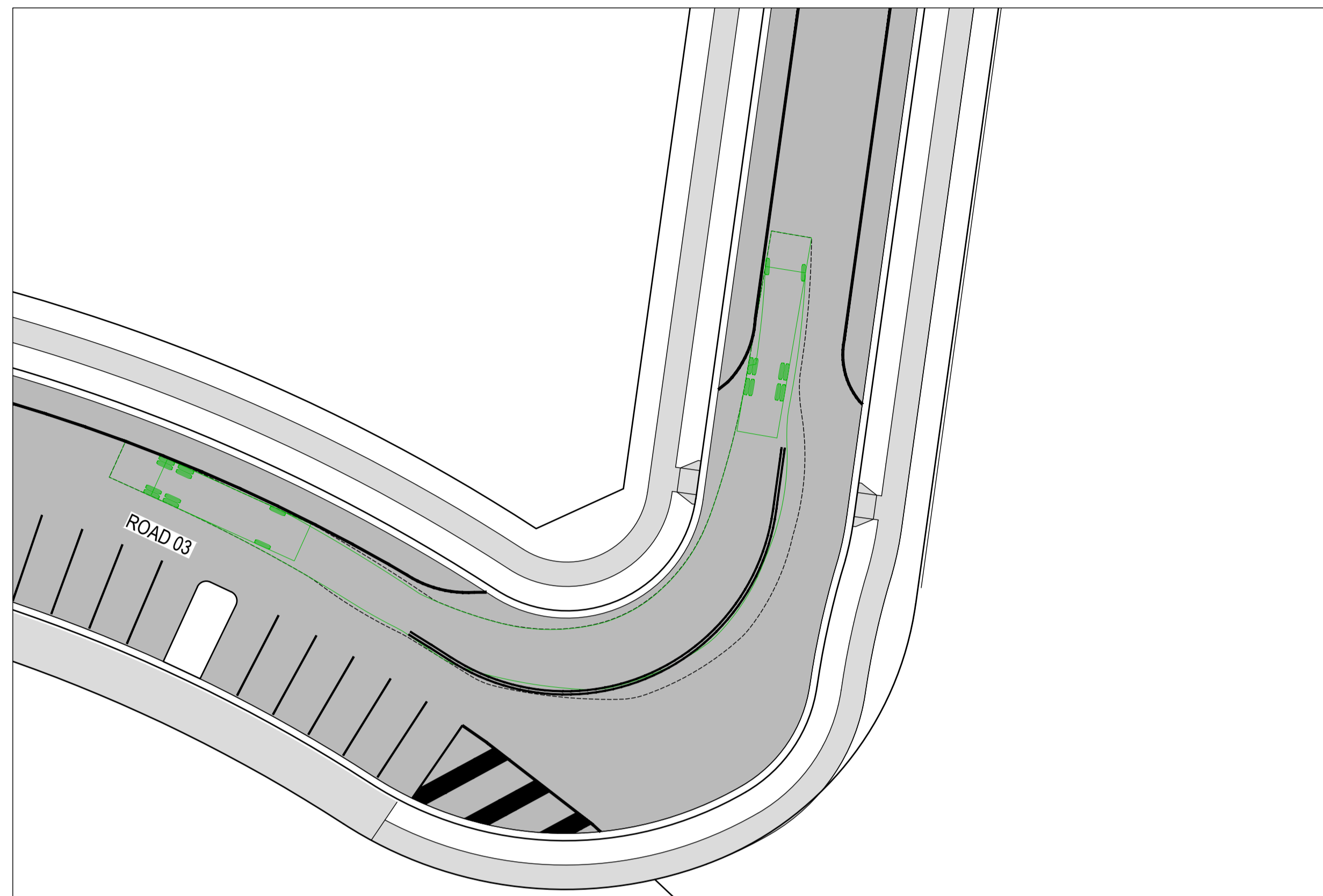


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN

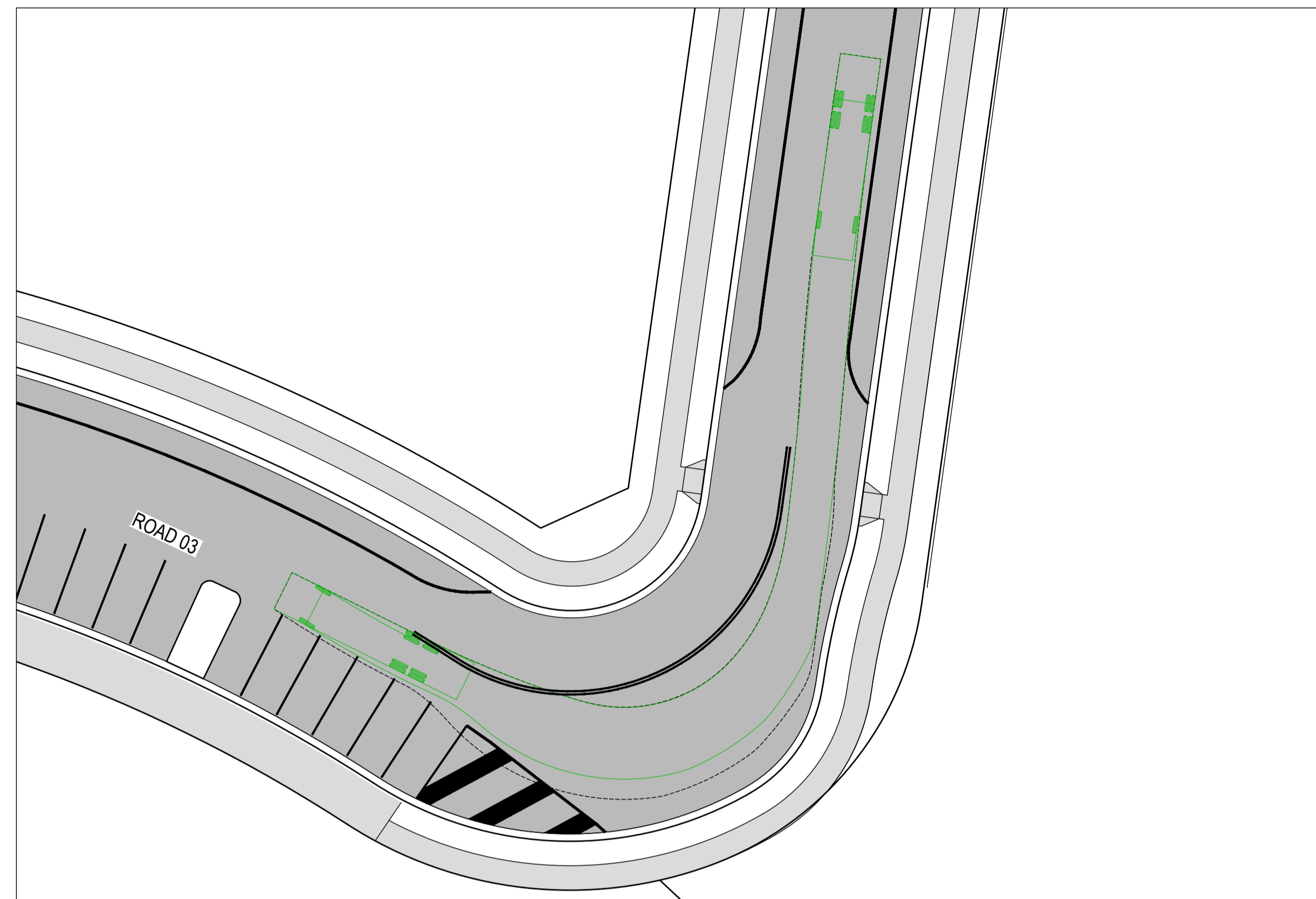
NOT FOR CONSTRUCTION

CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
SWEPT PATH LAYOUT PLAN
CHECK VEHICLES

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1711	4 OF 5	A1	3

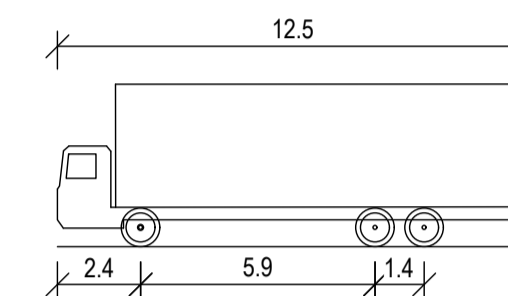


ROAD 03 SWEPT PATH 07
SCALE 1:250



ROAD 03 SWEPT PATH 08
SCALE 1:250

PROPOSED		LEGEND	
	SITE BOUNDARY		LOT BOUNDARY
	ROAD PAVEMENT		LOT BOUNDARY
	FOOTPATH / SHARED PATH		VEHICLE ENVELOPE - 12.5m

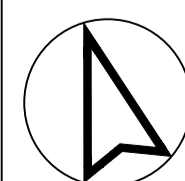
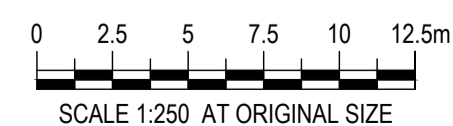


HRV - HEAVY RIGID VEHICLE	
OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.417m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
KERB TO KERB TURNING RADIUS	12.500m

CHECK VEHICLE

Alec Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

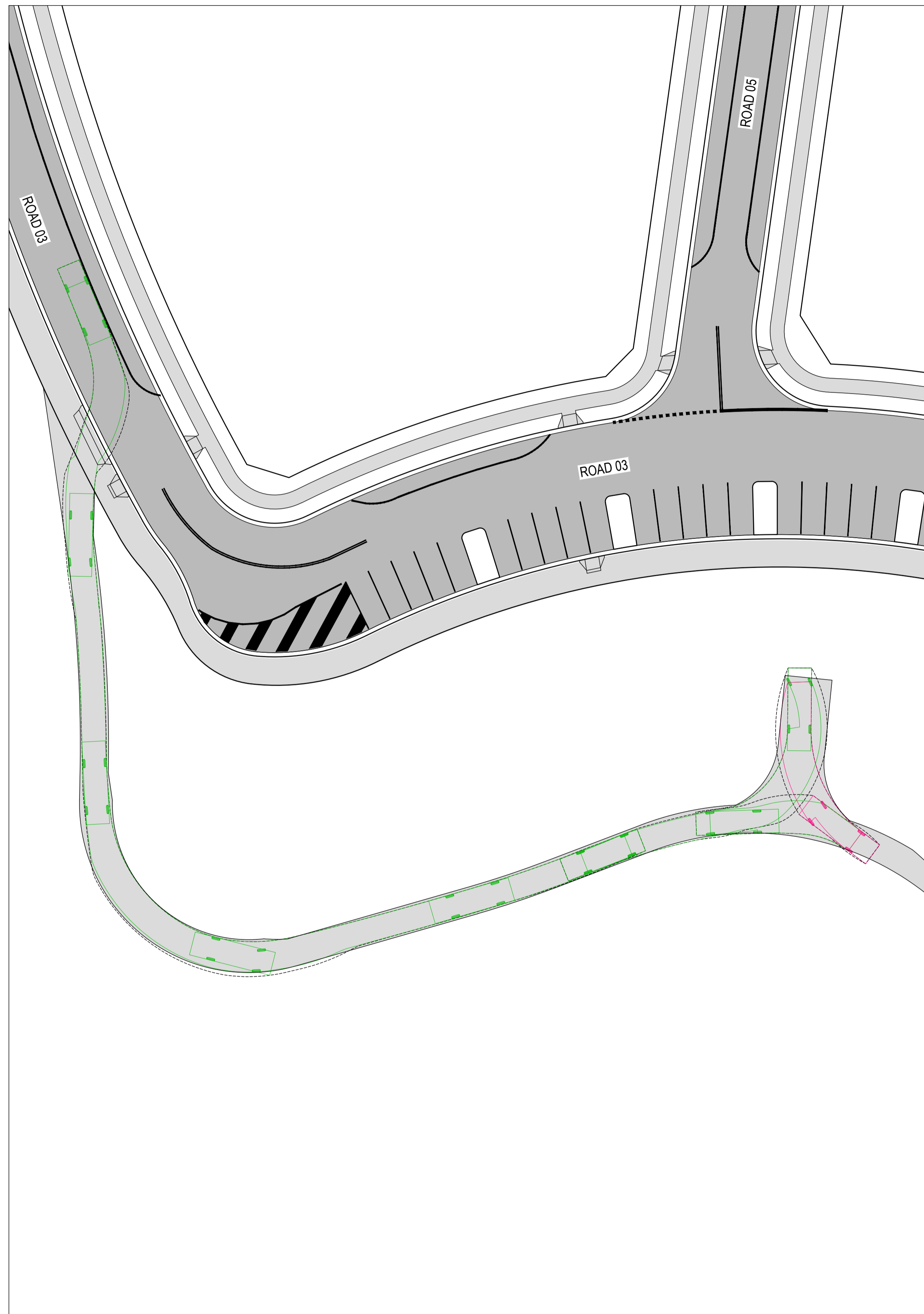


DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN

NOT FOR CONSTRUCTION

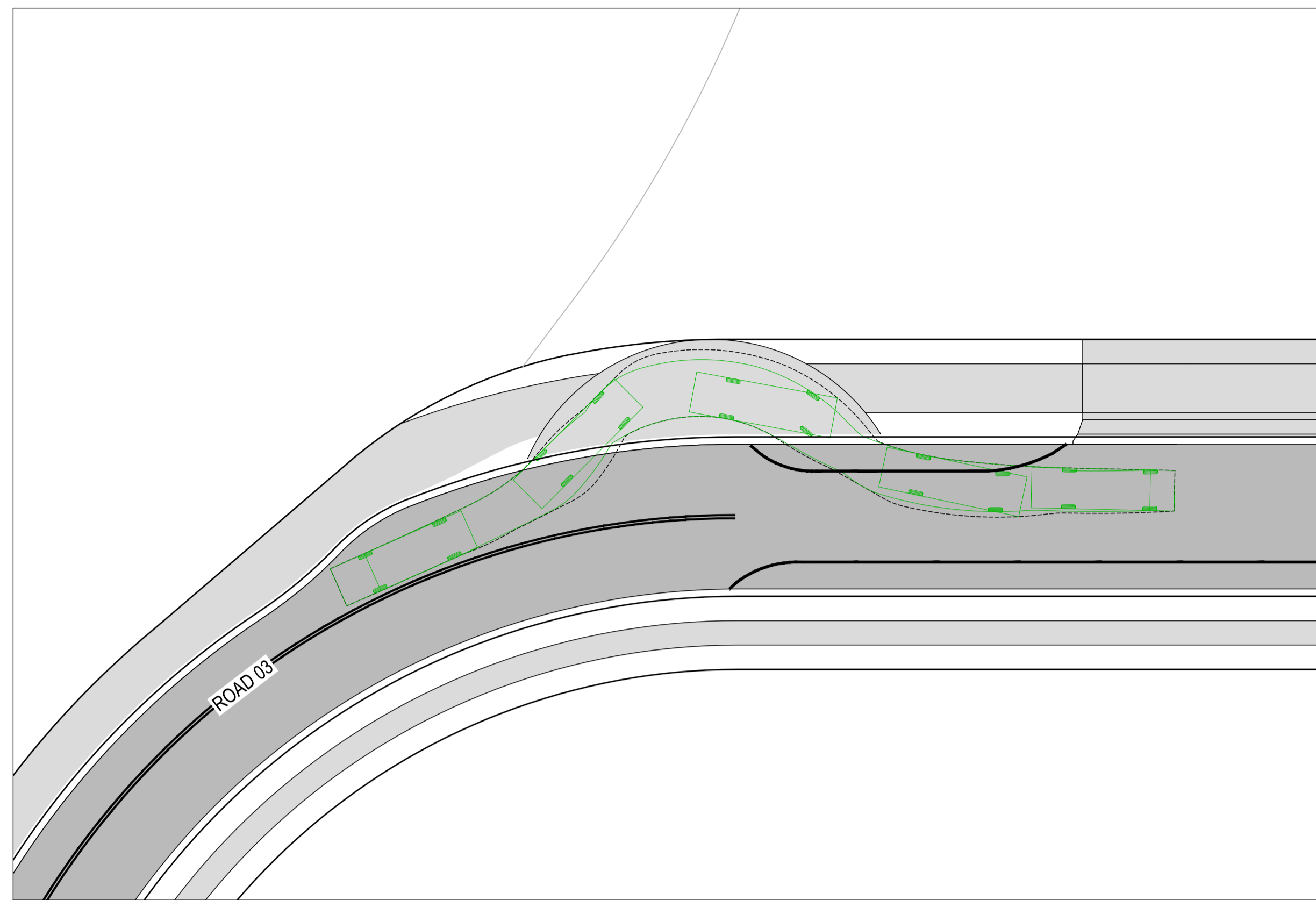
CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
SWEPT PATH LAYOUT PLAN
CHECK VEHICLES

DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1712	5 OF 5	A1	3



SOUTHERN PARK MAINTENANCE ACCESS SWEPT PATH 01

SCALE 1:300

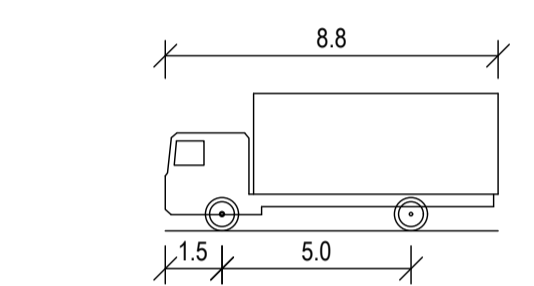
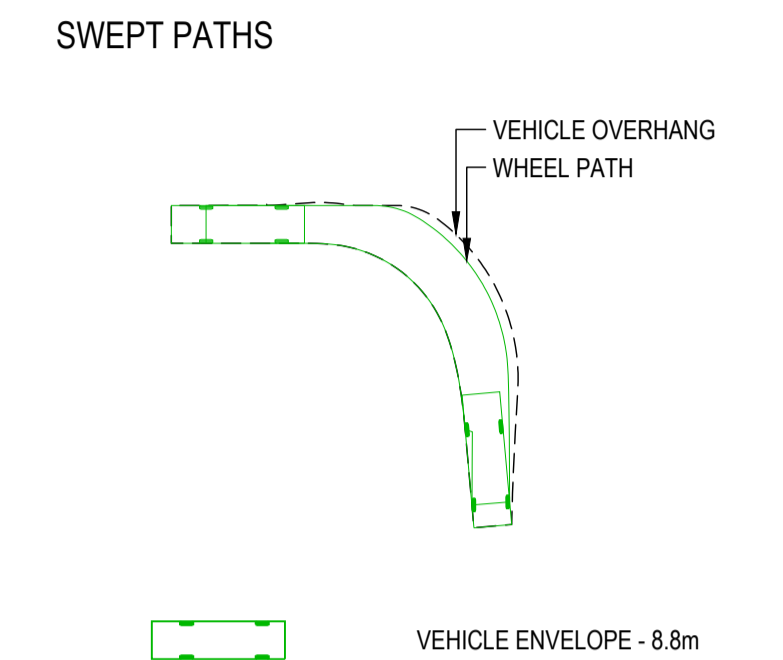


GPT PARKING BAY SWEPT PATH 01

SCALE 1:250

PROPOSED	LEGEND
	SITE BOUNDARY
	LOT BOUNDARY
	ROAD PAVEMENT
	FOOTPATH / SHARED PATH

	EXISTING LOT BOUNDARY
--	-----------------------

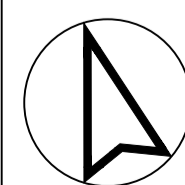


MRV - MEDIUM RIGID VEHICLE	
OVERALL LENGTH	8.800m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.633m
MIN BODY GROUND CLEARANCE	0.428m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	10.000m

DESIGN VEHICLE

Alec Gollan, 30/10/2025 11:02 AM

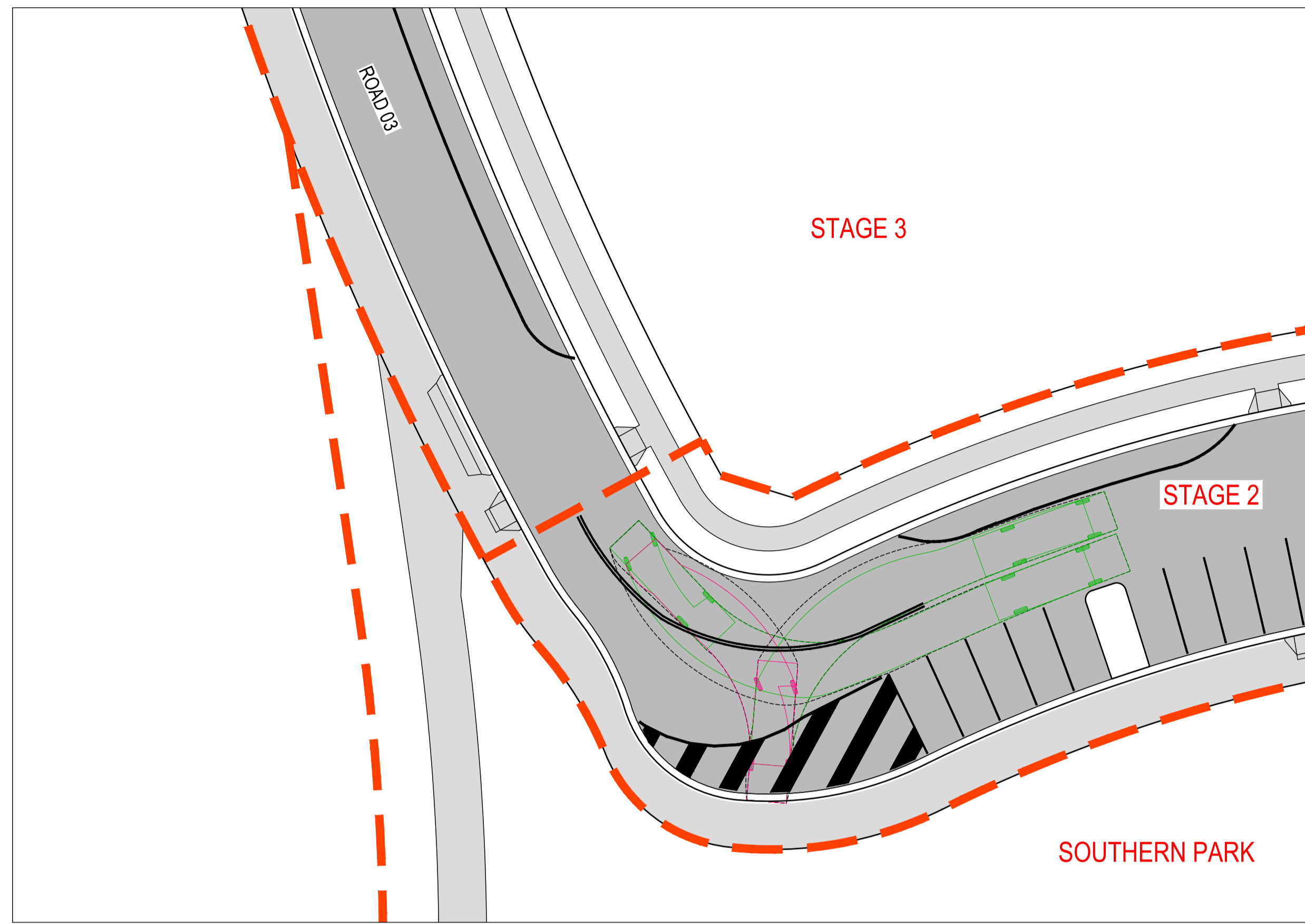
REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



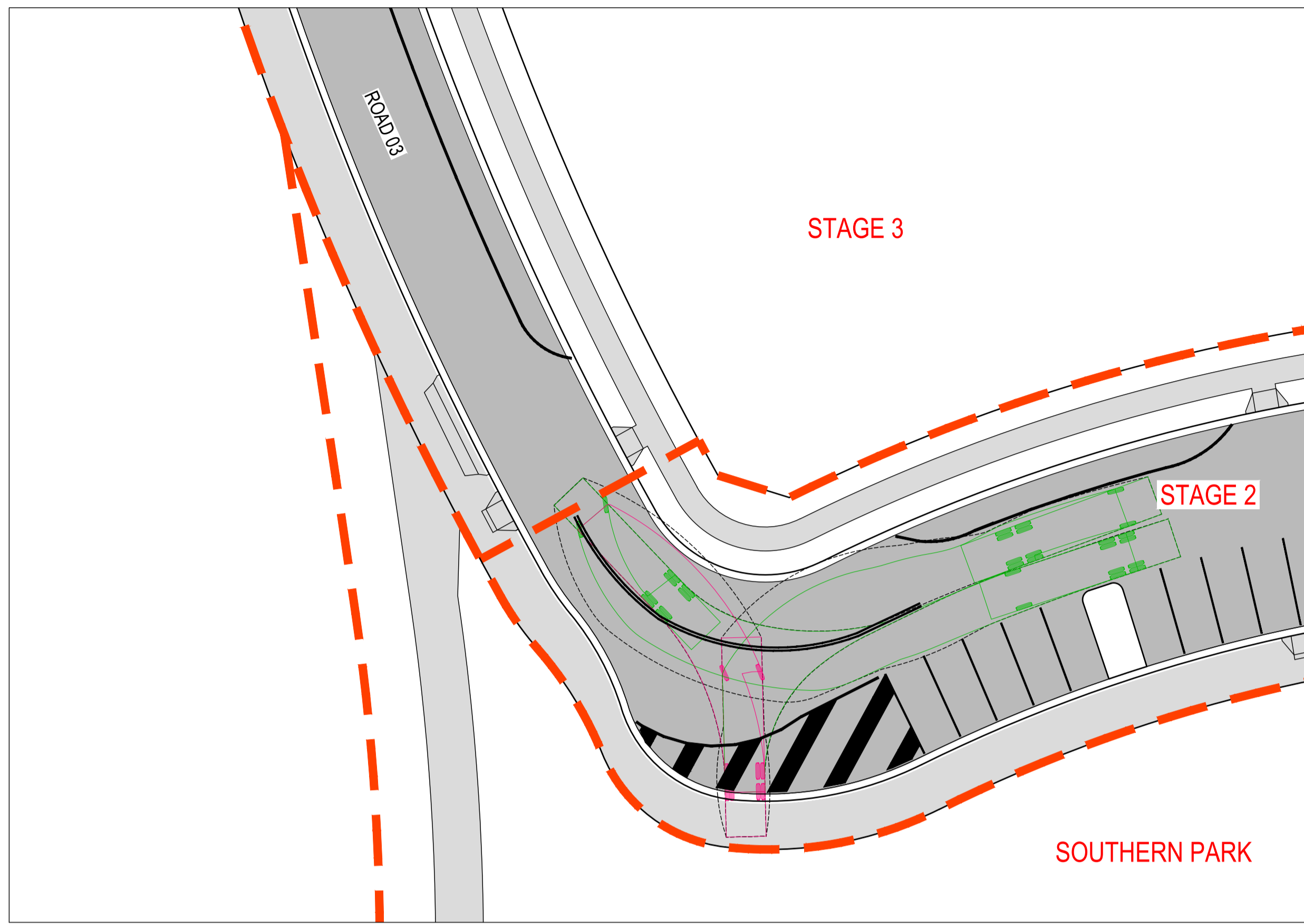
DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN

NOT FOR CONSTRUCTION

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION SWEPT PATH LAYOUT PLAN ACCESS ROADS AND PARKING BAY			
DRAWING NUMBER	SHEET No.	ORIG. SIZE	REVISION
MKR00452-11-C1713		A1	3



STAGED TEMP ROAD 03 DESIGN VEHICLE
SCALE 1:250

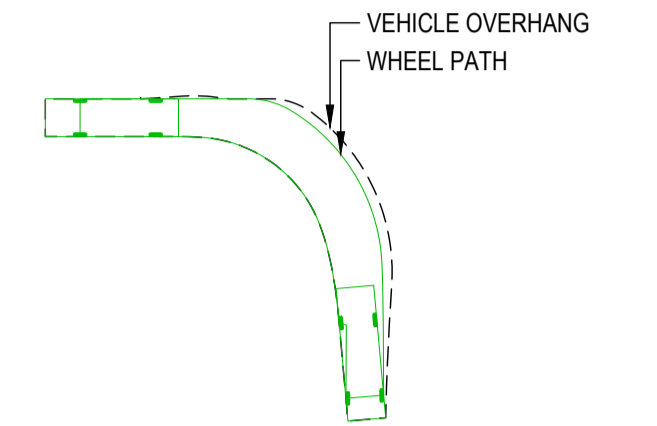


STAGED TEMP ROAD 03 CHECK VEHICLE
SCALE 1:250

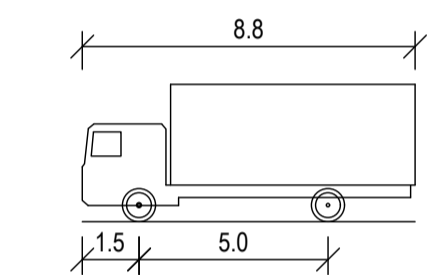
- PROPOSED**
- STAGING BOUNDARY
 - LOT BOUNDARY
 - ROAD PAVEMENT
 - FOOTPATH / SHARED PATH

- EXISTING**
- LOT BOUNDARY

SWEPT PATHS

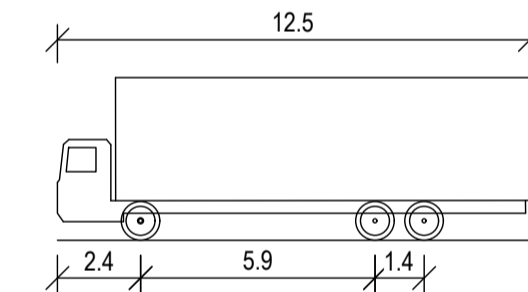


- VEHICLE ENVELOPE - 8.8m
- VEHICLE ENVELOPE - 12.5m



- MRV - MEDIUM RIGID VEHICLE**
- OVERALL LENGTH 8.800m
 - OVERALL WIDTH 2.500m
 - OVERALL BODY HEIGHT 3.633m
 - MIN BODY GROUND CLEARANCE 0.428m
 - TRACK WIDTH 2.500m
 - LOCK-TO-LOCK TIME 4.00s
 - KERB TO KERB TURNING RADIUS 10.000m

DESIGN VEHICLE

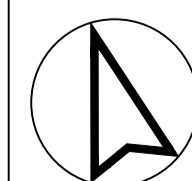
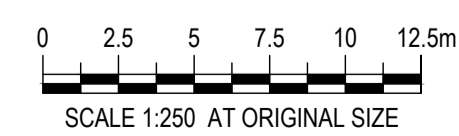


- HRV - HEAVY RIGID VEHICLE**
- OVERALL LENGTH 12.500m
 - OVERALL WIDTH 2.500m
 - OVERALL BODY HEIGHT 4.300m
 - MIN BODY GROUND CLEARANCE 0.417m
 - TRACK WIDTH 2.500m
 - LOCK-TO-LOCK TIME 6.00s
 - KERB TO KERB TURNING RADIUS 12.500m

CHECK VEHICLE

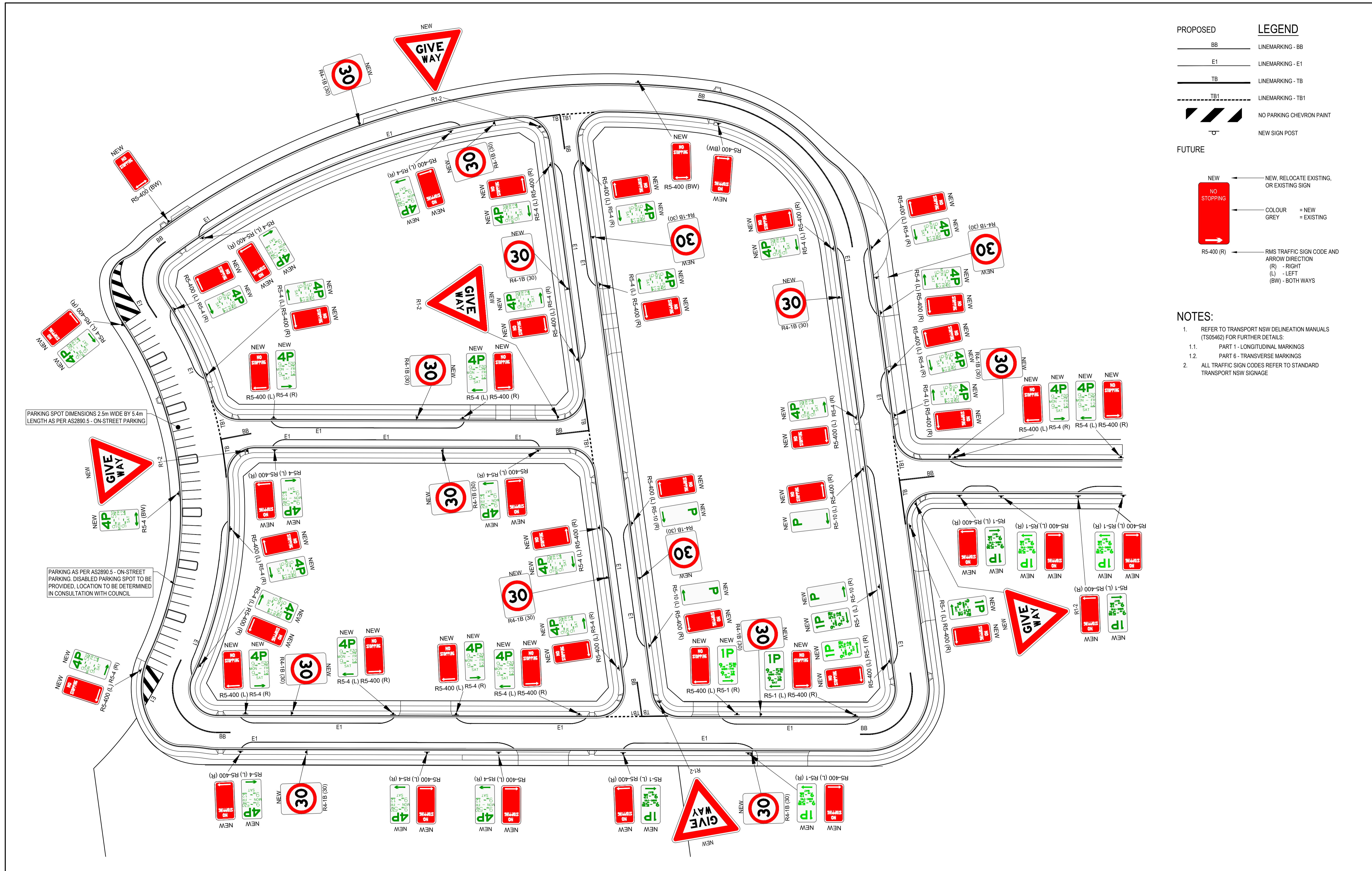
Alex Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN
NOT FOR CONSTRUCTION	

CORRIMAL COKE WORKS STAGE 2-4 RESIDENTIAL SUBDIVISION TEMP SWEEP PATH LAYOUT PLAN DESIGN AND CHECK VEHICLES			
DRAWING NUMBER MKR00452-11-C1714	SHEET No.	ORIG. SIZE A1	REVISION 3



PROPOSED

BB	LINEMARKING - BB
E1	LINEMARKING - E1
TB	LINEMARKING - TB
TB1	LINEMARKING - TB1
	NO PARKING CHEVRON PAINT
	NEW SIGN POST

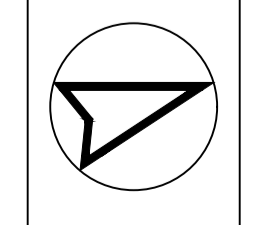
FUTURE

	NEW, RELOCATE EXISTING, OR EXISTING SIGN
	COLOUR = NEW
	GREY = EXISTING
	RMS TRAFFIC SIGN CODE AND ARROW DIRECTION
	(R) - RIGHT
	(L) - LEFT
	(BW) - BOTH WAYS

- NOTES:**
- REFER TO TRANSPORT NSW DELINEATION MANUALS (TS05462) FOR FURTHER DETAILS:
 - PART 1 - LONGITUDINAL MARKINGS
 - PART 6 - TRANSVERSE MARKINGS
 - ALL TRAFFIC SIGN CODES REFER TO STANDARD TRANSPORT NSW SIGNAGE

PARKING SPOT DIMENSIONS 2.5m WIDE BY 5.4m LENGTH AS PER AS2890.5 - ON-STREET PARKING

PARKING AS PER AS2890.5 - ON-STREET PARKING. DISABLED PARKING SPOT TO BE PROVIDED. LOCATION TO BE DETERMINED IN CONSULTATION WITH COUNCIL



DRAWN: J.BADI	DESIGNED: S.McINNES
DRAFT CHECK: S.McINNES	DESIGN CHECK: A.GOLLAN
APPROVED:	A.GOLLAN

NOT FOR CONSTRUCTION

**CORRIMAL COKE WORKS
STAGE 2-4 RESIDENTIAL SUBDIVISION
LOCAL AREA TRAFFIC MANAGEMENT
LAYOUT PLAN**

DRAWING NUMBER MKR00452-11-C1900	SHEET No.	ORIG. SIZE A1	REVISION 3
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Alex Gollan, 30/10/2025 11:02 AM

REV	DATE	DESCRIPTION	AMD BY	APP BY
3	30.10.25	ISSUED FOR APPROVAL	DM	AG
2	13.10.25	ISSUED FOR APPROVAL	SCM	AG
1	22.07.25	ISSUED FOR APPROVAL	SCM	SS

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Tables



	Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)							TRH - NEPM Fractions							Total Recoverable Hydrocarbons (TRH)							
	Benzene (Total)	Toluene (Total)	Ethylbenzene (Total)	meta- & para-Xylene (Total)	ortho-Xylene (Total)	Total Xylenes (Total)	Sum of BTEX (Total)	C6 - C10 Fraction (Total)	C6 - C10 Fraction minus BTEX (F1) (Total)	>C10 - C16 Fraction (Total)	>C10 - C16 Fraction minus Naphthalene (F2) (Total)	>C16 - C34 Fraction (Total)	>C34 - C40 Fraction (Total)	>C10 - C40 Fraction (sum) (Total)	C6 - C9 Fraction (Total)	C10 - C14 Fraction (Total)	C15 - C28 Fraction (Total)	C29 - C36 Fraction (Total)	C10 - C36 Fraction (sum) (Total)			
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
	1	1	1	2	1	2	1	10	10	50	50	100	100	50	10	50	100	50	50			
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Freshwater - 95% Species Protection	950	180	80	-	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Marine Water - 95% Species Protection	700	180	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Field ID	Sampled Date	Lab Report No.	Matrix																			
RED_MW02	28-08-2025	389647	Water	<1	2	<1	<2	<1	-	-	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50
RED_MW05	28-08-2025	389647	Water	<1	<1	<1	<2	<1	-	-	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50
DUP01	28-08-2025	389647	Water	<1	<1	<1	<2	<1	-	-	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50
TRIP01	28-08-2025	ES2527077	Water	<1	<2	<2	<2	<2	<2	<1	<20	<20	<100	<100	<100	<100	<100	<20	<50	<100	<50	<50

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

Heavy Metals																			
Antimony (Total)	Antimony (Filtered)	Arsenic (Total)	Arsenic (Filtered)	Barium (Total)	Barium (Filtered)	Beryllium (Total)	Beryllium (Filtered)	Boron (Total)	Boron (Filtered)	Cadmium (Total)	Cadmium (Filtered)	Chromium (Total)	Chromium (Filtered)	Cobalt (Total)	Cobalt (Filtered)	Copper (Total)	Copper (Filtered)	Lead (Total)	Lead (Filtered)
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.05	0.05	0.0001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Freshwater - 95% Species Protection																			
-	-	-	-	-	-	-	-	-	940	-	0.2	-	-	-	-	-	-	1.4	3.4
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Marine Water - 95% Species Protection																			
-	-	-	-	-	-	-	-	-	-	-	5.5	-	-	-	1	-	-	1.3	4.4

Field ID	Sampled Date	Lab Report No.	Matrix	Antimony (Total)	Antimony (Filtered)	Arsenic (Total)	Arsenic (Filtered)	Barium (Total)	Barium (Filtered)	Beryllium (Total)	Beryllium (Filtered)	Boron (Total)	Boron (Filtered)	Cadmium (Total)	Cadmium (Filtered)	Chromium (Total)	Chromium (Filtered)	Cobalt (Total)	Cobalt (Filtered)	Copper (Total)	Copper (Filtered)	Lead (Total)	Lead (Filtered)
RED_MW02	28-08-2025	389647	Water	< 1	< 1	2	2	150	140	< 0.5	< 0.5	240	210	< 0.1	< 0.1	< 1	< 1	8	9	2	< 1	< 1	< 1
RED_MW05	28-08-2025	389647	Water	< 1	< 1	3	3	110	110	< 0.5	< 0.5	80	80	< 0.1	< 0.1	< 1	< 1	< 1	< 1	2	< 1	< 1	< 1
DUP01	28-08-2025	389647	Water	< 1	< 1	3	3	110	110	< 0.5	< 0.5	60	70	< 0.1	< 0.1	< 1	< 1	< 1	< 1	2	< 1	< 1	< 1
TRIP01	28-08-2025	ES2527077	Water	< 1	< 1	4	3	142	116	< 1	< 1	70	60	< 0.1	< 0.1	1	< 1	< 1	< 1	4	< 1	2	< 1

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

Heavy Metals																					
Lithium (Total)	Lithium (Filtered)	Mercury (Total)	Mercury (Filtered)	Molybdenum (Total)	Molybdenum (Filtered)	Nickel (Total)	Nickel (Filtered)	Selenium (Total)	Selenium (Filtered)	Silicon as SiO2 (Filtered)	Silicon as SiO2 (Total)	Silver (Filtered)	Silver (Total)	Strontium (Filtered)	Strontium (Total)	Uranium (Filtered)	Uranium (Total)	Vanadium (Total)	Vanadium (Filtered)	Zinc (Total)	Zinc (Filtered)
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.001	0.001	0.0001	0.0001	0.001	0.001	0.001	0.001	0.01	0.01	0.1	0.1	0.001	0.001	0.001	0.001	0.001	0.001	0.01	0.01	0.005	0.005
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Freshwater - 95% Species Protection																					
-	-	-	0.6	-	-	-	11	-	11	-	-	0.05	-	-	-	-	-	-	-	-	8
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Marine Water - 95% Species Protection																					
-	-	-	0.4	-	-	-	70	-	-	-	-	1.4	-	-	-	-	-	-	100	-	8

Field ID	Sampled Date	Lab Report No.	Matrix	Lithium (Total)	Lithium (Filtered)	Mercury (Total)	Mercury (Filtered)	Molybdenum (Total)	Molybdenum (Filtered)	Nickel (Total)	Nickel (Filtered)	Selenium (Total)	Selenium (Filtered)	Silicon as SiO2 (Filtered)	Silicon as SiO2 (Total)	Silver (Filtered)	Silver (Total)	Strontium (Filtered)	Strontium (Total)	Uranium (Filtered)	Uranium (Total)	Vanadium (Total)	Vanadium (Filtered)	Zinc (Total)	Zinc (Filtered)
RED_MW02	28-08-2025	389647	Water	210	200	< 0.05	< 0.05	7	5	5	4	< 1	< 1	-	-	< 1	< 1	1,600	1,500	5.1	6.5	2	2	32	24
RED_MW05	28-08-2025	389647	Water	88	89	< 0.05	< 0.05	10	8	1	< 1	< 1	< 1	-	-	< 1	< 1	1,100	1,100	0.6	0.6	11	10	15	12
DUP01	28-08-2025	389647	Water	90	90	< 0.05	< 0.05	10	7	1	< 1	< 1	< 1	-	-	< 1	< 1	1,100	1,100	0.6	0.7	11	10	16	13
TRIP01	28-08-2025	ES2527077	Water	91	90	< 0.1	< 0.1	11	9	2	< 1	< 10	< 10	24,700	26,400	< 1	< 1	1,020	1,040	< 1	< 1	10	10	25	11

Notes:
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 0 = Not detected at 0.1 g/kg limit-of-reporting

Polycyclic Aromatic Hydrocarbons (PAH)																					
Acenaphthene (Total)	Acenaphthylene (Total)	Anthracene (Total)	Benzo(a)pyrene (Total)	Benz(a)anthracene (Total)	Benzo(a)pyrene TEQ (Total)	Benzo(a)pyrene TEQ (zero) (Total)	Benzo(b+g)fluoranthene (Total)	Benzo(b,j+k)fluoranthene (Total)	Benzo(g,h,i)perylene (Total)	Benzo(k)fluoranthene (Total)	Chrysene (Total)	Dibenz(a,h)anthracene (Total)	Fluoranthene (Total)	Fluorene (Total)	Indeno(1,2,3-cd)pyrene (Total)	Naphthalene (Ex SVOC) (Total)	Naphthalene (Total)	Phenanthrene (Total)	Pyrene (Total)	Total +ve PAH's (Total)	Sum of polycyclic aromatic hydrocarbons (Total)
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.1	0.1	0.1	0.1	0.1	0.5	0.5	1	0.2	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	1	0.1	0.1	0.1	0.5
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Freshwater - 95% Species Protection																					
-	-	0.4	0.2	-	-	-	-	-	-	-	-	-	1.4	-	-	16	-	2	-	-	-
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Marine Water - 95% Species Protection																					
-	-	0.4	0.2	-	-	-	-	-	-	-	-	-	1.4	-	-	70	-	2	-	-	-

Field ID	Sampled Date	Lab Report No.	Matrix	Acenaphthene (Total)	Acenaphthylene (Total)	Anthracene (Total)	Benzo(a)pyrene (Total)	Benz(a)anthracene (Total)	Benzo(a)pyrene TEQ (Total)	Benzo(a)pyrene TEQ (zero) (Total)	Benzo(b+g)fluoranthene (Total)	Benzo(b,j+k)fluoranthene (Total)	Benzo(g,h,i)perylene (Total)	Benzo(k)fluoranthene (Total)	Chrysene (Total)	Dibenz(a,h)anthracene (Total)	Fluoranthene (Total)	Fluorene (Total)	Indeno(1,2,3-cd)pyrene (Total)	Naphthalene (Ex SVOC) (Total)	Naphthalene (Total)	Phenanthrene (Total)	Pyrene (Total)	Total +ve PAH's (Total)	Sum of polycyclic aromatic hydrocarbons (Total)	
RED_MW02	28-08-2025	389647	Water	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	-	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	-
RED_MW05	28-08-2025	389647	Water	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	-	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	-
DUP01	28-08-2025	389647	Water	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	-	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	-
TRIP01	28-08-2025	ES2527077	Water	<1	<1	<1	<0.5	<1	-	<0.5	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	-	<0.5	

Notes:
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 0 = Not detected at 0.1 g/kg limit-of-reporting

Parameters	Major Anions									Major Cations													
	Bromide (Total)	Chloride (Total)	Fluoride (Total)	Nitrate as N in water (Filtered)	Nitrate as N (Total)	Nitrite as N in water (Filtered)	Nitrite as N (Total)	Nitrite + Nitrate as N (Total)	Sulfate as SO4 - Turbidimetric (Filtered)	Aluminium (Total)	Aluminium (Filtered)	Calcium (Filtered)	Iron (Total)	Iron (Filtered)	Magnesium (Filtered)	Manganese (Total)	Manganese (Filtered)	Potassium (Filtered)	Sodium (Filtered)				
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L				
1	0.01	1	0.1	0.005	0.01	0.005	0.01	0.01	1	0.01	0.01	0.5	0.05	0.05	0.5	0.001	0.001	0.5	0.5				
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Freshwater - 95% Species Protection	-	-	-	-	-	-	-	-	-	-	55	-	-	-	-	-	1,900	-	-				
ANZ Guidelines for Fresh & Marine Water Quality - toxicant DGVs Marine Water - 95% Species Protection	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Field ID	Sampled Date	Lab Report No.	Matrix																				
RED_MW02	28-08-2025	389647	Water	440,000	< 500	34,000	500	290	-	< 5	-	-	-	50	< 10	96,000	1,000	1,500	30,000	2,400	2,400	14,000	57,000
RED_MW05	28-08-2025	389647	Water	170,000	900	110,000	200	40	-	< 5	-	-	-	440	< 10	130,000	380	60	14,000	17	15	13,000	190,000
DUP01	28-08-2025	389647	Water	170,000	900	110,000	200	40	-	< 5	-	-	-	410	< 10	130,000	350	60	14,000	16	15	13,000	190,000
TRIP01	28-08-2025	ES2527077	Water	180,000	865	170,000	200	-	40	-	< 10	40	446,000	1,460	< 10	147,000	970	50	17,000	16	14	12,000	184,000

Notes:
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 0 = Not detected at 0.1 g/kg limit-of-reporting

	Nutrients									Other								Microbiological								
	Ammonia as N in water (Filtered)	Total Kjeldahl Nitrogen as N (Total)	NOx as N in water (Total)	Total Nitrogen as N (Total)	Organic Nitrogen as N (Total)	Reactive Phosphorus as P (Filtered)	Sulphate, SO4 (Total)	Organic Nitrogen as N (Total)	Phosphorus - Total (Total)	Silica (Reactive - SiO2) (Total)	Hardness (calc) equivalent CaCO3 (Filtered)	Hydroxide Alkalinity as CaCO3 (Total)	Carbonate Alkalinity as CaCO3 (Total)	Bicarbonate Alkalinity as CaCO3 (Total)	Total Organic Carbon (Total)	Suspended Solids (SS) (Total)	Total Hardness as CaCO3 (Filtered)	E.coli	Enterococci	Faecal Coliforms						
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L						
	0.005	0.1	0.005	0.1	0.1	0.005	1	0.2	0.05	0.1	3	1	1	1	1	5	1	cfu/100m L	cfu/100m L	cfu/100m L						
ANZ Guidelines for Fresh & Marinewater Quality - toxicant DGVs Freshwater - 95% Species Protection	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
ANZ Guidelines for Fresh & Marinewater Quality - toxicant DGVs Marine Water - 95% Species Protection	20	-	40	500	-	20	-	-	50	-	-	-	-	-	-	-	-	-	-	-						
Field ID	Sampled Date		Lab Report No.		Matrix																					
RED_MW02	28-08-2025		389647		Water		1,600	1,700	290	2,000	-	< 5	75,000	< 0.2	< 50	19	360,000	< 5,000	< 5,000	440,000	7,000	53,000	-	<100	<10	<10
RED_MW05	28-08-2025		389647		Water		10	100	40	200	-	10	380,000	< 0.2	< 50	11	390,000	< 5,000	< 5,000	170,000	7,000	22,000	-	<10	<10	<10
DUP01	28-08-2025		389647		Water		< 5	100	40	200	-	10	380,000	< 0.2	< 50	9.3	390,000	< 5,000	< 5,000	170,000	5,000	20,000	-	<100	<10	<10
TRIP01	28-08-2025		ES2527077		Water		< 10	300	-	300	300	20	-	-	40	-	-	< 1,000	< 1,000	180,000	5,000	16,000	437,000	<1	2	-

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

	Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)							TRH - NEPM Fractions							Total Recoverable Hydrocarbons (TRH)						
	Benzene (Total)	Toluene (Total)	Ethylbenzene (Total)	m+p-xylene (Total)	o-xylene (Total)	Total Xylenes (Total)	Sum of BTEX (Total)	C6 - C10 Fraction (Total)	C6 - C10 Fraction minus BTEX (F1) (Total)	>C10 - C16 Fraction (Total)	>C10 - C16 Fraction minus Naphthalene (F2) (Total)	>C16 - C34 Fraction (Total)	>C34 - C40 Fraction (Total)	>C10 - C40 Fraction (sum) (Total)	C6 - C9 Fraction (Total)	C10 - C14 Fraction (Total)	C15 - C28 Fraction (Total)	C29 - C36 Fraction (Total)	C10 - C36 Fraction (sum) (Total)		
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L		
	1	2	2	2	2	2	1	20	20	100	100	100	100	100	20	50	100	50	50		
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection	950	180	80	-	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection	700	180	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Field ID	Sampled Date	Lab Report No.	Matrix																		
SW_S2-01	11-09-2025	ES2528399	Water	< 1	< 2	< 2	< 2	< 2	< 2	< 1	< 20	< 20	< 100	< 100	< 100	< 100	< 20	< 50	< 100	< 50	< 50
SW_S3-01	11-09-2025	ES2528399	Water	< 1	< 2	< 2	< 2	< 2	< 2	< 1	< 20	< 20	< 100	< 100	< 100	< 100	< 20	< 50	< 100	< 50	< 50
SW_S4-01	11-09-2025	ES2528399	Water	< 1	< 2	< 2	< 2	< 2	< 2	< 1	< 20	< 20	< 100	< 100	< 100	< 100	< 20	< 50	< 100	< 50	< 50

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

Heavy Metals																			
Antimony (Filtered)	Arsenic (Filtered)	Barium (Filtered)	Beryllium (Filtered)	Boron (Filtered)	Cadmium (Filtered)	Chromium (Filtered)	Cobalt (Filtered)	Copper (Filtered)	Lead (Filtered)	Lithium (Filtered)	Mercury (Filtered)	Molybdenum (Filtered)	Nickel (Filtered)	Selenium (Filtered)	Silver (Filtered)	Strontium (Filtered)	Uranium (Filtered)	Vanadium (Filtered)	Zinc (Filtered)
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.001	0.001	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.01	0.005
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection																			
-	-	-	-	940	0.2	-	-	1.4	3.4	-	0.6	-	11	11	0.05	-	-	-	8
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection																			
-	-	-	-	-	5.5	-	1	1.3	4.4	-	0.4	-	70	-	1.4	-	-	100	8

Field ID	Sampled Date	Lab Report No.	Matrix	Antimony (Filtered)	Arsenic (Filtered)	Barium (Filtered)	Beryllium (Filtered)	Boron (Filtered)	Cadmium (Filtered)	Chromium (Filtered)	Cobalt (Filtered)	Copper (Filtered)	Lead (Filtered)	Lithium (Filtered)	Mercury (Filtered)	Molybdenum (Filtered)	Nickel (Filtered)	Selenium (Filtered)	Silver (Filtered)	Strontium (Filtered)	Uranium (Filtered)	Vanadium (Filtered)	Zinc (Filtered)
SW_S2-01	11-09-2025	ES2528399	Water	<1	<1	43	<1	<50	<0.1	<1	<1	3	<1	2	<0.1	<1	1	<10	<1	96	<1	<10	12
SW_S3-01	11-09-2025	ES2528399	Water	<1	<1	34	<1	<50	<0.1	<1	<1	3	<1	4	<0.1	<1	1	<10	<1	81	<1	<10	9
SW_S4-01	11-09-2025	ES2528399	Water	<1	1	47	<1	<50	<0.1	<1	<1	3	<1	2	<0.1	<1	1	<10	<1	103	<1	<10	7

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

Polycyclic Aromatic Hydrocarbons (PAH)																			
Acenaphthene (Total)	Acenaphthylene (Total)	Anthracene (Total)	Benzo(a)pyrene (Total)	Benz(a)anthracene (Total)	Benzo(a)pyrene TEQ (zero) (Total)	Benzo(b+g)fluoranthene (Total)	Benzo(g,h,i)perylene (Total)	Benzo(k)fluoranthene (Total)	Chrysene (Total)	Dibenz(a,h)anthracene (Total)	Fluoranthene (Total)	Fluorene (Total)	Indeno(1,2,3-cd)pyrene (Total)	Naphthalene (Ex SVOC) (Total)	Naphthalene (Total)	Phenanthrene (Total)	Pyrene (Total)	Sum of polycyclic aromatic hydrocarbons (Total)	
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
1	1	1	0.5	1	0.5	1	1	1	1	1	1	1	1	1	5	1	1	0.5	
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection																			
-	-	0.4	0.2	-	-	-	-	-	-	-	1.4	-	-	16	-	2	-	-	-
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection																			
-	-	0.4	0.2	-	-	-	-	-	-	-	1.4	-	-	70	-	2	-	-	-

Field ID	Sampled Date	Lab Report No.	Matrix	Acenaphthene (Total)	Acenaphthylene (Total)	Anthracene (Total)	Benzo(a)pyrene (Total)	Benz(a)anthracene (Total)	Benzo(a)pyrene TEQ (zero) (Total)	Benzo(b+g)fluoranthene (Total)	Benzo(g,h,i)perylene (Total)	Benzo(k)fluoranthene (Total)	Chrysene (Total)	Dibenz(a,h)anthracene (Total)	Fluoranthene (Total)	Fluorene (Total)	Indeno(1,2,3-cd)pyrene (Total)	Naphthalene (Ex SVOC) (Total)	Naphthalene (Total)	Phenanthrene (Total)	Pyrene (Total)	Sum of polycyclic aromatic hydrocarbons (Total)
SW_S2-01	11-09-2025	ES2528399	Water	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<0.5
SW_S3-01	11-09-2025	ES2528399	Water	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<0.5
SW_S4-01	11-09-2025	ES2528399	Water	<1	<1	<1	<0.5	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<0.5

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

	Polychlorinated Biphenyls (PCB)								Volatile Organic Chemicals (VOC)												
	Aroclor 1016 (Total)	Aroclor 1221 (Total)	Aroclor 1232 (Total)	Aroclor 1242 (Total)	Aroclor 1248 (Total)	Aroclor 1254 (Total)	Aroclor 1260 (Total)	Total Polychlorinated biphenyls (Total)	1,1-Dichloroethane (Total)	1,1-Dichloroethene (Total)	1,1-Dichloropropylene (Total)	1,1,1-Trichloroethane (Total)	1,1,1,2-Tetrachloroethane (Total)	1,1,2-Trichloroethane (Total)	1,1,2,2-Tetrachloroethane (Total)	1,2-Dibromo-3-chloropropane (Total)	1,2-Dibromoethane (EDB) (Total)	1,2-Dichlorobenzene (Total)	1,2-Dichloroethane (Total)	trans-1,2-Dichloroethene (Total)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	5	5	5	5	5	5	5	5	5	5	5	5	5
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection	-	-	-	0.6	-	0.03	-	-	-	700	-	270	-	6,500	400	-	-	160	1,900	-	-
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection	-	-	-	-	-	-	-	-	-	700	-	270	-	1,900	400	-	-	-	1,900	-	-
Field ID	Sampled Date	Lab Report No.	Matrix																		
SW_S2-01	11-09-2025	ES2528399	Water	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
SW_S3-01	11-09-2025	ES2528399	Water	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
SW_S4-01	11-09-2025	ES2528399	Water	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

Volatile Organic Chemicals (VOC)																			
1,2-Dichloropropane (Total)	1,2,3-Trichlorobenzene (Total)	1,2,3-Trichloropropane (Total)	1,2,4-Trichlorobenzene (Total)	1,2,4-Trimethylbenzene (Total)	1,3-Dichlorobenzene (Total)	1,3-Dichloropropane (Total)	1,3,5-Trimethylbenzene (Total)	1,4-Dichlorobenzene (Total)	2-Chlorotoluene (Total)	2-Hexanone (MBK) (Total)	2,2-Dichloropropane (Total)	4-Chlorotoluene (Total)	4-Methyl-2-pentanone (MIBK) (Total)	Bromobenzene (Total)	Bromodichloromethane (Total)	Bromoform (Total)	Bromomethane (Total)	Carbon disulfide (Total)	
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
5	5	5	5	5	5	5	5	5	5	50	5	5	50	5	5	5	50	5	
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection																			
900	10	-	170	-	260	1,100	-	60	-	-	-	-	-	-	-	-	-	-	-
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection																			
900	-	-	80	-	-	1,100	-	-	-	-	-	-	-	-	-	-	-	-	-

Field ID	Sampled Date	Lab Report No.	Matrix	1,2-Dichloropropane (Total)	1,2,3-Trichlorobenzene (Total)	1,2,3-Trichloropropane (Total)	1,2,4-Trichlorobenzene (Total)	1,2,4-Trimethylbenzene (Total)	1,3-Dichlorobenzene (Total)	1,3-Dichloropropane (Total)	1,3,5-Trimethylbenzene (Total)	1,4-Dichlorobenzene (Total)	2-Chlorotoluene (Total)	2-Hexanone (MBK) (Total)	2,2-Dichloropropane (Total)	4-Chlorotoluene (Total)	4-Methyl-2-pentanone (MIBK) (Total)	Bromobenzene (Total)	Bromodichloromethane (Total)	Bromoform (Total)	Bromomethane (Total)	Carbon disulfide (Total)
SW_S2-01	11-09-2025	ES2528399	Water	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 50	< 5	< 5	< 5	< 50	< 5
SW_S3-01	11-09-2025	ES2528399	Water	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 50	< 5	< 5	< 5	< 50	< 5
SW_S4-01	11-09-2025	ES2528399	Water	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 50	< 5	< 5	< 5	< 50	< 5

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

Volatile Organic Chemicals (VOC)																					
Carbon Tetrachloride (Total)	Chlorobenzene (Total)	Dibromochloromethane (Total)	Chloroethane (Total)	Chloroform (Total)	Chloromethane (Total)	cis-1,2-Dichloroethane (Total)	cis-1,3-Dichloropropylene (Total)	cis-1,4-Dichloro-2-butene (Total)	Dibromomethane (Total)	Dichlorodifluoromethane (Total)	Hexachlorobutadiene (Total)	Iodomethane (Total)	Isopropylbenzene (Total)	2-Butanone (MEK) (Total)	n-Butylbenzene (Total)	n-Propylbenzene (Total)	p-Isopropyltoluene (Total)	Pentachloroethane (Total)	sec-Butylbenzene (Total)	Styrene (Total)	
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
5	5	5	50	5	50	5	5	5	5	50	5	5	5	50	5	5	5	5	5	5	
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection																					
240	55	-	-	770	-	-	-	-	-	-	-	-	-	30	-	-	-	-	80	-	-
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection																					
240	55	-	-	770	-	-	-	-	-	-	-	-	-	30	-	-	-	-	80	-	-

Field ID	Sampled Date	Lab Report No.	Matrix	Carbon Tetrachloride (Total)	Chlorobenzene (Total)	Dibromochloromethane (Total)	Chloroethane (Total)	Chloroform (Total)	Chloromethane (Total)	cis-1,2-Dichloroethane (Total)	cis-1,3-Dichloropropylene (Total)	cis-1,4-Dichloro-2-butene (Total)	Dibromomethane (Total)	Dichlorodifluoromethane (Total)	Hexachlorobutadiene (Total)	Iodomethane (Total)	Isopropylbenzene (Total)	2-Butanone (MEK) (Total)	n-Butylbenzene (Total)	n-Propylbenzene (Total)	p-Isopropyltoluene (Total)	Pentachloroethane (Total)	sec-Butylbenzene (Total)	Styrene (Total)	
SW_S2-01	11-09-2025	ES2528399	Water	< 5	< 5	< 5	< 50	< 5	< 50	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
SW_S3-01	11-09-2025	ES2528399	Water	< 5	< 5	< 5	< 50	< 5	< 50	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
SW_S4-01	11-09-2025	ES2528399	Water	< 5	< 5	< 5	< 50	< 5	< 50	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 5

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

	Volatile Organic Chemicals (VOC)								Parameters	Major Anions					Major Cations												
	tert-Butylbenzene (Total) µg/L	Tetrachloroethene (Total) µg/L	trans-1,3-Dichloropropylene (Total) µg/L	trans-1,4-Dichloro-2-butene (Total) µg/L	Trichloroethene (Total) µg/L	Trichlorofluoromethane (Total) µg/L	Vinyl Acetate (Total) µg/L	Vinyl chloride (Total) µg/L		Total Alkalinity as CaCO3 (Total) µg/L	Chloride (Total) µg/L	Nitrate as N (Total) µg/L	Nitrite as N (Total) µg/L	Nitrite + Nitrate as N (Total) µg/L	Sulfate as SO4 - Turbidimetric (Filtered) µg/L	Aluminium (Filtered) µg/L	Calcium (Filtered) µg/L	Iron (Filtered) µg/L	Magnesium (Filtered) µg/L	Manganese (Filtered) µg/L	Potassium (Filtered) µg/L	Sodium (Filtered) µg/L					
	5	5	5	5	5	50	50	50	1	1	0.01	0.01	0.01	1	0.01	1	0.05	1	0.001	1	1						
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection	-	70	-	-	330	-	-	100	-	-	-	-	-	55	-	-	-	-	1,900	-	-						
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection	-	70	-	-	330	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-						
Field ID	Sampled Date		Lab Report No.		Matrix																						
SW_S2-01	11-09-2025		ES2528399		Water		< 5	< 5	< 5	< 5	< 5	< 50	< 50	< 50	53,000	25,000	710	< 10	710	15,000	60	12,000	240	5,000	17	2,000	24,000
SW_S3-01	11-09-2025		ES2528399		Water		< 5	< 5	< 5	< 5	< 5	< 50	< 50	< 50	43,000	20,000	560	< 10	560	14,000	110	10,000	300	4,000	21	2,000	19,000
SW_S4-01	11-09-2025		ES2528399		Water		< 5	< 5	< 5	< 5	< 5	< 50	< 50	< 50	53,000	26,000	720	< 10	720	14,000	120	12,000	230	6,000	23	2,000	24,000

Notes:
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 0 = Not detected at 0.1 g/kg limit-of-reporting

	Nutrients						Organochlorine Pesticides (OCP)																
	Ammonia as N (Total)	Total Kjeldahl Nitrogen as N (Total)	Total Nitrogen as N (Total)	Organic Nitrogen as N (Total)	Reactive Phosphorus as P (Filtered)	Total Phosphorus as P (Total)	4,4'-DDE (Total)	alpha-BHC (Total)	Aldrin (Total)	beta-BHC (Total)	cis-Chlordane (Total)	Total Chlordane (sum) (Total)	trans-Chlordane (Total)	delta-BHC (Total)	4,4'-DDD (Total)	4,4'-DDT (Total)	Sum of DDD + DDE + DDT (Total)	Dieldrin (Total)	Endosulfan (sum) (Total)	alpha-Endosulfan (Total)	beta-Endosulfan (Total)	Endosulfan sulfate (Total)	Endrin (Total)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	0.01	0.1	0.1	0.1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection	-	-	-	-	-	-	-	-	-	-	-	0.08	-	-	-	0.01	-	-	0.2	-	-	-	0.02
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection	20	-	500	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	0.008
Field ID	Sampled Date	Lab Report No.	Matrix																				
SW_S2-01	11-09-2025	ES2528399	Water	20	700	1,400	700	50	200	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
SW_S3-01	11-09-2025	ES2528399	Water	50	700	1,300	600	50	230	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
SW_S4-01	11-09-2025	ES2528399	Water	20	700	1,400	700	40	180	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

Organochlorine Pesticides (OCP)							Organophosphorus Pesticides (OPP)																			
Endrin aldehyde (Total)	Endrin ketone (Total)	gamma-BHC - (Lindane) (Total)	Heptachlor (Total)	Heptachlor epoxide (Total)	Hexachlorobenzene (HCB) (Total)	Methoxychlor (Total)	Azinphos-methyl (Total)	Bromophos-ethyl (Total)	Carbofenthoion (Total)	Chlorfenvinphos (Total)	Chlorpyrifos (Total)	Chlorpyrifos-methyl (Total)	Coumaphos (Total)	Demeton-S-methyl (Total)	Diazinon (Total)	Dichlorvos (Total)	Dimethoate (Total)	Disulfoton (Total)	Ethion (Total)	Fenamiphos (Total)	Fenitrothion (Total)	Fenthion (Total)	Malathion (Total)	Methidathion (Total)	Parathion-methyl (Total)	
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.01	0.01	0.01	0.005	0.01	0.01	0.01	0.02	0.1	0.02	0.02	0.02	0.2	0.01	0.02	0.01	0.2	0.02	0.05	0.02	0.01	2	0.05	0.02	0.1	0.5	
-	-	0.2	0.09	-	0.1	-	0.02	-	-	-	0.01	-	-	-	0.01	-	0.15	-	-	-	0.2	-	0.05	-	-	
-	-	-	-	-	0.1	-	-	-	-	-	0.009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection
 ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection

Field ID	Sampled Date	Lab Report No.	Matrix	Endrin aldehyde (Total)	Endrin ketone (Total)	gamma-BHC - (Lindane) (Total)	Heptachlor (Total)	Heptachlor epoxide (Total)	Hexachlorobenzene (HCB) (Total)	Methoxychlor (Total)	Azinphos-methyl (Total)	Bromophos-ethyl (Total)	Carbofenthoion (Total)	Chlorfenvinphos (Total)	Chlorpyrifos (Total)	Chlorpyrifos-methyl (Total)	Coumaphos (Total)	Demeton-S-methyl (Total)	Diazinon (Total)	Dichlorvos (Total)	Dimethoate (Total)	Disulfoton (Total)	Ethion (Total)	Fenamiphos (Total)	Fenitrothion (Total)	Fenthion (Total)	Malathion (Total)	Methidathion (Total)	Parathion-methyl (Total)
SW_S2-01	11-09-2025	ES2528399	Water	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.2	< 0.01	< 0.02	< 0.01	< 0.2	< 0.02	< 0.05	< 0.02	< 0.01	< 2	< 0.05	< 0.02	< 0.1	< 0.5
SW_S3-01	11-09-2025	ES2528399	Water	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.2	< 0.01	< 0.02	< 0.01	< 0.2	< 0.02	< 0.05	< 0.02	< 0.01	< 2	< 0.05	< 0.02	< 0.1	< 0.5
SW_S4-01	11-09-2025	ES2528399	Water	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.2	< 0.01	< 0.02	< 0.01	< 0.2	< 0.02	< 0.05	< 0.02	< 0.01	< 2	< 0.05	< 0.02	< 0.1	< 0.5

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

Organophosphorus Pesticides (OPP)																			
Mevinphos (Total)	Monocrotophos (Total)	Parathion (Total)	Phorate (Total)	Pirimiphos-ethyl (Total)	Prothiofos (Total)	Fenchlorphos (Ronnell) (Total)	Sulprofos (Total)	Demeton-S (Total)	Demeton-O (Total)	EPN (Total)	Ethoprophos (Total)	Fensulfothion (Total)	Omethoate (Total)	Pirimiphos-methyl (Total)	Pyrazophos (Total)	Terbufos (Total)	Tetrachlorvinphos (Total)	Trichloronate (Total)	
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.02	0.02	0.2	0.1	0.01	0.1	10	0.05	0.02	0.02	0.05	0.01	0.01	0.01	0.01	0.1	0.01	0.01	0.01	0.5
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection																			
-	-	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection																			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Field ID	Sampled Date	Lab Report No.	Matrix	Mevinphos (Total)	Monocrotophos (Total)	Parathion (Total)	Phorate (Total)	Pirimiphos-ethyl (Total)	Prothiofos (Total)	Fenchlorphos (Ronnell) (Total)	Sulprofos (Total)	Demeton-S (Total)	Demeton-O (Total)	EPN (Total)	Ethoprophos (Total)	Fensulfothion (Total)	Omethoate (Total)	Pirimiphos-methyl (Total)	Pyrazophos (Total)	Terbufos (Total)	Tetrachlorvinphos (Total)	Trichloronate (Total)	
SW_S2-01	11-09-2025	ES2528399	Water	< 0.02	< 0.02	< 0.2	< 0.1	< 0.01	< 0.1	< 10	< 0.05	< 0.02	< 0.02	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.5
SW_S3-01	11-09-2025	ES2528399	Water	< 0.02	< 0.02	< 0.2	< 0.1	< 0.01	< 0.1	< 10	< 0.05	< 0.02	< 0.02	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.5
SW_S4-01	11-09-2025	ES2528399	Water	< 0.02	< 0.02	< 0.2	< 0.1	< 0.01	< 0.1	< 10	< 0.05	< 0.02	< 0.02	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.5

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

Other																					
Acaphate (Total)	Bicarbonate Alkalinity as CaCO3 (Total)	Carbonate Alkalinity as CaCO3 (Total)	Hydroxide Alkalinity as CaCO3 (Total)	Azinphos-ethyl (Total)	Bensulide (Total)	Total Organic Carbon (Total)	Demeton-O & Demeton-S (Total)	Dissolved Oxygen (Total)	Formothion (Total)	Fosetyl Aluminium (Total)	Total Hardness as CaCO3 (Filtered)	Naftalofos (Total)	Oxychloridane (Total)	Profenofos (Total)	Sulfotep (Total)	Temephos (Total)	Thiometon (Total)	Total Dissolved Solids @180C (Total)	Suspended Solids (SS) (Total)	Triazophos (Total)	Trichlorfon (Total)
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.5	1	1	1	0.02	0.1	1	0.02	0.1	20	10	1	1	0.01	0.01	0.005	0.02	0.5	10	5	0.005	0.02
ANZG (2018) Toxicant DGVs Freshwater - 95% Species Protection																					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANZG (2018) Toxicant DGVs Marine Water - 95% Species Protection																					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-

Field ID	Sampled Date	Lab Report No.	Matrix	Acaphate (Total)	Bicarbonate Alkalinity as CaCO3 (Total)	Carbonate Alkalinity as CaCO3 (Total)	Hydroxide Alkalinity as CaCO3 (Total)	Azinphos-ethyl (Total)	Bensulide (Total)	Total Organic Carbon (Total)	Demeton-O & Demeton-S (Total)	Dissolved Oxygen (Total)	Formothion (Total)	Fosetyl Aluminium (Total)	Total Hardness as CaCO3 (Filtered)	Naftalofos (Total)	Oxychloridane (Total)	Profenofos (Total)	Sulfotep (Total)	Temephos (Total)	Thiometon (Total)	Total Dissolved Solids @180C (Total)	Suspended Solids (SS) (Total)	Triazophos (Total)	Trichlorfon (Total)
SW_S2-01	11-09-2025	ES2528399	Water	< 0.5	53,000	< 1,000	< 1,000	< 0.02	< 0.1	9,000	< 0.02	11,000	< 20	< 10	50,000	< 1	< 0.01	< 0.01	< 0.005	< 0.02	< 0.5	174,000	54,000	< 0.005	< 0.02
SW_S3-01	11-09-2025	ES2528399	Water	< 0.5	43,000	< 1,000	< 1,000	< 0.02	< 0.1	9,000	< 0.02	11,000	< 20	< 10	41,000	< 1	< 0.01	< 0.01	< 0.005	< 0.02	< 0.5	157,000	70,000	< 0.005	< 0.02
SW_S4-01	11-09-2025	ES2528399	Water	< 0.5	53,000	< 1,000	< 1,000	< 0.02	< 0.1	10,000	< 0.02	10,800	< 20	< 10	55,000	< 1	< 0.01	< 0.01	< 0.005	< 0.02	< 0.5	171,000	38,000	< 0.005	< 0.02


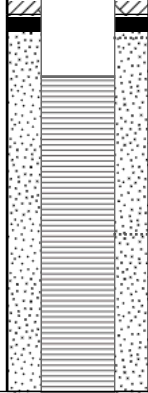

Notes:
 1 = Detected
 0 = Not detected at 0.1 g/kg limit-of-reporting

D

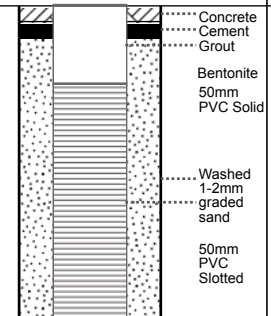
Borelogs




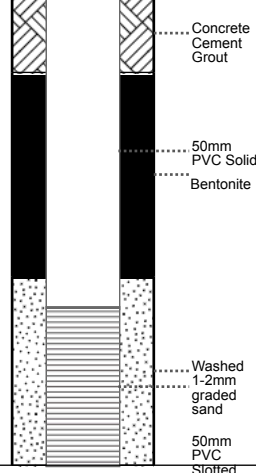

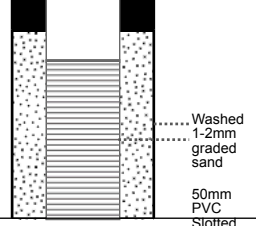
Latitude : -34.37355	Drill Supplier :	Job Number : 25234	Sheet : 1 OF 1
Longitude : 150.90069	Driller Company :	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 2.5 m	Date : 19/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
	1		Fill		M	Fill. Gravelly SAND. SP: very loose, black / grey, fine grained, fine to coarse sized gravel, moist, carbonaceous material (coal, coke fine and gravel).	Carbonaceous material (coal, coke fine and gravel)	 <ul style="list-style-type: none"> Concrete Cement Grout Bentonite 50mm PVC Solid Washed 1-2mm graded sand 50mm PVC Slotted 	
	2		Alluvial		W-M	Alluvial. Silty CLAY. CI-CH: soft, medium to high plasticity, grey / brown, trace fine sized gravel, organic, wet to moist.			
RED_MW01 Terminated at 2.5 m									


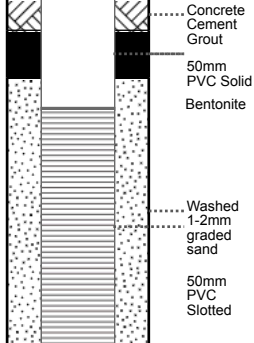


Latitude : -34.37355	Drill Supplier : XSITE Drilling Pty Ltd	Job Number : 25234	Sheet : 1 OF 1
Longitude : 150.90069	Driller Company : XSITE Drilling Pty Ltd	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 2 m	Date : 19/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
	1		Fill		M	Fill. Gravelly SAND. SW: very loose, black / grey, fine to coarse grained, coarse sized gravel, moist, carbonaceous material (coal, coke fine and gravel).	Carbonaceous material (coal, coke fine and gravel)		
			Alluvial		W-M	Alluvial. Silty CLAY. CI-CH: soft, medium to high plasticity, grey / brown, organic, wet to moist.			
RED_MW02 Terminated at 2 m									

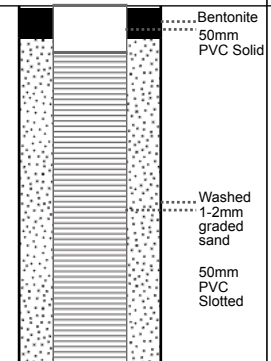
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Longitude : 150.90069	Driller Company : XSITE Drilling Pty Ltd	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 3 m	Date : 19/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
	1		Fill		M	Fill. Gravelly SAND. SP: very loose, black / grey, fine grained, fine to coarse sized gravel, moist, carbonaceous material (coal, coke fine and gravel).	Carbonaceous material (coal, coke fine and gravel)		
	2		Alluvial		M	Alluvial. Silty CLAY. CI-CH: soft, medium to high plasticity, grey / brown, organic, moist.			
						RED_MW03 Terminated at 3 m			


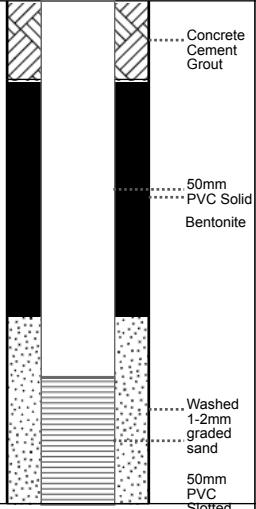


Latitude : -34.37355	Drill Supplier : XSITE Drilling Pty Ltd	Job Number : 25234	Sheet : 1 OF 1
Longitude : 150.90069	Driller Company : XSITE Drilling Pty Ltd	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 2.2 m	Date : 19/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
	1		Fill		D	Fill. Gravelly SAND. SP: very loose, black / grey, fine grained, coarse sized gravel, dry, carbonaceous material (coal, coke fine and gravel) with brick and large gravels.	Carbonaceous material (coal, coke fine and gravel) with brick and large gravels		
			Alluvial		M-D	Alluvial. Silty CLAY. CI: soft, medium plasticity, grey / brown, organic, moist to dry.			
	2		Alluvial		M	As above, but CH: stiff, high plasticity, pale brown, moist.			
RED_MW04 Terminated at 2.2 m									

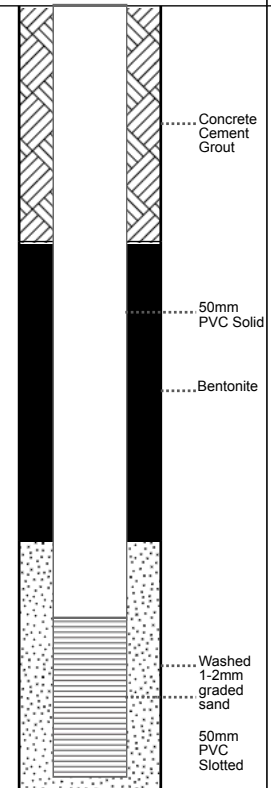
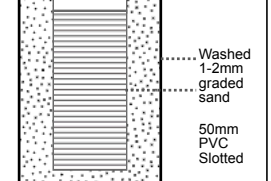
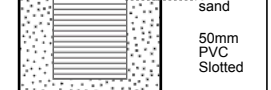
Latitude : -34.37355	Drill Supplier : XSITE Drilling Pty Ltd	Job Number : 25234	Sheet : 1 OF 1
Longitude : 150.90069	Driller Company : XSITE Drilling Pty Ltd	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 2.3 m	Date : 19/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
	1		Fill		W	Fill. Gravelly SAND. SP: very loose, black / grey, fine grained, fine to coarse sized gravel, wet, carbonaceous material (coal, coke fine and gravel).	Carbonaceous material (coal, coke fine and gravel)		
			Fill		W-M	Fill. Sandy to Silty CLAY. CI-CH: medium to high plasticity, soft, grey / brown, coarse grained sand, with medium sized gravel, organic, wet to moist.			
	2		Fill		W-M	As above, but Sandy reddish brown.			
RED_MW05 Terminated at 2.3 m									

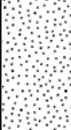
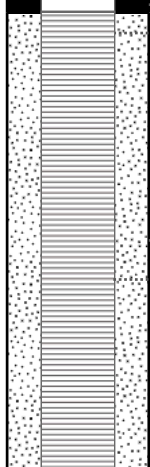




Latitude : -34.37355	Drill Supplier : XSITE Drilling Pty Ltd	Job Number : 25234	Sheet : 1 OF 1
Longitude : 150.90069	Driller Company : XSITE Drilling Pty Ltd	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 3.2 m	Date : 19/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
	1		Fill		M	Fill. Gravelly SAND. SP: very loose, black / grey, fine grained, fine to coarse sized gravel, moist, carbonaceous material (coal, coke fine and gravel).	Carbonaceous material (coal, coke fine and gravel)		
	2		Fill		M	As above, but carbonaceous material (coal, coke fine and gravel) with brick and concrete.	Carbonaceous material (coal, coke fine and gravel) with brick and concrete		
	3		Alluvial		M-D	Alluvial. Silty CLAY. CI-CH: soft to firm, medium to high plasticity, brown, organic, moist to dry.			
	RED_MW06 Terminated at 3.2 m								


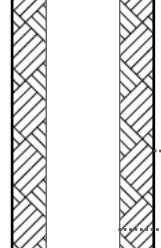

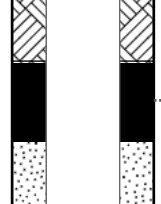

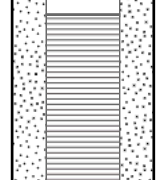

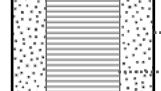

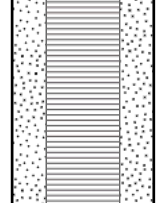

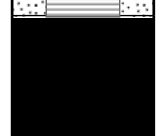



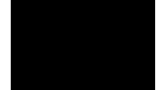
Latitude : -34.37355	Drill Supplier : XSITE Drilling Pty Ltd	Job Number : 25234	Sheet : 1 OF 1
Longitude : 150.90069	Driller Company : XSITE Drilling Pty Ltd	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 5 m	Date : 19/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
	1		Fill		M-D	Fill. Gravelly SAND. SP: very loose, black / grey, fine grained, fine to coarse sized gravel, moist to dry, carbonaceous material (coal, coke fine and gravel) with concrete, steel and brick.	Carbonaceous material (coal, coke fine and gravel) with concrete, steel and brick		
	2								
	3								
	4		Fill		M-D	As above, but carbonaceous material (coal, coke fine and gravel) with clay and sand.	Carbonaceous material (coal, coke fine and gravel) with clay and sand		
			Fill		M-D	As above, but Sandy GRAVEL. GW: dense, coarse grained sand, carbonaceous material (coal and gravel).	Carbonaceous material (coal and gravel)		
			Fill		M-D	As above, but loose, fine grained sand, carbonaceous material (coal and coke fine).	Carbonaceous material (coal and coke fine)		
RED_MW07 Terminated at 5 m									







































Latitude : -34.37355	Drill Supplier :	Job Number : 25234	Sheet : 1 OF 1
Longitude : 150.90069	Driller Company :	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 3 m	Date : 18/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
	1		Alluvial		M	Alluvial. Silty CLAY. CI: medium plasticity, pale brown, organic, moist, with rootlets.	with rootlets	 <p>Bentonite 50mm PVC Solid</p> <p>Washed 1-2mm graded sand</p> <p>50mm PVC Slotted</p>	
		Alluvial		W	As above, but pale brown, wet.				
	2	Residual		W	Residual. CLAY. CH: very stiff, high plasticity, grey / brown and orange, organic, wet.				
		Residual		W	As above, but grey mottled orange, with ironstone gravels.	with ironstone gravels			
RED_MW09 Terminated at 3 m									

Latitude : -34.37355	Drill Supplier :	Job Number : 25234	Sheet : 1 OF 1
Longitude : 150.90069	Driller Company :	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 8.5 m	Date : 18/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
	1		Fill		M	Fill. Sandy CLAY. CL: low plasticity, brown mottled orange, organic, moist, with sandstone, ironstone gravels and asphalt.	with sandstone, ironstone gravels and asphalt		
	2		Residual		M	Residual. Silty CLAY. Cl: soft, medium plasticity, pale brown mottled grey, organic, moist.			
	3		Residual		M	As above, but firm, grey mottled orange.			
	4		Residual		M	As above, but pale brown.			
	5		Residual		M	As above, but reddish brown.			
	6		Residual		M	As above, but pale brown, wet to moist.			
	7		Residual		W-M	As above, but dark grey.			
	8		Residual		W-M				
	RED_MW10 Terminated at 8.5 m								

Latitude : -34.37355	Drill Supplier :	Job Number : 25234	Sheet : 1 OF 1
Longitude : 150.90069	Driller Company :	Client :	
Elevation : Not Surveyed	Logged By : Tanner Graham	Project : Corrimal Coke Works - Stage 2 Hydrogeological Assessment	
Total Depth : 7 m	Date : 18/08/2025	Location : 23 Railway St, Corrimal NSW 2518, Australia	

Drilling Method	Depth (m)	Elevation (m)	Soil Origin	Graphic Log	Moisture	Material Description	Comments	Well Diagram	Water
			Fill		M	Fill. Sandy CLAY. CL-CI: low to medium plasticity, dark brown, organic, moist.			
	1		Residual		M	Residual. Sandy CLAY. CL: firm, low plasticity, orange mottled red, fine grained sand, organic, moist.			
			Residual		M	As above, but reddish orange.			
	2		Residual		M	As above, but red mottled grey, dry, with gravels.	with gravels		
			Residual		D	As above, but grey / white mottled red, with pebbles.	with pebbles		
	3		Residual		D	Residual. Gravelly to Clayey SAND. SC: low plasticity clay, red, coarse grained, coarse sized gravel, dry.			
			Residual		D	As above, but grey / red and white.	with sub-angular gravels		
	4		Residual		D	As above, but red, moist.			
			Residual		M	As above, but white.			
	5		Residual		M	As above, but Clayey reddish grey.			
			Residual		M	Residual. Sandy CLAY. CL: stiff, low plasticity, white, medium grained sand, organic, wet.			
	6		Residual		W				
									
									
									
									
									
									
									
									
									
									
									
									
									
									
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