PLAN 5

PLANNING APPLICATION PLN-20-0189

EVANDALE ROAD FROM HOBART ROAD TO HUDSON FYSH DRIVE, WESTERN JUNCTION

ATTACHMENTS

A Application & plans, correspondence with applicant

B Responses from referral agencies

C Representations & applicant's response

PLANNING APPLICATION

Proposal

Description of proposal: Evandale Main Road Duplication

(attach additional sheets if necessary)

If applying for a subdivision which creates a new road, please supply three proposed names for the road, in order of preference:

1..... 2..... 3.....

Site address: **Various land parcels along Evandale Road - please see attached planning report and landowner list**

CT no: .....

Estimated cost of project *$*..**$8.27million**..... *(include cost of landscaping, car parks etc for commercial/industrial uses)*

Are there any existing buildings on this property? *Yes / No* **NO**

If yes – main building is used as .....

If variation to Planning Scheme provisions requested, justification to be provided:

Please see attached planning report

(attach additional sheets if necessary)

Is any signage required? .....

(if yes, provide details)

Department of State Growth

Salamanca Building Parliament Square
4 Salamanca Place, Hobart TAS
GPO Box 536, Hobart TAS 7001 Australia
Email info@stategrowth.tas.gov.au Web www.stategrowth.tas.gov.au
Ref: D20/162080

Tasmanian Government

Mr Des Jenning
General Manager
Northern Midlands Council
13 Smith Street
LONGFORD TAS 7301

Dear Mr Jennings

Crown Landowner Consent – Development Application - Evandale Main Road Duplication

I refer to Crown landowner consent required for the above development application for duplication of Evandale Main Road from the Breadalbane roundabout to the entrance of the Launceston Airport.

I, Tim Leaman, Manager Network Planning, State Roads, the Department of State Growth, having been duly delegated by the Minister under Section 52 (1F) of the *Land Use Planning and Approvals Act 1993* (the Act), and in accordance with the provisions of Section 52 (1B) (b) of the Act, hereby give my consent to the making of the application, insofar as it affects the State road network and any Crown land under the jurisdiction of this Department.

Yours sincerely

Tim Leaman
MANAGER NETWORK PLANNING

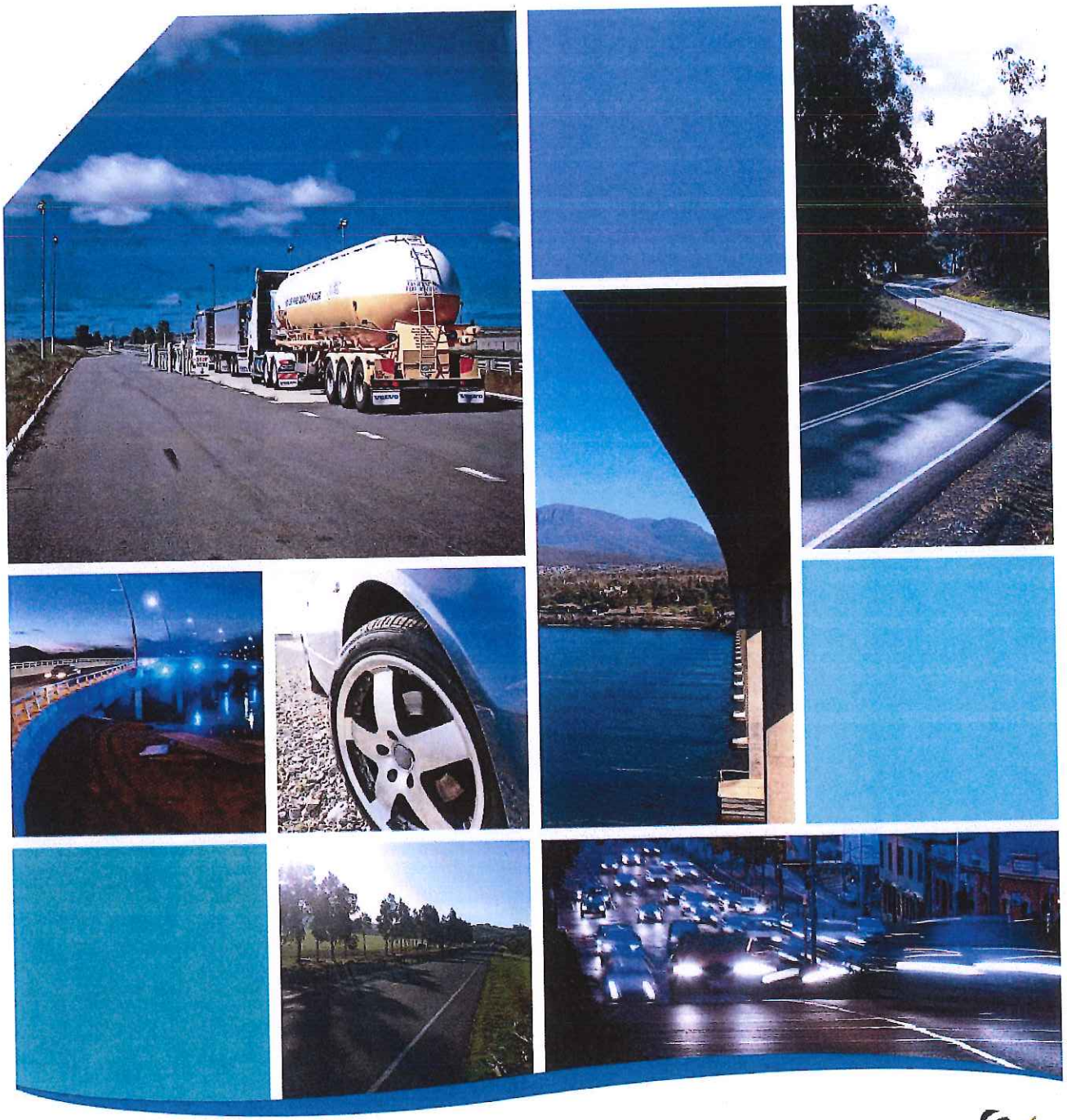
Delegate of
Minister for Infrastructure and Transport
Michael Ferguson MP

1 July 2020

Evandale Main Road Duplication

Report Supporting a Planning Permit Application

August 2020



Tasmanian Government

Department of State Growth

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Tasmanian Government

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1. Introduction

The Tasmanian Government intends to upgrade Evandale Road to four lanes, from the Breadalbane roundabout to the entrance to the Launceston Airport. This project is known as the Evandale Main Road Duplication, and is part of the Tasmanian Government's Roads Package to Support Tasmania's Visitor Economy. The proposed upgrades will cater for road network growth. The development will include new trees to beautify the approach to the Breadalbane roundabout and will incorporate Water Sensitive Urban Design features to create attractive habitats in the drainage areas alongside the road. An overview of the extent of the proposed road upgrades are shown in Figure 1 below, which is in the Northern Midlands Council area.

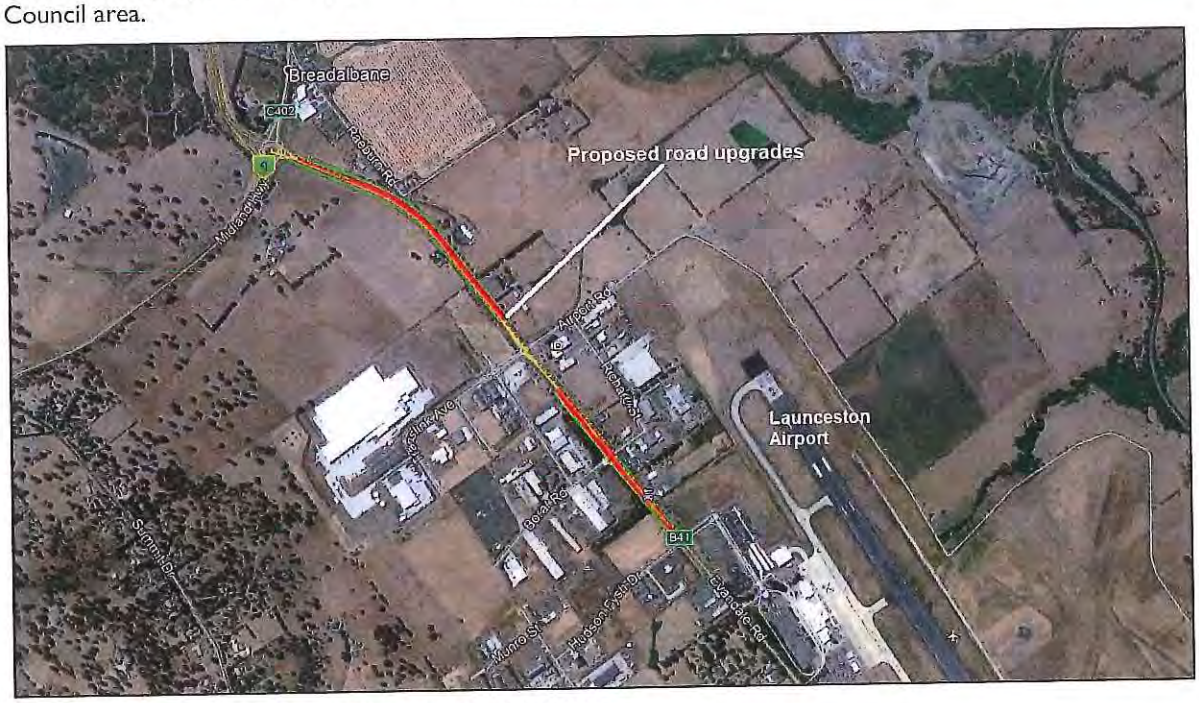

FIGURE 1 LOCATION OF PROPOSED ROADWORKS

2. Purpose

The purpose of this report is to support a planning permit application for roadworks for the proposed Evandale Main Road Duplication, the location of which is shown in Figure 1 above. The proponents are the Department of State Growth (State Growth).

3. Strategic Rationale

Duplicating Evandale Main Road will improve travel time reliability, cater for the growing number of passenger and freight vehicles travelling on the road, and provide a better first impression for road users arriving at Launceston from the airport.

The project is consistent with the Northern Midlands Council's Strategic Plan 2017-2027, which aims to ensure that strategic, sustainable infrastructure is progressive. It is also consistent with the Northern Tasmania Regional Land Use Strategy's policy for Regional Infrastructure Network (E.4), which supports transport planning initiatives that improve accessibility.

4. Project Overview

4.1 Overview of works

The proposed road works involve adding two additional lanes from the roundabout at the Evandale Road – Hudson Fysh Drive to just before the Breadalbane roundabout, as shown in Figure 2 below. Evandale Road is mostly a Category 2 road, with the exception of the area fronting 2 Hudson Fysh Drive. The road has a speed limit of 80km/h. It is also proposed to upgrade the single-lane Translink Avenue/ Evandale Main Road/ Richard Street roundabout to a two-lane roundabout. A channelised right turn lane to Boral Road will be introduced at the Boral Road/ Evandale Main Road/ Richard Street intersection. The Richard Street intersection will become left-in-left-out only.

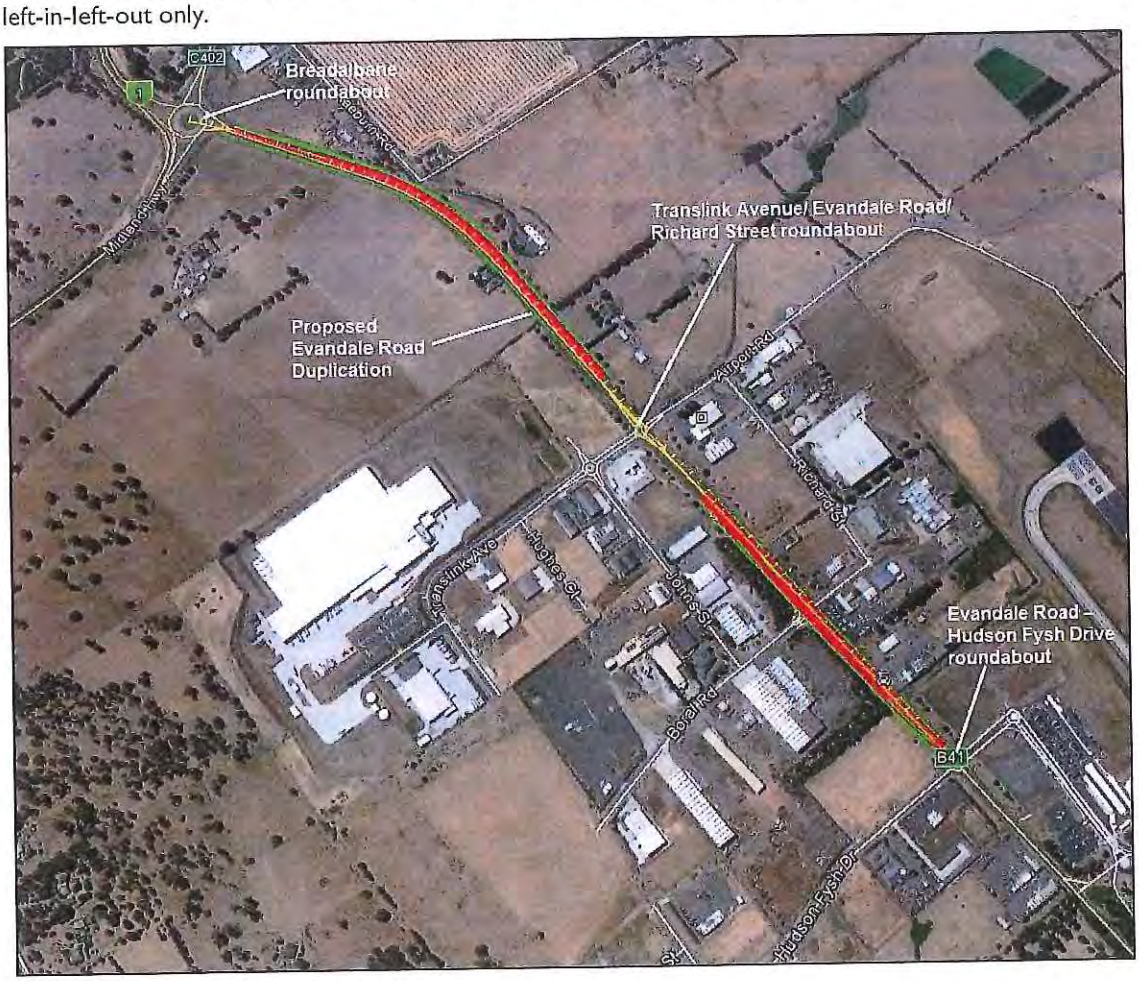

FIGURE 2 PROPOSED WORKS

4.2 Road Construction

The road will be widened and constructed with additional pavement, a waterproofing seal and 40mm asphalt. The road design incorporates 2m-wide shoulders on either side. Figure 3 below shows a typical cross section at the northern end of Evandale road, where the maximum depth of excavations will be 2.1m. As the road gets closer to the airport area, the topography is flatter. Full road construction details are in the proposed plans at Appendix A of this report.

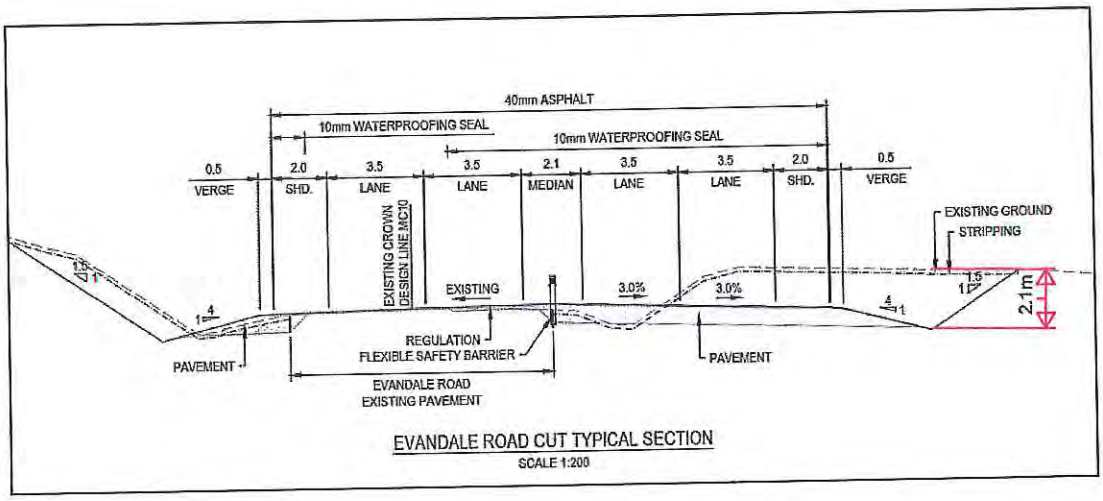

FIGURE 3 TYPICAL CROSS SECTION

4.3 Water Sensitive Urban Design

The proposed drainage system incorporates best practice Water Sensitive Urban Design features (full details are in the proposed plans at Appendix A). These features will mitigate the harmful environmental impacts of stormwater discharge and provide attractive roadside habitats that will enhance biodiversity including:

- two permanently-fenced frog ponds (wetlands) on either side of the road (see Figure 4 below), connected by an underground box culvert (to allow the passage of small fauna e.g. frogs);
- a bioretention swale drain at the eastern end of the road upgrades (see Figure 5 below), which will be connected by an underground box culvert to land on the other side of the road; and
- open vegetated roadside swale drains along the length of the road (see Figure 5 below).

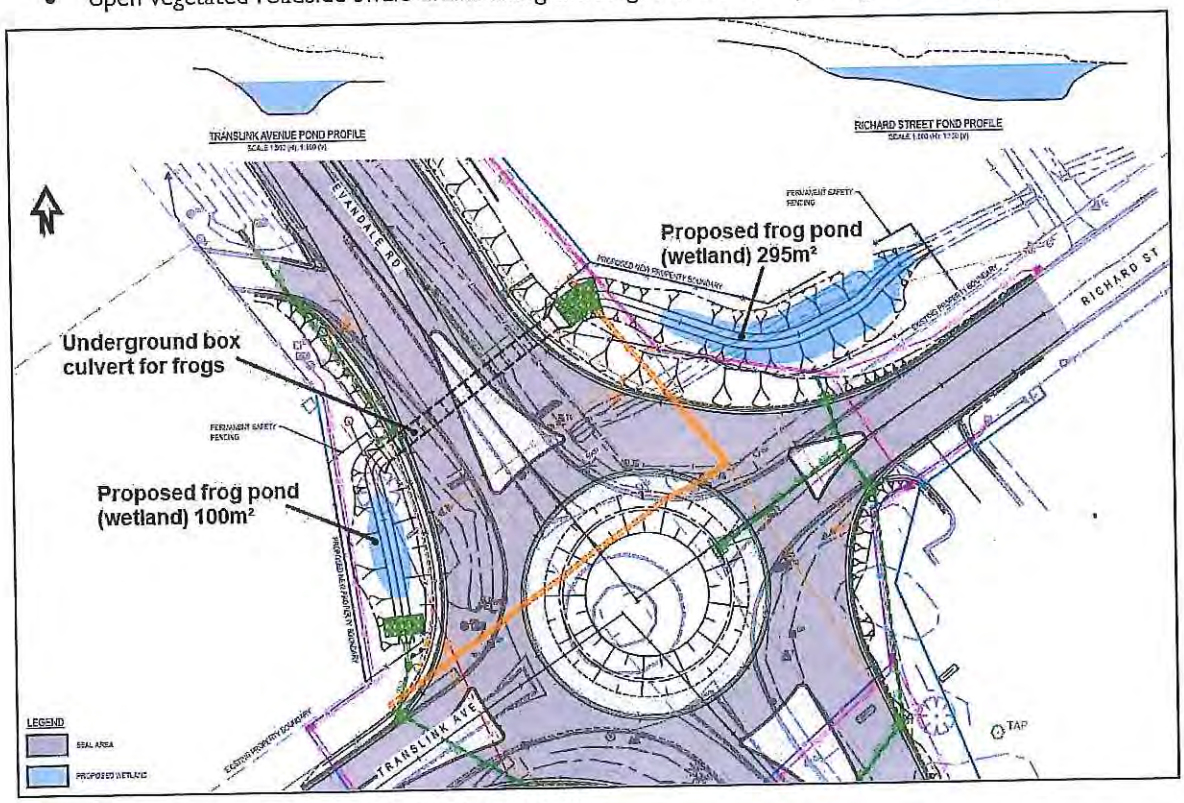

FIGURE 4 PROPOSED FROG PONDS (WETLANDS)

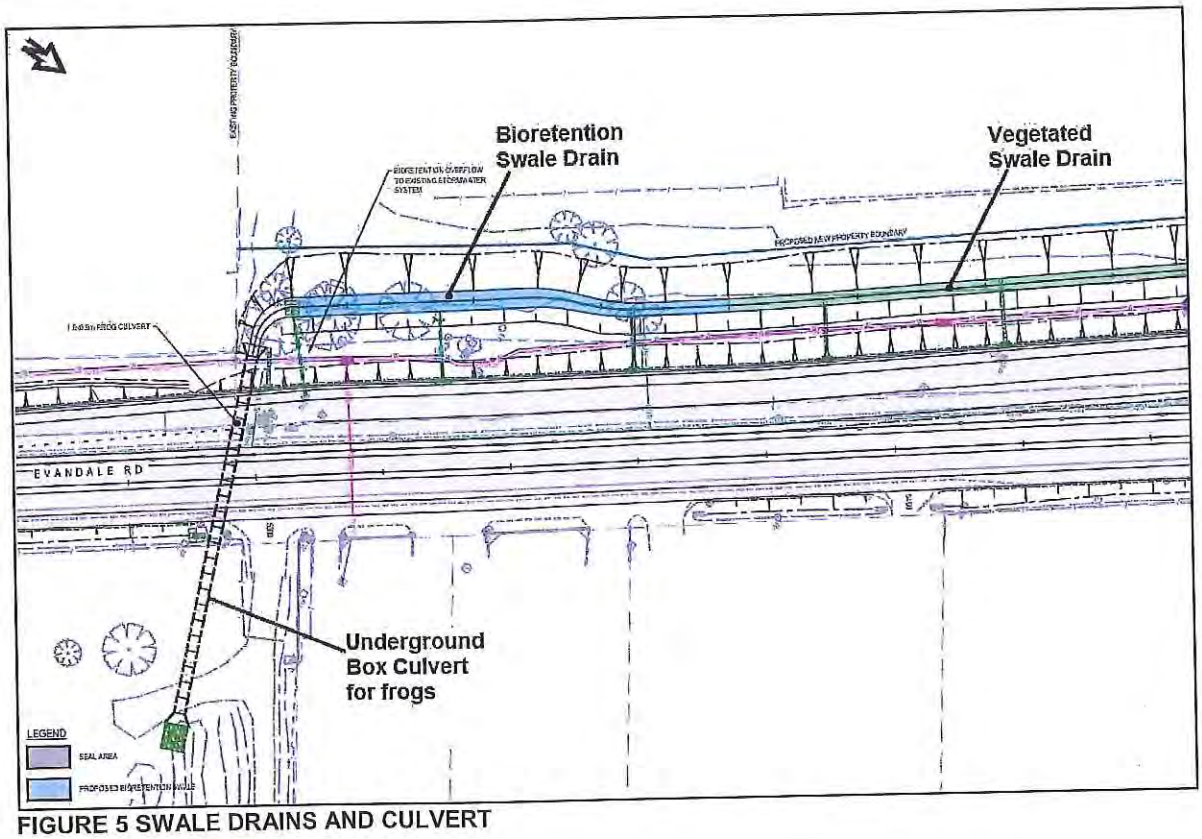

FIGURE 5 SWALE DRAINS AND CULVERT

4.4 Landscaping

To help beautify the area, the area approaching the Breadalbane roundabout will be planted with a single row of trees on either side of the road, as shown in the Evandale Road Duplication plan (an aerial layout) at Appendix A of this report. The trees to be planted are *Melaleuca ericifolia* (dwarf form), which will suit the low-lying, damp soil conditions, enhance the visual appearance of the road and will not attract the types of nesting birds that would interfere with airport operations. The trees will be planted into existing soils at tube stock size, guarded, staked, weed mat, fertilised, watered and mulched. The soil around the trees and exposed batters will be planted with a typical roadside grass mix, which can be easily and safely maintained. Once planted, these vegetated areas will be maintained by State Growth.

The frog ponds (wetlands) will be planted with a range of native monocot species in zones (i.e. permanently wet zone, seasonably inundated zone and usually dry margins). The ponds will contain additional '3D' habitat elements placed in permanently and periodically wet zones – i.e. logs and rocks – to provide a diversity of habitat features and shelter for suitable for frogs. The bioretention swale drain and other open vegetated swale drains will also be planted with appropriate monocot species, chosen to be tolerant of seasonal drying as well as brief winter inundation. These species are palatable to local wildlife and will allow for easy selective herbicide application, should broadleaf weeds or woody weeds establish. The species chosen will be not grow higher than 1.5m. All planting will be carried out in accordance with the *WSUD Engineering Procedures for Stormwater Management in Tasmania 2012*. Once planted, these vegetated areas will be maintained by State Growth.

No weeds will be planted. In order to prevent the spread of declared weeds within and from the municipality, construction machinery will be cleaned prior to first entry to the site as well as when leaving. Any weed material or contaminated soil will be removed from the site and disposed of appropriately to prevent the spread of weeds and diseases. Construction machinery will be cleaned as described in *DPIPWE 2004 Washdown Guidelines for Weed and Disease Control Edition 1*. A weed management plan can be submitted to Council on request.

4.5 Active Transport

The proposed works maintain the current Active Transport facilities. In terms of cycling and due to its location, Evandale Road is mostly used by long-distance, recreational cyclists.

The proposal to add additional lanes will relieve traffic pressure along the road. This, together with the 2m-wide shoulders, will improve road safety for all cyclists using the road. In doing, so the proposed road upgrades will improve the connectivity of long distance cycling routes in the area.

4.6 Land Acquisition

The proposed works will mostly take place within the existing road reserves, and will traverse a number of private properties. State Growth will negotiate the acquisition of the relevant portions of land. The affected properties are shown blue in the proposed plans at Appendix A. The land acquisition process will begin in July 2020. The process will be administered under the Land Acquisition Act 1993, which is not subject to normal subdivision requirements under the Planning Scheme.

4.7 Construction Timing and Traffic Management

Works are planned to commence in November/2020 and to be completed by December/2021. Once a planning permit has been issued, a Traffic Management Plan (TMP) will be prepared in accordance with State Growth's *Traffic Control for Works on Roads Tasmanian Guidelines 2011*. The TMP is not assessed under the planning permit process. The TMP will ensure that the project maintains a safe workplace for workers and to safely guide road users through work sites. The traffic management measures implemented by the TMP will also comply with *Australian Standard – AS1742.3, Manual of uniform traffic control devices, Part 3: Traffic control for works on roads.*

State Growth will require the traffic management contractor to maintain one lane of traffic in each direction at all times during peak hours and at other times short duration lane closures will be permitted subject to any traffic delays and the operations of Launceston Airport and the TRANSlink Industrial Precinct.

5. Stakeholder Engagement

5.1 Adjoining Landowners

All affected landowners have been informed of the development and State Growth have carried out extensive engagement with adjoining landowners to negotiate various land acquisitions, modified access arrangements and other works.

5.2 Relevant Authorities and Service Providers

State Growth and pitt&sherry have had discussions and negotiations with the relevant authorities and service providers, including Northern Midlands Council, TasNetworks, Telstra, NBN and Optus. TasWater will be informed during the planning permit application process. Consideration was given to:

- Continuity of essential services
- Minimal disruption to stakeholders during services alterations
- Consideration of likely construction scheduling
- Consideration for future services

The final design of relocated or modified utilities will be determined in consultation with the relevant authorities and service providers. As the project progresses, contact with the relevant authorities and service providers will be maintained.

6. Site description and Proposal

6.1 Locations

The south-east section of the roadworks is shown in Figure 6 below, which is an urbanised setting with development on either side of the road. This section begins at the roundabout at the Evandale Road – Hudson Fysh Drive passes through the TRANSlink Industrial Precinct before reaching the roundabout at Translink Avenue / Richard Street. The majority of the works will occur on the western side of the Evandale Road, where some land will be acquired. Minor works will occur on the eastern side. Roadside streetlights, utilities and signage will be relocated or upgraded, as indicated in the proposed plans at Appendix A of this report.

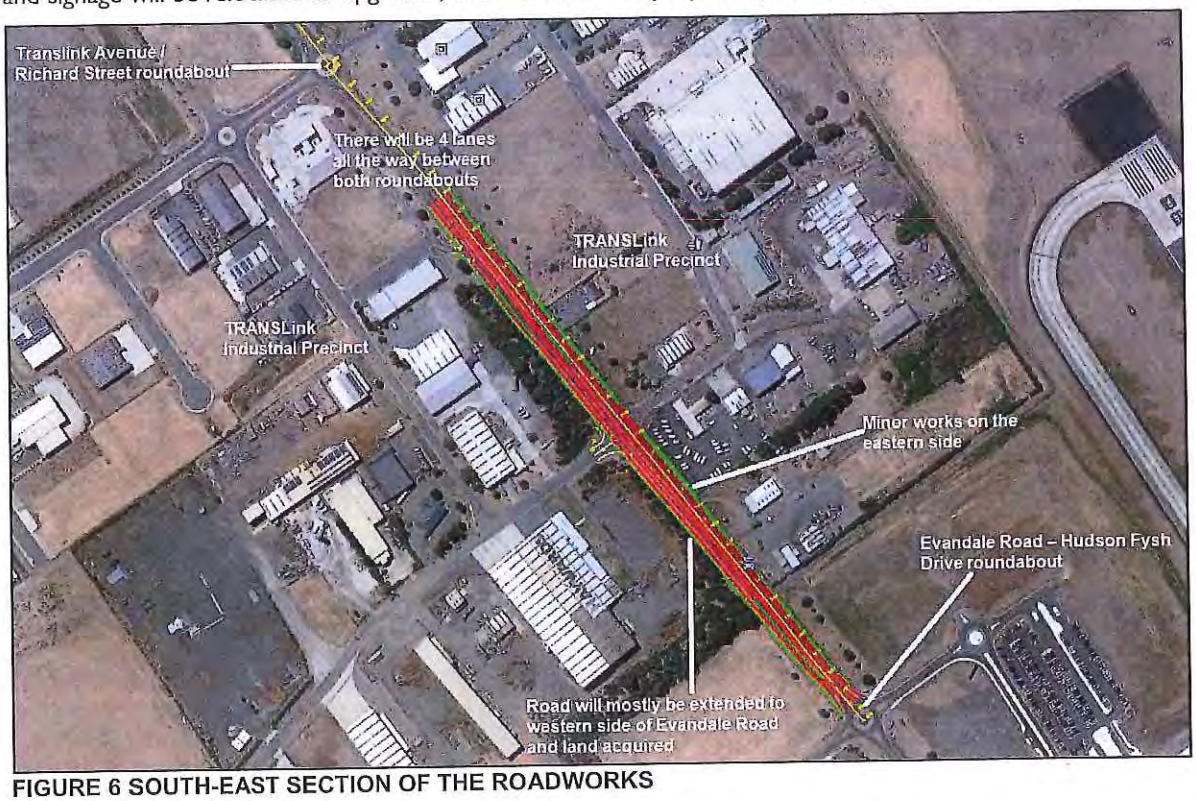

FIGURE 6 SOUTH-EAST SECTION OF THE ROADWORKS

As shown in Figure 7 below, between the Breadalbane roundabout and the Translink Avenue / Richard Street roundabout, the proposed road works will pass through agricultural land, on which there are a few single dwellings. The property known as Rathmolyn is to the south-west of the proposed works. However, the works on this side of the road will be confined to the road reserve and will not affect Rathmolyn. The road will be extended to the north-east, where land will be acquired to accommodate the works. The immediately adjacent land either side of the road is comprised of cleared roadside verge (raised embankments in places and flat in others). Roadside streetlights, utilities and signage will be relocated or upgraded, as indicated in the proposed plans at Appendix A of this report.

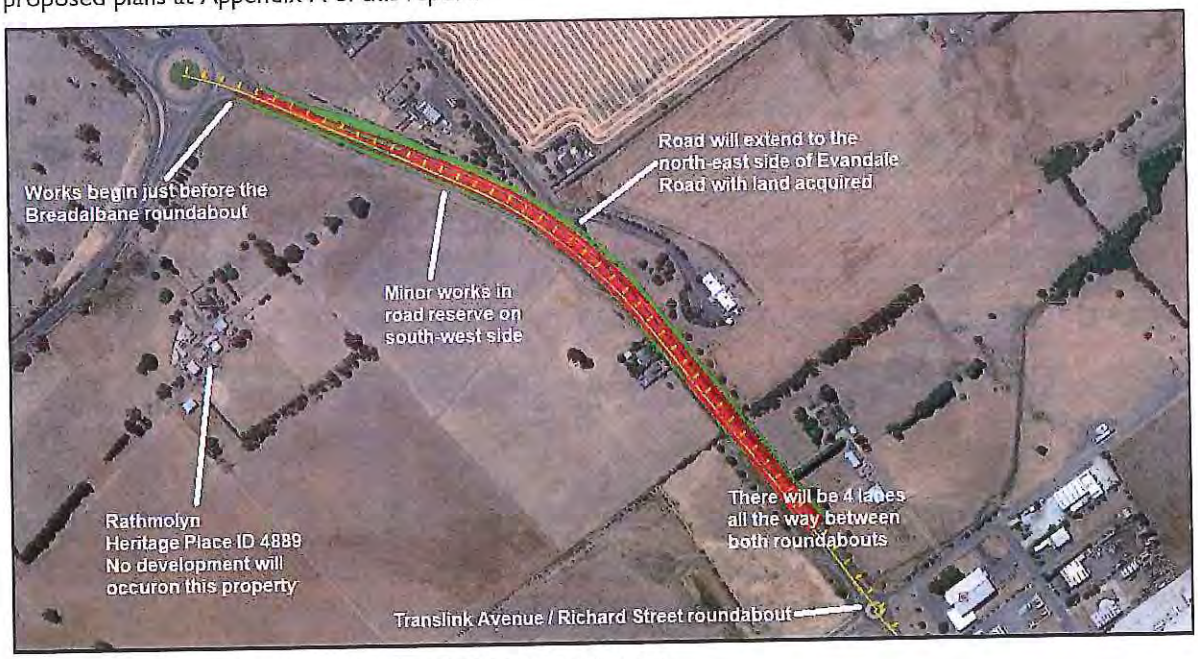

FIGURE 7 NORTH-WEST SECTION OF THE ROAD WORKS

6.2 Natural Values

A Natural Values Assessment (NVA) has been prepared and is located at Appendix B of this report.

6.2.1 Vegetation Communities

The NVA indicates that the proposed development area contains no threatened vegetation communities, identified under *Nature Conservation Act 2002* or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

6.2.2 Flora

The NVA indicates that no threatened flora species, identified under the Tasmanian *Threatened Species Protection Act 1995* or the EPBC Act, have been recorded within 500m of the proposed development area.

6.2.3 Fauna

The NVA indicates that the initial survey detected no threatened fauna species, identified under the Tasmanian *Threatened Species Protection Act 1995* or the EPBC Act, within 500m of the proposed development area. However, as this area is within the core range of green and golden frog (*Litoria raniformis*), it is recommended that State Growth's management guidelines for this species should be applied. Given this, State Growth proposes frog ponds and a bioretention swale drain, which will be connected by an underground box culverts to allow easier passage for small fauna such as frogs. The culverts will be installed in accordance with State Growth's Green and Golden Frog Guidelines. This approach will be implemented by the construction contractor through compliance with an Environmental Management Plan (EMP) at the development stage. State Growth require EMP's for all projects. An EMP can be provided to Council on request.

6.3 Historic Heritage

A desktop study determined that the proposed development area contains no identified places, precincts or landscapes historic cultural heritage significance. Only one heritage listed property is adjacent the proposed works. This is the property known as Rathmolyn, which is located to the west of the proposed works at 1662 Midland Highway. The property is not listed under the Northern Midlands Interim Planning Scheme 2013 (the planning scheme) but is Place ID 4889 on the Tasmanian Heritage Register. As the proposed roadworks on the western side Evandale Road will be well-contained within the existing road reserve and set down at a lower level than Rathmolyn, this property will be unaffected by the development.

6.4 Potential landslide areas

Under the planning scheme, the proposed development area is not identified as being at risk of landslide.

6.5 Aboriginal Cultural Heritage

Under the planning scheme, the proposed road works will not affect an identified Archaeologically Significant Site. This means there is no requirement to address Aboriginal Cultural Heritage matters in the planning permit process. These matters will be addressed through Aboriginal Heritage Tasmania, which involves a separate assessment process.

6.6 Watercourses

As shown in Figure 8 below, there are three watercourses within 50m of the proposed roadworks. This means that the proposal must be assessed against the relevant provisions of the planning scheme's Water Quality Code (see sub-section 8.9.3 below).

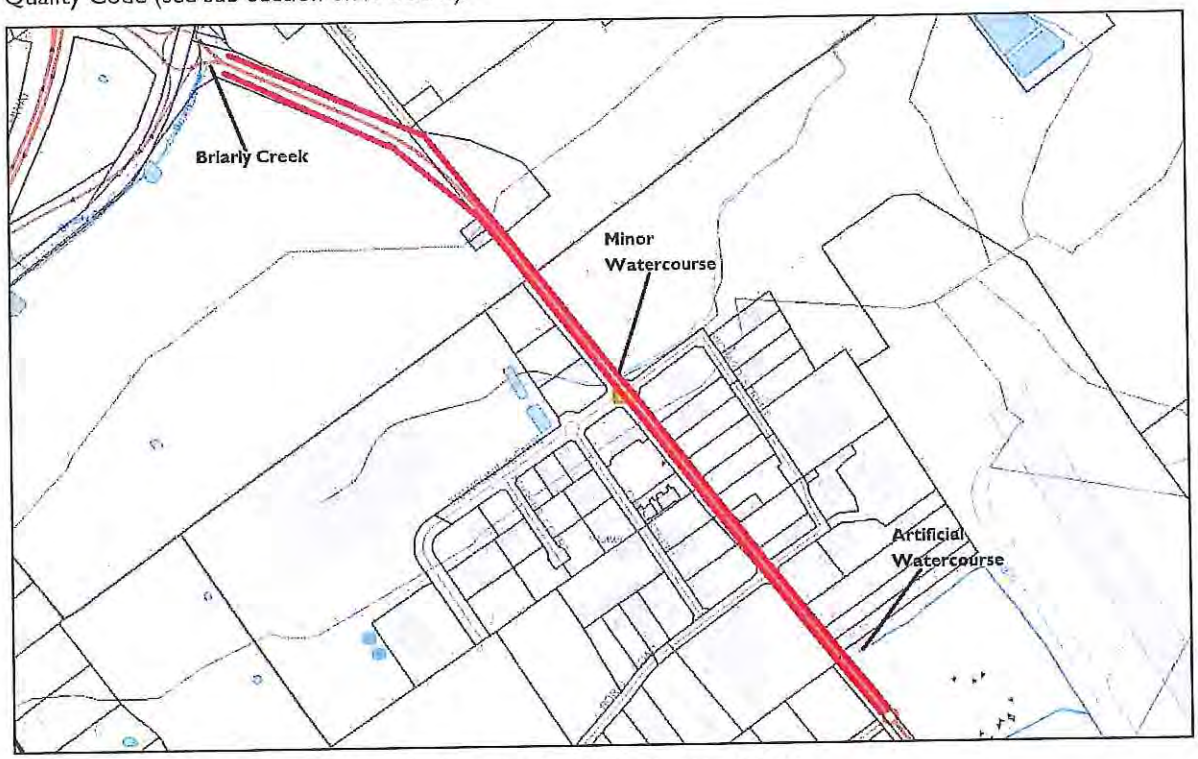

FIGURE 8 WATERCOURSES WITHIN 50M OF THE PROPOSED WORKS

6.7 Stormwater

A Stormwater Management Plan (SMP) has been prepared, and is located at Appendix C. The SMP indicates that the existing stormwater network, includes road drainage, crossing drains and detention basins, has been reviewed and does not have capacity to convey the 1% AEP storm event (with freeboard) for a fully developed catchment under the assumptions made.

The proposed drainage system incorporates best practice Water Sensitive Urban Design, that will mitigate the harmful environmental impacts of stormwater discharge and provide attractive roadside habitats that will enhance biodiversity including:

- two permanently-fenced frog ponds (wetlands) on either side of the road, connected by an underground box culvert (to allow the passage of small fauna e.g. frogs);
- a bioretention swale drain, which will be connected by an underground box culvert to land on the other side of the road; and
- open roadside swale drains alongside the road.

The proposed stormwater drainage system has been designed to capture and convey a 1% AEP design event with 500mm freeboard as per State Growth's T8 Drainage Specification. The system includes upgrades to the existing culverts, new large open drains, new kerb and gutter and new pit and pipes. Stormwater detention has been incorporated into the design and peak 1% AEP flows have been maintained at pre-development levels with regard to peak discharge to the Airport runway culverts.

The proposed road and drainage design complies with the requirements of the planning scheme, as demonstrated under subsections 8.95 and 8.93 below.

6.8 Soils

The development will take place on brown clayey soils developed on Tertiary basaltic remnants within the Launceston Basin on gently undulating to rolling land.

6.9 Noise

The Noise Assessment at Appendix D of this report has been prepared to address various standards under the planning scheme's Rural Resource Zone (subsection 8.8.2), Road and Railway Assets Code (subsection 8.9.1) and Translink Specific Area Plan (subsection 8.10).

The assessment is in accordance with the Tasmanian State Road Traffic Noise Management Guideline, which are used by State Growth to manage traffic noise on State Roads. The Guidelines have been prepared in consultation with Environment Protection Authority (Tasmania) and are available at:

http://www.transport.tas.gov.au/__data/assets/pdf_file/0017/111527/DSG_Traffic_Noise_Guidelines_20151029.PDF.

The Guidelines approach traffic noise mitigation decision making by firstly identifying "eligible scenarios", which are scenarios where mitigation will be considered, and then identifying "eligible buildings", which are specific buildings within an eligible scenario for which mitigation will be considered. There are also overarching 'tests' that the Guidelines reference, including reasonableness, practicality and cost-effectiveness of any proposed noise mitigation for when these scenarios occur.

The Noise Assessment was prepared during the period of COVID19 restrictions. A period when traffic noise was significantly lower than normal. Given this, new noise measurements were not undertaken. Instead, traffic noise measured at one location in 2018, following the completion of the Perth to Breadalbane Midland Highway duplication project were used to verify the accuracy of the Evandale Road model.

The results of the noise modelling indicate that the upgrade of Evandale Road between the Breadalbane Roundabout and the Launceston Airport will have a negligible impact on the traffic noise levels. This means that the noise impacts on the adjoining areas are acceptable and will not cause a hazard to the safe operation of Launceston Airport.

6.10 Traffic Impact Assessment

A Traffic Impact Assessment (TIA) is located at Appendix E of this report. It has been prepared in accordance with the Department of State Growth's publication Traffic Impact Assessments Guidelines and the Northern Midlands Council Interim Planning Scheme 2013. The findings presented within this report can be summarised as follows:

- As part of the Roads Package to Support Tasmania's Visitor Economy, it is proposed to upgrade Evandale Main Road to four lanes from the entrance of the Launceston Airport to the Breadalbane Roundabout
- It is also proposed to upgrade the single-lane Translink Avenue/ Evandale Main Road/ Richard Street roundabout to a two-lane roundabout and introduce a Channelised Right Turn (CHR) Lane to Boral Road at the Boral Road/ Evandale Main Road/ Richard Street intersection
- The proposed upgrades are expected to cater for the road network growth
- Upgrade of the Translink Avenue/ Evandale Main Road/ Richard Street roundabout results in it operating at a LOS C or better in 2031 compared to the LOS F expected under the existing layout
- The proposed upgrades will result in Boral Road and Richard Street at the Boral Road/ Evandale Main Road/ Richard Street intersection having restricted movements
- The proposed upgrades are expected to result in a reduction in the 130 – Vehicle in same lane rear end crash types
- Construction activities for the project will be managed using the Department of State Growth's Standard Specifications to ensure that delays and disruptions are minimised.

6.11 Lighting

The proposed roadworks will also incorporate relocated and upgraded street lights at various roadside shown in the proposed plans at Appendix A. The street lights will be designed to ensure that light is dispersed along the road and will not result in overspill into adjoining areas.

6.12 Utilities

Dial Before You Dig (DBYD) information indicates that a number of utilities exist within the footprint of the development area. Certain utilities will be relocated or modified as part of the proposed works. Indicative details are shown in the proposed plans at Appendix A.

6.13 Construction Management

The Department of State Growth requires all contractors to submit a Construction Quality Plan and for projects with environmental sensitivity, an Environmental Management Plan (EMP) is required, demonstrating compliance with best practice guidelines and relevant legislation and regulation. An EMP will be required for this project. The EMP must be compliant with the State Growth's Road Construction Specifications. EMPs are reviewed and approved by State Growth prior to commencement of works to ensure the contractor has effectively identified, ascribed and accounted for construction related environmental risks, and has necessary systems and processes in place to effectively mitigate risk and respond to and report environmental incidents and emergency scenarios. Additionally, all construction contractors working for State Growth must be prequalified under a national prequalification system and have ISO 14001 certification. Erosion and sediment control is managed through the EMP. Site rehabilitation is managed as part of detailed design.

In order to prevent the spread of declared weeds within and from the municipality, construction machinery will be cleaned prior to first entry to the site as well as when leaving. Any weed material or contaminated soil will be removed from the site and disposed of appropriately to prevent the spread of weeds and diseases. Construction machinery will be cleaned as described in DPIPWE 2004 *Washdown Guidelines for Weed and Disease Control Edition 1*.

7. Title details

Land parcels within titles listed in TABLE 1 will be impacted by the proposed works to construct the new P-turns. A copy of all titles is provided in Appendix F of this report.

TABLE 1 LIST OF TITLES IMPACTED BY THE PROPOSED WORKS

Address	Title Ref	PID	Authority	Landowner
Evandale Road, Western Junction	143903/1	None	Subdivision Road	The Crown
Evandale Road, Western Junction	143771/3	None	LGA Subdivision Road	The Crown
Evandale Road, Western Junction	None	None	Road Type Unknown	The Crown
Evandale Road, Western Junction	148609/1	None	Acquired Road	The Crown
Evandale Road, Western Junction	148609/2	None	Acquired Road	The Crown
Evandale Road, Western Junction	148609/3	None	Acquired Road	The Crown
Evandale Road, Western Junction	150770/100	None	LGA Subdivision Road	Private
Evandale Road, Western Junction	23720/3	None	Acquired Road	The Crown
311 Evandale Road, Western Junction	128763/1	7607593	Commonwealth of Australia	Commonwealth of Australia
11 Boral Road, Western Junction	21958/1	7607526	N/A	Private
12 Boral Road, Western Junction	148609/6	7607534	N/A	Private
12 Boral Road, Western Junction	148609/5	7607534	N/A	Private
16 Johns Street, Western Junction	148609/4	7514768	N/A	Private
4 Richard Street, Western Junction	21957/5	1860993	N/A	Private
2 Richard Street, Western Junction	21957/6	7193116	N/A	Private
Richard Street, Western Junction	21957/7	None	LGA Subdivision Road	Council
Richard Street, Western Junction	136826/7	None	LGA Subdivision Road	Private
Boral Road	21958/7	None	LGA Subdivision Road	Private
1 Translink Avenue, Western Junction	150770/4	2774157	N/A	Private
2 Translink Avenue, Western Junction	150770/3	3314654	N/A	Private
81 Evandale Road, Western Junction	129905/1	2551287	N/A	Private
59 Raeburn Road, Breadalbane	159125/2	3077898	N/A	Private
57 Raeburn Road, Breadalbane	159125/1	3021333	N/A	Private
30 Raeburn Road, Breadalbane	50634/4	1534303	N/A	Private

8. Planning Permit Application

8.1 Planning Scheme

The proposed development is located within the Northern Midlands local government area where the Northern Midlands Interim Planning Scheme 2013 applies.

8.2 Zones

The proposed road works will occur primarily in the Utilities Zone (road reserve), as shown in Figure 9 below. However, some road widening will occur adjacent the existing road reserve in the Rural Resources Zone and the General Industrial Zone

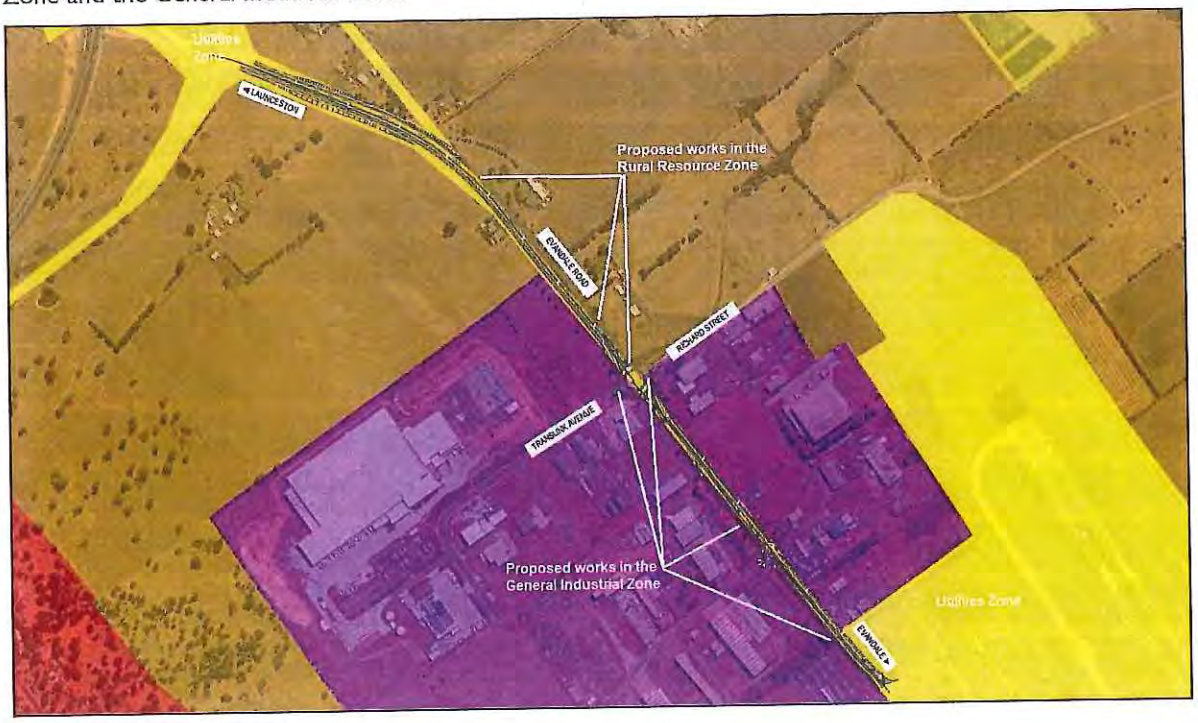

FIGURE 9 ZONING MAP

8.3 Land Use

The proposed road works are part of a transport network, which falls under the land use definition for Utilities, which means use of land for utilities and infrastructure including:

(a) telecommunications;

(b) electricity generation;

(c) transmitting or distributing gas, oil, or power;

(d) transport networks;

(e) collecting, treating, transmitting, storing or distributing water; or

(f) collecting, treating, or disposing of storm or floodwater, sewage, or sullage.

Examples include an electrical sub-station or powerline, gas, water or sewerage main, optic fibre main or distribution hub, pumping station, railway line, retarding basin, road, sewage treatment plant, storm or flood water drain, water storage dam and weir.

Given that the scope of the proposed works is reasonably significant, the proposed land use is considered 'major utilities' in all zones and areas of the Translink Specific Area Plan, except within Area 2, where Council have agreed to consider the proposal as 'minor utilities' due to the minor scale of the proposed works.

8.4 Overlays

The proposed development area is variously located in the:

- Bushfire Prone Areas Overlay (discussed immediately below);
- Australian Noise Exposure Forecast (ANEF) Overlay (discussed in subsection 8.9.4); and
- Translink Specific Area Plan Overlay (discussed in subsection 8.9.5).

The northern portion of the proposed road works is in the Bushfire Prone Areas Overlay, which is shown hatched in Figure 10 below. This requires the proposal to be assessed against the relevant provisions of the Bushfire-Prone Areas Code. As the proposed land use (major utility) is not classified as a vulnerable or hazardous use under the Bushfire Code, this code is not applicable to the proposal.

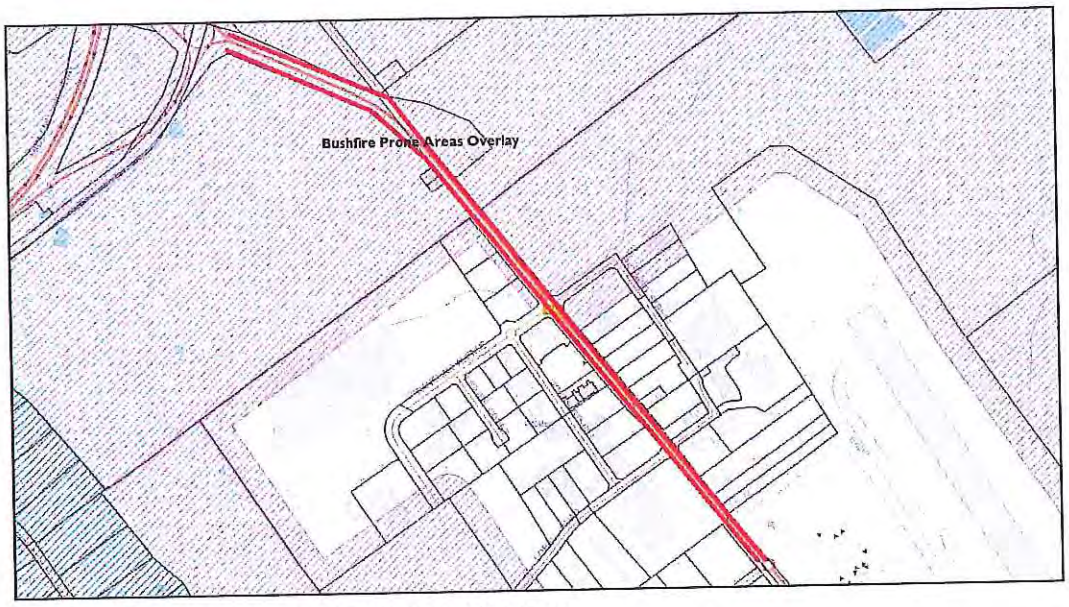

FIGURE 10 BUSHFIRE PRONE AREAS OVERLAY

8.5 Requirement for a Planning Permit

The proposal requires a planning permit is required for the following reasons:

- the 'major utilities' use is a:
    - Permitted use in the:
        - Utilities Zone;
        - Area 1 of Translink Specific Area Plan
        - Area 6 of Translink Specific Area Plan
    - Discretionary use in the:
        - Rural Resource Zone;
        - General Industrial Zone;
- the 'minor utilities' land use is a Permitted use in Area 2 of Translink Specific Area Plan
- the proposed roadworks and excavations are all considered development, and there are no applicable exemptions;
- the proposal relies on compliance with the performance criteria of various standards in the applicable zones and codes (detailed in the subsections below).

A Discretionary level of assessment applies to the planning permit application.

8.6 Utilities Zone

The proposed roadworks located within the Utilities Zone are located along Evandale Road, various intersections and a small portion of the airport's land, as shown yellow in Figure 11 below. The development will include all proposed works within the existing road reserve.

FIGURE 11 PROPOSED ROAD WORKS WITHIN THE UTILITIES ZONE

An assessment of the proposal against the zone's purpose and its use and development standards is provided below.

8.6.1 Purpose

This zone does not have local area objectives or desired future character statements.

Purpose Statement	Assessment
28.1.1.1 To provide land for major utilities installations and corridors.	The proposed roadworks will be within an existing utilities corridor. Given this, the proposal is consistent with statement 28.1.1.1.
28.1.1.2 To provide for other compatible uses where they do not adversely impact on the utility.	Only the Utility land use is proposed. Given this, the proposal is consistent with statement 28.1.1.2.

8.6.2 Use Standards

28.3.1 Capacity of existing utilities

Objective: To ensure that uses do not compromise the capacity of utility services.

Acceptable Solution	Performance Criteria
A1 A1 If for permitted or no permit required uses.	P1 The proposal must not unreasonably compromise or reduce the operational efficiency of the utility having regard to: a) existing land use practices; and b) the location of the use in relation to the utility; c) any required buffers or setbacks; and d) the management of access.

Assessment

The proposal complies with A1, as it is for a Utilities use.

8.6.3 Development Standards

As there will be no buildings, retaining walls or subdivision, there are no applicable development standards.

8.7 General Industrial Zone

The proposed roadworks located within the General Industrial Zone are located along a reasonably narrow strip of land on the western side of Evandale Road and at areas near the roundabout at Translink Avenue / Richard Street, as shown in Figure 12 below.

FIGURE 12 PROPOSED ROAD WORKS WITHIN THE GENERAL INDUSTRIAL ZONE

An assessment of the proposal against the zone's purpose and standards is provided below.

8.7.1 Purpose

This zone does not have local area objectives or desired future character statements.

Purpose Statement	Assessment
25.1.1.1 To provide for manufacturing, processing, repair, storage and distribution of goods and materials where there may be impacts on neighbouring uses.	The proposed roadworks will better facilitate the provision of these uses in an established General Industrial Zone. Given this, the proposal is consistent with statement 25.1.1.1.
25.1.1.2 To focus industrial use and development into appropriate areas suitable for its needs	The proposed Utility land use is permissible within the zone. Given this, the proposal is consistent with statement 25.1.1.2.
25.1.1.3 To provide for 'non-industrial' uses that either support, supply or facilitate industrial development.	The proposed Utility land use is permissible within the zone. Given this, the proposal is consistent with statement 25.1.1.3.

8.7.2 Use Standards

As the proposed major utility use (i.e. the road use) is not listed in Tables E11.1 or E11.2 and will not result in the production of solid waste, there are no applicable use standards.

8.7.3 Development Standards

As there will be no buildings, retaining walls or subdivision, there are no applicable development standards.

8.8 Rural Resource Zone

The proposed roadworks located within the Rural Resource Zone are located along a reasonably narrow strip of land on the eastern side of Evandale Road shown in Figure 13 below.

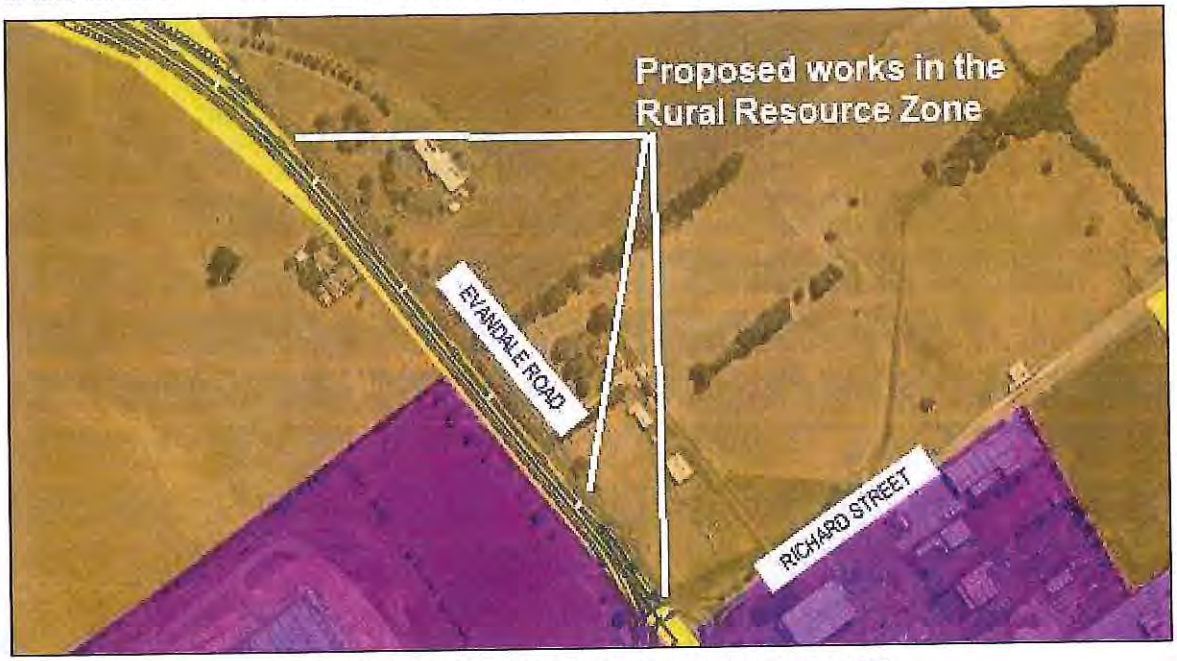

FIGURE 13 PROPOSED ROAD WORKS WITHIN THE RURAL RESOURCE ZONE

An assessment of the proposal against the zone's purpose, local area objectives, desired future character statement and standards is provided below.

8.8.1 Purpose

Purpose Statement	Assessment
26.1.1.1 To provide for the sustainable use or development of resources for agriculture, aquaculture, forestry, mining and other primary industries, including opportunities for resource processing.	The proposed roadworks will better facilitate the provision of these uses in an established Rural Resource Zone. Given this, the proposal is consistent with statement 26.1.1.1.
26.1.1.2 To provide for other use or development that does not constrain or conflict with resource development uses.	The proposed Utility land use is permissible within the zone. The narrow extent of the works, adjacent the existing road, will not constrain or conflict with existing or future resource development. Given this, the proposal is consistent with statement 26.1.1.2.
26.1.1.3 To provide for economic development that is compatible with primary industry, environmental and landscape values.	The proposed roadworks will better facilitate the provision of compatible economic development in an established Rural Resource Zone. Given this, the proposal is consistent with statement 26.1.1.3.
26.1.1.4 To provide for tourism-related use and development where the	The proposed roadworks will better facilitate the provision of compatible tourism-related uses in an established Rural Resource Zone. One objective of the works is to provide a

sustainable development of rural resources will not be compromised.	better impression of Launceston for arriving visitors which is consistent with this purpose statement. Given this, the proposal is consistent with statement 26.1.1.4.

Local Area Objectives	**Assessment**
a) Primary Industries: Resources for primary industries make a significant contribution to the rural economy and primary industry uses are to be protected for long-term sustainability. The prime and non-prime agricultural land resource provides for variable and diverse agricultural and primary industry production which will be protected through individual consideration of the local context. Processing and services can augment the productivity of primary industries in a locality and are supported where they are related to primary industry uses and the long-term sustainability of the resource is not unduly compromised.	The proposed roadworks will improve Evandale Road's traffic capacity, which will help achieve the zone's objectives for Primary Industries. They will facilitate the movement of large vehicles carrying bulky goods and machinery to rural areas of the state from manufacturers in the industrial estate (and vice versa).
b) Tourism Tourism is an important contributor to the rural economy and can make a significant contribution to the value adding of primary industries through visitor facilities and the downstream processing of produce. The continued enhancement of tourism facilities with a relationship to primary production is supported where the long-term sustainability of the resource is not unduly compromised. The rural zone provides for important regional and local tourist routes and destinations such as through the promotion of environmental features and values, cultural heritage and landscape. The continued enhancement of tourism facilities that capitalise on these attributes is supported where the long-term sustainability of primary industry resources is not unduly compromised.	The proposed roadworks will improve Evandale Road's traffic capacity, which will help achieve the zone's objectives for Tourism.
c) Rural Communities Services to the rural locality through provision for home-based business can enhance the sustainability of rural communities. Professional and other business services that meet the needs of rural populations are supported where they accompany a residential or other established use and are located appropriately in relation to settlement activity centres and surrounding primary industries such that the integrity of the	The proposed roadworks will improve Evandale Road's traffic capacity, which will help achieve the zone's objectives for Rural Communities.

activity centre is not undermined and primary industries are not unreasonably confined or restrained.	

Desired Future Character Statement	Assessment
The visual impacts of use and development within the rural landscape are to be minimised such that the effect is not obtrusive.	As the proposed roadworks would maintain the level of the existing road and does not encroach excessively into the zone, the visual impacts of the proposal will be minimised such that the effect is not obtrusive. An objective of the works is to provide a better impression of Launceston for arriving visitors, which is consistent with this statement.

8.8.2 Use Standards

The following standards are not applicable:

- 26.3.1 Discretionary Uses if not a single dwelling:
  - P1.2 (only applies to commercial uses)
  - P2.1 and P2.2 (the land is Class 4 agricultural land i.e. non-prime agricultural)
- 26.3.3 Irrigation Districts (the road works will not be located in an identified irrigation district)

26.3.1 Discretionary Uses if not a single dwelling

Objective

(a) To provide for an appropriate mix of uses that support the Local Area Objectives and the location of discretionary uses in the rural resources zone does not unnecessarily compromise the consolidation of commercial and industrial uses to identified nodes of settlement or purpose built precincts.
(b) To protect the long term productive capacity of prime agricultural land by minimising conversion of the land to non-agricultural uses or uses not dependent on the soil as a growth medium, unless an overriding benefit to the region can be demonstrated.
(c) To minimise the conversion of non-prime land to a non-primary industry use except where that land cannot be practically utilised for primary industry purposes.
(d) Uses are located such that they do not unreasonably confine or restrain the operation of primary industry uses.
(e) Uses are suitable within the context of the locality and do not create an unreasonable adverse impact on existing sensitive uses or local infrastructure.
(f) The visual impacts of use are appropriately managed to integrate with the surrounding rural landscape.

Acceptable Solution	Performance Criteria
A1 A1 If for permitted or no permit required uses.	P1 P1.1 It must be demonstrated that the use is consistent with local area objectives for the provision of non-primary industry uses in the zone, if applicable

Assessment

The assessment in subsection 8.8.1 above demonstrates compliance with P1.1.

A3 A1 If for permitted or no permit required uses.	P3 The conversion of non-prime agricultural to non-agricultural use must demonstrate that: (a) the amount of land converted is minimised having regard to: i. existing use and development on the land; and ii. surrounding use and development; and iii. topographical constraints; or (b) the site is practically incapable of supporting an agricultural use or being included with other land for agricultural or other primary industry use, due to factors such as: i. limitations created by any existing use and/or development surrounding the site; and ii. topographical features; and iii. poor capability of the land for primary industry; or (c) the location of the use on the site is reasonably required for operational efficiency.

Assessment

Given this, the proposal complies with P3 for the following reasons:

(a) the proposed road widening of the existing Evandale Road will result in the conversion of a relatively small area of non-prime agricultural land to the utilities use;
(b) the land to be developed is adjacent Evandale Road verge, which limits its capacity to be agriculturally productive;
(c) the location of the road widening and associated utilities use is required for the operational efficiency of Evandale Road, which serves the local area.

A4 A1 If for permitted or no permit required uses.	P4 It must demonstrated that: (a) emissions are not likely to cause an environmental nuisance; and (b) primary industry uses will not be unreasonably confined or restrained from conducting normal operations; and (c) the capacity of the local road network can accommodate the traffic generated by the use.

Assessment

As the proposal is Discretionary, A4 is not applicable. The proposal complies with P4 for the following reasons:

(a) the proposed plans at Appendix A of this report demonstrate that the road upgrades have been designed to current road standards and will not result in excessive air pollution or vibrations. Further, the Stormwater Management Plan at Appendix C and Assessment at Appendix D demonstrate that stormwater and noise impacts will be acceptable;
(b) due to the small area of land to be developed and its location, primary industry uses will not be unreasonably confined or restrained from conducting normal operations; and
(c) the proposed Utilities use will not generate traffic. However, the proposed road upgrades will improve the Evandale Road's capacity to accommodate traffic.

A5 A1 If for permitted or no permit required uses.	P5 It must be demonstrated that the visual appearance of the use is consistent with the local area having regard to: (a) the impacts on skylines and ridgelines; and (b) visibility from public roads; and (c) the visual impacts of storage of materials or equipment; and (d) the visual impacts of vegetation clearance or retention; and

	(e) the desired future character statements.

Assessment

The proposed road works will be constructed at the existing level of Evandale Road, which passes through an area that has not been identified for scenic protection/management, and would not result in the removal of significant areas of native vegetation. Further, the assessment in subsection 8.8.1 demonstrates that the proposal is consistent with the zone's desired future character statements. Considering these matters, the proposal complies with P1.

8.8.3 Development Standards

The following development standards do not apply to the proposed road works:

- 26.4.1 Building Design and Siting (no buildings are proposed)
- 26.4.2 Subdivision (no subdivision is proposed)

8.9 Codes

Within the Planning Scheme, there are a number of codes which relate to the proposed works and use and the applicable overlays. Only those which may have some application to the proposal are considered. These are addressed below, and comments provided where applicable.

Code	Comment
E1.0 Bushfire-Prone Areas Code	Not applicable
E2.0 Potentially Contaminated Land Code	Not applicable
E3.0 Landslip Code	Not applicable
E4.0 Road and Railway Assets Code	**Applicable - see below**
E5.0 Flood Prone Areas Code	Not applicable
E6.0 Car Parking and Sustainable Transport Code	Not applicable
E7.0 Scenic Management Code	Not applicable
E8.0 Biodiversity Code	Not applicable
E9.0 Water Quality Code	**Applicable – see below**
E10.0 Recreation and Open Space Code	Not applicable
E11.0 Environmental Impacts and Attenuation Code	Not applicable
E12.0 Airports Impact Management Code	**Applicable – see below**
E13.0 Heritage Code	Not applicable
E14.0 Coastal Code	Not applicable
E15.0 Signs Code	Not applicable

8.9.1 Road and Railway Assets Code

An assessment of the proposal against the code's applicable standards is provided below. This assessment relies on the Traffic Impact Assessment at Appendix E of this report. As the proposal meets the requirements of the applicable standards, it is consistent with the code's purpose, which is to:

(a) protect the safety and efficiency of the road and railway networks; and

(b) reduce conflicts between sensitive uses and major roads and the rail network.

The following standards are not applicable:

- E4.6.1 Use and road or rail infrastructure A1/P1 and A2/PS; and
- E4.7.2 Management of Road Accesses and Junctions A1/P;
- E4.7.3 Management of Rail Level Crossings

To assist with an assessment of the proposal against this code, it should be noted that Evandale Road is mostly a Category 2 road with a small section being Category 4. The speed limit of 80km/h.

Use Standards

E4.6.1 Use and road or rail infrastructure

Objective: To ensure that the safety and efficiency of road and rail infrastructure is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions.

Acceptable Solution	Performance Criteria
A3 For roads with a speed limit of more than 60km/h the use must not increase the annual average daily traffic (AADT) movements at the existing access or junction by more than 10%.	P3 For limited access roads and roads with a speed limit of more than 60km/h: a) access to a category 1 road or limited access road must only be via an existing access or junction or the use or development must provide a significant social and economic benefit to the State or region; and b) any increase in use of an existing access or junction or development of a new access or junction to a limited access road or a category 1, 2 or 3 road must be for a use that is dependent on the site for its unique resources, characteristics or locational attributes and an alternate site or access to a category 4 or 5 road is not practicable; and c) an access or junction which is increased in use or is a new access or junction must be designed and located to maintain an adequate level of safety and efficiency for all road users.

Assessment

As the proposal caters for road network growth, rather than generates traffic, it complies with A3.

E4.7.1 Development on and adjacent to Existing and Future Arterial Roads and Railways

Objective: To ensure that development on or adjacent to category 1 or 2 roads (outside 60km/h), railways and future roads and railways is managed to:

a) ensure the safe and efficient operation of roads and railways; and
b) allow for future road and rail widening, realignment and upgrading; and
c) avoid undesirable interaction between roads and railways and other use or development.

Acceptable Solution	Performance Criteria
A1 The following must be at least 50m from a railway, a future road or railway, and a category 1 or 2 road in an area subject to a speed limit of more than 60km/h: a) new road works, buildings, additions and extensions, earthworks and landscaping works; and b) building areas on new lots; and c) outdoor sitting, entertainment and children's play areas	P1 Development including buildings, road works, earthworks, landscaping works and level crossings on or within 50m of a category 1 or 2 road, in an area subject to a speed limit of more than 60km/h, a railway or future road or railway must be sited, designed and landscaped to: a) maintain or improve the safety and efficiency of the road or railway or future road or railway, including line of sight from trains; and b) mitigate significant transport-related environmental impacts, including noise, air pollution and vibrations in accordance with a report from a suitably qualified person; and c) ensure that additions or extensions of buildings will not reduce the existing setback to the road, railway or future road or railway; and d) ensure that temporary buildings and works are removed at the applicant's expense within three years or as otherwise agreed by the road or rail authority.

Assessment

As the proposed development is located within and adjacent to the Evandale Main Road corridor, it is unable to comply with Acceptable Solution A1. It does however satisfy Performance Criteria P1 as follows:

(a) The proposed development includes the upgrade of Evandale Main Road to four lanes between the entrance of the Launceston Airport to the Breadalbane Roundabout. The proposed upgrade will improve the traffic flow through the study length, improving travel time reliability. The upgrade will also cater for traffic growth along the road network in the future.
(b) The Department of State Growth is the Tasmanian State Road Authority and the proposed development is a Department of State Growth project. This Traffic Impact Assessment has been prepared by a suitably qualified traffic engineer for the Department of State Growth and the Department has endorsed this report. The Noise Assessment at Appendix D of this report demonstrates that potential noise impacts are acceptable. Further, the proposed plans at Appendix A demonstrate that the road will be constructed to current road standards and will not result in excessive air pollution or vibrations.
(c) N/A as the proposed development is not an addition or extension of a building
(d) The Department of State Growth is the Tasmanian State Road Authority and the proposed development is a Department of State Growth project. It is expected that all temporary buildings and works will be removed in accordance with the requirements set out by the Department of State Growth.

E4.7.2 Management of Road Accesses and Junctions

Objective: To ensure that the safety and efficiency of roads is not reduced by the creation of new accesses and junctions.

Acceptable Solution	Performance Criteria
A2 For roads with a speed limit of more than 60km/h the development must not include a new access or junction.	P2 For limited access roads and roads with a speed limit of more than 60km/h: a) access to a category 1 road or limited access road must only be via an existing access or junction or the development must provide a significant social and economic benefit to the State or region; and b) any increase in use of an existing access or junction or development of a new access or junction to a limited access road or a category 1, 2 or 3 Road must be dependent on the site

Assessment

As the proposal will not create any new junctions or accesses, it complies with Acceptable Solution A1.

E4.7.4 Sight Distance at Accesses, Junctions and Level Crossings

To ensure that use and development involving or adjacent to accesses, junctions and level crossings allows sufficient sight distance between vehicles and between vehicles and trains to enable safe movement of traffic.

Acceptable Solution	Performance Criteria
A1 Sight distances at a) an access or junction must comply with the Safe Intersection Sight Distance shown in Table E4.7.4; and b) rail level crossings must comply with AS1742.7 Manual of uniform traffic control devices - Railway crossings, Standards Association of Australia; or c) If the access is a temporary access, the written consent of the relevant authority has been obtained.	P1 The design, layout and location of an access, junction or rail level crossing must provide adequate sight distances to ensure the safe movement of vehicles.

Assessment

The proposed development will not create any new junctions or accesses. All existing accesses are noted to have sufficient sight distance in accordance with Table E4.7.4.

8.9.2 Flood Prone Areas Code

As the Stormwater Management Plan at Appendix C of this report indicates that the existing stormwater system does not have capacity to convey the 1% AEP storm event (with freeboard) for a fully developed catchment, this code applies to the proposal.

An assessment of the proposal against the code's applicable standards is provided below. This assessment relies on the Stormwater Management Plan. As the proposal meets the requirements of the applicable standards, it is consistent with the code's purpose, which is to:

(a) ensure that use or development subject to risk from flooding is appropriately located and that adequate measures are taken to protect human life and property and to prevent adverse effects on the environment.

(b) determine the potential impacts of flooding through the assessment of risk in accordance with the Australian Standard.

Flood Risk Assessment

The Flood Risk Assessment in the Stormwater Management Plan is aimed at demonstrating the proposed stormwater system will mitigate the risk to life, property and the environment, when the road upgrades are completed.

The proposed design mitigates and reduces flood risk on the road and immediately adjacent to the road by providing new drainage infrastructure including culverts and open drains. The open drains are located outside the roadway clear-zone (a specified distance depending on scenario between the road and the drains) in accordance with Austroads Guidelines. This includes protection around culvert headwalls. Outside of the open drains the flood risk is rare likelihood and insignificant consequence for all events up to the 1% AEP event.

With regard to the risk to human life, the larger open drains will contain hazardous flows in intense storm events. In accordance with the risk assessment in E5.7 of the code, the Likelihood – Annual Exceedance Probability is Moderate in the larger open drains. The consequence is moderate to major. This results in a high risk category under the risk matrix provided in the Planning Scheme. While the risk to human life may be high, it should be noted that the road is an existing land use. Adjacent to this road and in the surrounding area there are similarly-designed open drains, which have operated for a number of years without significant risk to human life. The drains themselves do not have steep side slopes and will be vegetated allowing a person who entered the drain to exit up the side of the drain.

For the frog ponds (wetlands), the Likelihood – Annual Exceedance Probability is Moderate, with the consequence of someone entering the ponds being moderate to major. This results in a high risk to human life. However, the permanent fencing for these ponds will mitigate the risk to low.

There will be no risk to the environment or property up to the 1% AEP as the drainage infrastructure is designed to accept, convey and provide environmental controls for this event.

Given the above matters, the proposed drainage system will not compromise risk to human life, and property and environmental risks will be responsibly managed.

Use Standards

As the proposal does not include habitable rooms, A1/P1 of standard E5.5.1 Use and flooding are not applicable.

E5.5.1 Use and flooding

Objective: To ensure that use does not compromise risk to human life, and that property and environmental risks are responsibly managed.

Acceptable Solution	Performance Criteria
A2 Use must not be located in an area subject to a medium or high risk in accordance with the risk assessment in E5.7.	P2 Use must demonstrate that the risk to life, property and the environment will be mitigated to a low risk level in accordance with the risk assessment in E5.7.

Assessment

The above Flood Risk Assessment demonstrates that the risk to human life at the larger open drains may be high. However, it should be noted that the road is an existing land use. Adjacent to this road and in the surrounding area there are similarly-designed open drains, which have operated for a number of years without significant risk to human life. The risk to human life around the two frog ponds is mitigated to low by the permanent fencing. The Flood Risk Assessment also demonstrates that, due to the design of the drainage system, there will be no risk to the environment or property up to the 1% AEP as the drainage infrastructure is designed to accept, convey and provide environmental controls for this event.

Given these matters, the proposed drainage system will not compromise risk to human life, and property and environmental risks will be responsibly managed, thereby complying with the objective of use standard E5.5.1.

Development Standards

E5.6.1 Flooding and Coastal Inundation

Objective: To protect human life, property and the environment by avoiding areas subject to flooding where practicable or mitigating the adverse impacts of inundation such that risk is reduced to a low level.

Acceptable Solution	Performance Criteria
A1 No acceptable solution.	P1.1 It must be demonstrated that development: (a) where direct access to the water is not necessary to the function of the use, is located where it is subject to a low risk, in accordance with the risk assessment in E5.7 a); or (b) where direct access to the water is necessary to the function of the use, that the risk to life, property and the environment is mitigated to a medium risk level in accordance with the risk assessment in E5.7. P1.2 Development subject to medium risk in accordance with the risk assessment in E5.7 must demonstrate that the risk to life, property and the environment is mitigated through structural methods or site works to a low risk level in accordance with the risk assessment in E5.7. P1.3 Where mitigation of flood impacts is proposed or required, the application must demonstrate that: (a) the works will not unduly interfere with natural coastal or water course processes through restriction or changes to flow; and

	(b) the works will not result in an increase in the extent of flooding on other land or increase the risk to other structures; (c) inundation will not result in pollution of the watercourse or coast through appropriate location of effluent disposal or the storage of materials; and (d) where mitigation works are proposed to be carried out outside the boundaries of the site, such works are part of an approved hazard reduction plan covering the area in which the works are proposed.

Assessment

The proposal complies with P1(a) because access to the water is not necessary to the function of the use (the road) and the above Flood Risk Assessment demonstrates that the risk around the two frog ponds has been mitigated to low by permanent fencing and that there is no risk to property or the environment. The Flood Risk Assessment also demonstrates that the risk to human life may be high around the larger open drains. However, as this risk no higher than the existing stormwater system, and existing drainage regimes are generally being maintained, the proposal is considered to comply with the objective of standard E5.6.1.

P1(b) is not applicable because direct access to the water is not necessary to the function of the road use.

P1.2 is not applicable because the proposal will not result in development subject to medium risk.

The proposed drainage system will mitigate flood impacts, and will comply with P1.3 for the following reasons:

(a) Drainage upgrades will ensure that existing flow regimes are generally maintained, and that the works will not unduly interfere with natural water course processes through restriction or changes to flow.
(b) Flood extents will be reduced by improving drainage, which will ensure the works will not result in an increase in the extent of flooding on other land or increase the risk to other structures.
(c) The proposal does not require the management of effluent disposal or storage of materials.
(d) No mitigation works will be carried out outside the boundaries of the site.

8.9.3 Car Parking and Sustainable Transport Code

This code applies to all use and development and there are no exemptions. However, the Utilities use has no set parking requirements for cars, bicycles, taxis or motorbikes in Table E6.1: Parking Space Requirements. Further, the proposal is for road improvements and there is no need to provide parking spaces or access strips along the route. Under these circumstances, the requirements of this code are not relevant to the proposal.

8.9.4 Water Quality Code

As the proposed road works is within 50m several watercourses, shown in Figure 14 below, the proposal must be assessed against this code. The proposed drainage system incorporates best practice Water Sensitive Urban Design, that will mitigate the harmful environmental impacts of stormwater discharge and provide attractive roadside habitats that will enhance biodiversity including:

- two permanently-fenced frog ponds (wetlands) on either side of the road, connected by an underground box culvert (to allow the passage of small fauna e.g. frogs);
- a bioretention swale drain, which will be connected by an underground box culvert to land on the other side of the road; and
- open roadside swale drains alongside the road.

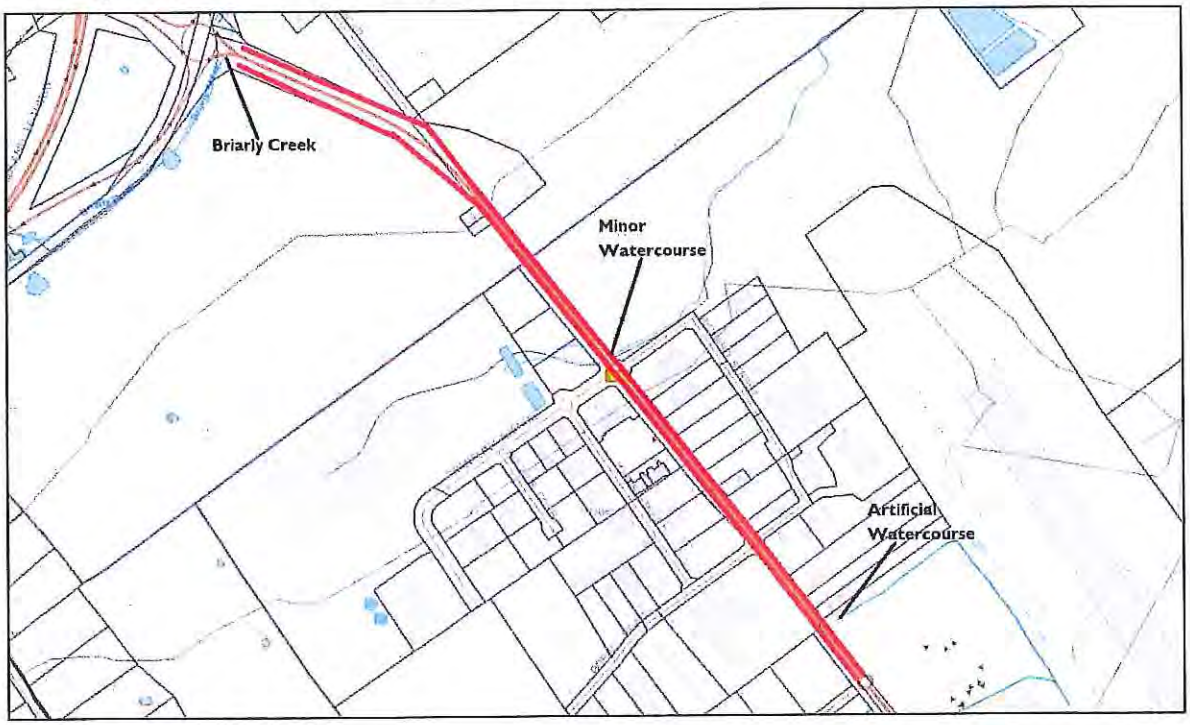

FIGURE 14 NEARBY WATERCOURSES

An assessment of the proposal against the code's applicable standards is provided below. As the proposal meets the requirements of the applicable standards, it consistent with the code's purpose, which is to:

consider the impacts of development to limit adverse effects on the following:

(a) wetland and watercourse ecosystems; and

i. flow regimes, water levels, biological activity and physical characteristics; and

ii. the variety of flora and fauna; and

iii. the role of wetlands and watercourses for water supply, flood mitigation, environmental protection, water regulation and nutrient filtering, as resources for recreational activities and as attractive features in the landscape; and

(b) improve the sustainable management of surface water through development.

Use Standards

There are no use standards under this code.

Development Standards

The following standards do not apply:

- E9.6.1 Development and Construction Practices and Riparian Vegetation A2/P2 (no wetlands will be impacted)
- E9.6.2 Water Quality Management A3/P3 (no quarries or borrow pits will be impacted)
- E9.6.5 Sediment and Erosion Control (only relates to subdivision)
- E9.6.6 Ben Lomond Water Catchment Areas (the proposal is outside this area)

E9.6.1 Development and Construction Practices and Riparian Vegetation

Objective: To protect the hydrological and biological roles of wetlands and watercourses from the effects of development.

Acceptable Solution	Performance Criteria
A1 Native vegetation is retained within: a) 40m of a wetland, watercourse or mean high water mark; and b) a Ben Lomond Water catchment area - inner buffer.	P1 Native vegetation removal must submit a soil and water management plan to demonstrate: a) revegetation and weed control of areas of bare soil; and b) the management of runoff so that impacts from storm events up to at least the 1 in 5 year storm are not increased; and c) that disturbance to vegetation and the ecological values of riparian vegetation will not detrimentally affect hydrological features and functions.

Assessment

The proposal complies with P1 because the proposed plans for the road upgrades and this Stormwater Management Plan demonstrate that soil and water will be adequately managed by:

(a) Revegetating and stabilising exposed areas
(b) Addition of several new open drains will enable flow to be attenuated to the 1 in 5-year ARI storm event
(c) Due to the location of the works, there will be no significant disturbance to the ecological values of riparian vegetation. Provision of new open swale drains with native vegetation. Box culverts will be used to enable small fauna such as frogs cross the road to access two frog ponds and a bioretention swale. The culverts will be installed in accordance with State Growth's Green and Golden Frog Guidelines.

A3	P3 A watercourse may be filled, piped, or channelled:

A watercourse must not be filled, piped or channelled except to provide a culvert for access purposes.	a) within an urban environment for the extension of an existing reticulated stormwater network; or b) for the construction of a new road where retention of the watercourse is not feasible.

Assessment

The road widening will result in piping small lengths of watercourse realignments where necessary, as shown in the proposed plans for the road upgrades and this Stormwater Management Plan. This complies with the requirements of P3.

E9.6.2 Water Quality Management

Objective: To maintain water quality at a level which will not affect aquatic habitats, recreational assets, or sources of supply for domestic, industrial and agricultural uses.

Acceptable Solution	Performance Criteria
A1 All stormwater must be: a) connected to a reticulated stormwater system; or b) where ground surface runoff is collected, diverted through a sediment and grease trap or artificial wetlands prior to being discharged into a natural wetland or watercourse; or c) meet emission limit guidelines from the Board of the Environment Protection Authority in accordance with the State Policy for Water Quality Management 1997.	P1 Stormwater discharges to watercourses and wetlands must minimise loss of hydrological and biological values, having regard to: a) natural flow regimes, water quality and biological diversity of any waterway or wetland; b) design and operation of any buildings, works or structures, on or near the wetland or waterway; c) sources and types of potential contamination of the wetland or waterway; d) devices or works to intercept and treat waterborne contaminants; e) opportunities to establish or retain native riparian vegetation or continuity of aquatic habitat.

Assessment

Stormwater discharges will be treated by via vegetated swales prior to discharge to existing watercourses. The pollutant reductions from treatment of total suspended solids, total phosphorus and total nitrogen are 82%, 68% and 31% respectively. Additional vegetated drains and box culverts are included in the design and will help establish and retain vegetation or any fauna in the existing watercourse vicinity. Given this, the proposal complies with the requirements of P1.

A2.1 No new point source discharge directly into a wetland or watercourse. A2.2 For existing point source discharges into a wetland or watercourse there is to be no more than 10% increase over the discharge which existed at the effective date.	P2 New and existing point source discharges to wetlands or watercourses must implement appropriate methods of treatment or management to ensure point sources of discharge: a) do not give rise to pollution as defined under the *Environmental Management and Pollution Control Act 1994*; and i. are reduced to the maximum extent that is reasonable and practical having regard to: ii. best practice environmental management; and iii. accepted modern technology; and b) meet emission limit guidelines from the Board of Environmental Management and Pollution Control in accordance with the *State Policy for Water Quality Management 1997*.

	P2.2 Where it is proposed to discharge pollutants into a wetland or watercourse, the application must demonstrate that it is not practicable to recycle or reuse the material.

Assessment

As no new point discharge points are being created, the proposal complies with A2.1.

Peak discharge will not increase by more than 10% when considering the 1% AEP catchment peak flows. The new drains including large open drains attenuate flow. Given this, the proposal also complies with A2.2.

E9.6.3 Construction of Roads

Objective: To ensure that roads, private roads or private tracks do not result in erosion, siltation or affect water quality

Acceptable Solution	Performance Criteria
A1 A road or track does not cross, enter or drain to a watercourse or wetland	P1 Road and private tracks constructed within 50m of a wetland or watercourse must comply with the requirements of the *Wetlands and Waterways Works Manual*, particularly the guidelines for siting and designing stream crossings.

Assessment

The road and drainage design considers environmental impacts including the partial filling and shifting of watercourses. The construction contractor will be responsible for soil and water management during construction. During operational phase water quality control is achieved through the inclusion of vegetated swale drains as discussed. Evandale Road is an existing road and the upgrades cannot be separated from its current alignment. Taking all of these matters into consideration, the proposal is generally consistent with the requirements of the Wetlands and Waterways Works Manual and complies with P1.

E9.6.4 Access

Objective: To facilitate appropriate access at suitable locations whilst maintaining the ecological, scenic and hydrological values of watercourses and wetlands.

Acceptable Solution	Performance Criteria
A1 No acceptable solution.	P1 New access points to wetlands and watercourses are provided in a way that minimises: a) their occurrence; and b) the disturbance to vegetation and hydrological features from use or development.

Assessment

All culvert discharge points to waterways and drains will be provided with rock pitching for erosion control in accordance with Austroads culvert outlet protection requirements. This minimises the occurrence of new access points to watercourses and the disturbance to vegetation and hydrological features, thereby complying with P1.

A2 No acceptable solution.	P2 Accesses and pathways are constructed to prevent erosion, sedimentation and siltation as a result of runoff or degradation of path materials.

Assessment

As discussed, vegetated swales will help control sediment and siltation with rock pitching to be provided at outfalls to Austroads guides. Given this, the proposal complies with P2.

8.9.5 Airports Impact Management Code

Part of the proposed road works will be in the ANEF Overlay, as shown in the shaded area in Figure 15 below. This means the Airports Impact Management Code applies to this part of the proposal.

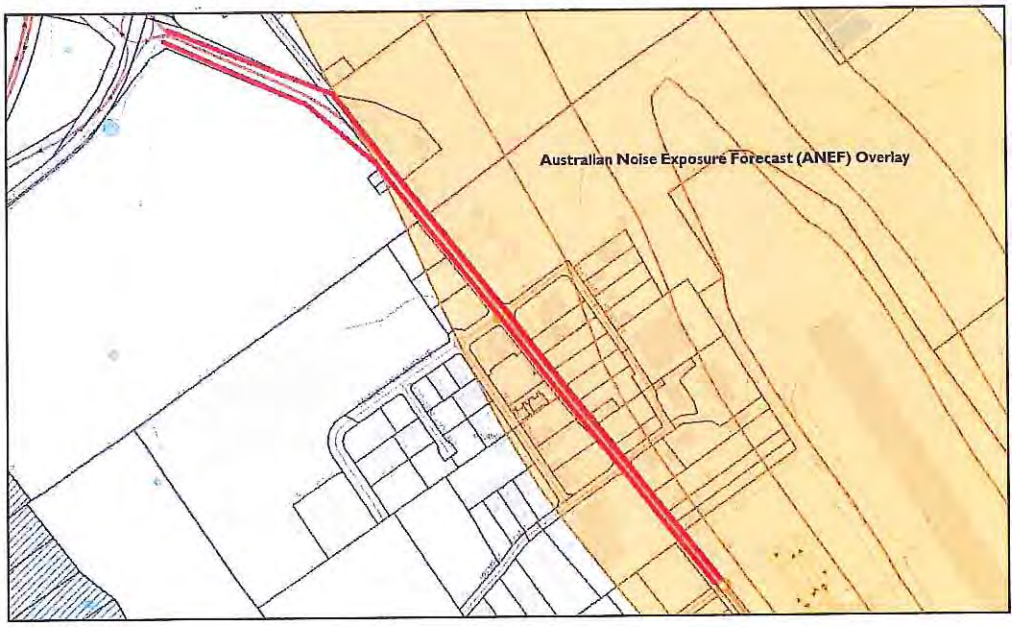

FIGURE 15 ANEF OVERLAY

An assessment of the proposal against the code's applicable standards is provided below. As the proposal meets the requirements of the applicable standards, it is consistent with the code's purpose, which is to:

(a) ensure that use or development within identified areas surrounding airports does not unduly restrict the ongoing security, development and use of airport infrastructure; and

(b) provide for management of the land use implications of those areas relevant to use and development under the scheme.

Standard 12.5.1 Noise Impacts does not apply because there are no proposed buildings and the proposed utility use is not a sensitive use.

E12.6.1 Obstacles to Aircraft

Objective: To ensure that development does not impact on the safety of prescribed airspace	
Acceptable Solution	**Performance Criteria**
A1 Development must be approved pursuant to the Airports Act 1996 and the Airport (Protection of Airspace) Regulations 1996 and the Manual of Standards.	P1 No performance criteria.

Assessment

The planning permit application will be referred to Launceston Airport for comment. As the proposed road works will be at or around ground level, the proposal will comply with A1.

8.10 Translink Specific Area Plan

A portion of the proposed road works is within the Translink Specific Area Plan Overlay, as shown in the hatched area in Figure 16 below. This means the relevant provisions of the Translink Specific Area Plan apply to this part of the proposal.

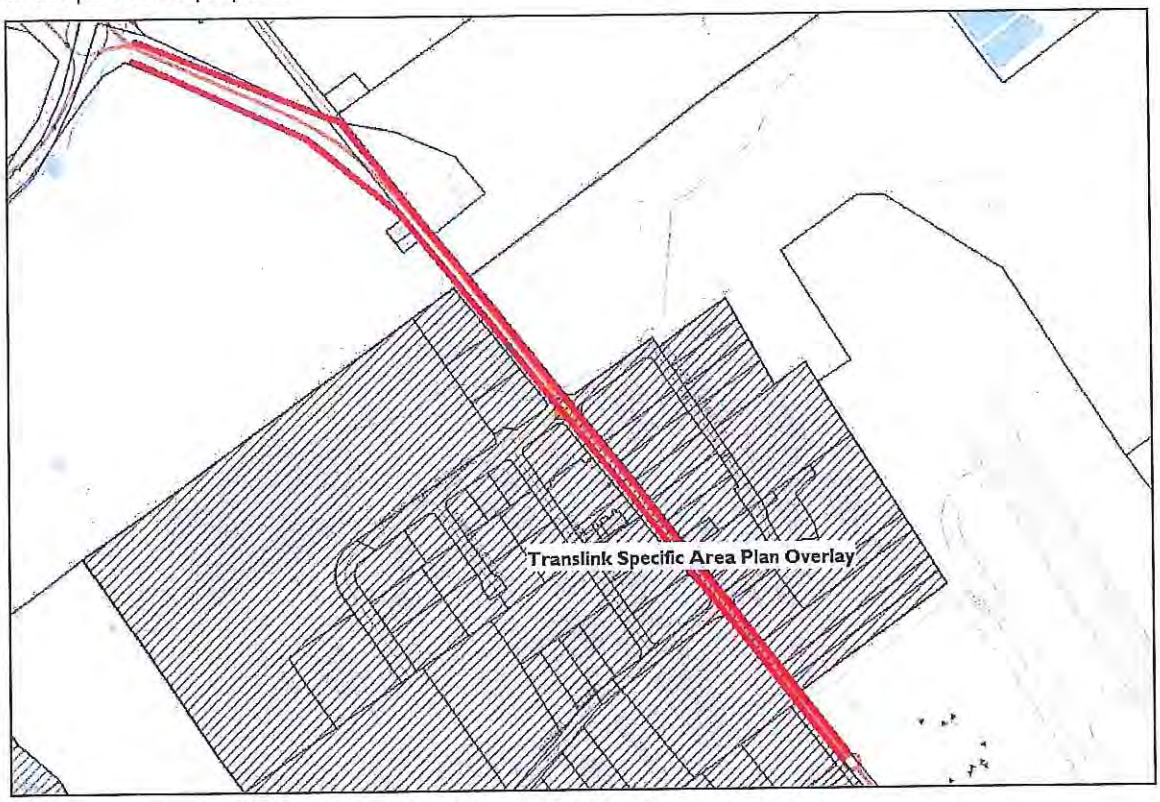

FIGURE 16 TRANSLINK SPECIFIC AREA PLAN OVERLAY

An assessment of the proposal against the code's purpose and applicable standards is provided below.

Purpose

An assessment of the proposal against the specific area plan's purpose and its use and development standards is provided below. This zone does not have local area objectives or desired future character statements.

Purpose Statement	Assessment
a) Provide for industrial and commercial uses and developments which serve the strategic needs of the Launceston and Northern Midlands region and the State, and which would derive a particular benefit from a location having proximity to Launceston Airport, access to the State's road and rail network or links to the port of Bell Bay.	The proposed road works would improve access, maintain road safety standards in the area, and would not conflict with statements a) to g).
b) Cater primarily for storage, transport and industrial uses.	
c) Provide for a limited range of retail or other activity, which supports storage, transport and industrial uses.	

d) Provide for a limited range of retail or other activity, which can demonstrate that the location offers a particular strategic advantage.	
e) Provide an area within which business-support facilities for the Translink Industrial Zone and Airport operations can locate.	
f) Provide opportunities for the development of accommodation adjacent to and serving the Airport.	
g) Provide detailed guidance on use and development within the General Industrial Zone at Translink, particular to the unique characteristics of the area.	

Standards for Use or Development

The following standards are not applicable:

- F1.4.1 Subdivision (no subdivision is proposed)
- F1.4.2 Height of Buildings (no buildings are proposed)
- F1.4.3 Materials and Presentation (no buildings are proposed)
- F1.4.4 Site coverage (no buildings are proposed)
- F1.4.6 Building Setbacks (no buildings are proposed)
- F1.4.7 Open Space and Landscaping (not relevant due to the nature of the works being road widening)
- F1.4.8 Outdoor Storage Areas (none proposed)
- F1.4.9 Fencing (none proposed)
- F1.4.10 Parking and Internal Circulation (no parking proposed)
- F1.4.12 Environmental Quality A2/P2 (the proposal is not adjacent the Devon Hills residential area)
- F1.4.13 Heritage (the location of the road works is not heritage protected)
- F1.4.14 Buffer Areas (the proposal is not adjacent the Devon Hills residential area)
- F1.4.15 Residential use and development (the proposed use is Utility)
- F1.4.16 Liquid and Solid Fuel Depot (the proposed use is Utility)
- F1.5.17 General retail and hire (the proposed use is Utility)

F1.4.5 Stormwater

Objective: To ensure that full utility services are available to new development.

Acceptable Solution	Performance Criteria
A1 The flow rate of stormwater outside the boundaries of the title shall be no greater than if the land was used for rural purposes. On-site detention devices shall be incorporated in the development.	P1 Stormwater may only be discharged from the site in a manner that will not cause an environmental nuisance, and that prevents erosion, siltation or pollution of any waterways, coastal lagoons, coastal estuaries, wetlands or inshore marine areas, having regard to:

	(a) the intensity of runoff that already occurs on the site before any development has occurred for a storm event of 1% Annual Exceedance Probability (pre-development levels); and (b) how the additional runoff and intensity of runoff that will be created by the subdivision for a storm event of 1% Annual Exceedance Probability, will be released at levels that are the same as those identified at the pre-development levels of the subdivision; and (c) whether any on-site storage devices, retention basins or other Water Sensitive Urban Design (WSUD) techniques are required within the subdivision and the appropriateness of their location; and (d) overland flow paths for overflows during extreme events both internally and externally for the subdivision, so as to not cause a nuisance.

Assessment

Peak stormwater discharge to the Launceston Airport Runway culvert has been maintained at existing 1% AEP levels by including new culverts and a new large open drain. The details of this arrangement are discussed previously. A marginal peak discharge increases at other locations (1 and 2) have been assumed to be of no consequence (location 1 and 2 discharges are outside of the Translink Specific Area). Given this, the proposal complies with P1 (a) and b).

P1 (c): Stormwater will be treated by means of long stretches of vegetated swale drains. As discussed previously, the current proposed measures will reduce suspended solid loads by 82%, total phosphorus by 68% and total nitrogen by 30%. Given this, the proposal complies with P1 (c).

P1 (d): Overland flow paths and discharge locations are clearly defined and confined to the road drainage infrastructure. The major drainage infrastructure is designed to meet the State Growth specification for a 1% AEP storm. As such, no nuisance will be caused. Given this, the proposal complies with P1 (d).

F1.4.11 External Lighting

Objective: To ensure that external lighting does not impact on the operational safety of the Launceston Airport.

Acceptable Solution	Performance Criteria
A1 A1 External lighting must be hooded and directed so as not to cause nuisance, threat or hazard to the operation of Launceston Airport.	P1 No performance criteria

Assessment

The proposed roadworks will also incorporate relocated and upgraded street lights at various roadside locations, as shown in the proposed plans at Appendix A. The street lights will be designed to ensure that light is dispersed along the road and will not result in overspill into adjoining areas. Given this, the proposal complies with A1.

F1.4.12 Environmental Quality

Objective:

(a) To ensure that development does not result in environmental harm to the local area

(b) To ensure that development does not impact on the operational safety of the Launceston Airport.

Acceptable Solution	Performance Criteria
A1 Emissions must not cause a hazard to the safe operation of Launceston Airport.	P1 No performance criteria

Assessment

The proposed plans at Appendix A of this report demonstrate that the road upgrades have been designed to current road standards and will not result in excessive air pollution or vibrations. Further, the Noise Assessment at Appendix D demonstrates that there will be no adverse impacts on Launceston Airport. Taking these matters into consideration, the proposal will not result in emissions that would cause a hazard to the safe operation of Launceston Airport, and complies with A1.

9. Other Relevant Planning Provisions

9.1 State Policy on Water Quality Management

The purpose of this state policy is to achieve the sustainable management of Tasmania's surface water and groundwater resources by protecting or enhancing their qualities while allowing for sustainable development in accordance with the objectives of Tasmania's Resource Management and Planning System.

As demonstrated in the above sections of this report, the proposed roadworks has been designed to avoid significant impacts on the qualities of surface water and groundwater resources. In this context, the proposal is consistent with the purpose of the policy.

9.2 State Policy on the Protection of Agricultural Land 2009

The purposed of this policy is to conserve and protect agricultural land so that it remains available for the sustainable development of agriculture, recognising the particular importance of prime agricultural land.

As demonstrated in the above sections of this report, the proposed road works will not occur on prime agricultural land, and the potential impacts on non-prime agricultural land are minimised and acceptable.

10. Conclusion

As the proposed road works comply or can be conditioned to comply with the relevant provisions of the planning scheme, the permit application should be approved.

Appendix A

Proposed plans

AMENDED

Tasmanian Government

EVANDALE MAIN ROAD (A1109)

LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)

ROADWORKS

CONTRACT NO. 3268

DESIGN

1-284

pitt&sherry

SETOUT REVIEW NAME L.ALLEN SIGNED DATE 29/09/2020	DESIGNED NAME L.ALLEN SIGNED DATE 29/09/2020	THESE DRAWINGS HAVE BEEN CHECKED, TAKEN TO SITE AND VERIFIED THAT THEY ARE APPROPRIATE FOR SITE CONDITIONS AND CONSTRAINTS. THE DRAWINGS ARE RECOMMENDED FOR ACCEPTANCE.	I CERTIFY THESE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE BRIEF AND AS DETAILED IN THE FINAL DESIGN REPORT.	Department of State Growth	CONTRACT No. 3268	DRAWING HB19503-C1000	PRINTED DATE 23-Sep-20, 12:17 PM	No. of SHEETS 138
STRUCTURAL REVIEW NAME R.CASSIDY SIGNED DATE 29/09/2020	DESIGN REVIEW NAME M.AMPSTEAD SIGNED DATE 29/09/2020	DESIGN MANAGER (DESIGN ORGANISATION) D.COE SIGNED DATE 29/09/2020	PRINCIPAL (DESIGN ORGANISATION) R.CASIMATY SIGNED DATE 29/09/2020	THESE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE DESIGN BRIEF AND PROJECT SCOPE. THE DRAWINGS ARE RECOMMENDED FOR ACCEPTANCE. PROJECT MANAGER SIGNED DATE	ACCEPTED MANAGER SIGNED DATE	REGISTRATION NUMBER A1109.001 ROAD LINK No. START: 07 / 5.17 FINISH: 07 / 6.80		SHEET No. 1000 REVISION 0

AMENDED

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1007	0	PROJECT LEGEND - DRG 3
1008	0	PROJECT LEGEND - DRG 4
1009	0	PROJECT LEGEND - DRG 5
1010	0	PROJECT LEGEND - DRG 6
1016	0	NODE SCHEDULE - SHEET 1
1017	0	NODE SCHEDULE - SHEET 2
1021	0	GENERAL ARRANGEMENT - KEY PLAN
1023	0	ALIGNMENT AND SURVEY CONTROL - KEY PLAN
1024	0	ALIGNMENT AND SURVEY CONTROL - DRG 1
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1026	0	ALIGNMENT AND SURVEY CONTROL - DRG 3
1027	0	ALIGNMENT AND SURVEY CONTROL - DRG 4
1028	0	ALIGNMENT AND SURVEY CONTROL - DRG 5
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1030	0	ALIGNMENT AND SURVEY CONTROL - DRG 7
1031	0	TYPICAL CROSS SECTIONS - DRG 1
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1102	0	GENERAL ARRANGEMENT - DRG 2
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1108	0	GENERAL ARRANGEMENT - DRG 8
1109	0	GENERAL ARRANGEMENT - DRG 9
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1201	0	DRAINAGE AND SERVICES - DRG 1
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1216	0	STREET LIGHTING SETOUT PLAN
1217	0	STREET LIGHTING SHEDULE
1221	0	DRAINAGE PROFILES - SHEET 1
1222	0	DRAINAGE PROFILES - SHEET 2
1223	0	DRAINAGE PROFILES - SHEET 3
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1229	0	STRUCTURE 6216 FROG CULVERT AT CH.5294 (MC10) COVER PAGE
1230	0	FROG CULVERTS CH. 5294 (MC10) & CH.5295 (MC20) GENERAL NOTES
1231	0	FROG CULVERT CH.5924 (MC10) GENERAL ARRANGEMENT
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1233	0	FROG CULVERT CH.5924 (MC10) BASE SLAB REINFORCEMENT
1234	0	FROG CULVERT CH.5924 (MC10) TYPICAL SECTION & DETAILS
1239	0	STRUCTURE 6217 FROG CULVERT AT CH.5295 (MC20) COVER PAGE
1240	0	STRUCTURE 6217 FROG CULVERT AT CH.5295 (MC20) GENERAL NOTES
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1417	0	BUILDING FOR THE FUTURE - MAP SYMBOL
1421	0	SIGN SCHEDULE - DRG 1
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1709	0	CROSS SECTIONS MC10 - DRG 9
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1717	0	CROSS SECTIONS MC10 - DRG 17
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1751	0	CROSS SECTIONS MC20 - DRG 1
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1754	0	CROSS SECTIONS MC20 - DRG 4
1755	0	CROSS SECTIONS MC20 - DRG 5
1756	0	CROSS SECTIONS MC20 - DRG 6
1757	0	CROSS SECTIONS MC20 - DRG 7
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1759	0	CROSS SECTIONS MC20 - DRG 9
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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
N.T.S.

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

pitt&sherry

DESIGNED L. ALLEN
REVIEWED D. COE

Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

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CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1001	23-Sep-20, 12:17 PM	1001

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

1-286

E BDGE (BRIDGE STRUCTURES)

	(AB--)	ABUTMENT BOTTOM
	(PABB)	ABUTMENT BOTTOM POINT
	(AT--)	ABUTMENT TOP
	(PABT)	ABUTMENT TOP POINT
	(PBCP)	CAP-PILE
	(BR--)	DECK
	(XJ--)	EXPANSION JOINT
	(XP--)	EXPANSION PLATE
	(HS--)	HEADSTOCK
	(BC--)	PIER-COLUMN
	(PBPI)	PIER-COLUMN POINT
	(UC--)	UNDERNEATH CLEARANCE
	(WW--)	WING WALL

E BDYS (BOUNDARIES)

	(BM--)	DIGITAL CADASTRE (ACCURACY 1.0m)
	(DE--)	DIGITISING EXTENT (PHOTO)
DP	(BO--)	DP OVERLAY (ACCURACY 0.1m) (CALCULATED FROM DEPOSITED PLAN)
	(BE--)	EASEMENT
AIR	(NF--)	FIELD COMPLETION BOUNDARY (PHOTO) (NF)
	(FS--)	FIELD SURVEY EXTENT (PHOTO)
	(BL--)	LOCAL GOVERNMENT
	(BP--)	PARISH
	(BT--)	TITLE (ACCURACY 0.02m)

E BUIL (BUILDINGS & STRUCTURES)

	(AW--)	AWNING
AW	(PAWN)	AWNING - POINT
	(BW--)	BOTTOM OF WALL
	(BV--)	BUILDING EAVES
	(BU--)	BUILDING WALLS
	(OC--)	CEMETERY
	(VE--)	CONCRETE SLAB AT GROUND LEVEL
CB	(PCBU)	CORNER OF BUILDING AT NS
	(DO--)	DOORWAY
FL	(PFLR)	FLOOR LEVEL
	(OB--)	GENERAL BUILT-UP AREA
	(LB--)	LOADING BAY-DOCK
	(OM--)	MISCELLANEOUS STRUCTURE
	(RW--)	RETAINING WALL
	(OR--)	RUIN
	(OS--)	SILO OR TANKS
	(OO--)	SPORTING ARENA
	(SO--)	STAIRS - OUTSIDE

E BUIL (BUILDINGS & STRUCTURES) Continued

	(OT--)	SWIMMING POOL
	(TW--)	TOP OF WALL

E COMM (COMMUNICATIONS)

AJP	(PTJP)	ABOVE GROUND JOINING POST
ITS	(IT--)	ITS CABLE
T(FO)A	(OA--)	OPTICAL FIBRE - ABOVE GROUND
T(FO)	(OZ--)	OPTICAL FIBRE - DIGITISED (GIS)
T(FO)	(OU--)	OPTICAL FIBRE - UNDERGROUND
OFC	(POFM)	OPTICAL FIBRE CABLE MARKER
TC(FO)	(OD--)	OPTICAL FIBRE FIBRE CONDUIT
OJB	(POFJ)	OPTICAL FIBRE JUNCTION BOX
OFP	(POFP)	OPTICAL FIBRE PIT
TSP	(PTMP)	STD MAIN PIT
T	(TY--)	TELEPHONE - HOUSE CONNECTION
	(TX--)	TELEPHONE - BOX
TB	(PTBX)	TELEPHONE BOX POINT
TC	(PTCM)	TELEPHONE CABLE MARKER
TDP	(PTDP)	TELEPHONE DISTRUBUTION PILLAR
TC	(TD--)	TELEPHONE CONDUIT
T	(TN--)	TELEPHONE LINE
T	(TZ--)	TELEPHONE LINE - DIGITISED (GIS)
TPL	(PTPL)	TELEPHONE POLE
	(PTSP)	TELEPHONE SINGLE CONCRETE PIT
	(TS--)	TELEPHONE SUMP
TTM	(PMPT)	TELEPHONE TRANSMITTER - MOBILE
	(PTSP)	TELEPHONE TRIPLE CONCRETE PIT
	(PTTP)	TELEPHONE TWIN CONCRETE PIT

E CONT (PHOTOGRAMMETRY)

	(YQ--)	CONTOUR - AUX (DECIMETRE)
	(Y---)	CONTOUR - AUX (WHOLE METRE)
	(Z---)	CONTOUR - INDEX
	(ZQ--)	CONTOUR - INDEX DEPRESSION
	(XQ--)	CONTOUR - INTER DEPRESSION
	(X---)	CONTOUR - STANDARD-INTER

E CULT (CULTURAL)

	(BI--)	BIN - LARGE
	(AC--)	BOLLARD
	(BH--)	BUS SHELTER
BUS	(PBUS)	BUS STOP
	(FE--)	FENCE
	(FL--)	FENCE LINE
	(FM--)	FENCE MANPROOF

E CULT (CULTURAL) Continued

X	(FC--)	FENCE OTHER
	(POST)	FENCE POST-GUIDE POST
	(PFPL)	FIREPLACE
FLG	(PFLG)	FLAG POLE
	(AG--)	GATE
	(PHST)	HEADSTONE
	(PHIS)	HISTORICAL POINT OF INTEREST
	(SI--)	LARGE SIGN
	(PMBX)	MAILBOX
	(PKME)	PARKING METER
	(TA--)	PICNIC TABLE
PUMP	(PWEP)	PUMP
BIN	(PBIN)	RUBBISH BIN
	(SF--)	SAFETY FENCE - PEDESTRIAN
	(SE--)	SEAT
	(PSIN)	SIGN POST
	(PSDS)	SIGN POST - DOUBLE SIDED
	(SX--)	SIGN WITH OUTREACH
	(OW--)	WINDMILL
	(PWML)	WINDMILL - POINT
	(PMKE)	MARKER - ENVIRONMENTAL/OTHER

E DRAIN (STORMWATER)

	(DF--)	BATTER DRAIN / GI FLUME
150H 150H	(B0--)	BOX CULVERT - 150 HIGH
225H 225H	(B1--)	BOX CULVERT - 225 HIGH
300H 300H	(B2--)	BOX CULVERT - 300 HIGH
375H 375H	(B3--)	BOX CULVERT - 375 HIGH
450H 450H	(B4--)	BOX CULVERT - 450 HIGH
600H 600H	(B6--)	BOX CULVERT - 600 HIGH
750H 750H	(B7--)	BOX CULVERT - 750 HIGH
900H 900H	(B9--)	BOX CULVERT - 900 HIGH
1.05H 1.05H	(D0--)	BOX CULVERT - 1050 HIGH
1.2H 1.2H	(D1--)	BOX CULVERT - 1200 HIGH
1.5H 1.5H	(D2--)	BOX CULVERT - 1500 HIGH
1.8H 1.8H	(D3--)	BOX CULVERT - 1800 HIGH
2.1H 2.1H	(D4--)	BOX CULVERT - 2100 HIGH
2.4H 2.4H	(D5--)	BOX CULVERT - 2400 HIGH
2.7H 2.7H	(D6--)	BOX CULVERT - 2700 HIGH
3.0H 3.0H	(D7--)	BOX CULVERT - 3000 HIGH
3.3H 3.3H	(D8--)	BOX CULVERT - 3300 HIGH
3.6H 3.6H	(D9--)	BOX CULVERT - 3600 HIGH
?H ?H	(UB--)	BOX CULVERT - UNSPECIFIED HEIGHT
	(DD--)	DISH DRAIN

E DRAIN (STORMWATER) Continued

DT	(DT--)	DRAIN-TABLE DRAIN
	(DX--)	DRAINAGE BOX
D	(DZ--)	DRAINAGE - DIGITISED (GIS)
SW	(PDJM)	DRAINAGE JUNCTION MANHOLE
DP	(DP--)	DRAINAGE PIT
EW	(PEWW)	END OF WINGWALL
FH	(PFHT)	FLOOD HEIGHT
	(IP--)	GULLY PIT
GP	(PGUL)	GULLY PIT POINT
	(HB--)	HEADWALL BOTTOM
HWB	(PHWB)	HEADWALL BOTTOM POINT
	(HW--)	HEADWALL TOP
HWT	(PHWT)	HEADWALL TOP POINT
IL	(PILT)	INLET TO SUMP
IN 225 Dia	(PI01)	INVERT - 225 DIA
IN 300 Dia	(PI02)	INVERT - 300 DIA
IN 375 Dia	(PI03)	INVERT - 375 DIA
IN 450 Dia	(PI04)	INVERT - 450 DIA
IN 525 Dia	(PI05)	INVERT - 525 DIA
IN 600 Dia	(PI06)	INVERT - 600 DIA
IN 750 Dia	(PI07)	INVERT - 750 DIA
IN 900 Dia	(PI09)	INVERT - 900 DIA
IN 1050 Dia	(PI10)	INVERT - 1050 DIA
IN 1200 Dia	PI12)	INVERT - 1200 DIA
IN 1350 Dia	(PI13)	INVERT - 1350 DIA
IN 1500 Dia	(PI15)	INVERT - 1500 DIA
IN 1650 Dia	(PI16)	INVERT - 1650 DIA
IN 1800 Dia	(PI18)	INVERT - 1800 DIA
IN	(PINV)	INVERT OF PIPE
SD	IPSDO)	INVERT OF SUBSOIL DRAIN OUTLET
	(KI--)	KERB INLET
OB	(POBV)	OBVERT OF PIPE
Ø225 Ø225	(U1--)	PIPE - 225 DIA
Ø300 Ø300	(U2--)	PIPE - 300 DIA
Ø375 Ø375	(U3--)	PIPE - 375 DIA
Ø450 Ø450	(U4--)	PIPE - 450 DIA
Ø525 Ø525	(U5--)	PIPE - 525 DIA
Ø600 Ø600	(U6--)	PIPE - 600 DIA
Ø750 Ø750	(U7--)	PIPE - 750 DIA
Ø900 Ø900	(U9--)	PIPE - 900 DIA
Ø1050 Ø1050	(V1--)	PIPE - 1050 DIA
Ø1200 Ø1200	(V2--)	PIPE - 1200 DIA
Ø1350 Ø1350	(V3--)	PIPE - 1350 DIA

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALES
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Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

pitt&sherry

DESIGNED L ALLEN
REVIEWED D. COE

Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

PROJECT LEGEND - DRG 1

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3288	HB19503-C1005	23-Sep-20, 12:17 PM	1005

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

E DRAIN (STORMWATER) Continued

Ø1500 Ø1500	(V5--)	PIPE - 1500 DIA
Ø1650 Ø1650	(V6--)	PIPE - 1650 DIA
Ø1800 Ø1800	(V8--)	PIPE - 1800 DIA
Ø? Ø?	(UU--)	PIPE - UNSPECIFIED DIAMETER
SF	(PSFP)	SUBSOIL DRAIN FLUSH POINT/MARKER
SW	(PJBX)	TOP OF CONCRETE JUNCTION BOX
WC	(WC--)	WATER COURSE
WL	(PWLP)	WATER LEVEL POINT

E ELEC

EJB	(PEJB)	CABLE JUNCTION BOX
EMH	(PEMH)	CABLE MANHOLE
EC	(PECM)	CABLE MARKER
EC	(ED--)	CONDUIT
EFP	(PEFP)	DISTRIBUTION FUSE POINT
EGL	(PLGN)	GARDEN LIGHT
	(PHTT)	HIGH TENSION PYLON
EH	(EY--)	HOUSE CONNECTION
	(LI--)	LIGHT WITH OUTREACH
E	(EZ--)	LINE - DIGITISED
E(TL)	(UE--)	LINE - MAJOR TRANSMISSION
E(CH)	(UL--)	LINE - MINOR TRANSMISSION
E(U)	(EU--)	LINE - UNDERGROUND
	(EN--)	MAIN SUMP
	(PLPL)	POLE - LIGHT
EP	(PPPL)	POLE - POWER
	(PPLP)	POLE - POWER AND LIGHT
	(PPTR)	POLE - POWER AND TRANSFORMER
	(PEUP)	POWER SERVICE PILLAR - UNDERGROUND
	(EL--)	PYLON LEG
	(PSAP)	STAY ANCHOR POLE
	(PSPL)	STAY POLE
	(PLSU)	SUSPENDED LIGHT
	(EC--)	TRANSFORMER CABINET
	(PETC)	TRANSFORMER CABINET CENTRE

E FOTO (PHOTOGRAMMETRY)

HCP	(PHCP)	HORIZONTAL CONTROL POINT
MCP	(PMCP)	MINOR CONTROL POINT
	(PPCN)	PHOTO CENTRE
	(PVCP)	VERTICAL CONTROL POINT

E GAS

EG	(HA--)	ETHANE PIPELINE
GH	(DG--)	HOUSE CONNECTION
G	(ZG--)	MAIN - DIGITISED (GIS)
HG	(HG--)	MAIN - HIGH PRESSURE PIPELINE
LG	(LG)	MAIN - LOW PRESSURE
GN	(NG--)	MAIN - NYLON
GP	(YG--)	MAIN - POLYETHYLENE
GMH	(PGHL)	MANHOLE COVER
	(PGMR)	METER
GP	(PGPM)	PIPELINE MARKER
HP	(PGHM)	PIPELINE MARKER - HIGH PRESSURE
	(PGRB)	REGULATOR BOX
	(PGTP)	TEST POINT
	(PGAS)	VALVE BOX
	(PGVP)	VENT PIPE

E HERI (HERITAGE)

	(PHEC)	ENDANGERED COMMUNITY
	(PHEE)	ENDANGERED ECOLOGICAL COMMUNITY
	(PHAZ)	HAZARDOUS SITE
	(PHIA)	INDIGENOUS HERITAGE AREA
	(PHNI)	NON INDIGENOUS HERITAGE SITE

E LNMK

	(AL--)	ARROW - LEFT TURN
	(AR--)	ARROW - RIGHT TURN
	(AS--)	ARROW - STRAIGHT AHEAD
	AE--)	ARROW - STRAIGHT AHEAD AND LEFT
	(AI--)	ARROW - STRAIGHT AHEAD AND RIGHT
	(BS--)	BARRIER AND SEPARATION
	(SB--)	SEPARATION AND BARRIER
	(CV--)	CHEVRON MARKING LEFT
	(CY--)	CHEVRON MARKING RIGHT
	(CW--)	CLEARWAY (3x3)
	(CC--)	CONTINUITY/EDGE INTERMITTENT (1x3)
	(DB--)	DOUBLE BARRIER

E LNMK Continued

	(LL--)	LANE/SEPARATION (3x9)
	(DC--)	LANE (3x6)
	(DA--)	LANE/SEPARATION LINE (9x3)
	(CN)	SEPARATION (3x1)
	(CG)	GIVEWAY/HOLDING LINE/JUNCTION CONTINUITY
	(CX--)	PEDESTRIAN CROSSING (SIGNALS)
	(CZ--)	PEDESTRIAN CROSSING ZEBRA
	(CA--)	PEDESTRIAN CROSSING APPROACH (ZIG ZAG)
40	(S4--)	SPEED ZONE - 40km/h
50	(S5--)	SPEED ZONE - 50km/h
60	(S6--)	SPEED ZONE - 60km/h
70	(S7--)	SPEED ZONE - 70km/h
80	(S8--)	SPEED ZONE - 80km/h
90	(S9--)	SPEED ZONE - 90km/h
100	(S1--)	SPEED ZONE - 100km/h
110	(S2--)	SPEED ZONE - 110km/h
TM	(PTMX)	
	(CD--)	UNBROKEN

E MARK (SURVEY MARKS)

AP	(PAPN)	ALIGNMENT PIN
BM	(PBMK)	BENCH MARK
BL	(PBLT)	BOLT
BP	(PBPG)	BOUNDARY PEG
	(PSSB)	BOUNDARY ARROW
DH	(PDHL)	DRILL HOLE AND WING
DP	(PDPY)	DUMPY PEG
GI	(PGIN)	G I NAIL
PI	(PGPI)	G I PIPE
SM	(PMSM)	MISCELLANEOUS SURVEY MARK
NA	(PNAL)	NAIL
PM	(PPMK)	PERMANENT MARK
RM	(PRMB)	RM CONCRETE BLOCK
CM	(PCMK)	CONTROL MARK
SK	(PSKI)	SPIKE
	(PSTA)	STAR PICKET
SS	(PSSM)	STATE SURVEY MARK
TS	(PTSS)	TRIG STATION-CONCRETE PILLAR
WB	(PDSM)	WATER BOARD PM

E MISC

BH	(PBHX)	BORE HOLE
FLASH	(PCFU)	CAMERA - FLASH UNIT
	(QQ--)	CHECK STRING
GAT	(PGAT)	GATIC COVER LID
	(OG--)	GOLF COURSE
HO	(HO--)	HIGH PRESSURE OIL PIPELINE
HPO	(POHM)	HIGH PRESSURE OIL PIPELINE MARK
	(HP--)	HOTSPOT
	(JL)	JOIN LINE (BOUNDARY)
BR	(PBRK)	BREAK STRINGS
	(OP--)	PARK OR OPEN SPACE
PP	(PPET)	PETROL PUMP
PHOLE	(PHNL)	POT HOLE - NULL LEVEL
PHOLE	(PHRL)	POT HOLE - WITH RL
CAM	(PCAM)	RED LIGHT-SPEED-TRAFFIC CAMERA
	(SL--)	SEISMIC LINE
TS	(PSTS)	SEISMIC TEST SHOT
	(US--)	SERVICE-JUNCTION BOX
	(SG--)	STOCK GRID
	(OH--)	STOCKPILE
TP	(PGEO)	TEST PIT
UT	(UT--)	UNDERGROUND TANK
	(PUTP)	UNDERGROUND TANK POINT
TP	(PPOL)	UNIDENTIFIED POLE
?	(PUSR)	UNIDENTIFIED SERVICE

E RAIL

RCB	(PRBX)	RAILWAY CONTROL BOX
	(RF--)	RAILWAY FORMATION EDGE
	(RR--)	RAILWAY RAMP
	(PRSG)	RAILWAY SIGNAL
RS	(RS--)	RAILWAY SIGNAL TROUGH
RS	(PRCC)	RAILWAY SIGNAL TROUGH - POINT
RST	(PSTR)	RAILWAY STANCHION
	(RT--)	RAILWAY TRACK CENTRE
RTM	(PRTM)	RAILWAY TRACK MONUMENT
	(RA--)	TOP OF RAIL
RA	(PRAL)	TOP OF RAIL - POINT
	(RP--)	TOP OF RAILWAY PLATFORM

* DENOTES SYMBOL SCALED FOR CLARITY

1-287

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALES
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Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

pitt&sherry

Tasmanian Government

DESIGNED L. ALLEN
REVIEWED D. COE

Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

PROJECT LEGEND - DRG 2

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1006	23-Sep-20, 12:18 PM	1006

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AMENDED

1-288

E ROAD

	(BK--)	BACK OF KERB
	(RC--)	CENTRE OF ROAD
	(DW--)	DRIVEWAY
	(EJ--)	EDGE OF FORMATION
	(EM--)	EDGE OF MEDIAN
	(EP--)	EDGE OF PAVEMENT
	(EK--)	EDGE OF TRACK
	(UR--)	EDGE OF UNSEALED ROAD
	(FP--)	FOOTPATH
	(FI--)	GUTTER FLOW LINE
	(LP--)	LIP LINE
	(OF--)	OFFSET CROWN-CROWN
	(KR--)	PRAM RAMP
	(FG--)	SAFETY BARRIER GUARD FENCE
	(KJ--)	SAFETY BARRIER TYPE F
	(FW--)	SAFETY BARRIER WIRE ROPE
	(KB--)	TOP OF KERB
	(TM--)	TOP OF MEDIAN
	(VT--)	VEHICULAR TRACK EDGE
×	(PRPB)	POINT ON BITUMEN

E SEWR

SH	(SY--)	HOUSE CONNECTION
SLH	(PSLH)	LAMPHOLE
S	(SM--)	MAIN
S	(SZ--)	MAIN - DIGITISED (GIS)
S	(PSMH)	MANHOLE COVER
SP	(SP--)	SEWAGE POND
	(ST--)	SEPTIC TANK
SVP	(PSVP)	VENT PIPE
PUMP	(PWEP)	PUMP STATION

E STNS

	(PSSD)	AP-DH-GI-PIPE OR RMCB
	(PSSE)	BOLT-DUMPY-NAIL-SPIKE
STN RL	(PSSA)	DEFAULT SURVEY MARK
	(PSSC)	PEG
	(PSSG)	PM SSM OR CONTROL MARK
	(PSSF)	TRIG STATION

E TCS (TRAFFIC)

	(SD--)	SIGNAL DETECTOR
	(PSGL)	TRAFFIC CONTROL SIGNAL
	(TO--)	TRAFFIC LIGHT WITH OUTREACH
TSC	(PSCL)	TRAFFIC SIGNAL CONTROLLER
TSD	(PSDR)	TRAFFIC SIGNAL DETECTOR
	(PSJX)	TRAFFIC SIGNAL JUNCTION BOX

E TEXT

TEXT 1.8	GREY (AUTOCAD COLOUR 8)
TEXT 2.5	WHITE (AUTOCAD COLOUR 7)
TEXT 3.5	YELLOW (AUTOCAD COLOUR 2)
TEXT 5.0	RED (AUTOCAD COLOUR 1)
TEXT 7.0	CYAN (AUTOCAD COLOUR 4)

E TOPO

	(BB--)	BOTTOM OF BANK-EMBANKMENT
	(NB--)	BREAKLINE OR RIDGE
	(VC--)	CLIFF-ESCARPMENT
	(JC--)	CULTIVATION PASTURE
	(EG--)	EDGE OF GARDEN
	(FO--)	FORD
	(JG--)	GRASSLAND
	(WL--)	LAKE
	(VL--)	LANDSLIDE-ERODED BANK
	(NS--)	NATURAL SURFACE
+	(PNSS)	NATURAL SURFACE POINT
	(JO--)	ORCHARD
	(RE--)	RESERVOIR
	(WR--)	RIVER OR CREEK EDGE
	(JR--)	ROCK AREA
	(PSHT)	SPOT HEIGHT
	(JW--)	SWAMP OUTLINE
	PSWA)	SWAMP-MARSH
	(JD--)	TIMBER OR SCRUB (DENSE)
	(JM--)	TIMBER OF SCRUB (MEDIUM)
	(JS--)	TIMBER OF SCRUB (SCATTERED)
	(TC--)	TOP OF BANK
	(CU--)	TOP OF CUTTING
	(TR--)	TREE FOLIAGE (TR)
	(PF01)	TREE FOLIAGE - 1m SPREAD
	(PF02)	TREE FOLIAGE - 2m SPREAD
	(PF03)	TREE FOLIAGE - 3m SPREAD
	(PF04)	TREE FOLIAGE - 4m SPREAD
	(PF05)	TREE FOLIAGE - 5m SPREAD

E TOPO Continued

	(PF06)	TREE FOLIAGE - 6m SPREAD
	(PF07)	TREE FOLIAGE - 7m SPREAD
	(PF08)	TREE FOLIAGE - 8m SPREAD
	(PF09)	TREE FOLIAGE - 9m SPREAD
	(PF10)	TREE FOLIAGE - 10m SPREAD
	(PF12)	TREE FOLIAGE - 12m SPREAD
	(PF15)	TREE FOLIAGE - 15m SPREAD
	(PT01)	TREE TRUNK - 100mm DIA
	(PT02)	TREE TRUNK - 200mm DIA
	(PT03)	TREE TRUNK - 300mm DIA
	(PT04)	TREE TRUNK - 400mm DIA
	(PT05)	TREE TRUNK - 500mm DIA
	(PT06)	TREE TRUNK - 600mm DIA
	(PT07)	TREE TRUNK - 700mm DIA
	(PT08)	TREE TRUNK - 800mm DIA
	(PT09)	TREE TRUNK - 900mm DIA
	(PT10)	TREE TRUNK - 1000mm DIA
	(PT12)	TREE TRUNK - 1200mm DIA
	(PT15)	TREE TRUNK - 1500mm DIA
	(PTRE)	TREE TRUNK - UNSPECIFIED DIAMETER
	(WE--)	WATER EDGE-LEVEL (WE)

E TRIA

	(TX--)	TRIANGULATION - DTM

E WATR

AV	(PWAV)	AIR VALVE
WR	(PRAV)	AIR VALVE - RECYCLED
	(PWET)	EARTH TERMINAL
WR	(PRET)	EARTH TERMINAL - RECYCLED
FH	(PWFB)	FIRE HYDRANT
WH	(WY--)	HOUSE CONNECTION
WR	(PWHY)	HYDRANT
WR	(PRHY)	HYDRANT - RECYCLED
W	(WM--)	MAIN
W	(WZ--)	MAIN - DIGITISED (GIS)
WR	(RM--)	MAIN - RECYCLED
WM	(PWMM)	MAIN MARKER
WR	(PRMM)	MAIN MARKER - RECYCLED
WM	(PWMR)	METER
WR	(PRMR)	METER - RECYCLED
WO	(UO--)	OVERHEAD PIPELINE
SV	(PWSV)	STOP VALVE
WR	(PRSV)	STOP VALVE - RECYCLED
TAP	(PWTP)	TAP
TAPR	(PRTP)	TAP - RECYCLED
SCV	(PWCV)	SCOUR VALVE
SR	(PRCV)	SCOUR VALVE - RECYCLED
TP	(UP--)	UNIDENTIFIED PIPELINE

E OTHER (uncoded features)

WC	DRAI	WATER COURSE (GIS)
SW	DRAI	STORMWATER (GIS)
EC	ELEC	CONDUIT (GIS)
E(TL)	ELEC	LINE - MAJOR TRANSMISSION (GIS)
E(OH)	ELEC	LINE - MINOR TRANSMISSION (GIS)
E(U)	ELEC	LINE - UNDERGROUND (GIS)
TT	TCS	TRAFFIC SIGNAL CABLE

* DENOTES SYMBOL SCALED FOR CLARITY

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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Tasmanian Government

DESIGNED L. ALLEN
REVIEWED D. COE

Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

PROJECT LEGEND - DRG 3

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1007	23-Sep-20, 12:18 PM	1007

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REVISION 0

AMENDED

1–289

D ANNO (ANNOTATION)

- NORTH POINT
- AMENDMENT
- SETOUT POINT

D BDGE (BRIDGE STRUCTURES)

- ABUTMENT BOTTOM
- BRIDGE DECK
- PIER/COLUMN

D BUIL (BUILDINGS & STRUCTURES)

- ROOFLINE
- WALL
- DOORWAY
- FLOOR LEVEL
- RETAINING WALL
- STAIRS - OUTSIDE

D BDYS (BOUNDARIES)

- CADASTRAL
- EASEMENT
- LIMIT OF CONTRACT
- EXTENT OF PROJECT

D COMM (COMMUNICATIONS)

- TELEPHONE LINE
- TELEPHONE LINE - ABOVE GROUND
- TELEPHONE CONDUIT
- TELEPHONE LINE - REDUNDANT
- OPTICAL FIBRE - ABOVE GROUND
- OPTICAL FIBRE - UNDERGROUND
- OPTICAL FIBRE FIBRE CONDUIT
- ITS CABLE
- ABOVE GROUND JOINING POST
- OPTICAL FIBRE JUNCTION BOX
- OPTICAL FIBRE PIT
- TELEPHONE CABLE MARKER
- TELEPHONE DISTRUBUTION PILLAR
- TELEPHONE POLE
- TELEPHONE SINGLE CONCRETE PIT
- TELEPHONE TRANSMITTER - MOBILE
- TELEPHONE TRIPLE CONCRETE PIT
- TELEPHONE TWIN CONCRETE PIT

* DENOTES SYMBOL SCALED FOR CLARITY
DYNB DENOTES DYNAMC BLOCK DEFINED

D CULT (CULTURAL)

- FENCE - GENERAL (POST & WIRE)
- FENCE - CHAINWIRE
- FENCE - OTHER
- SAFETY FENCE - PEDESTRIAN
- (—) FENCE - SOUND
- FENCE - REDUNDANT/REMOVED
- BIN - LARGE
- BOLLARD
- BUS STOP
- FENCE POST-GUIDE POST
- DYNB GATE
- DYNB LARGE SIGN
- MAILBOX
- PARKING METER
- RUBBISH BIN
- SIGN POST
- SIGN POST - DOUBLE SIDED

D CHCK (CHECKING)

- (HL—) DESIGN CLEAR ZONE (LINE SCALED FOR CLARITY)
- (—) DESIGN SIGHT LINE (LINE SCALED FOR CLARITY)
- (—) DESIGN CONTOUR - INDEX
- (—) DESIGN CONTOUR - INTERMEDIATE
- TURNING PATH - ANALYSIS PATH

NOTE THAT SEPARATE LAYERS CAN BE ADDED FOR VEHICLE PATH ANALYSES AS REQUIRED (I.E. FOR DIFFERENT VEHICLE TYPES).
PROPRIETARY PRODUCTS AUTOMATICALLY GENERATE LAYERS THAT ARE LINKED BACK TO THE ANALYSIS PATH. THE FOLLOWING ELEMENTS ARE FOR GUIDANCE PURPOSES ONLY, AND ARE BASED ON DIER'S STANDARD SETUP FOR AUTOTURN.

GENERAL:

	VEHICLE NAME	COL. 8	CONTINUOUS
	VEHICLE OUTLINE	COL. 8	CONTINUOUS
	TYRES	COL. 8	CONTINUOUS
	TYRE TREAD	COL. 9	CONTINUOUS
	PATH ICONS	COL. 8	CONTINUOUS

ENVELOPES:

	FRONT TYRES	COL. 82	HIDDEN
	REAR TYRES	COL. 12	DASHED
	FRONT CLEARANCE	COL. 130	CONTINUOUS
	REAR CLEARANCE	COL. 130	CONTINUOUS
	VEHICLE BODY	COL. 210	CONTINUOUS
	BODY CLEARANCE	COL. 130	CONTINUOUS
	LOAD (NS)	COL. 50	CONTINUOUS
	LOAD CLEARANCE (NS)	COL. 52	DASHED 2

HATCHING:

	VEHICLE BODY	COL. 241	NET
	BODY CLEARANCE (NS)	COL. 131	DOTS

(NS) DENOTES NOT SHOWN (NORMALLY)

D DRAIN (STORMWATER)

- STORMWATER PIPE
- STORMWATER PIPE - REDUNDANT
- BATTER DRAIN
- DISH DRAIN
- CATCH DRAIN/OPEN DRAIN
- CATCH DRAIN/OPEN DRAIN - LINED
- SUBSOIL DRAIN - GENERAL
- SUBSOIL DRAIN - CLASS 400
- SUBSOIL DRAIN - CLASS 1000
- SUBSOIL DRAIN - STRIP DRAIN
- SURFACE DRAIN - TYPE A1 (UNLINED)
- SURFACE DRAIN - TYPE A2 (LINED)
- SURFACE DRAIN - TYPE B1 (UNLINED)
- SURFACE DRAIN - TYPE B2 (LINED)
- SURFACE DRAIN - TYPE C1 (UNLINED)
- SURFACE DRAIN - TYPE C2 (LINED)
- SURFACE DRAIN
- SURFACE DRAIN - TYPE 1
- SURFACE DRAIN - TYPE 2
- SURFACE DRAIN - TYPE 3
- SURFACE DRAIN - TYPE 4
- SURFACE DRAIN - TYPE 5
- BOX CULVERT
- PIPE
- * DYNB ACCESS PIT
- * SIDE ENTRY PIT - KERB
- * GRATED PIT - KERB
- * GRATED PIT - V GUTTER
- * GRATED PIT - OPEN DRAIN
- * GRATED PIT - TABLE DRAIN
- * CATCH PIT - TABLE DRAIN
- SUBSOIL DRAIN FLUSH POINT
- TOP OF CONCRETE JUNCTION BOX
- INVERT OF SUBSOIL DRAIN OUTLET
- KERB SCUPPER
- OBVERT OF PIPE
- * DYNB ENDWALL - PLAIN / MC
- * DYNB ENDWALL - SINGLE & MULTI RC [SQUARE]
- * DYNB ENDWALL - SINGLE RC [SKEWED]
- * DYNB ENDWALL - TWIN RC [SKEWED]
- * DYNB ENDWALL - MULTI RC [SKEWED]
- * DYNB ENDWALL - DRIVEABLE - TYPE 1
- * DYNB ENDWALL - DRIVEABLE - TYPE 2

D DRAIN (STORMWATER) Continued

- * DYNB BATTER DRAIN - SPLASH APRON
- * DYNB BATTER DRAIN - ENERGY DISSIPATOR
- * DYNB PIPE OUTLET - ENERGY DISSIPATOR [ON LINE]
- * DYNB PIPE OUTLET - ENERGY DISSIPATOR [DEFLECTED

D ELEC

- LINE - GENERAL
- LINE - MAJOR TRANSMISSION
- LINE - MINOR TRANSMISSION
- LINE - UNDERGROUND
- LINE - REDUNDANT
- HOUSE CONNECTION
- CONDUIT
- CABLE JUNCTION BOX
- CABLE MANHOLE
- DISTRIBUTION FUSE POINT
- HIGH TENSION PYLON
- LIGHT WITH OUTREACH
- POLE - LIGHT
- POLE - POWER
- POLE - POWER AND LIGHT
- POLE - POWER AND TRANSFORMER
- POWER SERVICE PILLAR
- STAY ANCHOR POLE
- STAY POLE
- TRANSFORMER CABINET CENTRE

D GAS

- MAIN - GENERAL
- ETHANE PIPELINE
- HOUSE CONNECTION
- MAIN - HIGH PRESSURE PIPELINE
- MAIN - LOW PRESSURE
- MAIN - NYLON
- MAIN - POLYETHYLENE
- MAIN - REDUNDANT
- MANHOLE COVER
- METER
- PIPELINE MARKER
- PIPELINE MARKER - HIGH PRESSURE
- REGULATOR BOX
- TEST POINT
- VALVE BOX
- VENT PIPE

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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Tasmanian Government

DESIGNED L. ALLEN
REVIEWED D. COE

Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
PROJECT LEGEND - DRG 4

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3288	HB19503-C1008	23-Sep-20, 12:18 PM	1008

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

1–290

D LNMK

- ARROW - LEFT TURN
- ARROW - RIGHT TURN
- ARROW - STRAIGHT AHEAD
- ARROW - STRAIGHT AHEAD & LEFT
- ARROW - STRAIGHT AHEAD & RIGHT
- ARROW - MERGE (RURAL)
- ARROW - MERGE (URBAN)
- ARROW - UTURN
- (---) BARRIER (ONE DIRECTION) PD (B1) & (B1a)
- (---) BARRIER (ONE DIRECTION) CD (B1) & (B1a)
- (----) BARRIER (BOTH DIRECTIONS) (B2) & (B2a)
- (---) BARRIER (BOTH DIRECTIONS) (B3) & (B3a)
- (----) BARRIER (BOTH DIRECTIONS) (B4) & (B4a)
- (---) SEPARATION (RURAL) (S) & (Se)
- (----) SEPARATION (URBAN) (S1)
- (---) SEPARATION (MEDIAN LANE) (S2)
- (----) SEPARATION (SPECIAL PURPOSE) (S3) & (S3a)
- (----) SEPARATION (BICYCLE PATHS) (S4)
- (---) LANE (RURAL) (L)
- (---) LANE (URBAN) (L1)
- (---) LANE (TURNOUT LANE) (L2)
- (----) LANE (SPECIAL PURPOSE) (L3)
- (---) LANE (CONTINUOUS) (LC)
- (----) CONTINUITY (C)
- (---) CONTINUOUS CONTINUITY (CC) & (CCa)
- (---) EDGE (URBAN) (E)
- (----) EDGE CONTINUITY (URBAN) (EC)
- (---) EDGE RURAL (E2) & (E2a)
- (----) EDGE CONTINUITY (RURAL) (EC2)
- (---) STOP (SL)
- (---) HOLDING (HL)
- (---) JUNCTION CONTINUITY (JC)
- (---) TURN TRAFFIC SIGNALS (T)
- (---) PEDESTRIAN WALKWAY (W)
- (---) NO STOPPING (NS)
- (B2) (E2) DYNB LINEMARKING IDENTIFICATION CODE
- * RRPM - WHITE - UNIDIRECTIONAL
- * RRPM - WHITE - BIDIRECTIONAL
- * RRPM - YELLOW - UNIDIRECTIONAL
- * RRPM - YELLOW - BIDIRECTIONAL
- * RRPM - RED - UNIDIRECTIONAL
- * RRPM - GREEN - UNIDIRECTIONAL
- * RRPM - NON REFLECTIVE

D MISC

- FUEL FUEL PIPELINE
- UT UNDERGROUND TANK
- SJ SAW CUT
- TR1 SERVICE TRENCH - TYPE 1
- TR2 SERVICE TRENCH - TYPE 2
- TR3 SERVICE TRENCH - TYPE 3
- TR4 SERVICE TRENCH - TYPE 4
- TR5 SERVICE TRENCH - TYPE 5
- TR6 SERVICE TRENCH - TYPE 6
- TR7 SERVICE TRENCH - TYPE 7
- TR8 SERVICE TRENCH - TYPE 8
- TR9 SERVICE TRENCH - TYPE 9
- /S1/ SILT STOP FENCE - TYPE 1
- /S2/ SILT STOP FENCE - TYPE 2
- ST SEDIMENT TRAP
- FP1 PRESERVATION FENCE - TYPE 1
- FP2 PRESERVATION FENCE - TYPE 2
- PUMP PUMP STATION
- 1.000 UTILITY - EXPOSED

D RAIL

- RAILWAY TRACK CENTRE
- TOP OF RAIL
- RAILWAY FORMATION EDGE
- RS RAILWAY SIGNAL TROUGH
- RCB RAILWAY CONTROL BOX
- RAILWAY SIGNAL
- RST RAILWAY STANCHION

D ROAD

- (---) CONTROL LINE - CENTRELINE
- (---) CONTROL LINE - FILLET
- (---) CONTROL LINE - KERB
- (---) OFFSET CROWN
- (---) EDGE OF LANE SEAL
- (---) EDGE OF MEDIAN
- (---) EDGE OF SHOULDER (SEALED)
- (---) EDGE OF FORMATION (UNSEALED)
- (---) SAFETY BARRIER STEEL BEAM
- (---) SAFETY BARRIER WIRE ROPE
- (---) SAFETY BARRIER TYPE F
- (----) KERB - LIP LINE/EDGE OF SEAL
- (---) KERB - INVERT
- (---) KERB - TOP
- (---) KERB - BACK
- (----) FOOTPATH BACK/FOOTPATH FRONT
- (---) TABLE DRAIN
- (---) EDGE OF VERGE
- (---) EARTHWORKS - HINGE
- (---) EARTHWORKS - BATTER
- (---) EARTHWORKS - BENCH
- (----) DRIVEWAY/ACCESS
- (---) INTERFACE/JOINT
- (---) SUBGRADE
- (---) BATTER SYMBOL
- (---) SLOPE SIGNATURE

D SEWR

- S MAIN
- xSx MAIN - REDUNDANT
- SH HOUSE CONNECTION
- SP SEWAGE POND
- (S) MANHOLE COVER
- SVP VENT PIPE
- PUMP PUMP STATION

* DENOTES SYMBOL SCALED FOR CLARITY
DYNB DENOTES DYNAMC BLOCK DEFINED

D TCS (TRAFFIC)

- TT TRAFFIC SIGNAL CABLE
- TT TRAFFIC SIGNAL CONDUIT
- TRAFFIC SIGNAL DETECTOR LOOP
- A * 3 ASPECT LANTERN & PHASE
- A * LOUVRED 3 ASPECT LANTERN
- A * DYNB 3 ASPECT OVERHEAD LANTERN & PHASE
- A * DYNB 3 ASPECT LANTERN WITH GREEN+YELLOW+RED TURN ARROWS & PHASE
- A * DYNB GREEN+YELLOW+RED TURN ARROWS & PHASE
- A * DYNB GREEN + YELLOW TURN ARROWS & PHASE
- A * DYNB GREEN TURN ARROW AND PHASE
- RED A YELLOW * DYNB GREEN TURN ARROW WITH FULL RED + YELLOW ASPECTS AND PHASE
- RED A * DYNB GREEN+YELLOW TURN ARROWS WITH RED ASPE & PHASE
- * PEDESTRIAN PUSH BUTTON
- CA * DYNB PEDESTRIAN LANTERN & WALK PHASE
- * TRAFFIC SIGNAL - WIG WAG LANTERNS
- * TRAFFIC SIGNAL - LOUVRE
- TSC TRAFFIC SIGNAL CONTROLLER
- TRAFFIC SIGNAL JUNCTION BOX

D TRIA

- (TD--) TRIANGULATION - DESIGN SURFACE
- (TC--) TRIANGULATION - COMBINED DESIGN AND SURVE

D WATR

- W MAIN
- WM MAIN - REGIONAL
- WR MAIN - RECYCLED
- xWx MAIN - REDUNDANT
- WH HOUSE CONNECTION
- WO OVERHEAD PIPELINE
- IRR IRRIGATION PIPELINE
- AV AIR VALVE
- WR AIR VALVE - RECYCLED
- FH FIRE HYDRANT
- WH HYDRANT
- WR HYDRANT - RECYCLED
- WM METER
- WR METER - RECYCLED
- SV STOP VALVE
- WR STOP VALVE - RECYCLED
- TAP TAP
- TAPR TAP - RECYCLED
- ScV SCOUR VALVE
- SR SCOUR VALVE - RECYCLED

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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Tasmanian Government

DESIGNED L. ALLEN
REVIEWED D. COE

Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
PROJECT LEGEND - DRG 5

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB18503-C1009	23-Sep-20, 12:18 PM	1009

REGISTRATION NUMBER
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REVISION 0

AMENDED

1-291

L DESN

- DESIGN - SURFACE
- DESIGN - PAVEMENT
- DESIGN - SUB BASE
- DESIGN - SUB GRADE
- DESIGN - STRUCTURE
- SUB SOIL DRAIN

L EXST

- EXISTING SURFACE
- EXISTING SUBSURFACE
- EXISTING STRUCTURE

L SERV

- COMMUNICATION - WITH LEVEL
- DRAINAGE - WITH LEVEL
- ELECTRICAL - WITH LEVEL
- GAS - WITH LEVEL
- SEWER - WITH LEVEL
- WATER - WITH LEVEL
- ELECTRICAL - OVERHEAD
- COMMUNICATION - NO LEVEL
- DRAINAGE - NO LEVEL
- ELECTRICAL - NO LEVEL
- GAS - NO LEVEL
- SEWER - NO LEVEL
- WATER - NO LEVEL

X ANNO

- B1 KERB - LEFT
- B1 KERB - RIGHT
- B2 KERB - LEFT
- B2 KERB - RIGHT
- B3 KERB - LEFT
- B3 KERB - RIGHT
- C1 KERB
- E1 KERB - LEFT
- E1 KERB - RIGHT
- M1 KERB - LEFT
- M1 KERB - RIGHT
- M2 KERB - LEFT
- M2 KERB - RIGHT
- M3 KERB - LEFT
- M3 KERB - RIGHT
- EXISTING ROAD CENTRE LINE

X BARR

- TENSIONED WIRE ROPE
- STEEL BEAM - LEFT
- STEEL BEAM - RIGHT
- POST AND WIRE

X BNDY

- FENCE - EXISTING AND NEW
- BOUNDARY - EXISTING AND NEW

X DESN

- DESIGN SURFACE
- DESIGN - PAVEMENT LAYER
- SUB SOIL DRAIN

X EXST

- EXISTING SURFACE
- EXISTING PAVEMENT

X SERV

- COMMUNICATION - WITH LEVEL
- DRAINAGE - WITH LEVEL
- ELECTRICAL - WITH LEVEL
- GAS - WITH LEVEL
- SEWER - WITH LEVEL
- WATER - WITH LEVEL
- ELECTRICAL - OVERHEAD
- COMMUNICATION - NO LEVEL
- DRAINAGE - NO LEVEL
- ELECTRICAL - NO LEVEL
- GAS - NO LEVEL
- SEWER - NO LEVEL
- WATER - NO LEVEL

* DENOTES SYMBOL SCALED FOR CLARITY
DYNB DENOTES DYNAMC BLOCK DEFINED

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Tasmanian Government

DESIGNED L. ALLEN
REVIEWED D. COE

Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

PROJECT LEGEND - DRG 6

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1010	23-Sep-20, 12:18 PM	1010

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

STORMWATER : NETWORK 1

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
EX-MH-1-5	516798.581	5401098.548	EXISTING	375	170.128			171.321	170.128	1.193	EXISTING PIT
MH-1-4	516769.201	5401135.188	ACCESS PIT	375	170.377	375	170.340	171.518	170.340	1.178	3402-9/P23-5
				375	170.428						
EX-MH-1-3	516762.212	5401143.756	EXISTING	375	170.459	375	170.419	171.571	170.419	1.152	EXISTING PIT
				375	170.469						
SEP-M1-1-2	516754.773	5401148.145	M1 SIDE ENTRY PIT	375	170.563	375	170.502	171.699	170.502	1.197	3402-9/P24-4
GP OD-1-1	516752.437	5401145.851	OD GRATED PIT			375	170.569	171.194	170.569	0.625	3402-9/P20-2
SEP-M1-1-8	516765.892	5401133.804	M1 SIDE ENTRY PIT	375	170.496	375	170.446	171.57	170.446	1.124	3402-9/P24-4
SEP-M1-1-7	516767.624	5401126.575	M1 SIDE ENTRY PIT			375	170.533	171.523	170.533	0.989	3402-9/P24-4
SEP-M1-1-6	516777.159	5401155.203	M1 SIDE ENTRY PIT			375	170.563	171.384	170.563	0.821	3402-9/P24-4

STORMWATER : NETWORK 2

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
HW-2-OUTFALL	516575.992	5401346.016	RC ENDWALL	750	171.772			171.773	171.772		3402-2/P13-3
MH-2-2	516568.754	5401347.881	ACCESS PIT	750	171.000	750	171.809	172.973	171.809	1.164	REFER BELOW
HW-2-1	516553.536	5401375.860	RC ENDWALL			750	171.505	171.505	171.505	0.000	3402-2/P14-2

STORMWATER : NETWORK 3

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
HW-3-OUTFALL	516553.311	5401379.273	PLAIN ENDWALL	375	171.700			172.300	171.700		3402-2/P24-2
SEP-M1-3-5	516558.124	5401383.02	M1 SIDE ENTRY PIT	375	172.404	375	171.883	173.790	171.883	1.907	3402-9/P24-4
SEP-M1-3-4	516577.07	5401397.769	M1 SIDE ENTRY PIT	375	172.574	375	172.524	173.633	172.524	1.109	3402-9/P24-4
SEP-M1-3-3	516546.356	5401437.179	M1 SIDE ENTRY PIT	375	172.874	375	172.824	173.922	172.824	1.098	3402-9/P24-4
SEP-M1-3-2	516515.548	5401476.629	M1 SIDE ENTRY PIT	375	173.460	375	173.340	174.317	173.34	0.978	3402-9/P24-4
HW-3-1	516516.803	5401477.622	PLAIN ENDWALL			375	173.508	173.517	173.508	0.009	3402-2/P24-2

STORMWATER : NETWORK 4

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
HW-4-OUTFALL	516455.839	5401502.565	RC ENDWALL	750	173.340			173.340	173.340		3402-2/P13-3
MH-4-5	516456.730	5401508.963	ACCESS PIT	750	173.420	750	173.370	174.833	173.370	1.463	3402-9/P23-5
EX-4-4	516454.476	5401511.771	EXISTING	375	173.470	750	173.438	174.649	173.438	1.211	EXISTING PIT
SEP-M1-4-3	516445.873	5401529.905	M1 SIDE ENTRY PIT	375	173.790	375	173.571	175.050	173.571	1.480	3402-9/P24-4
				375	173.621						
GP-M1-4-2	516462.817	5401542.023	M1 GRATED PIT DEFLECTOR	375	173.945	375	173.895	174.921	173.895	1.027	3402-2/P29-1
GP-M1-4-1	516434.270	5401578.138	M1 GRATED PIT DEFLECTOR			375	174.301	175.277	174.301	0.976	3402-2/P29-1
GP OD-4-6	516440.498	5401532.603	OD GRATED PIT			375	173.651	174.752	173.651	1.101	3402-9/P20-2

STORMWATER : NETWORK 5

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
HW-5-OUTFALL	516368.252	5401717.786	PLAIN ENDWALL	375	173.100			173.111	173.100		3402-2/P24-2
SEP-M1-5-6	516369.71	5401714.429	M1 SIDE ENTRY PIT	375	173.208	375	173.158	174.391	173.158	1.233	3402-9/P24-4
MH-5-5	516372.369	5401706.281	ACCESS PIT	375	173.301	375	173.251	174.638	173.251	1.387	
				375	173.738						3402-9/P23-5
SEP-M1-5-4	516377.403	5401699.127	M1 SIDE ENTRY PIT	375	173.492	375	173.413	174.527	173.413	1.115	
SEP-M1-5-3	516381.436	5401662.535	M1 SIDE ENTRY PIT	375	173.857	375	173.806	175.302	173.806	1.495	3402-9/P24-4
SEP-M1-5-2	516363.83	5401639.296	M1 SIDE ENTRY PIT	375	174.053	375	174.003	175.532	174.003	1.529	3402-9/P24-4
GP OD-5-1	516373.363	5401619.014	OD GRATED PIT			375	174.165	174.865	174.165	0.700	3402-9/P20-2
GP OD-5-7	516351.963	5401690.452	OD GRATED PIT			375	174.356	175.256	174.356	0.900	3402-9/P20-2

NOTE:
MH2-2 TO BE 1200x1200 HEAVY DUTY PRECAST STORMWATER PIT

1-292

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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DESIGNED L. ALLEN
REVIEWED D. COE

Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
NODE SCHEDULE - SHEET 1

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1016	23-Sep-20, 12:18 PM	1016

REGISTRATION NUMBER
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REVISION 0

AMENDED

1-293

STORMWATER : NETWORK 6

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
HW-6-OUTFALL	516301.676	5401676.272	RC ENDWALL	900	174.700			174.700	174.700		3402-2/P14-2
MH-6-4	516302.005	5401672.586	ACCESS PIT	375	174.788	900	174.720	176.128	174.720	1.408	3402-9/P23-5
GP-M1-6-3	516300.729	5401664.509	M1 GRATED PIT DEFLECTOR	375	174.879	375	174.829	175.998	174.829	1.169	3402-2/P29-1
GP-M1-6-2	516320.722	5401653.680	M1 GRATED PIT DEFLECTOR	375	175.049	375	174.999	176.011	174.999	1.012	3402-2/P29-1
EX-7-1	516320.592	5401648.318	EXISTING			375	175.270	176.293	175.270	1.023	EXISTING PIT

STORMWATER : NETWORK 7

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
HW-7-OUTFALL	516324.692	5401730.528	RC ENDWALL	600	173.866			174.841	173.866		3402-2/P14-2
SEP-M1-7-4	516321.785	5401727.110	M1 SIDE ENTRY PIT	600	174.379	600	173.889	175.755	173.889	1.866	3402-9/P24-4
SEP-M1-7-3	516299.900	5401710.343	M1 SIDE ENTRY PIT	600	174.581	600	174.531	175.946	174.531	1.415	3402-9/P24-4
SEP-M1-7-2	516285.423	5401729.868	M1 SIDE ENTRY PIT	600	174.753	600	174.703	176.003	174.703	1.301	3402-9/P24-4
DE TYPE 1-7-1	516276.776	5401741.208	DRIVEABLE TYPE 1			600	174.824	174.967	174.824	0.143	3402-2/P35-2

STORMWATER : NETWORK 8

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
HW-8-OUTFALL	516668.305	5401234.024	PLAIN ENDWALL	375	170.901			171.192	170.901		3402-2/P24-2
GP M1-8-1	516675.955	5401240.084	M1 GRATED PIT DEFLECTOR			375	170.950	171.987	170.950	1.037	3402-2/P29-1

SEWER : NETWORK 1

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
SEW-1-1	516342.665	5401649.913	ACCESS PIT	225	173.282			175.747	173.282	2.465	WSAA SEW MH DN1050
SEW-1-2	516319.210	5401651.174	ACCESS PIT	225	173.449	225	173.399	176.084	173.399	2.685	WSAA SEW MH DN1051
SEW-1-3	516295.910	5401675.776	ACCESS PIT	225	173.665	225	173.615	176.168	173.615	2.540	WSAA SEW MH DN1052
SEW-1-4	516289.607	5401716.056	ACCESS PIT			225	174.076	175.212	174.076	1.144	WSAA SEW MH DN1053

SEWER : NETWORK 2

NODE NAME	EASTING	NORTHING	TYPE	INLET DIAMETER (mm)	INLET LEVEL (m)	OUTLET DIAMETER (mm)	OUTLET INVERT LEVEL (m)	COVER LEVEL (m)	NODE INVERT LEVEL (m)	DEPTH TO NODE INVERT (m)	REFERENCE
SEW-2-1	516586.988	5401349.695	ACCESS PIT	225	225			173.173	170.264	2.909	WSAA SEW MH DN1053
SEW-2-2	516575.534	5401349.936	ACCESS PIT	225		225	170.321	173.036	170.321	2.7150	WSAA SEW MH DN1053

NOTE:
SEP-M1-7-2 TO BE INSTALLED WITH LARGER CHAMBER TO ALLOW INSTALLATION OF PIPES ON ANGLE

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
N.T.S.

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

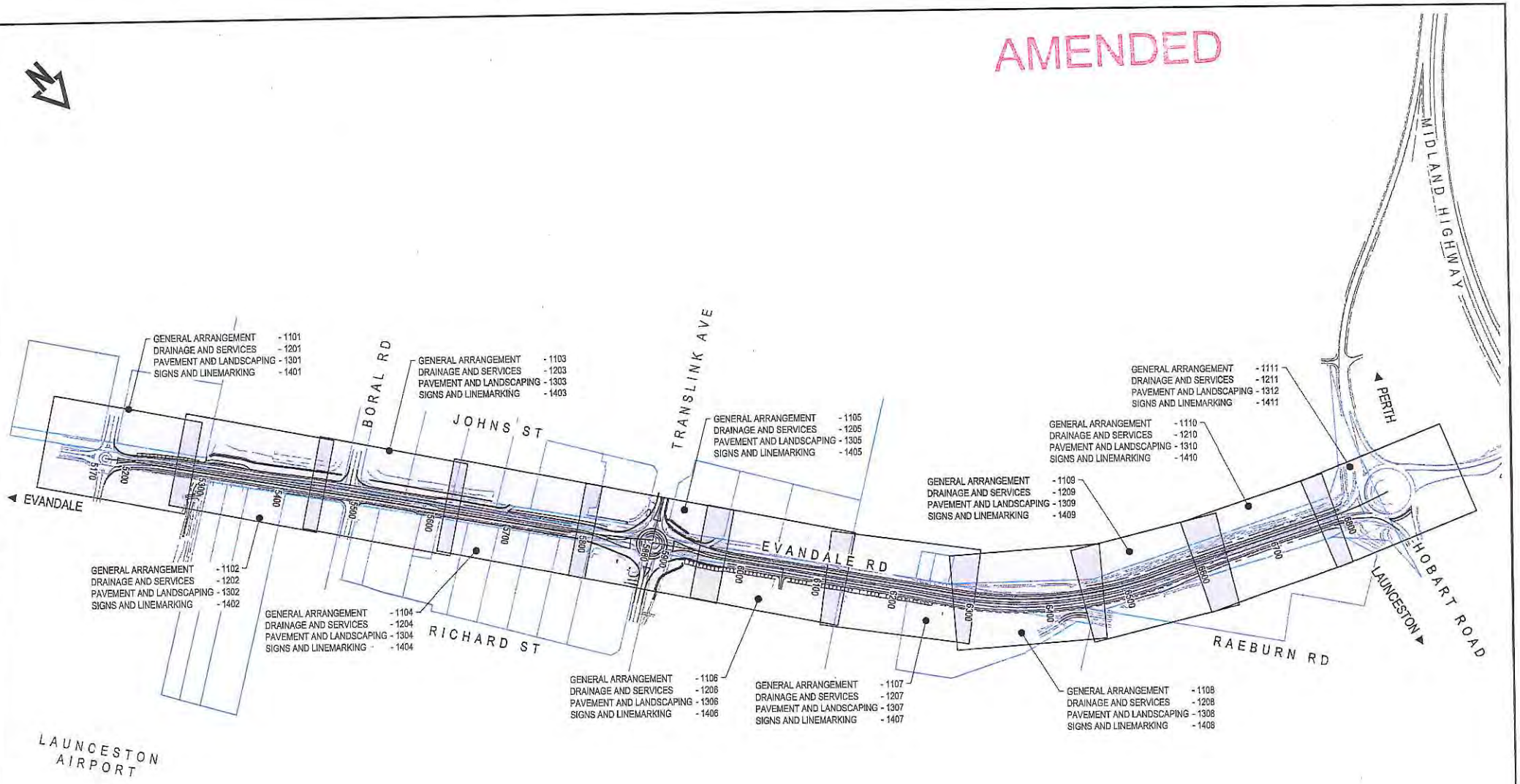
NODE SCHEDULE - SHEET 2

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3266	HB19503-C1017	23-Sep-20, 12:18 PM	1017

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



1-294

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
1:5000 (A3)
75 0 75 150 225 300
SCALE IN METRES - 1:7500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

GENERAL ARRANGEMENT - KEY PLAN

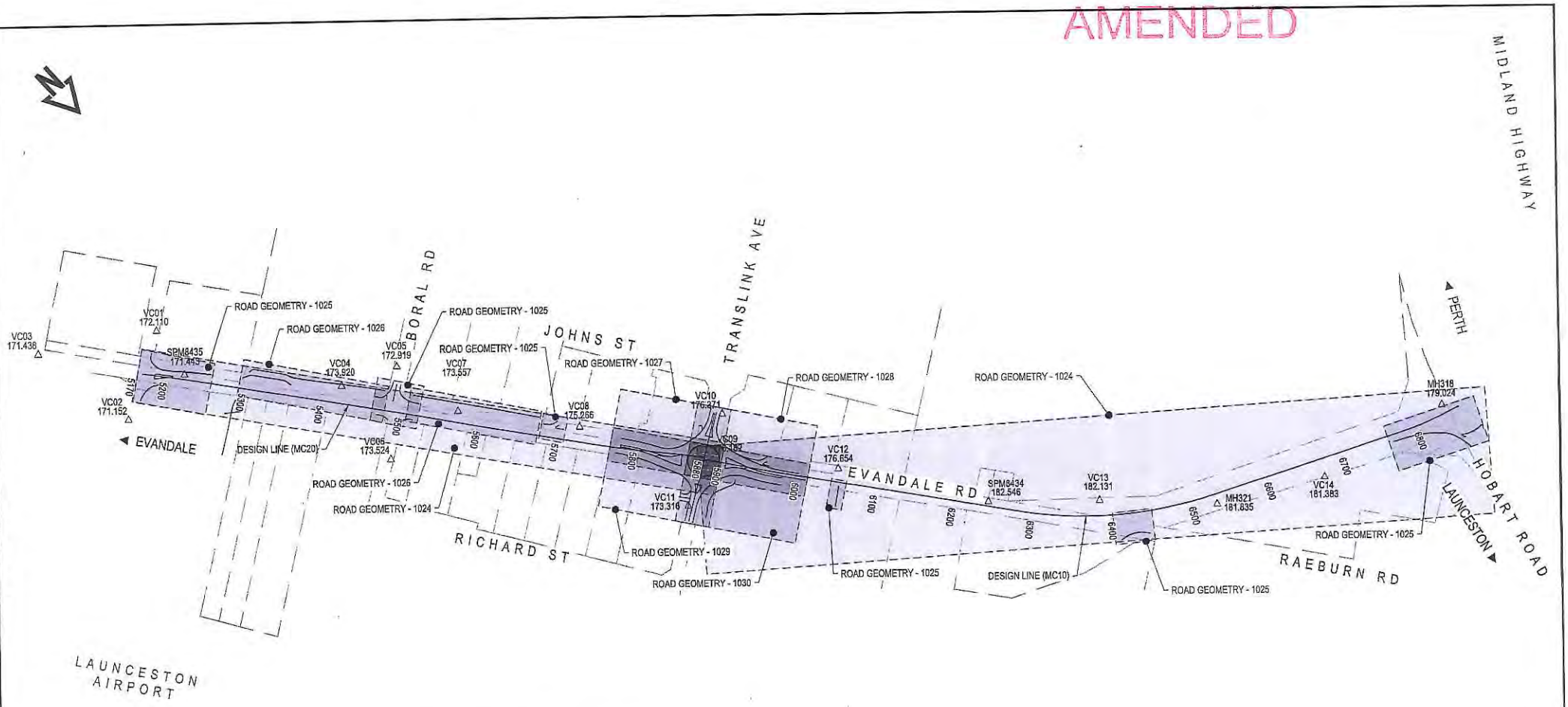
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1021	23-Sep-20, 12:19 PM	1021

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

1–295



SURVEY CONTROL - SETOUT POINTS			
POINT	EASTING	NORTHING	LEVEL
MH318	515601.213	5402254.386	179.024
MH321	515896.660	5402157.879	181.835
SPM8434	516109.596	5401961.734	182.546
SPM8435	516747.439	5401158.789	171.443
VC01	516737.100	5401095.118	172.110
VC02	516838.602	5401154.209	171.152
VC03	516866.263	5401016.212	171.438
VC04	516610.895	5401303.248	173.920
VC05	516542.961	5401332.162	172.919

SURVEY CONTROL - SETOUT POINTS			
POINT	EASTING	NORTHING	LEVEL
VC06	516628.372	5401414.862	173.524
VC07	516524.314	5401426.274	173.557
VC08	516424.621	5401544.256	175.266
VC09	516339.430	5401684.178	176.182
VC10	516281.177	5401652.816	176.371
VC11	516392.019	5401711.559	173.316
VC12	516220.136	5401802.788	176.654
VC13	516003.650	5402054.796	182.131
VC14	515772.278	5402223.374	181.383

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
1:5000 (A3)
75 0 75 150 225 300
SCALE IN METRES - 1:7500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

ALIGNMENT AND SURVEY CONTROL - KEY PLAN

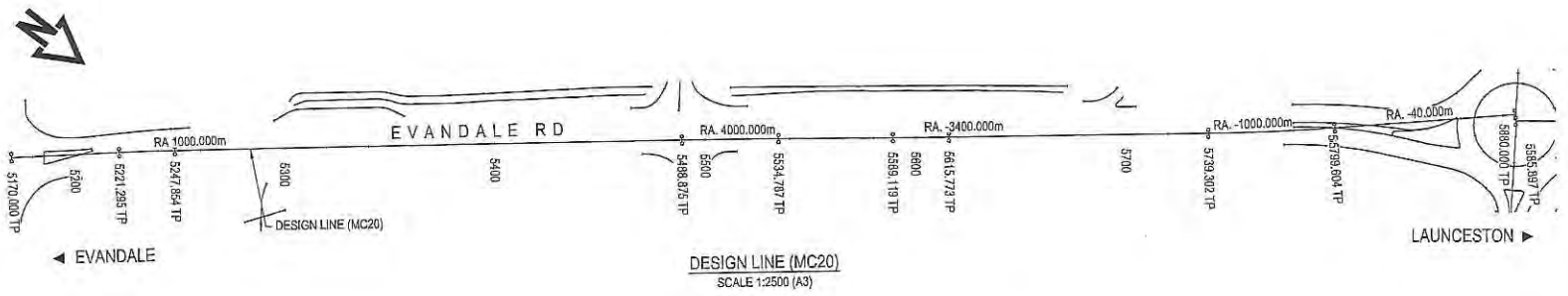
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1023	23-Sep-20, 12:19 PM	1023

REGISTRATION NUMBER
A1109.001

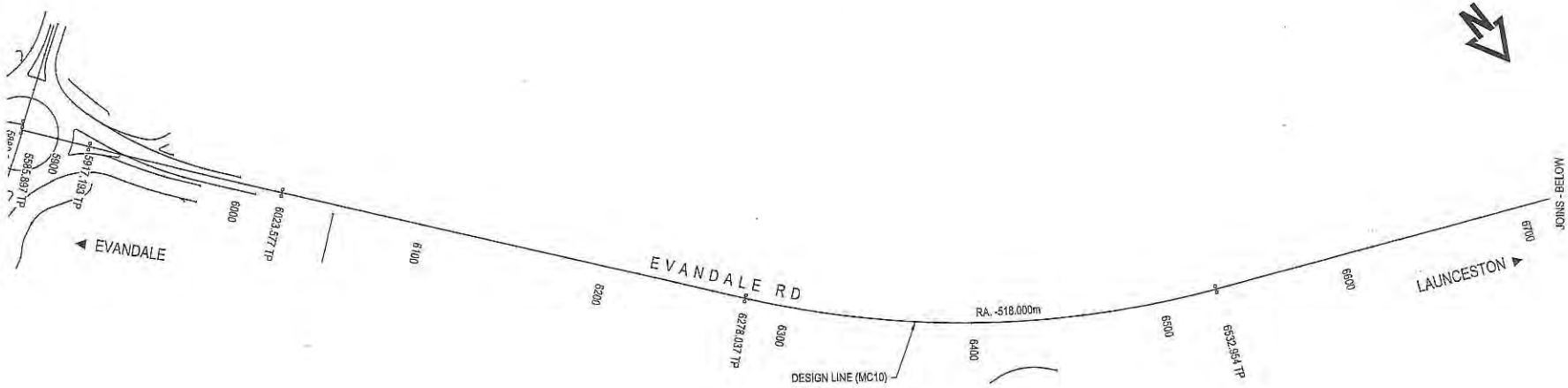
REVISION 0

AMENDED

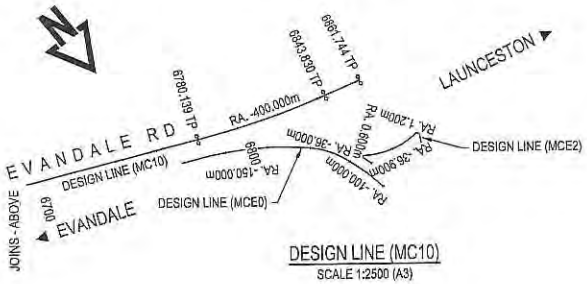
1–296



DESIGN LINE (MC20)
SCALE 1:2500 (A3)



DESIGN LINE (MC10)
SCALE 1:2500 (A3)



DESIGN LINE (MC10)
SCALE 1:2500 (A3)

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

SCALES
1:2500 (A3)
25 0 25 50 75 100
SCALE IN METRES - 1:2500
Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
ALIGNMENT AND SURVEY CONTROL - DRG 1

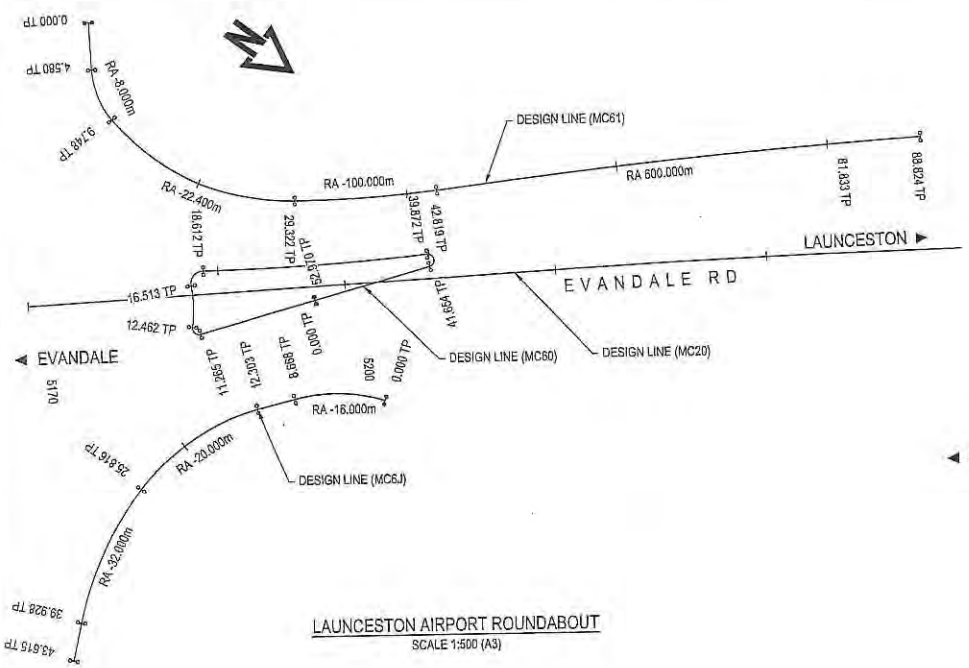
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1024	23-Sep-20, 12:19 PM	1024

REGISTRATION NUMBER
A1109.001

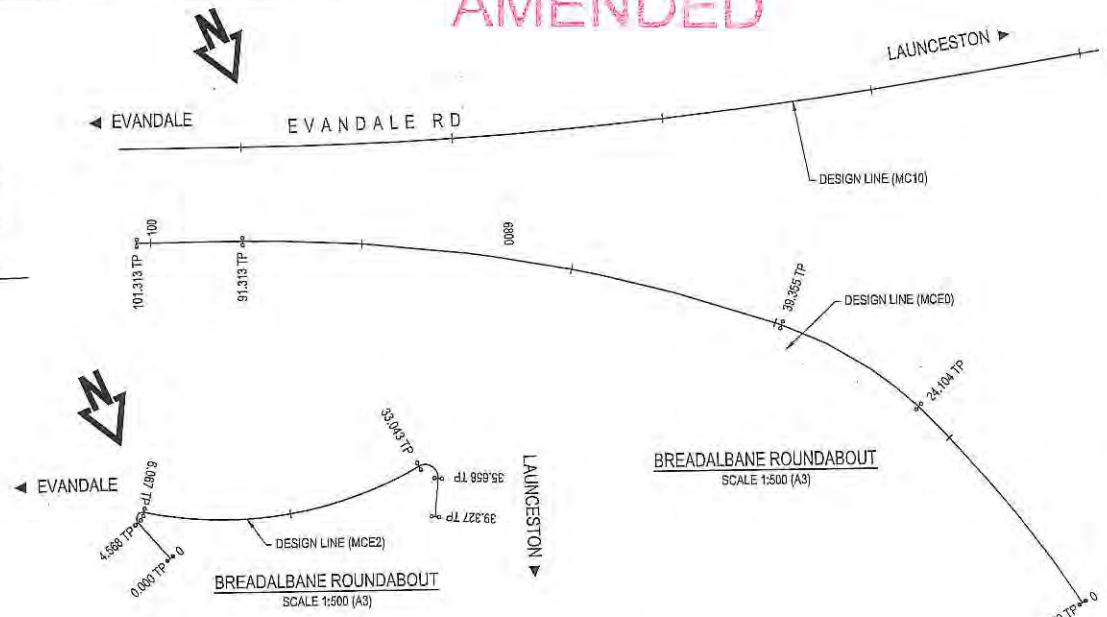
REVISION 0

AMENDED

1–297

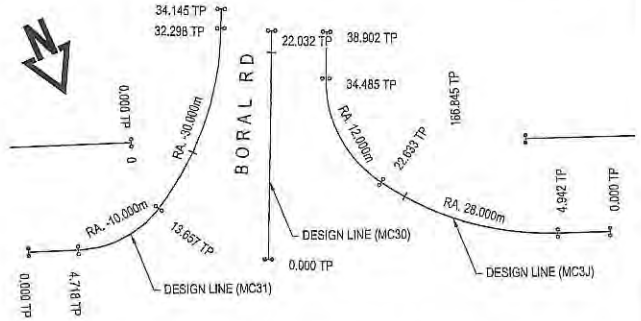


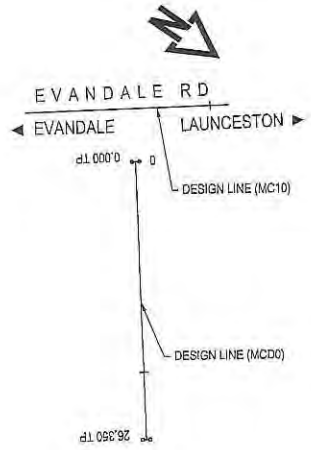
LAUNCESTON AIRPORT ROUNDABOUT
SCALE 1:500 (A3)



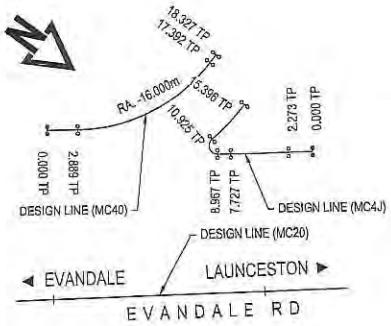
BREADALBANE ROUNDABOUT
SCALE 1:500 (A3)

BREADALBANE ROUNDABOUT
SCALE 1:500 (A3)

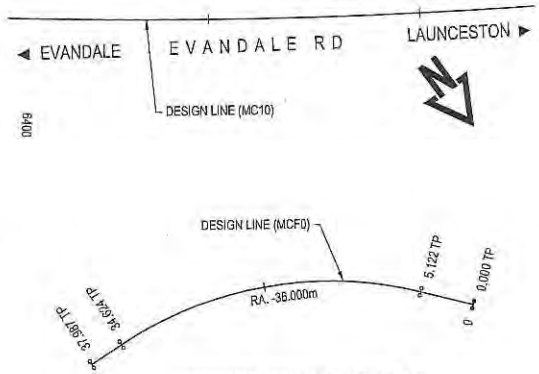




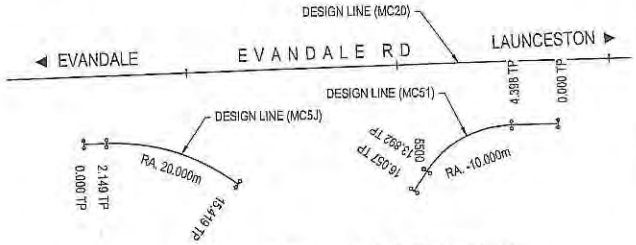
PROPERTY ACCESS CH.6055 (MC10)
SCALE 1:500 (A3)



CHANNELISED ACCESS CH.5690 (MC20)
SCALE 1:500 (A3)



RAEBURN ROAD REALIGNMENT
SCALE 1:500 (A3)



BORAL ROAD AND RICHARD STREET ACCESS
SCALE 1:500 (A3)

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
1:500 (A3)
5 0 5 10 15 20
SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
ALIGNMENT AND SURVEY CONTROL - DRG 2

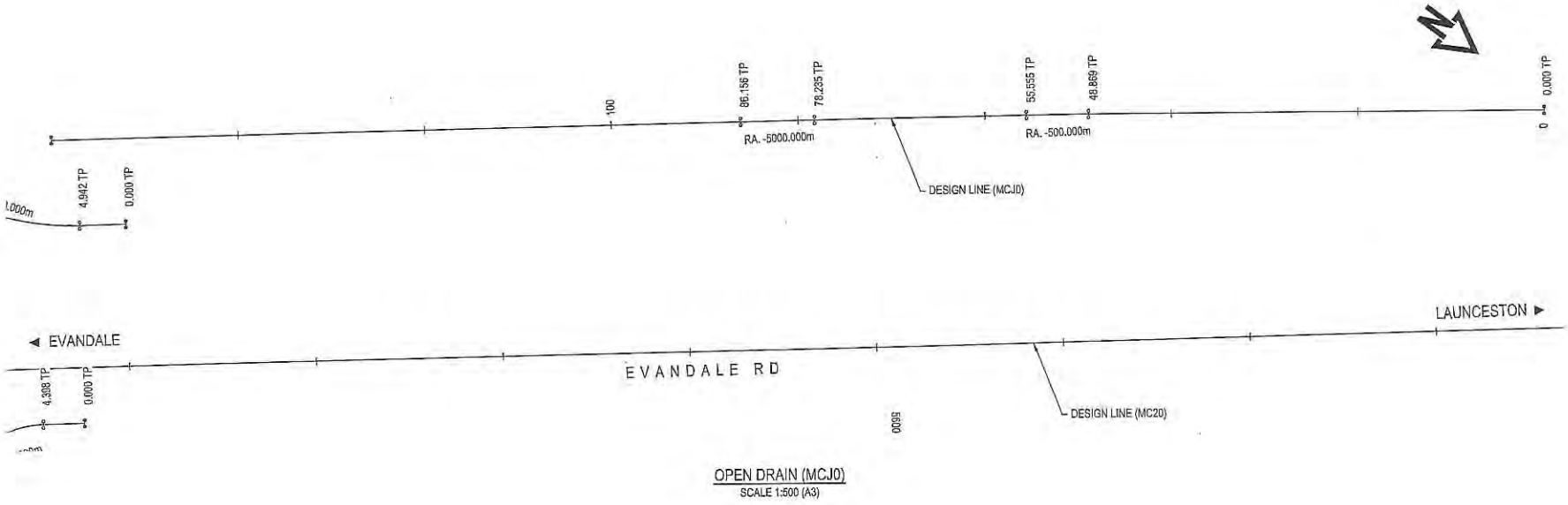
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1025	23-Sep-20, 12:19 PM	1025

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

OPEN DRAIN AND ACCESS (MCK0, MCM0)
SCALE 1:500 (A3)



OPEN DRAIN (MCJ0)
SCALE 1:500 (A3)

1–298

D	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

SCALES
1:500 (A3)
5 0 5 10 15 20
SCALE IN METRES - 1:500
Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
ALIGNMENT AND SURVEY CONTROL - DRG 3

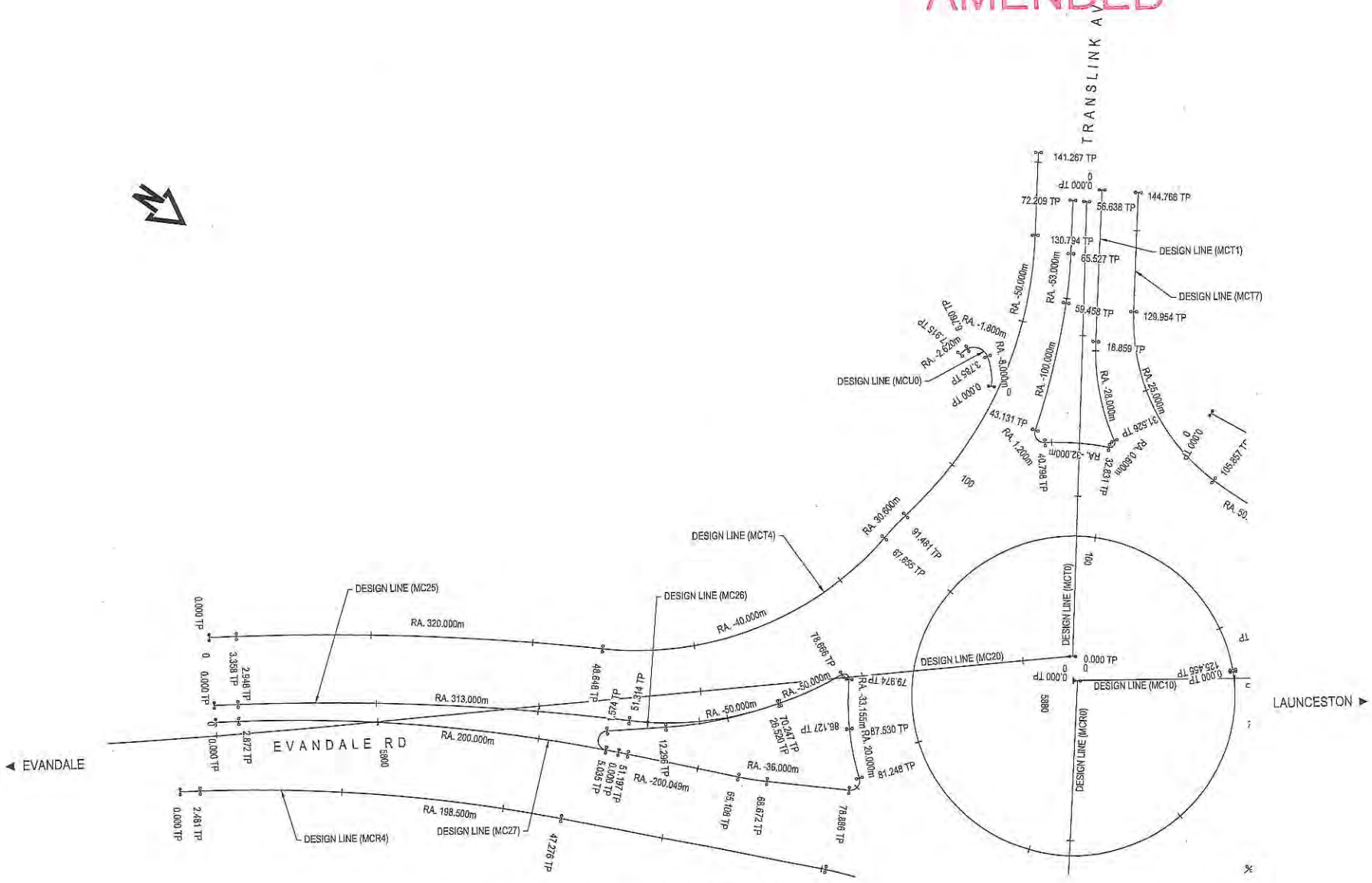
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1026	23-Sep-20, 12:19 PM	1026

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

1–299



EVANDALE RD / TRANSLINK AVE
ROUNDABOUT SOUTH-WEST
SCALE 1:500 (A3)

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

SCALES
1:500 (A3)
15 0 5 10 15 20
SCALE IN METRES - 1:500
Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
ALIGNMENT AND SURVEY CONTROL - DRG 4

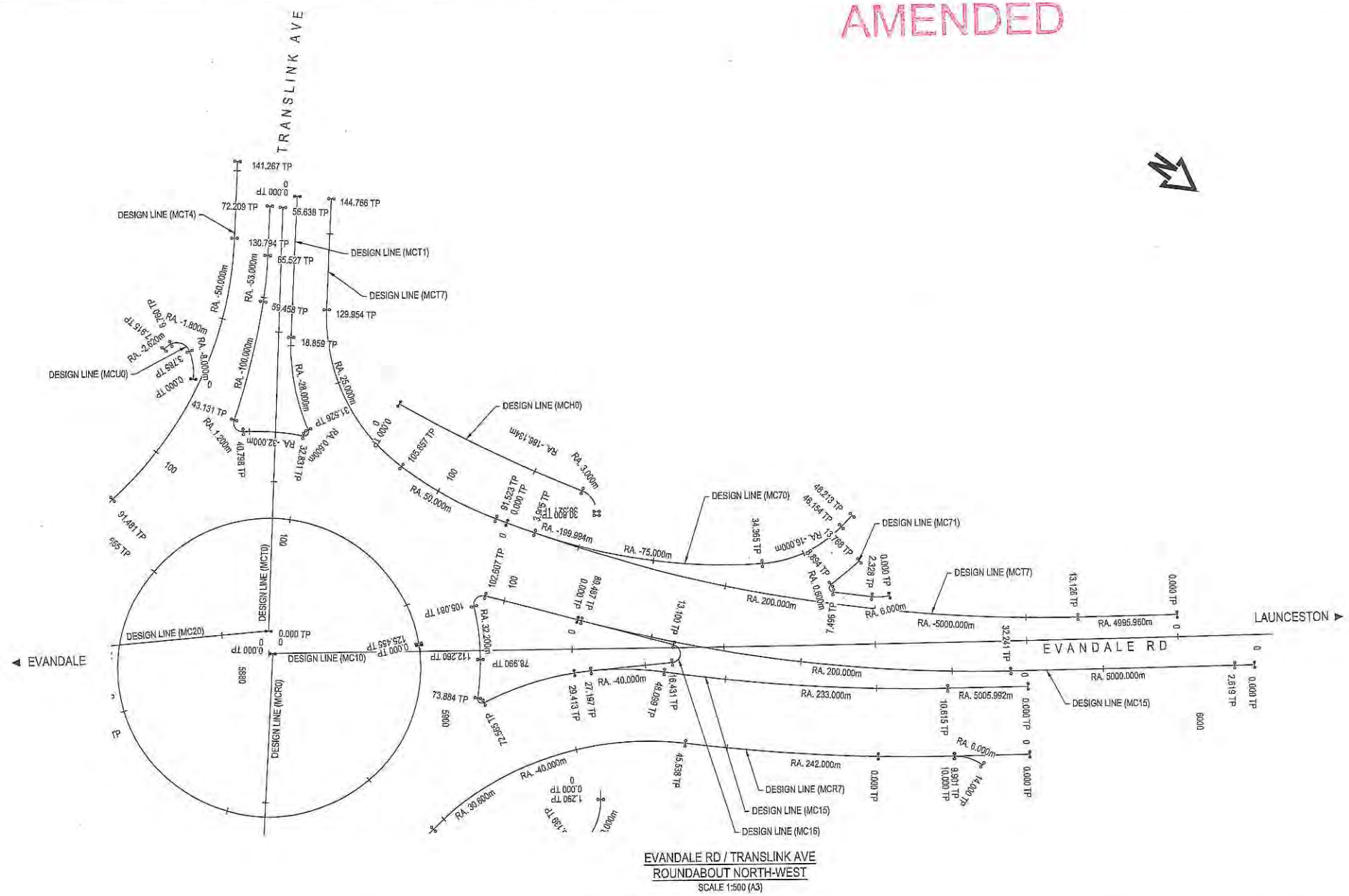
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1027	23-Sep-20, 12:19 PM	1027

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

1–300



EVANDALE RD / TRANSLINK AVE
ROUNDABOUT NORTH-WEST
SCALE 1:500 (A3)

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

SCALES
1:500 (A3)
5 0 5 10 15 20
SCALE IN METRES - 1:500
Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
ALIGNMENT AND SURVEY CONTROL - DRG 5

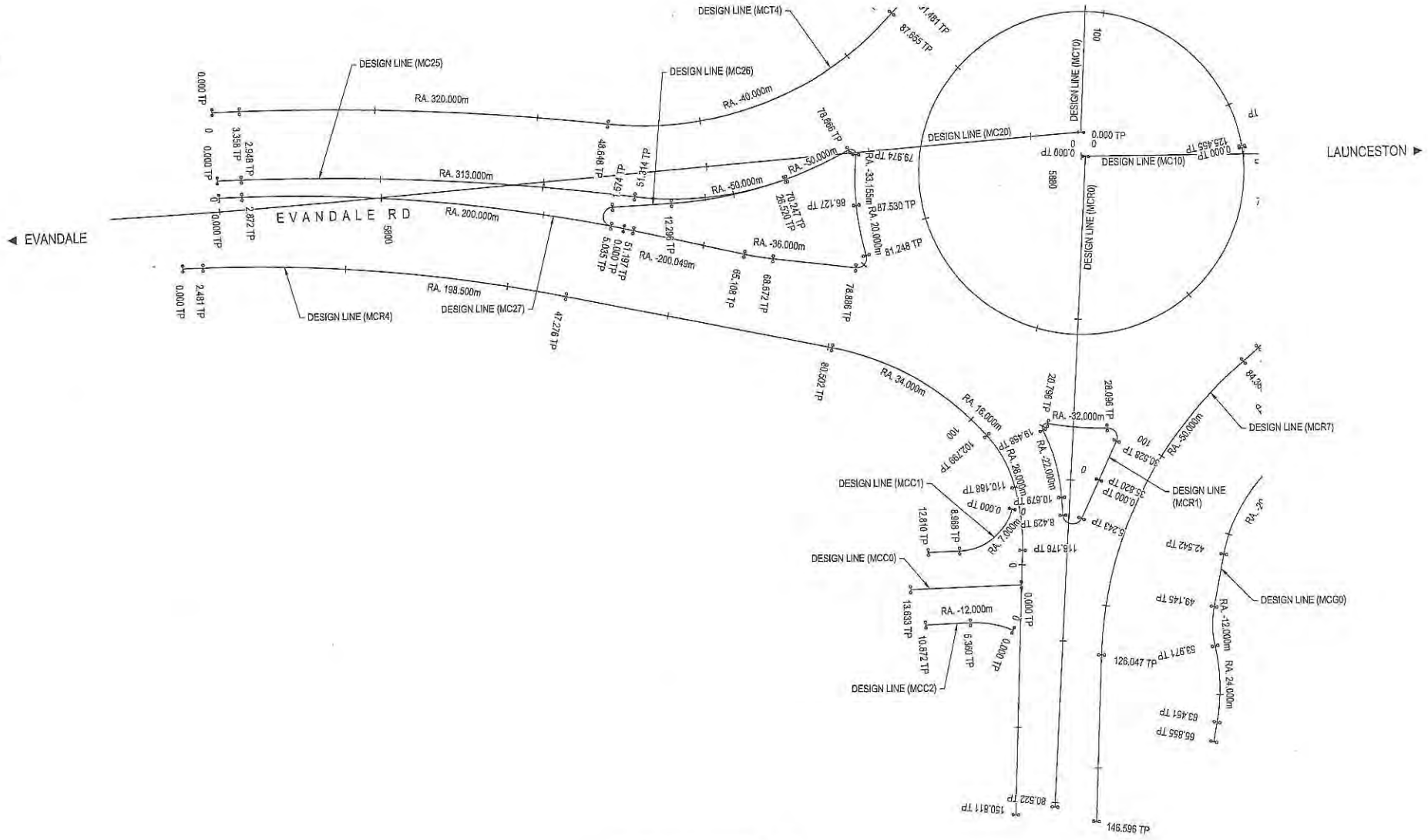
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1028	23-Sep-20, 12:20 PM	1028

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

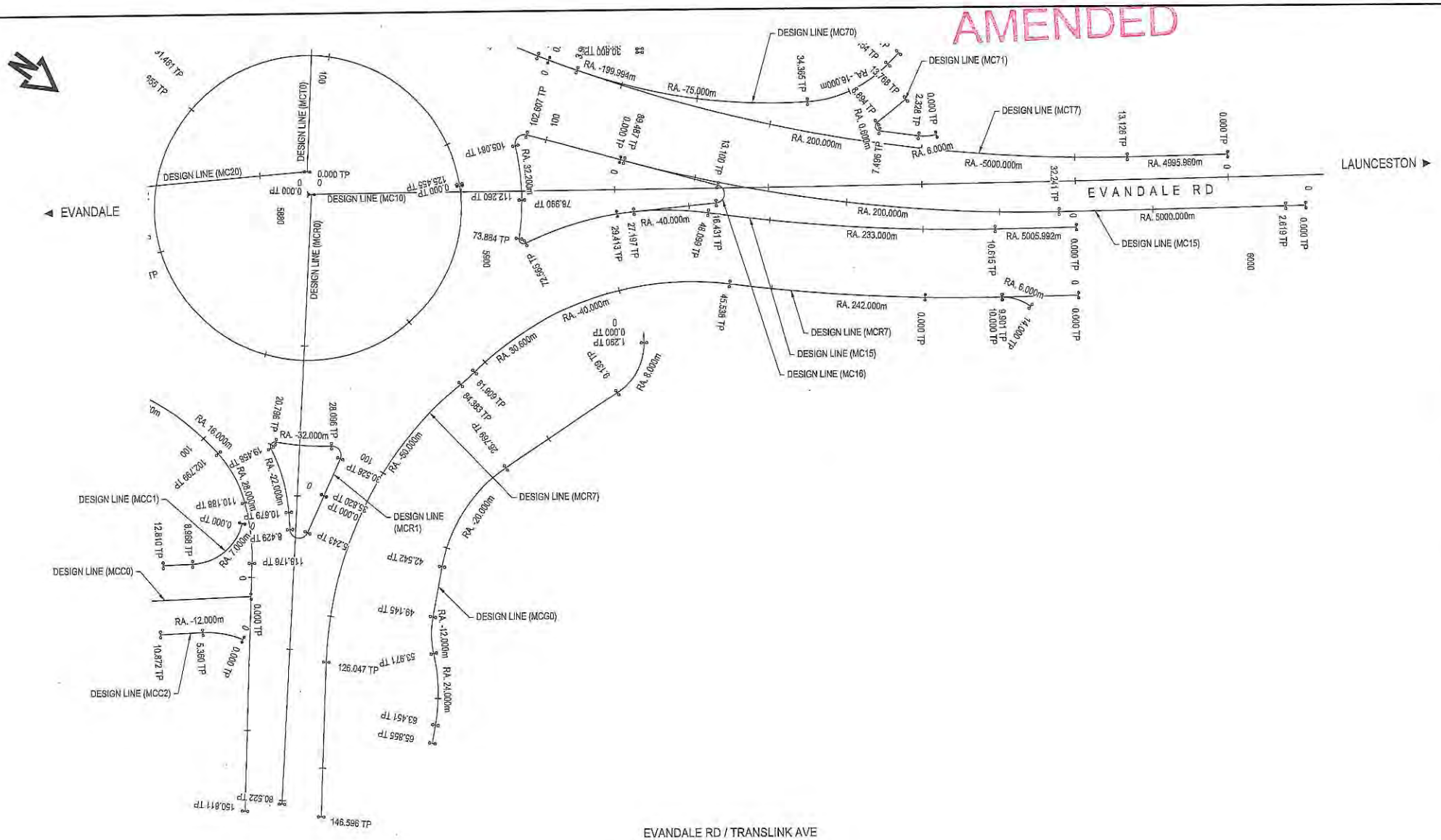
1–301



EVANDALE RD / TRANSLINK AVE
ROUNDABOUT SOUTH-EAST
SCALE 1:500 (A3)

				SCALES 1:500 (A3)	pitt&sherry	Department of State Growth	CONTRACT No. 3268 / DRAWING HB19503-C1029 / PRINTED DATE 23-Sep-20, 12:20 PM / SHEET No. 1029
				5 0 5 10 15 20 SCALE IN METRES - 1:500	DESIGNED L. ALLEN	EVANDALE MAIN ROAD (A1109) LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS	REGISTRATION NUMBER A1109.001
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020		REVIEWED D. COE	ALIGNMENT AND SURVEY CONTROL - DRG 6	REVISION 0
No.	Amendment Description	Initials	Date				
A3 original	This sheet may be prepared using colour and may be incomplete if copied	Co-ordinate System: MGA 94 ZONE 55	Height Datum: A.H.D.				

AMENDED



EVANDALE RD / TRANSLINK AVE
ROUNDABOUT NORTH-EAST
SCALE 1:500 (A3)

1-302

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
1:500 (A3)
0 5 10 15 20
SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

ALIGNMENT AND SURVEY CONTROL - DRG 7

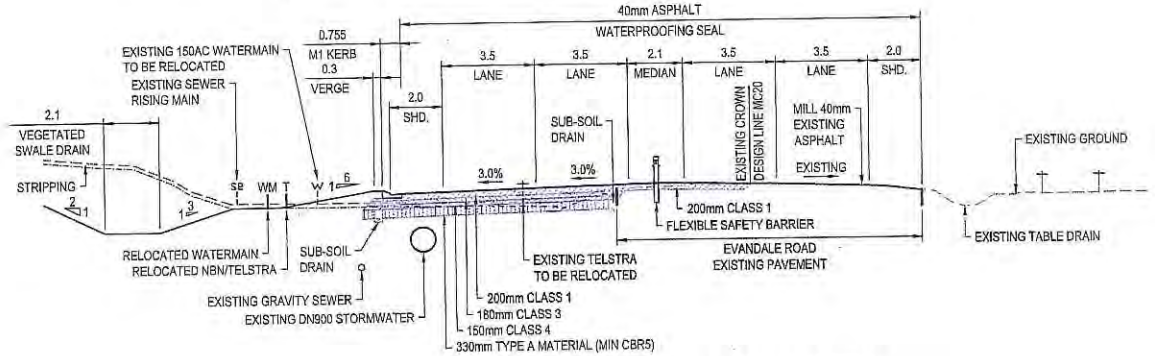
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1030	23-Sep-20, 12:20 PM	1030

REGISTRATION NUMBER
A1109.001

REVISION 0

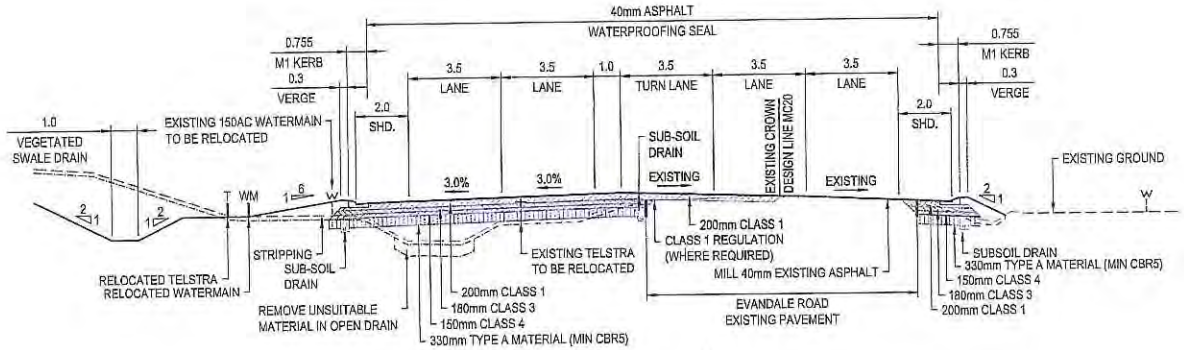
AMENDED

1-303



HUDSON FYSH DRIVE TO BORAL ROAD TYPICAL SECTION

SCALE 1:200



BORAL ROAD TURN LANE TYPICAL SECTION

SCALE 1:200

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

SCALES
1:200 (A3)
2 0 2 4 6 8
SCALE IN METRES - 1:200

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

TYPICAL CROSS SECTIONS - DRG 1

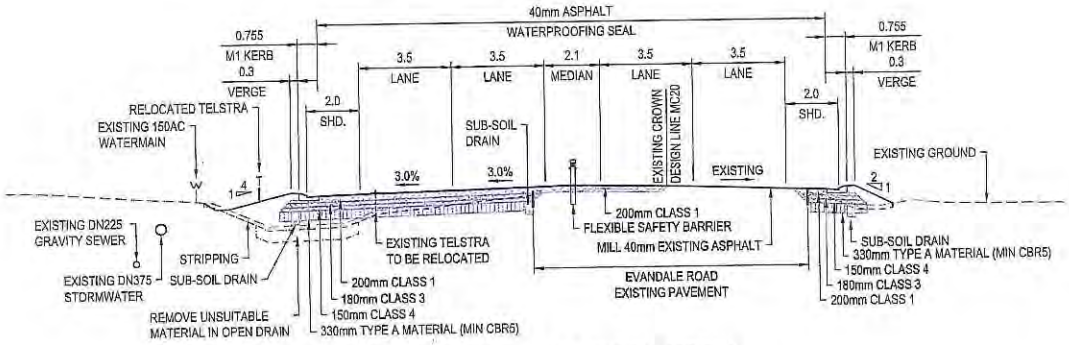
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1031	23-Sep-20, 12:20 PM	1031

REGISTRATION NUMBER
A1109.001

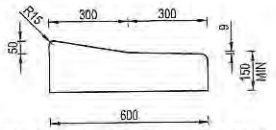
REVISION 0

AMENDED

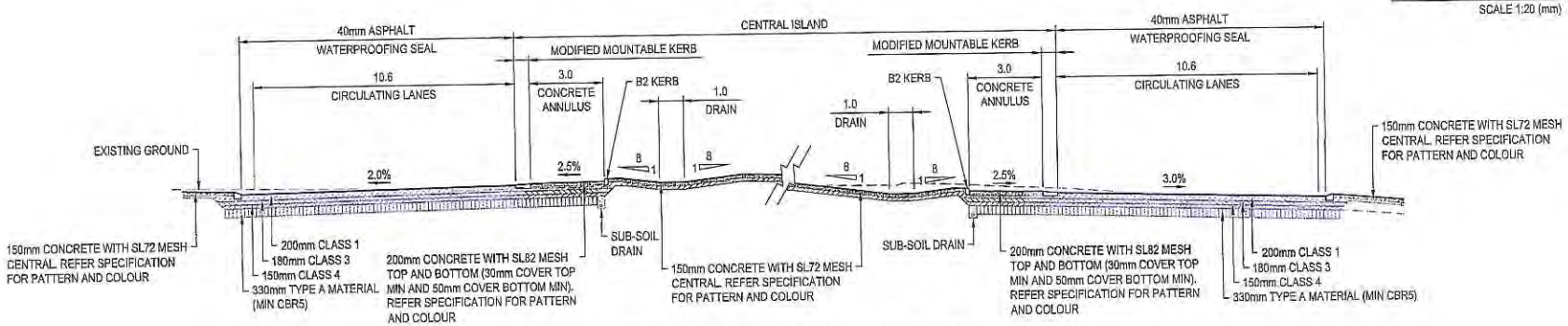
1-304



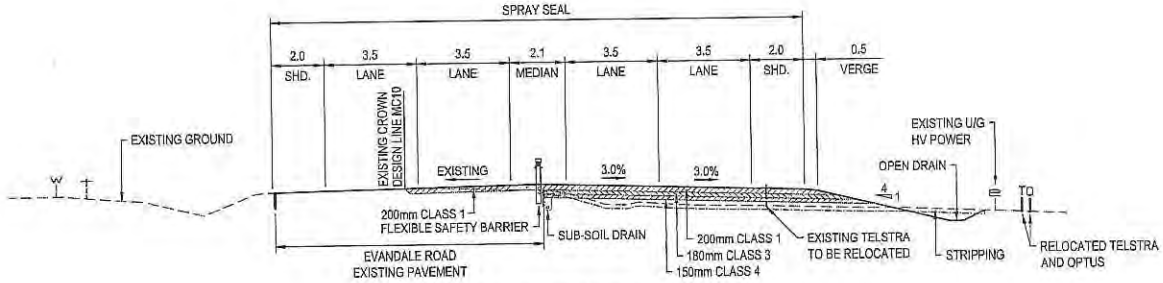
BORAL ROAD TO TRANSLINK AVE TYPICAL SECTION
SCALE 1:200



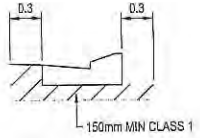
MODIFIED MOUNTABLE KERB DETAIL
SCALE 1:20 (mm)



TRANSLINK AVE ROUNDABOUT TYPICAL SECTION
SCALE 1:200



EVANDALE ROAD TYPICAL SECTION
SCALE 1:200



KERB IN EXISTING PAVEMENT DETAIL
SCALE 1:50

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

SCALES
1:200 (A3)
SCALE IN METRES - 1:200

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

TYPICAL CROSS SECTIONS - DRG 2

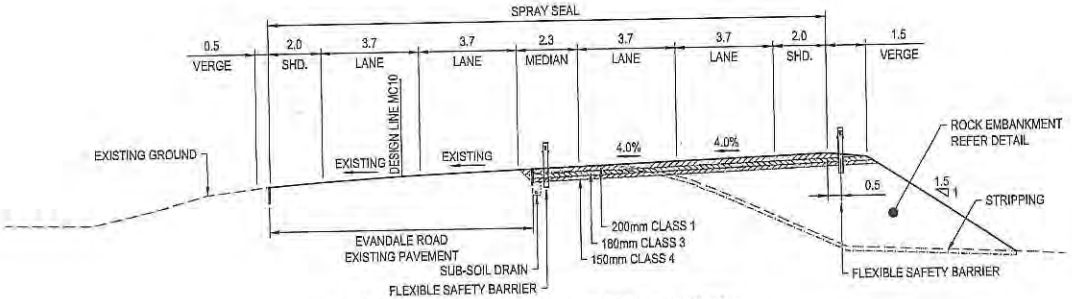
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1032	23-Sep-20, 12:20 PM	1032

REGISTRATION NUMBER
A1109.001

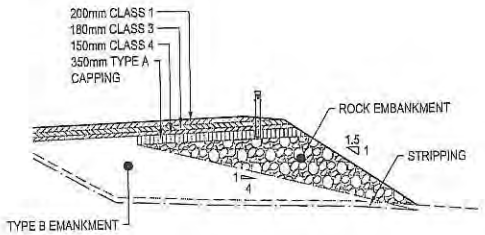
REVISION 0

AMENDED

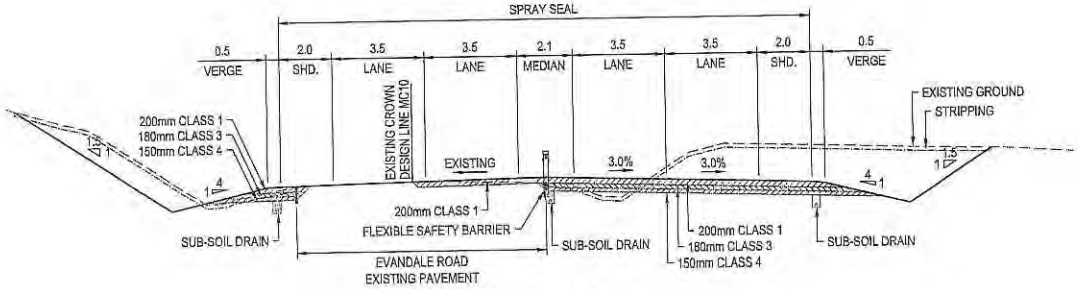
1-305



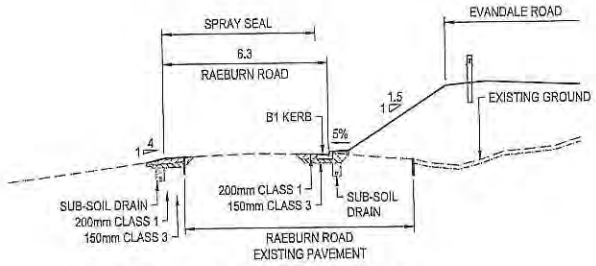
EVANDALE ROAD CURVE WIDENING TYPICAL SECTION
SCALE 1:200



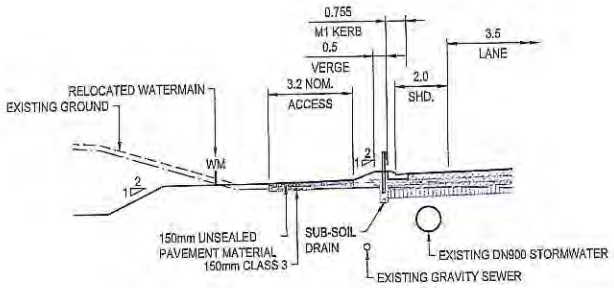
ROCK EMBANKEMENT TYPICAL SECTION
SCALE 1:200



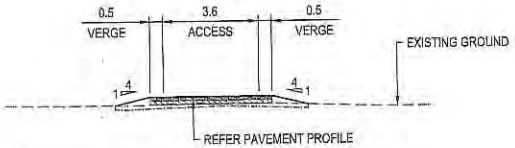
EVANDALE ROAD CUT TYPICAL SECTION
SCALE 1:200



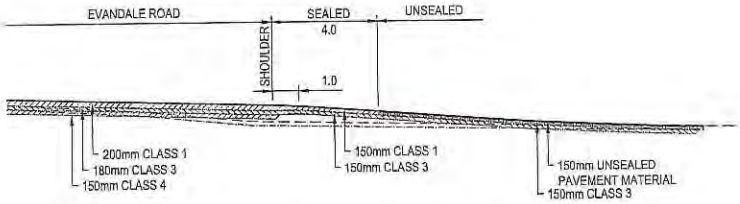
RAEBURN ROAD WIDENING TYPICAL SECTION
SCALE 1:200



TASWATER MAINTENANCE ACCESS
SCALE 1:200



PROPERTY ACCESS CH.6055 (MC10) TYPICAL SECTION
SCALE 1:200



PROPERTY ACCESS CH.6055 (MC10) PAVEMENT PROFILE
SCALE 1:200

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

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SCALE IN METRES - 1:200

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
TYPICAL CROSS SECTIONS - DRG 3

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1033	23-Sep-20, 12:20 PM	1033

REGISTRATION NUMBER
A1109.001

REVISION 0

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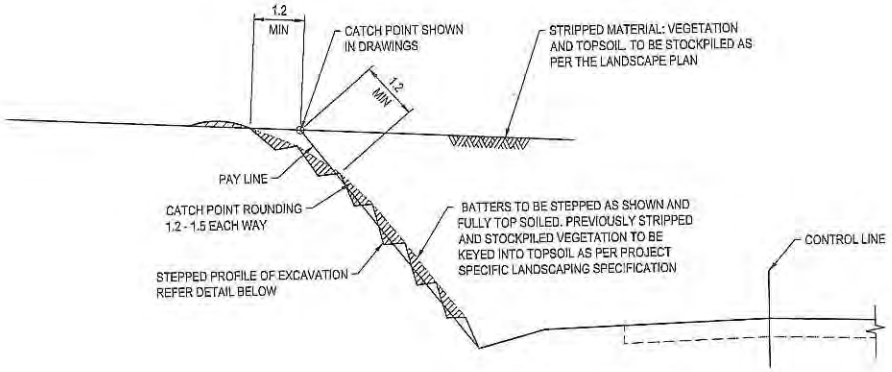
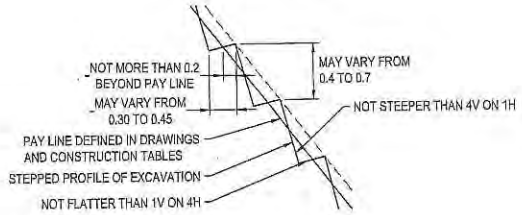
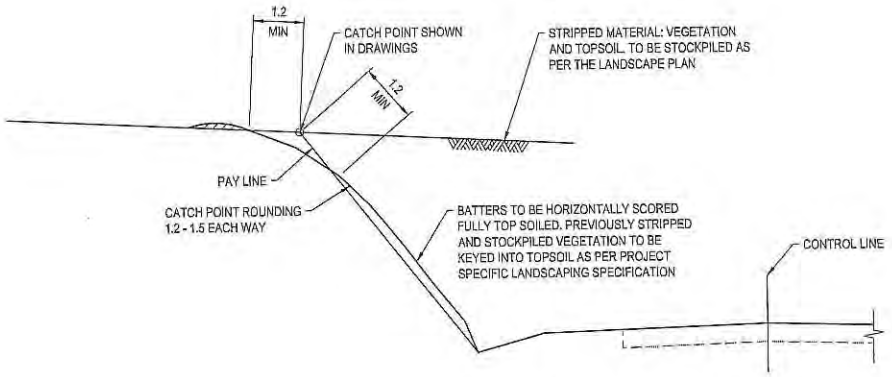
1-306



TYPICAL SECTION
CUT BATTER OVER 1m HEIGHT
SCALE 1:100



TYPICAL DETAIL
STEPPED PROFILE
SCALE 1:100



TYPICAL SECTION
CUT BATTER UNDER 1m HEIGHT
SCALE 1:100

NOTES:
1. DO NOT USE IN SODIC (DISPERSIVE) SOILS
2. DIMENSIONS ARE IN METERS UNLESS SHOWN OTHERWISE

ASSOCIATED DEPARTMENT DOCUMENTS:
- STANDARD SPECIFICATIONS

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied	Co-ordinate System: MGA 94 ZONE 55	Height Datum: A.H.D.

SCALES
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0 1 2 3 4
SCALE IN METRES - 1:100

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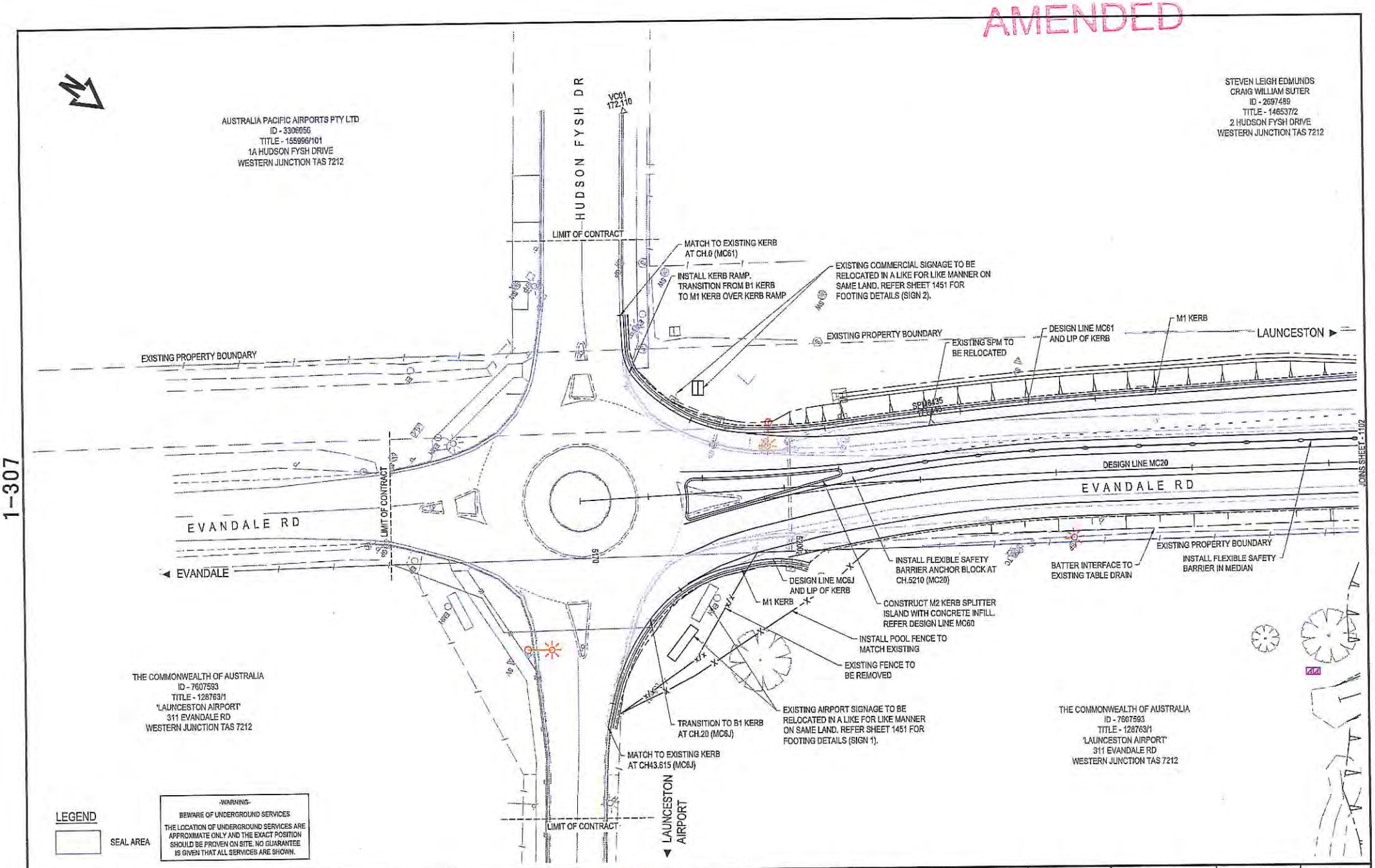
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
TYPICAL CROSS SECTIONS - DRG 4

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1034	23-Sep-20, 12:20 PM	1034

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

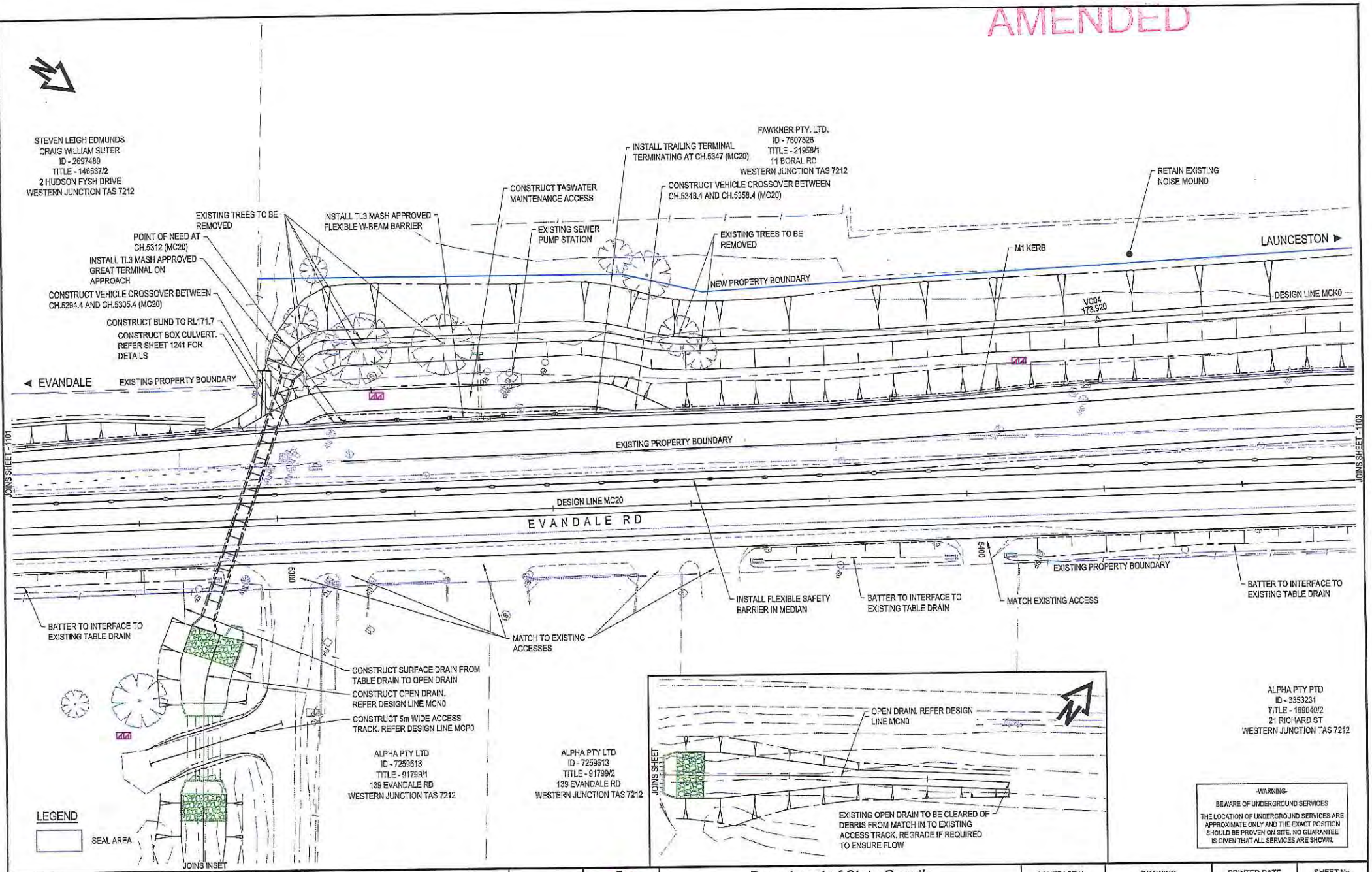
GENERAL ARRANGEMENT - DRG 1

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1101	23-Sep-20, 12:20 PM	1101

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



1-308

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS

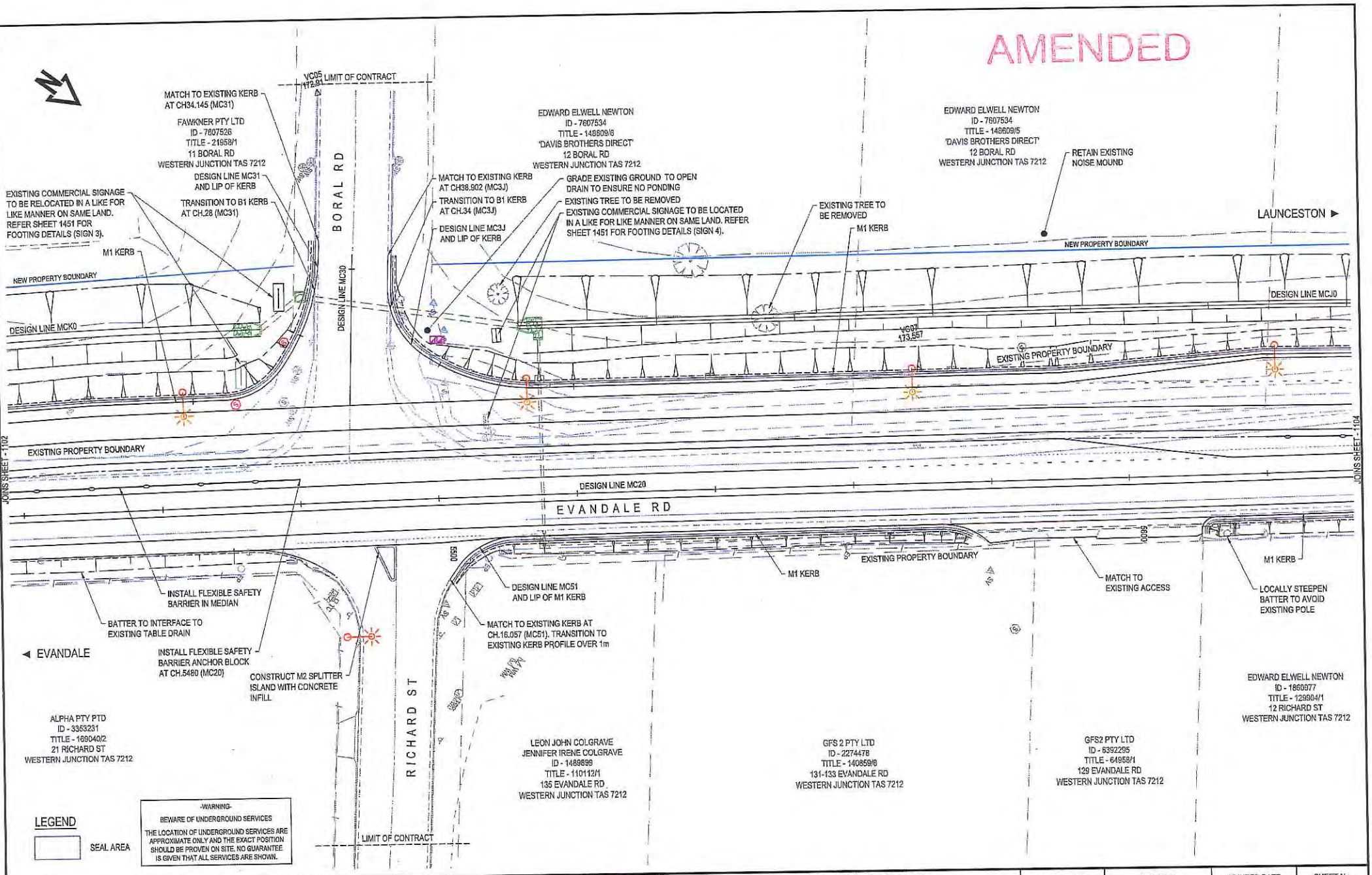
GENERAL ARRANGEMENT - DRG 2

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1102	23-Sep-20, 12:21 PM	1102

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



1-309

LEGEND

SEAL AREA

-WARNING-
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THE EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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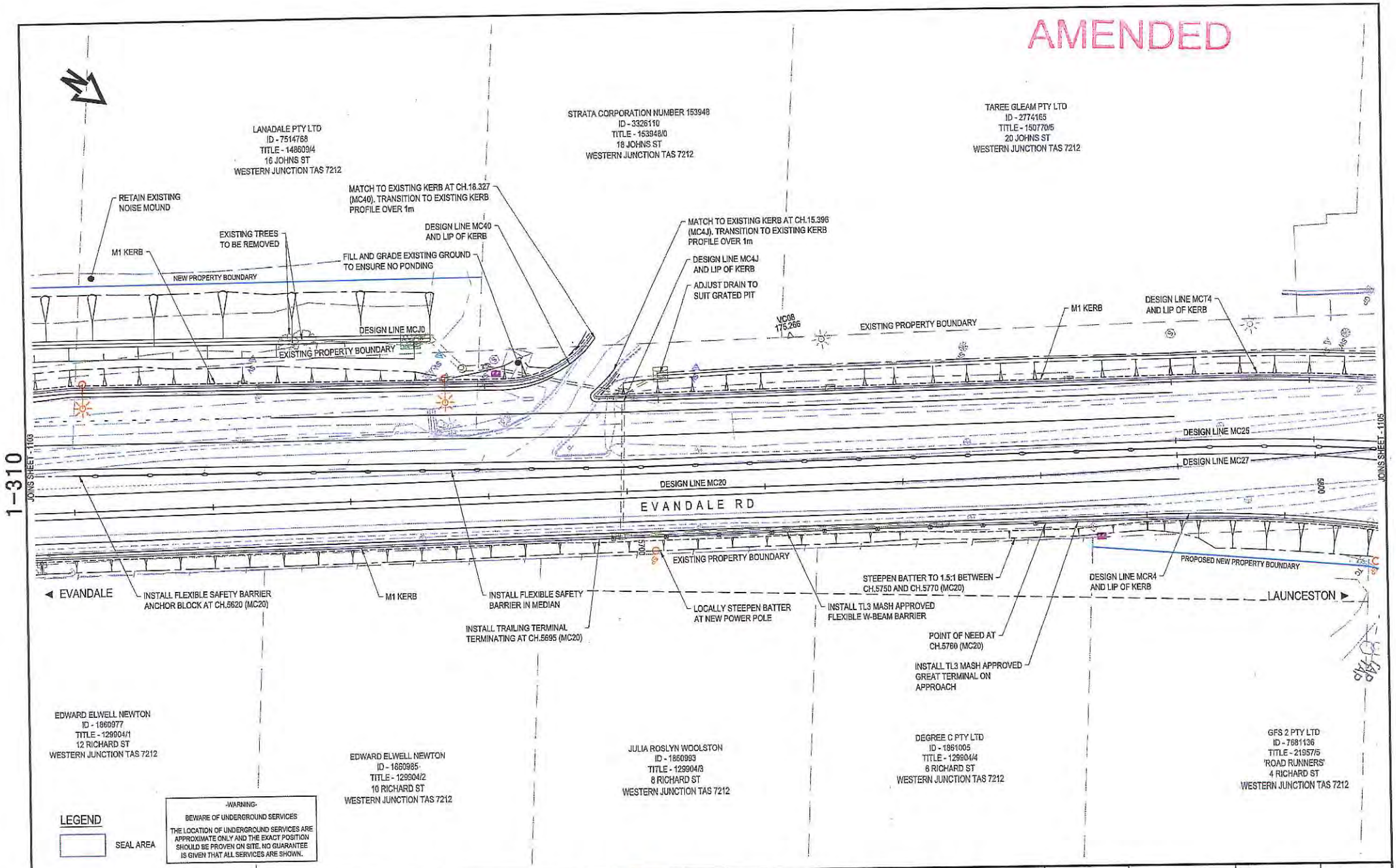
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
GENERAL ARRANGEMENT - DRG 3

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3288	HB19503-C1103	23-Sep-20, 12:21 PM	1103

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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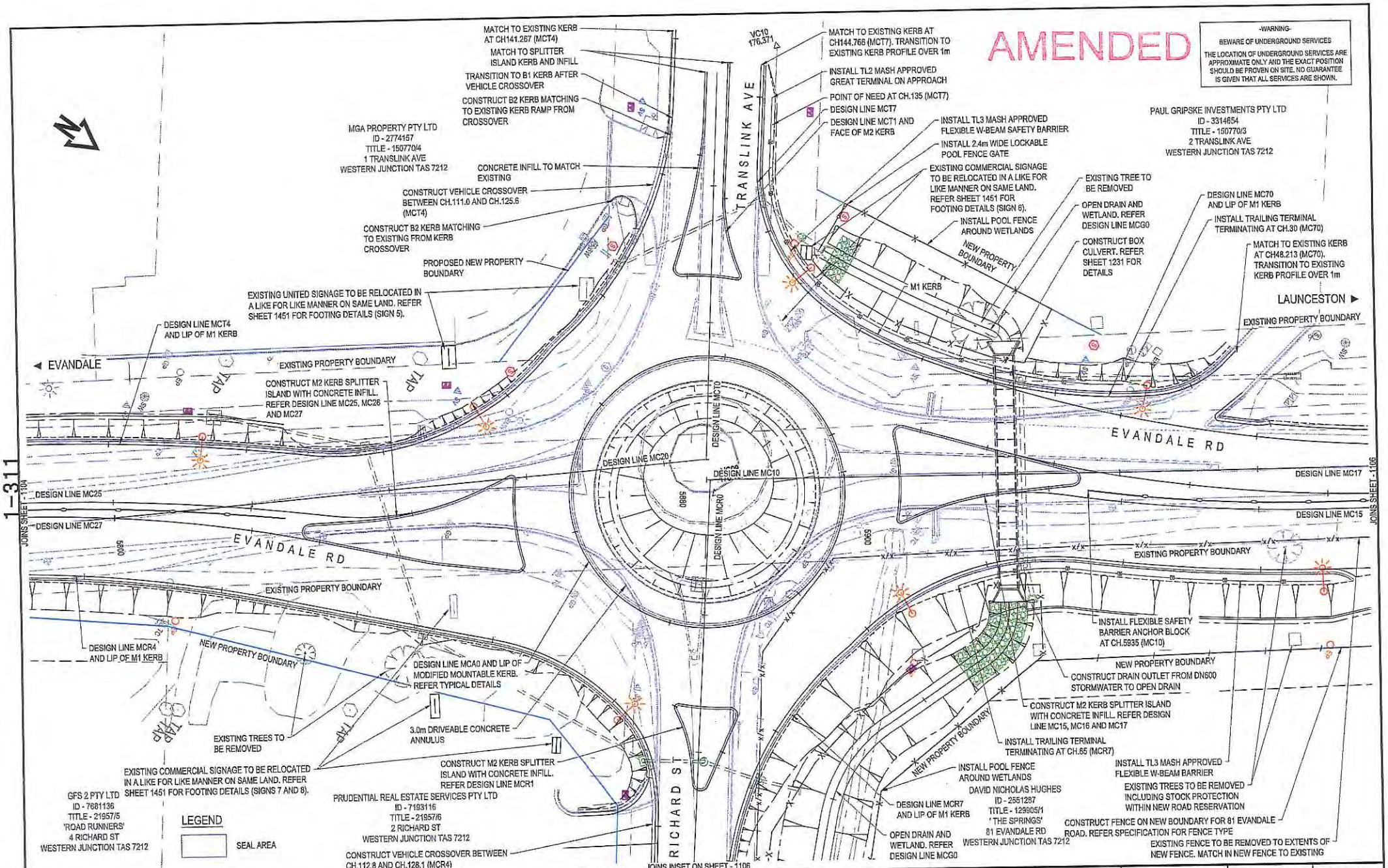
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

GENERAL ARRANGEMENT - DRG 4

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1104	23-Sep-20, 12:22 PM	1104

REGISTRATION NUMBER
A1109.001

REVISION 0



No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

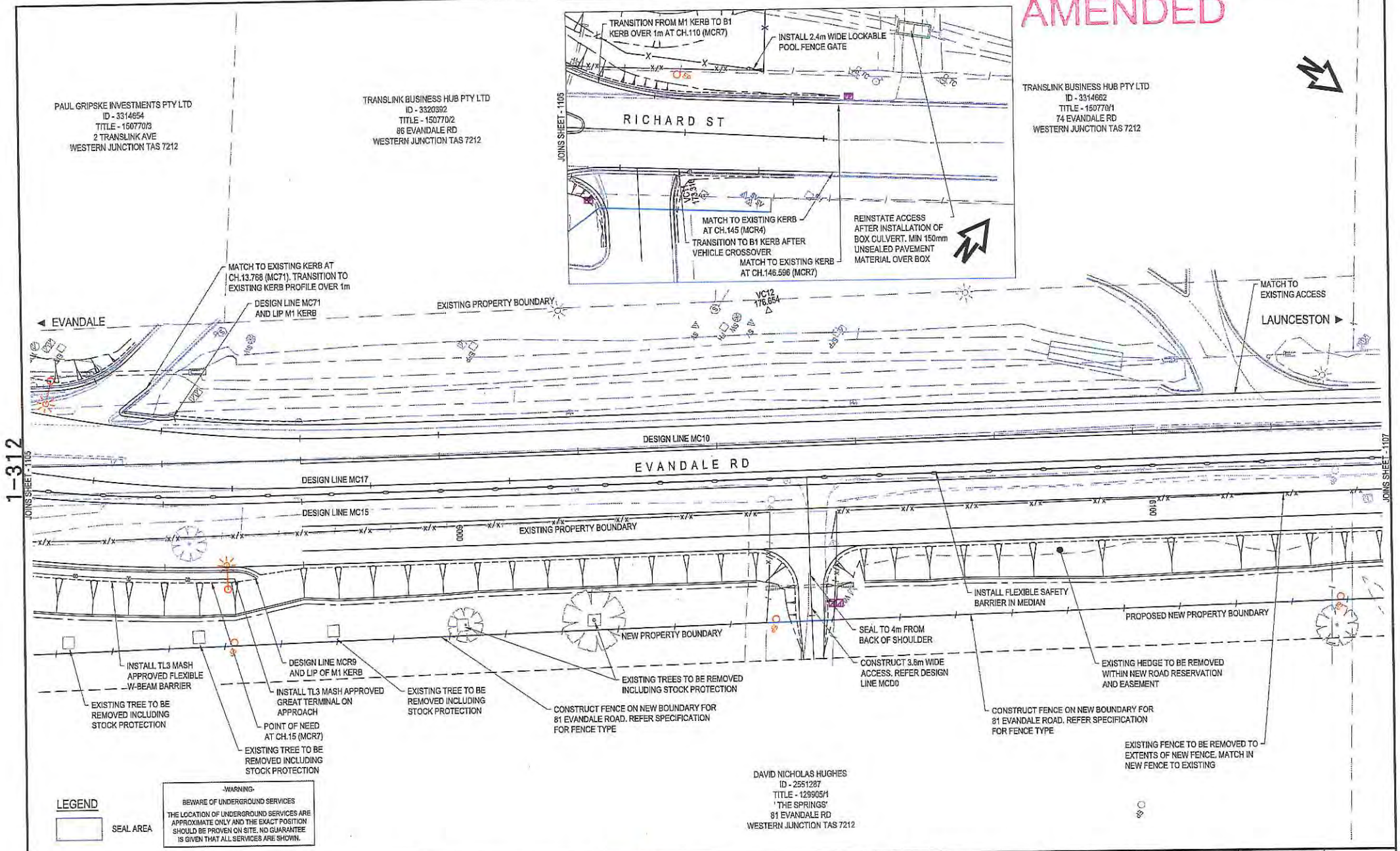
GENERAL ARRANGEMENT - DRG 5

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1105	23-Sep-20, 12:22 PM	1105

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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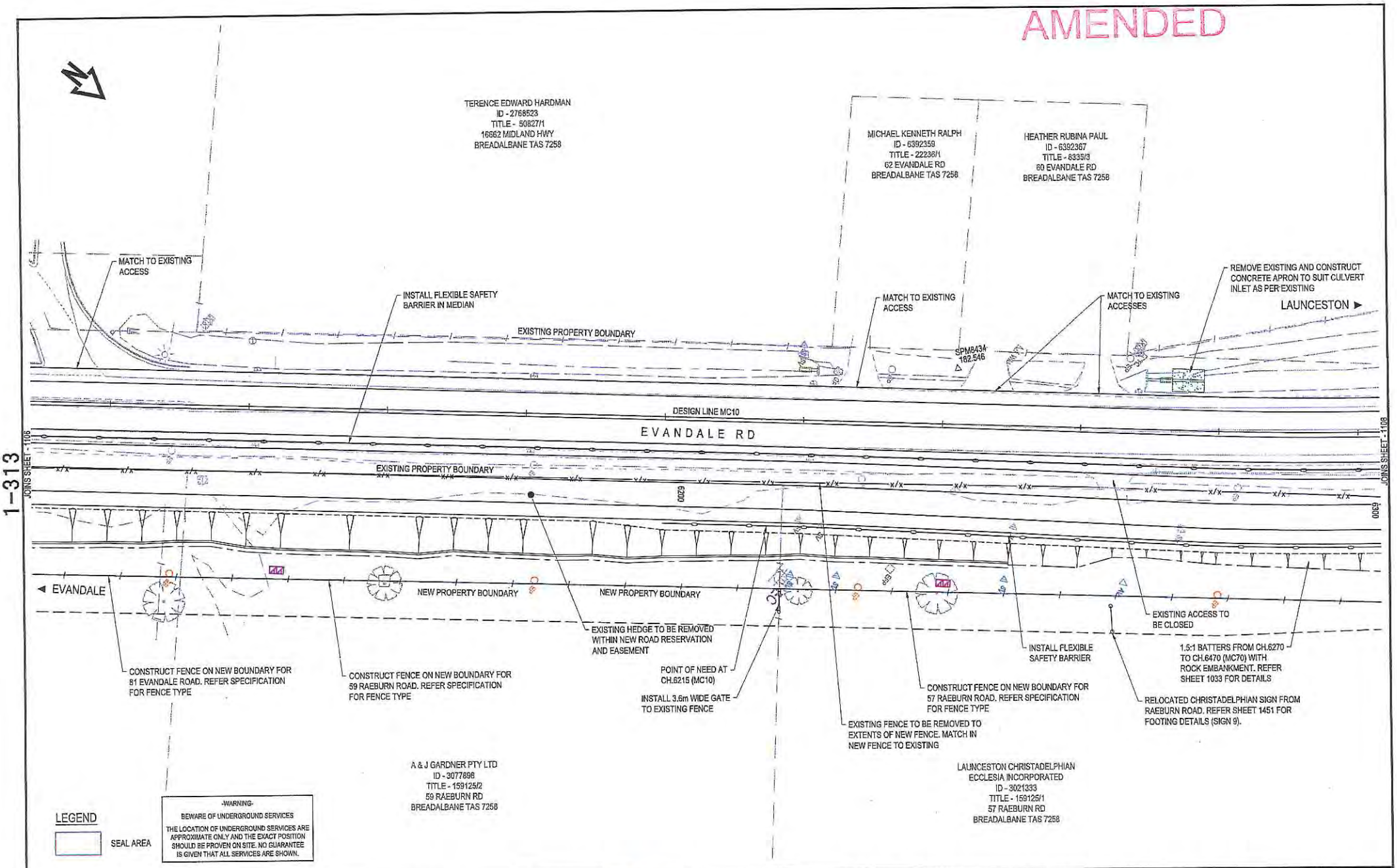
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS
GENERAL ARRANGEMENT - DRG 6

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1106	23-Sep-20, 12:22 PM	1106

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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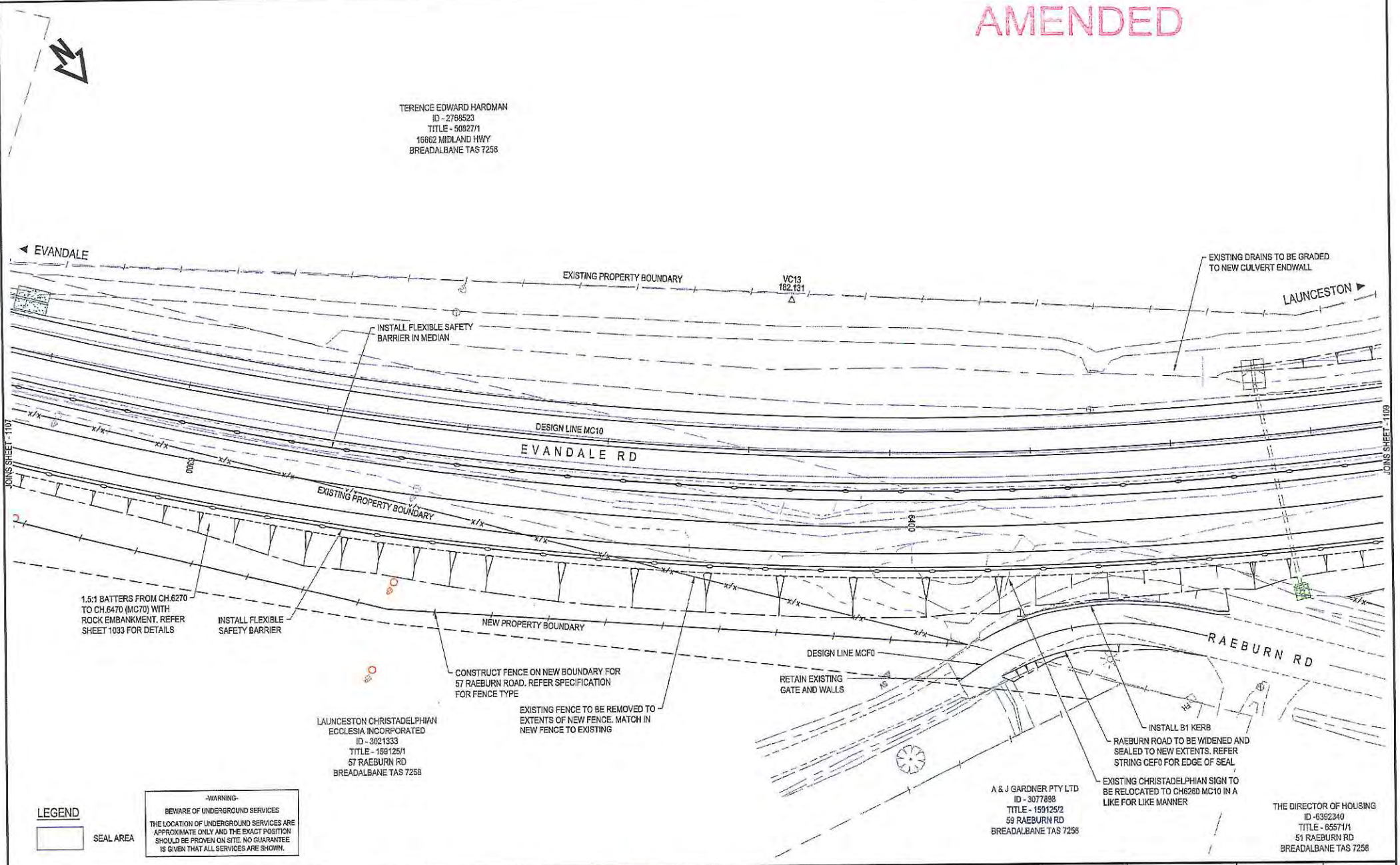
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS
GENERAL ARRANGEMENT - DRG 7

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1107	23-Sep-20, 12:23 PM	1107

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
GENERAL ARRANGEMENT - DRG 8

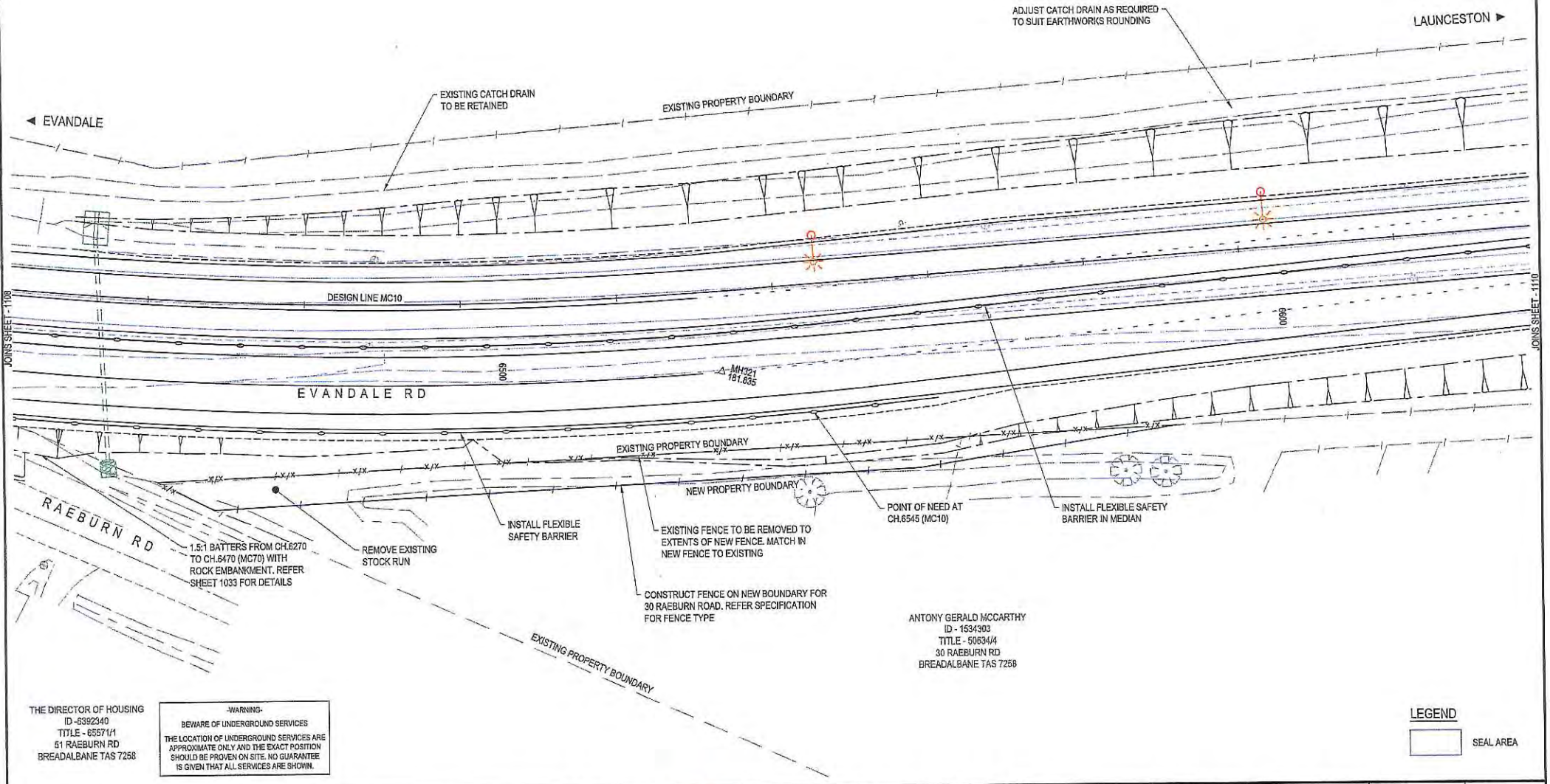
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1108	23-Sep-20, 12:23 PM	1108

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

TERENCE EDWARD HARDMAN
ID - 2768523
TITLE - 50827/1
16662 MIDLAND HWY
BREADALBANE TAS 7258



1-315

THE DIRECTOR OF HOUSING
ID -6392340
TITLE - 65571/1
51 RAEBURN RD
BREADALBANE TAS 7258

-WARNING-
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THE EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

ANTONY GERALD MCCARTHY
ID - 1534303
TITLE - 50634/4
30 RAEBURN RD
BREADALBANE TAS 7258

LEGEND
SEAL AREA

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALES
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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS
GENERAL ARRANGEMENT - DRG 9

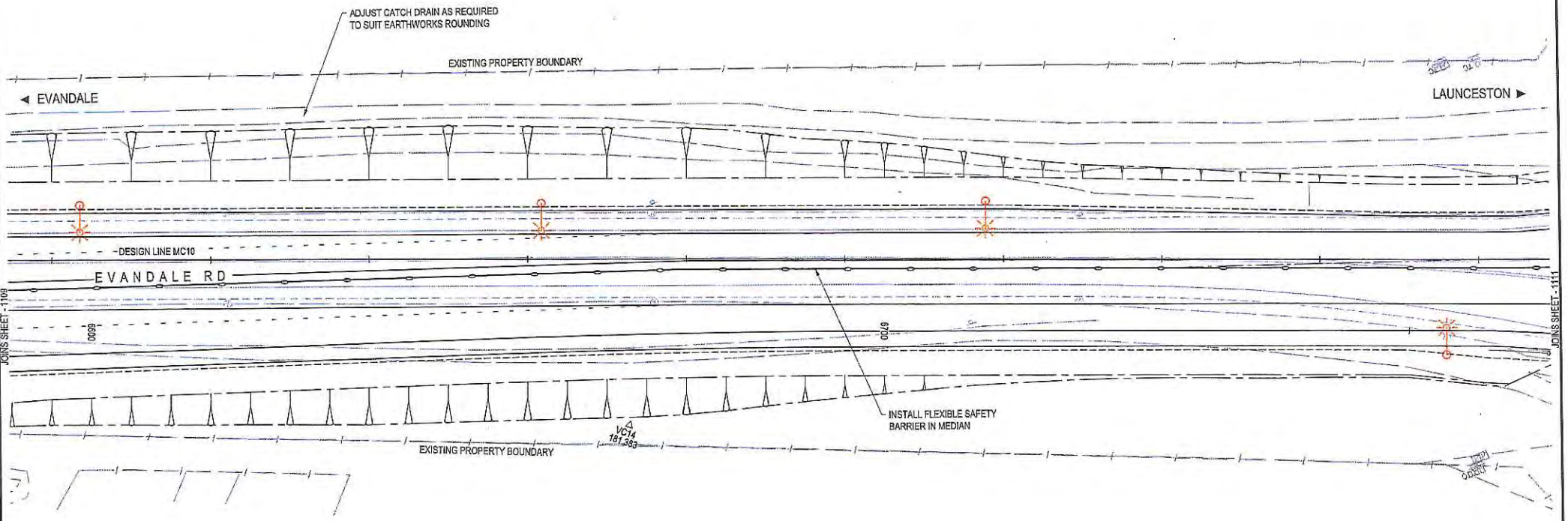
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1109	23-Sep-20, 12:23 PM	1109

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

TERENCE EDWARD HARDMAN
ID - 2768523
TITLE - 50827/1
16662 MIDLAND HWY
BREADALBANE TAS 7258



1-316

ANTONY GERALD MCCARTHY
ID - 1534303
TITLE - 50634/4
30 RAEBURN RD
BREADALBANE TAS 7258

LEGEND

SEAL AREA

-WARNING-
BEWARE OF UNDERGROUND SERVICES
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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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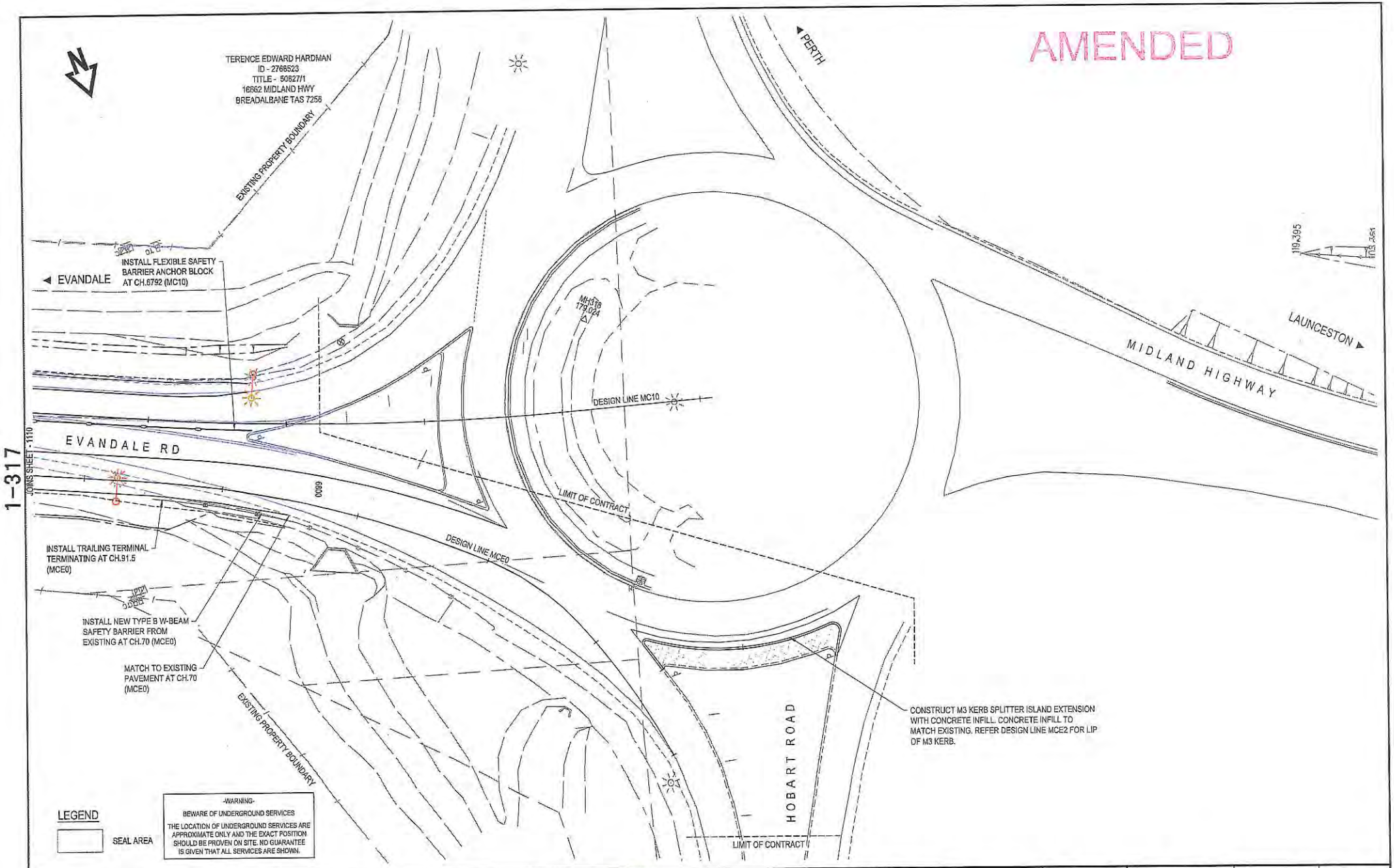
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
GENERAL ARRANGEMENT - DRG 10

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1110	23-Sep-20, 12:24 PM	1110

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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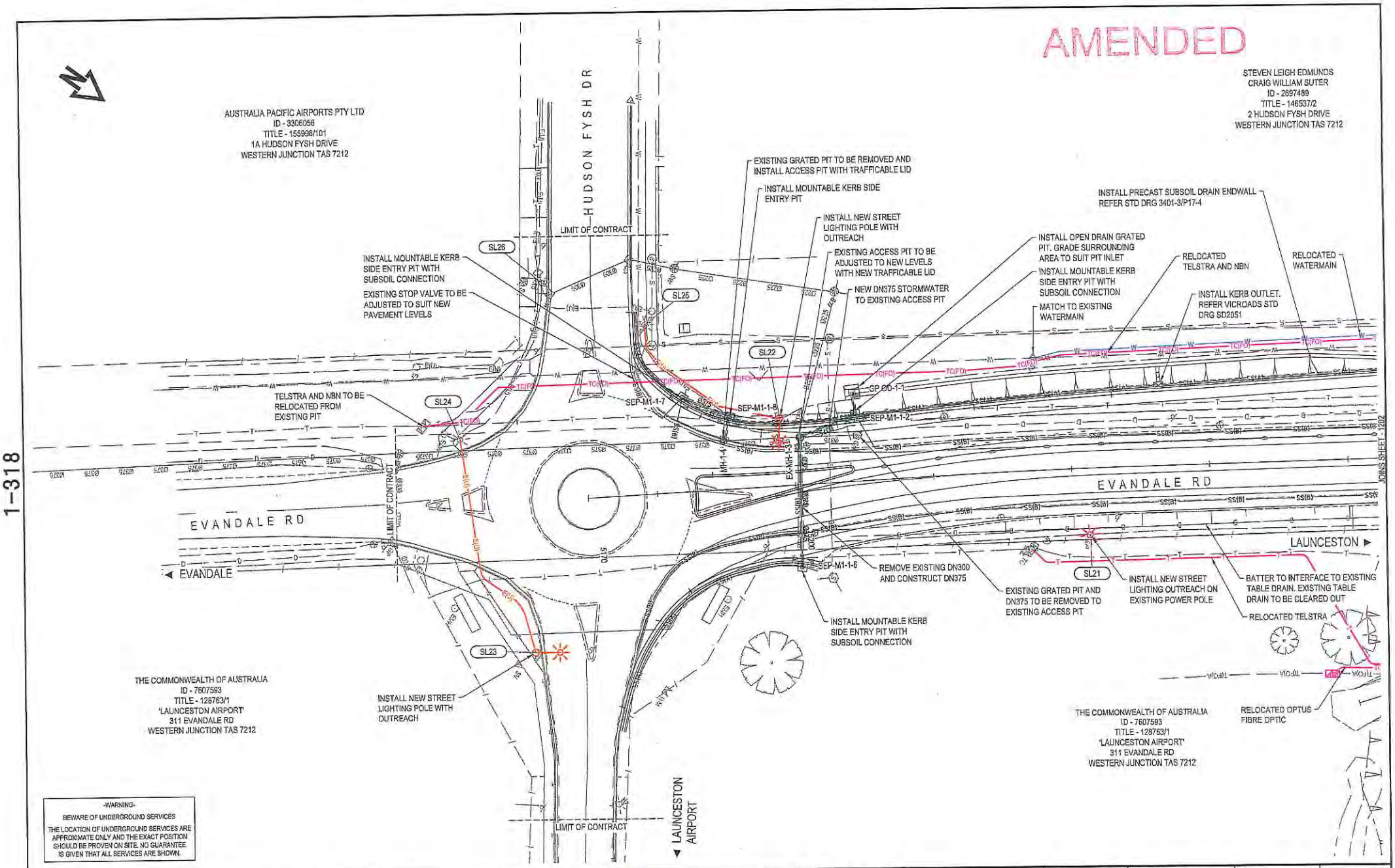
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS
GENERAL ARRANGEMENT - DRG 11

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3266	HB19503-C1111	23-Sep-20, 12:24 PM	1111

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED



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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS

DRAINAGE AND SERVICES - DRG 1

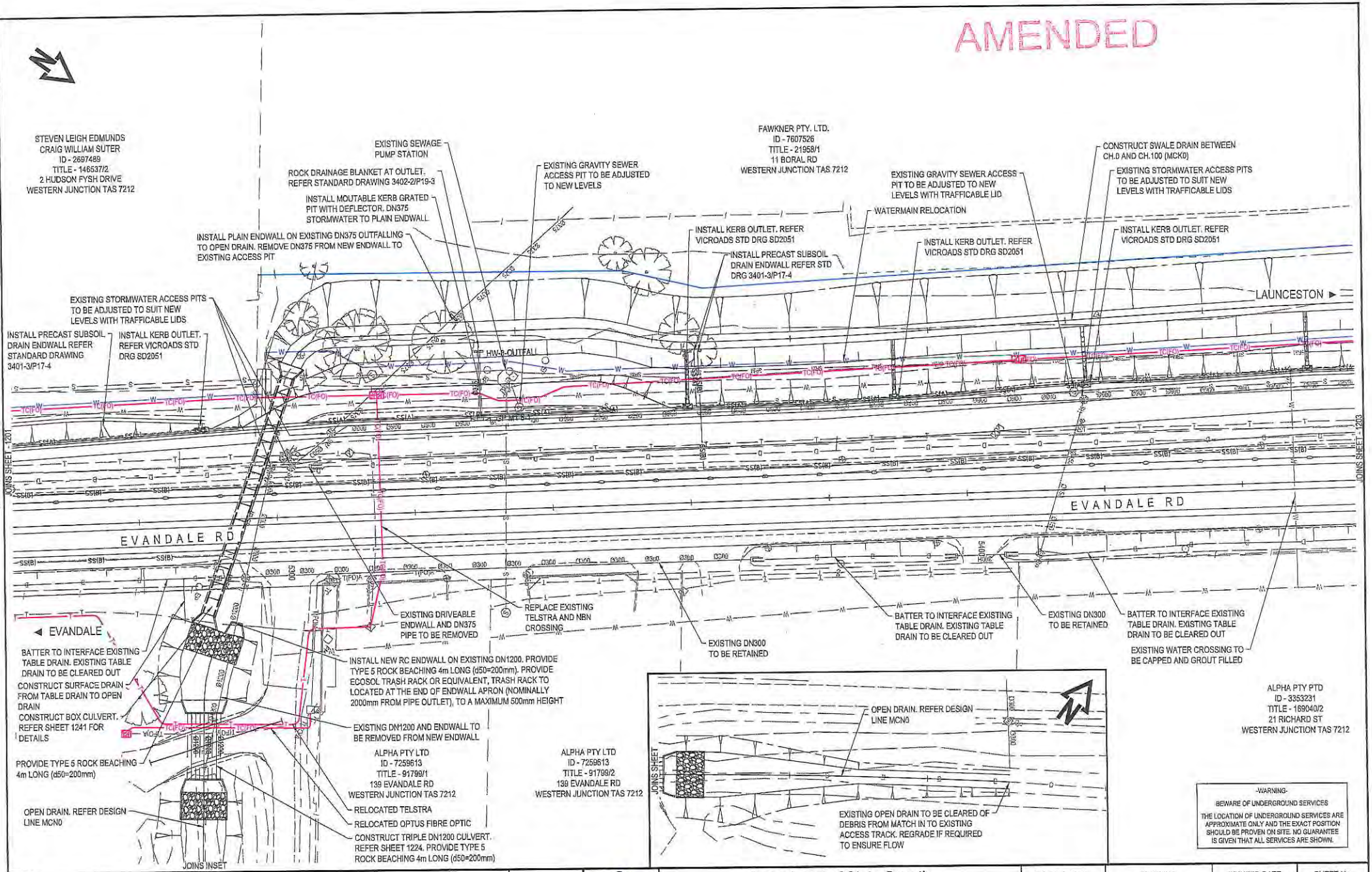
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1201	23-Sep-20, 12:24 PM	1201

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

1-319



No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

A3 original | This sheet may be prepared using colour and may be incomplete if copied

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5 0 5 10 15 20
SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

DRAINAGE AND SERVICES - DRG 2

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1202	23-Sep-20, 12:25 PM	1202

REGISTRATION NUMBER
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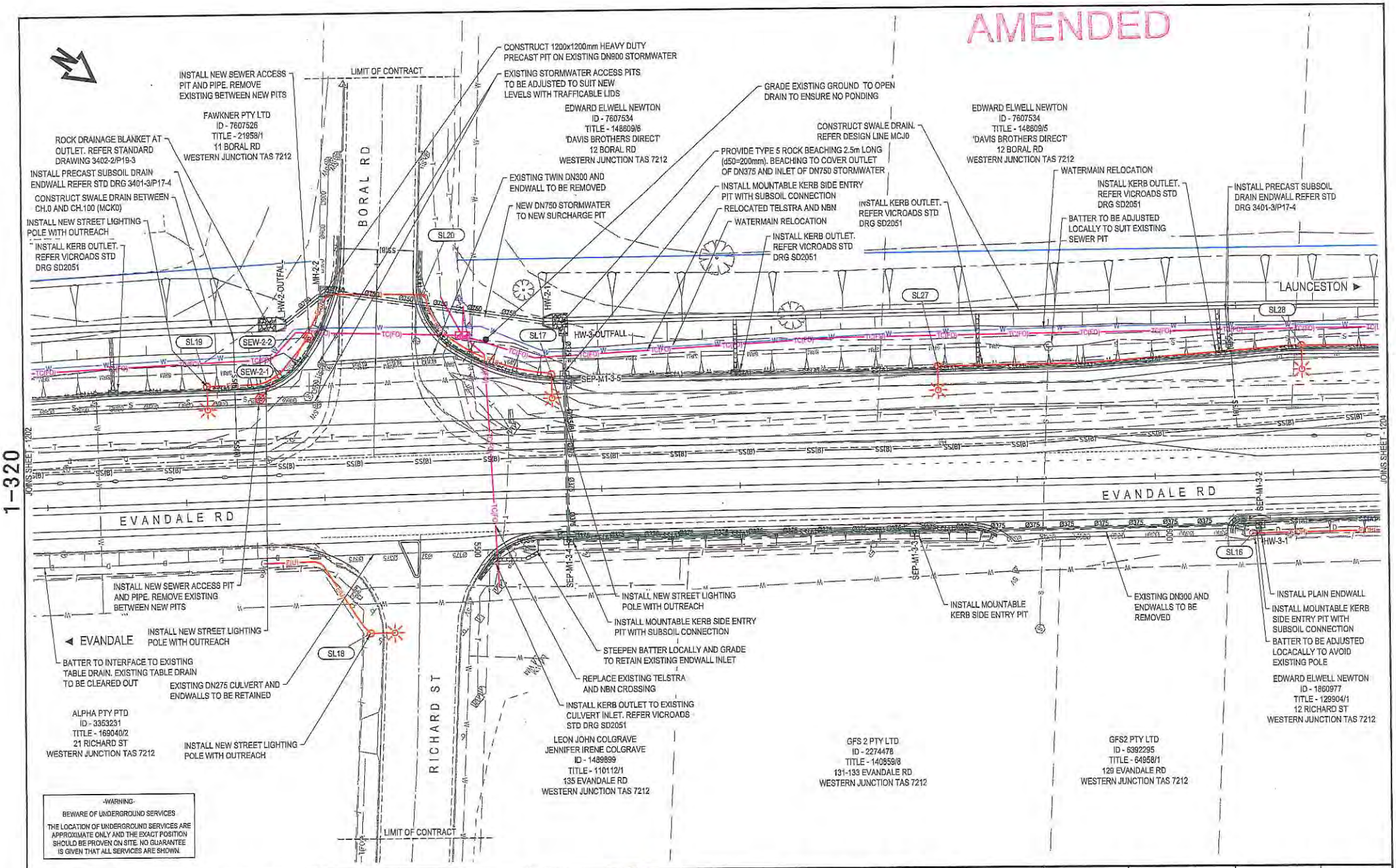
REVISION 0

AMENDED



1-320

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BEWARE OF UNDERGROUND SERVICES
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No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALES
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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

DRAINAGE AND SERVICES - DRG 3

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1203	23-Sep-20, 12:25 PM	1203

REGISTRATION NUMBER
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REVISION 0

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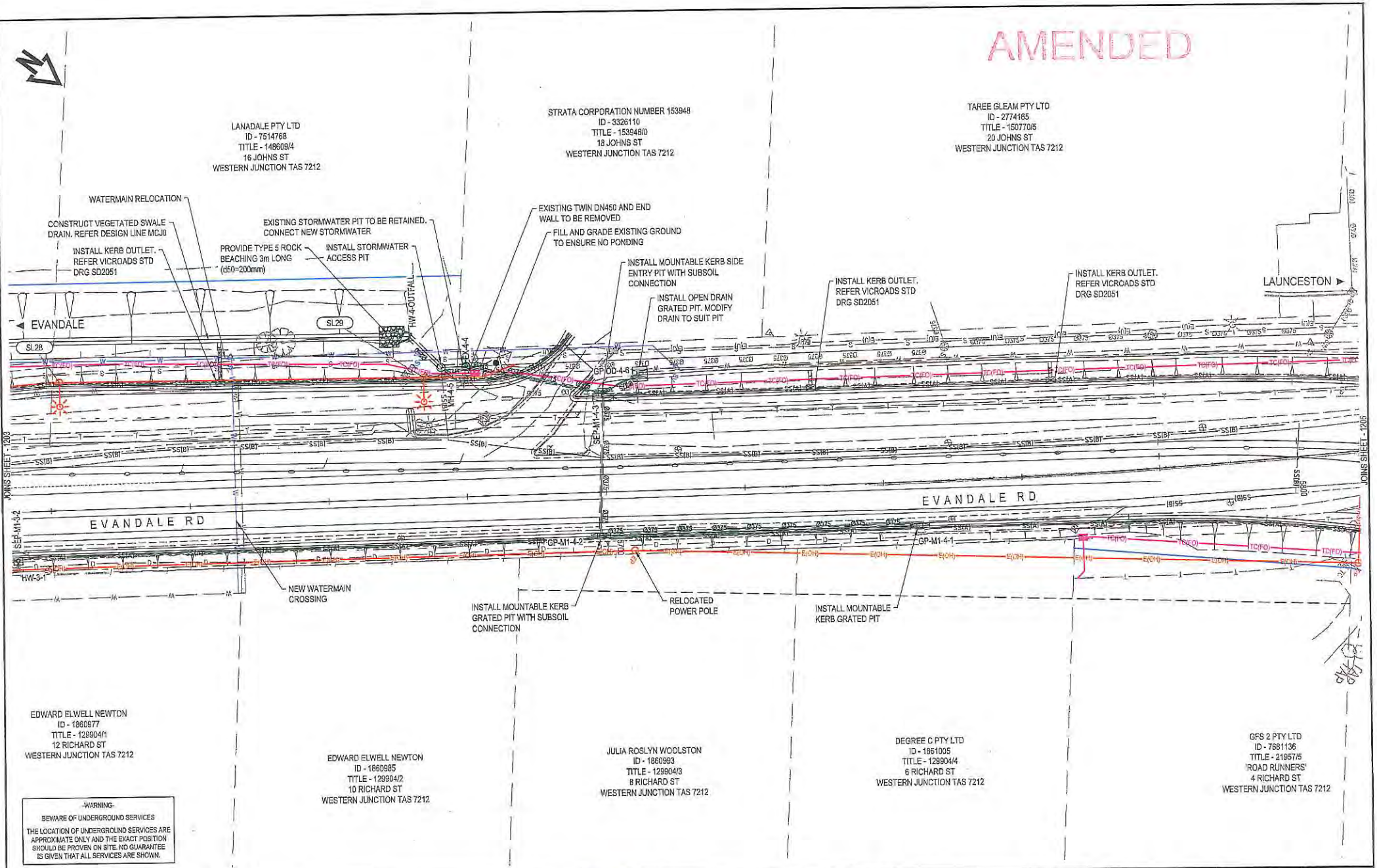

1-321

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALE IN METRES - 1:500

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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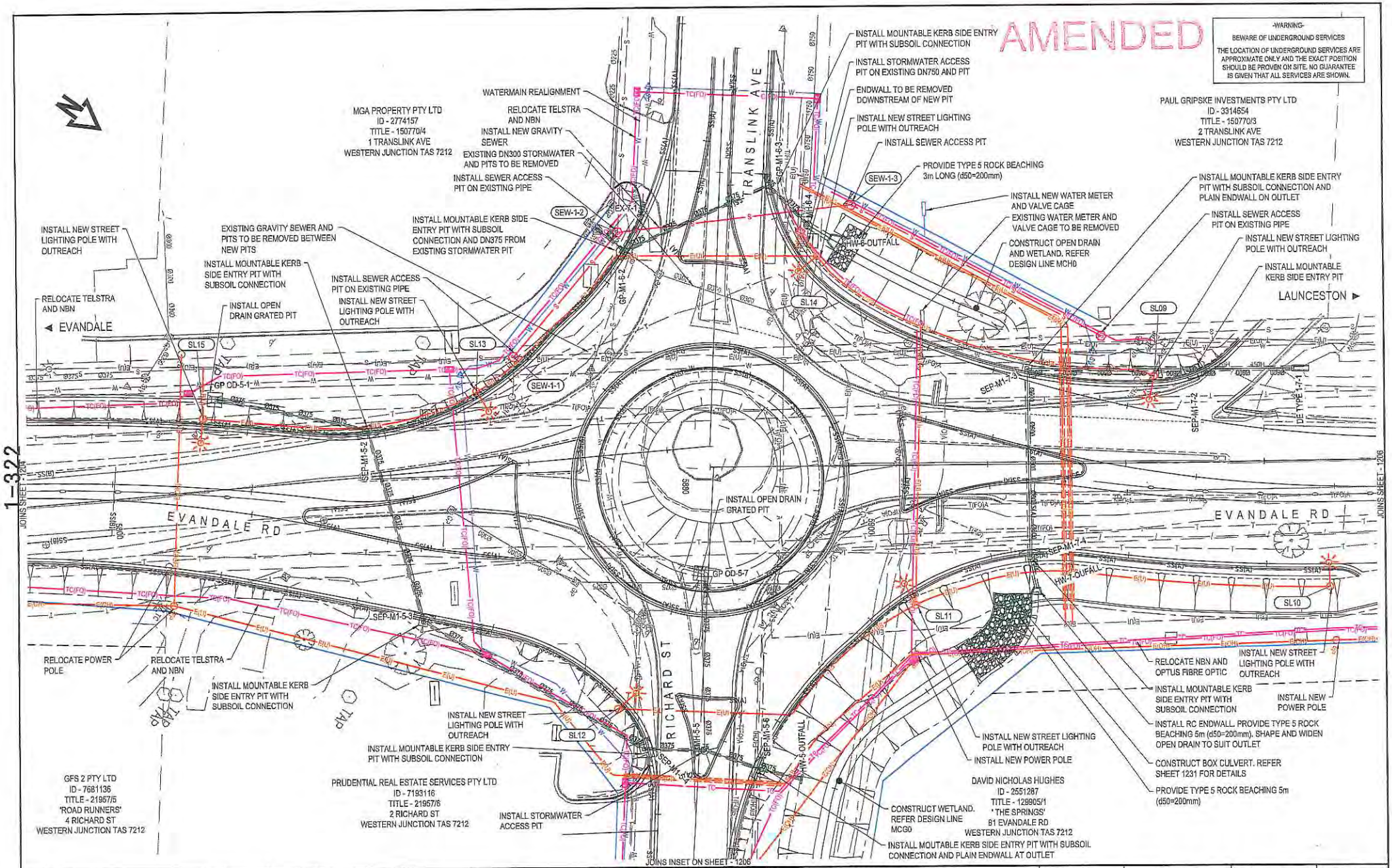
Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

DRAINAGE AND SERVICES - DRG 4

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1204	23-Sep-20, 12:25 PM	1204

REGISTRATION NUMBER
A1109.001

REVISION 0



0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

DRAINAGE AND SERVICES - DRG 5

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1205	23-Sep-20, 12:25 PM	1205

REGISTRATION NUMBER
A1109.001

REVISION 0

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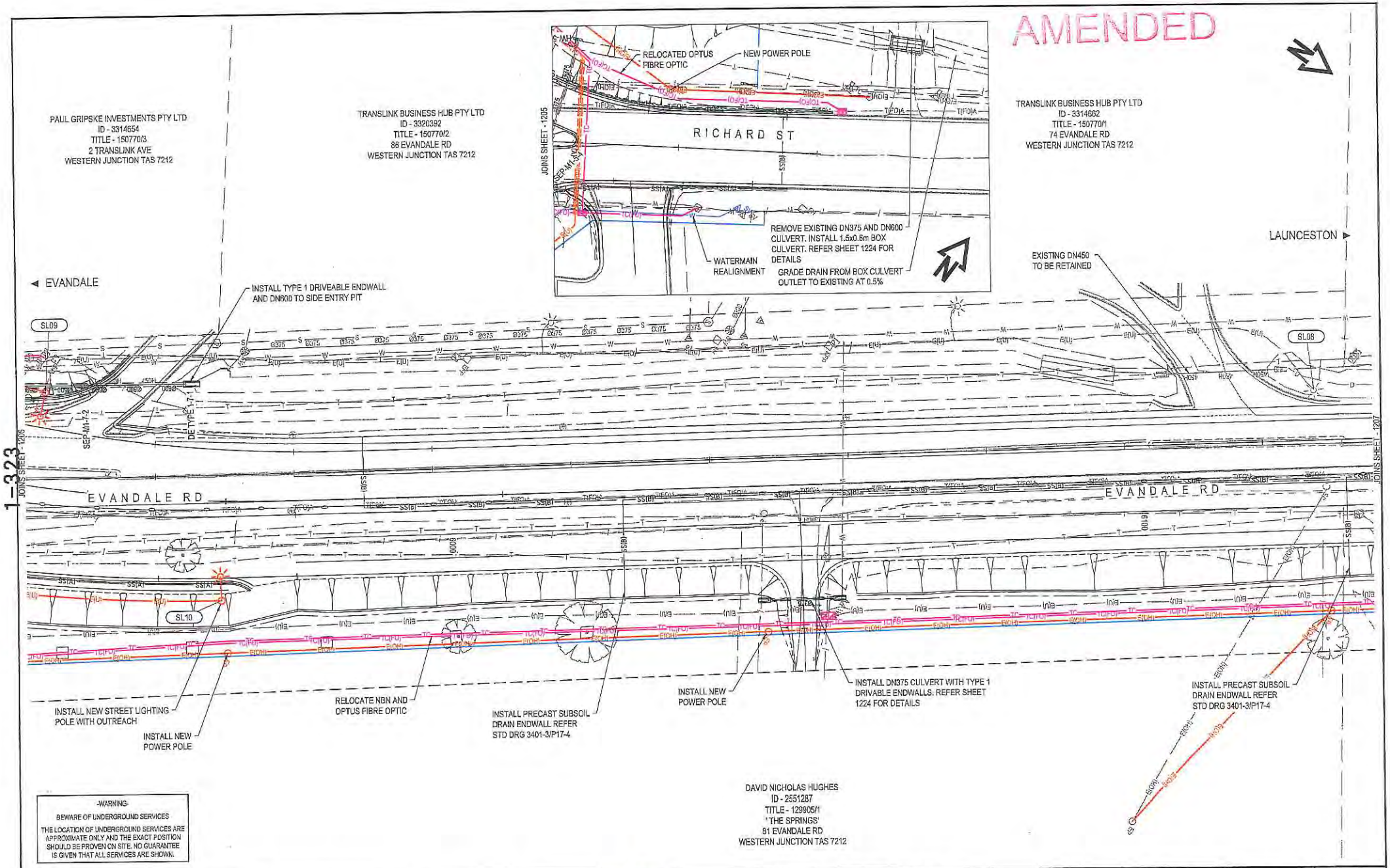

1-323

-WARNING-

BEWARE OF UNDERGROUND SERVICES

THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THE EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

No.	Amendment Description	Initials	Date
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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS

DRAINAGE AND SERVICES - DRG 6

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1206	23-Sep-20, 12:26 PM	1206

REGISTRATION NUMBER
A1109.001

REVISION 0

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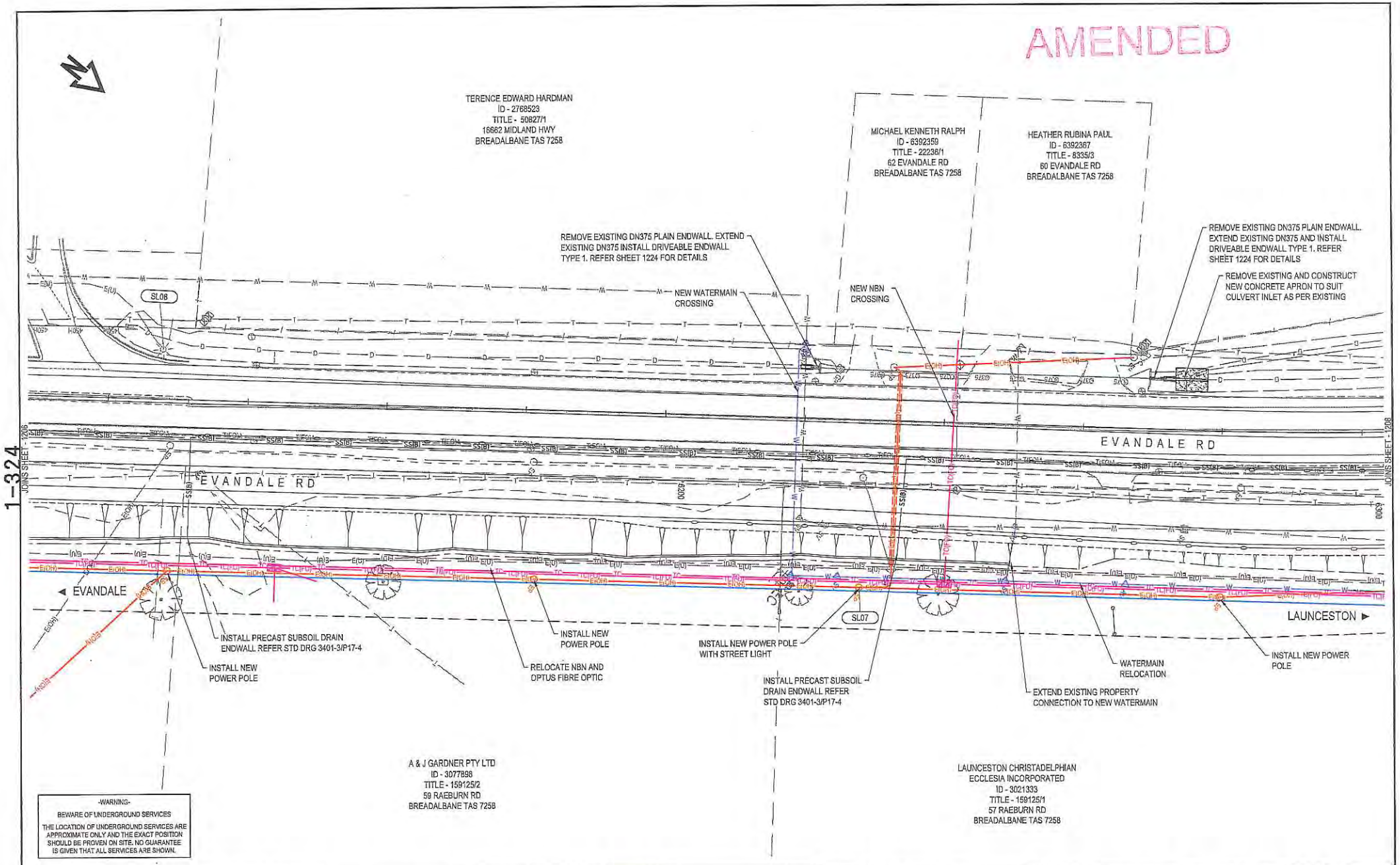

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

DRAINAGE AND SERVICES - DRG 7

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1207	23-Sep-20, 12:26 PM	1207

REGISTRATION NUMBER
A1109.001

REVISION 0

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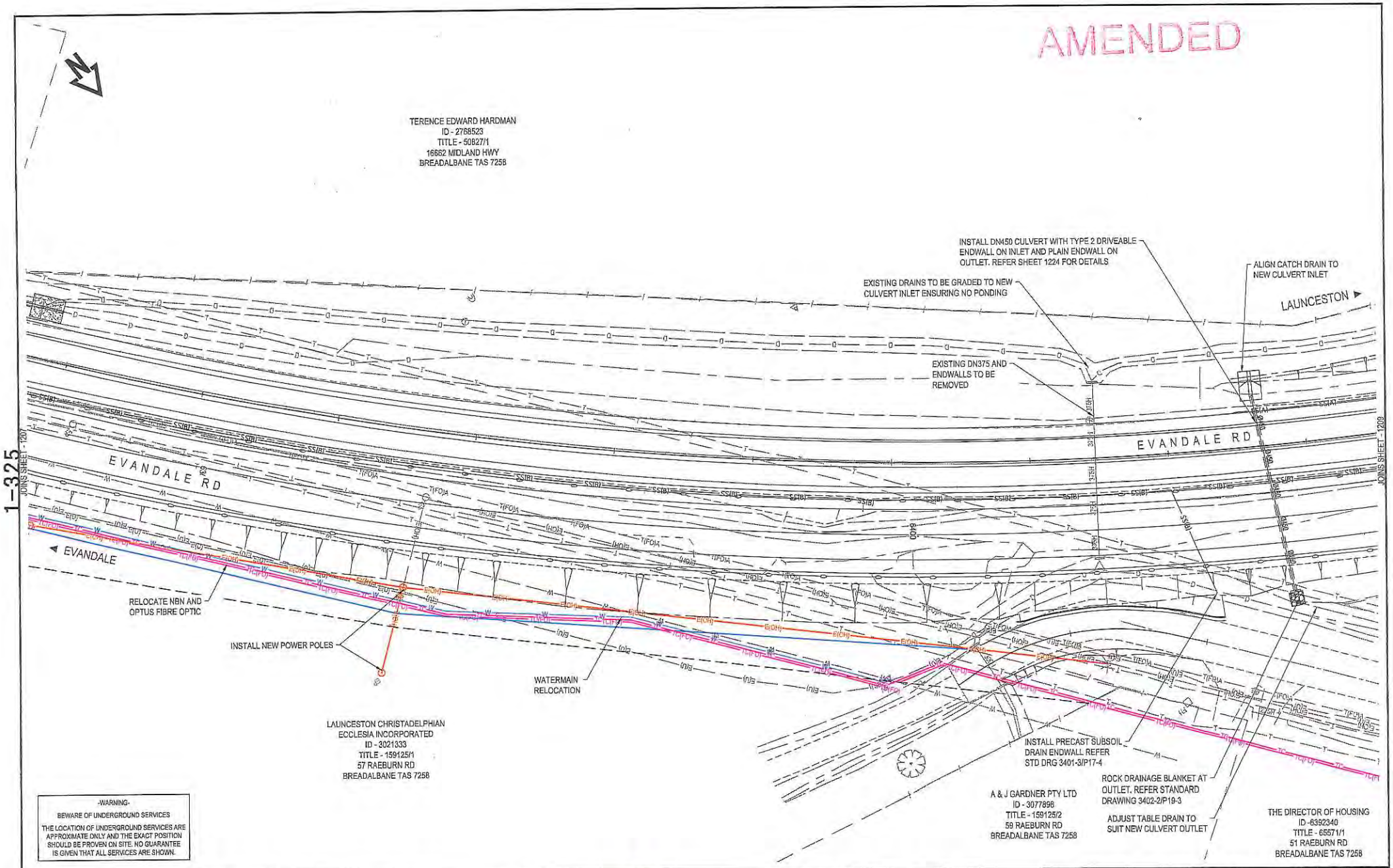

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DRAINAGE AND SERVICES - DRG 8

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1208	23-Sep-20, 12:26 PM	1208

REGISTRATION NUMBER
A1109.001

REVISION 0

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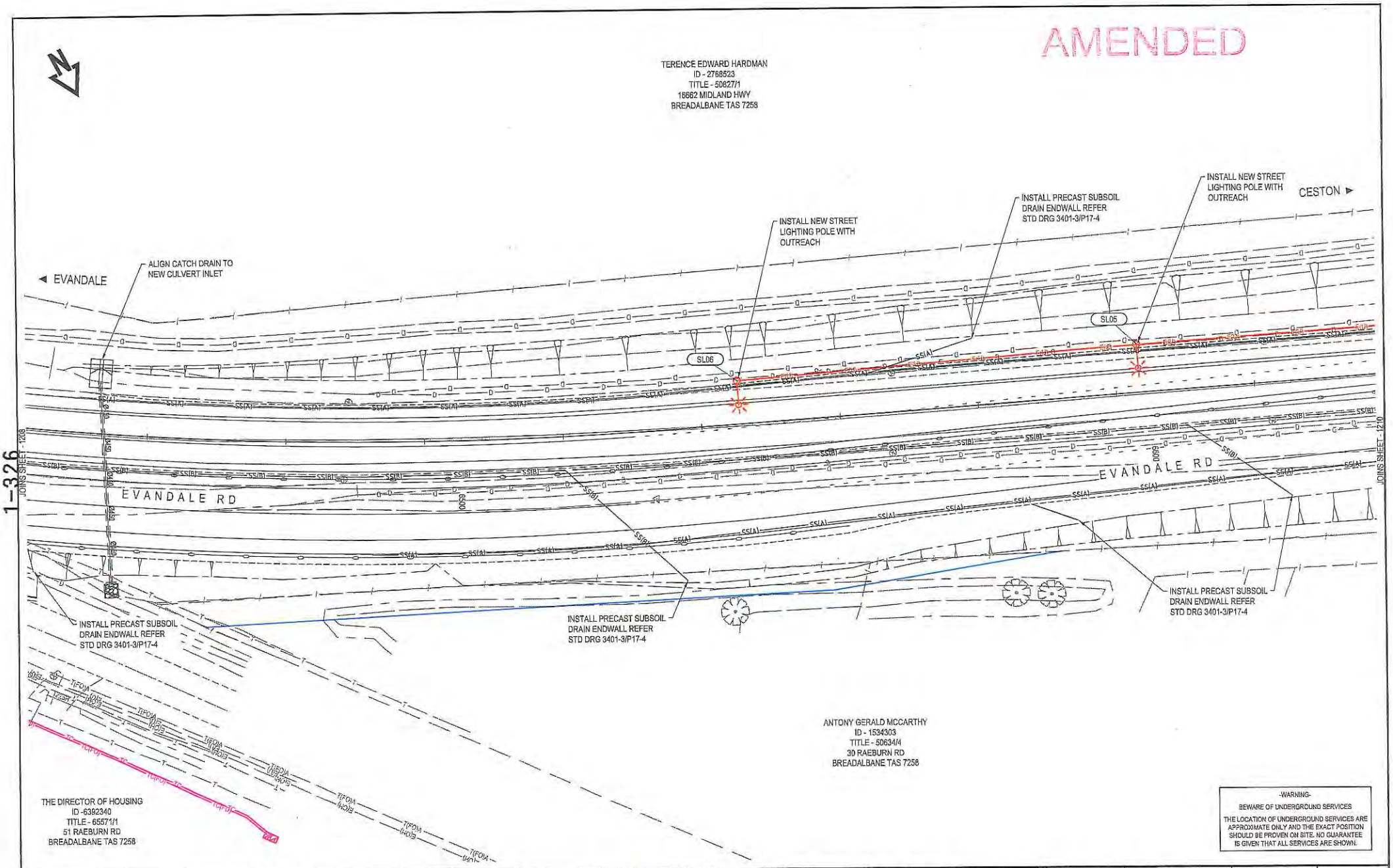

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
DRAINAGE AND SERVICES - DRG 9

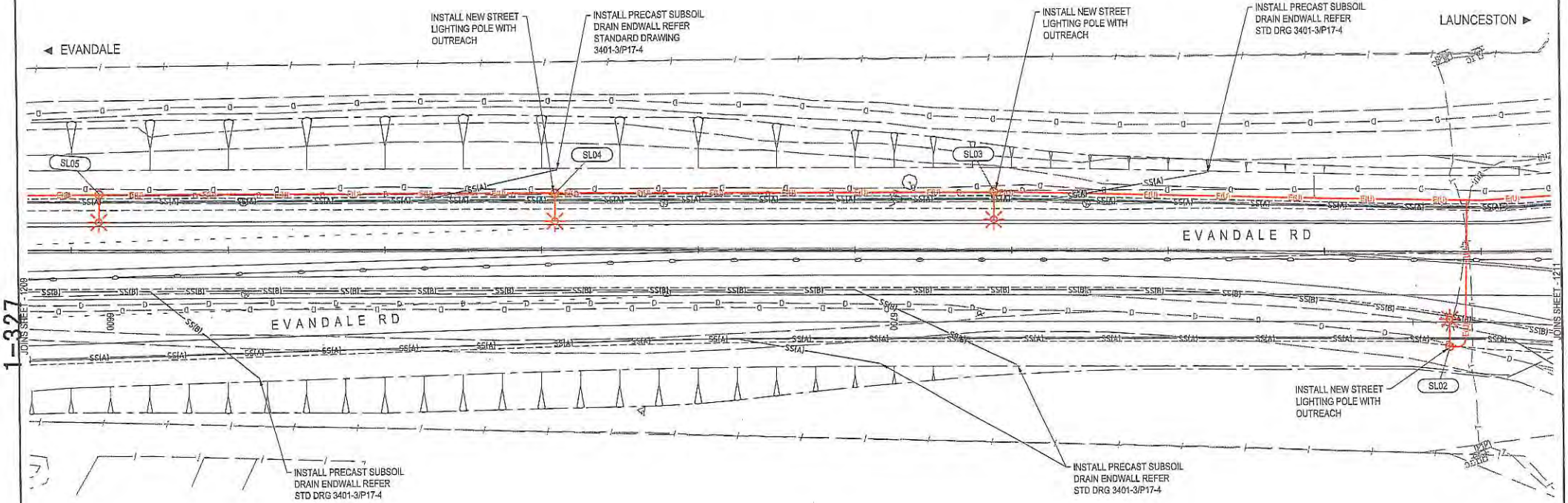
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1209	23-Sep-20, 12:26 PM	1209

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

TERENCE EDWARD HARDMAN
ID - 2768523
TITLE - 50827/1
16662 MIDLAND HWY
BREADALBANE TAS 7258



1–327

ANTONY GERALD MCCARTHY
ID - 1534303
TITLE - 50634/4
30 RAEBURN RD
BREADALBANE TAS 7258

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS
DRAINAGE AND SERVICES - DRG 10

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1210	23-Sep-20, 12:27 PM	1210

REGISTRATION NUMBER
A1109.001

REVISION 0

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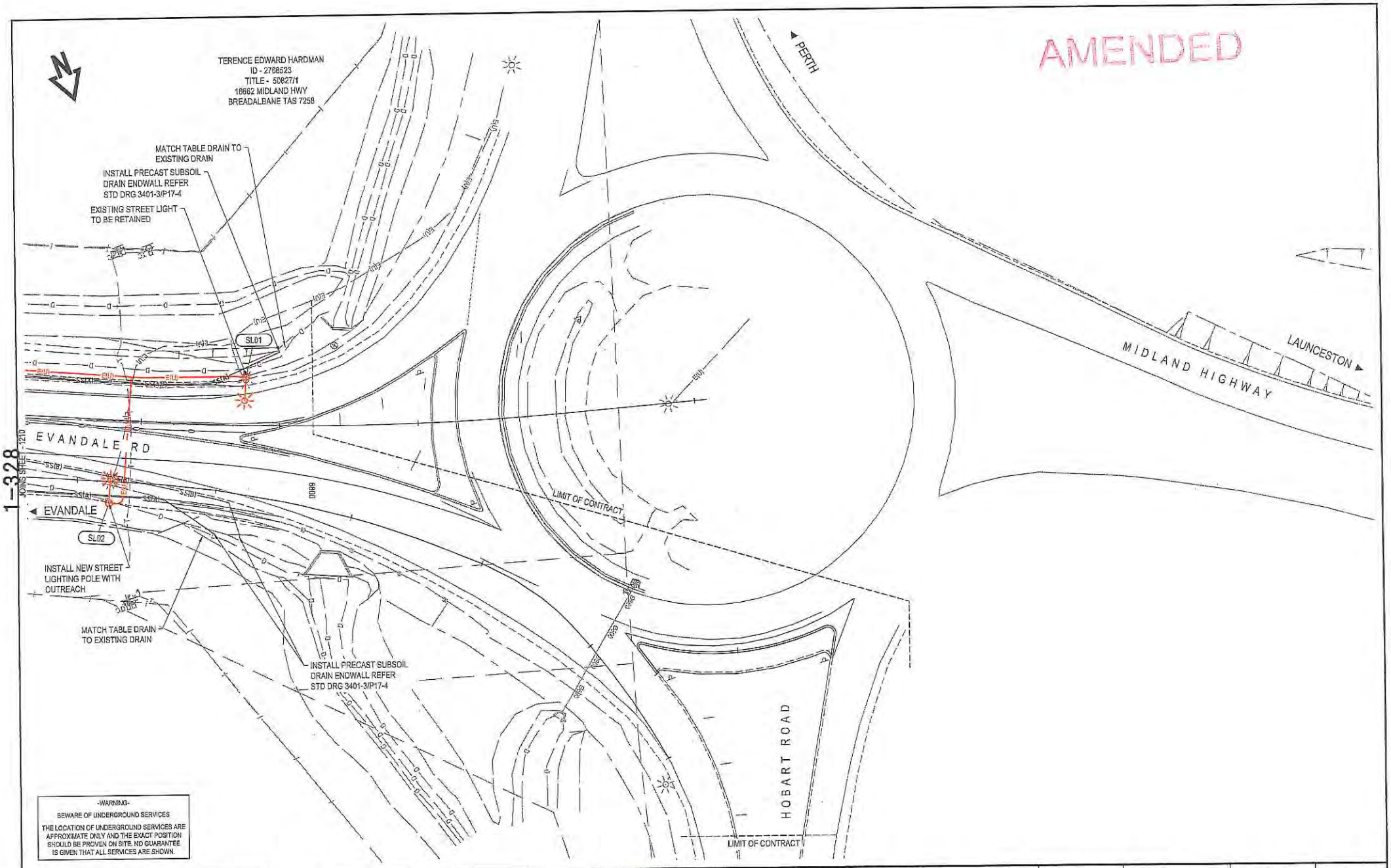

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DRAINAGE AND SERVICES - DRG 11

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1211	23-Sep-20, 12:27 PM	1211

REGISTRATION NUMBER
A1109.001

REVISION 0

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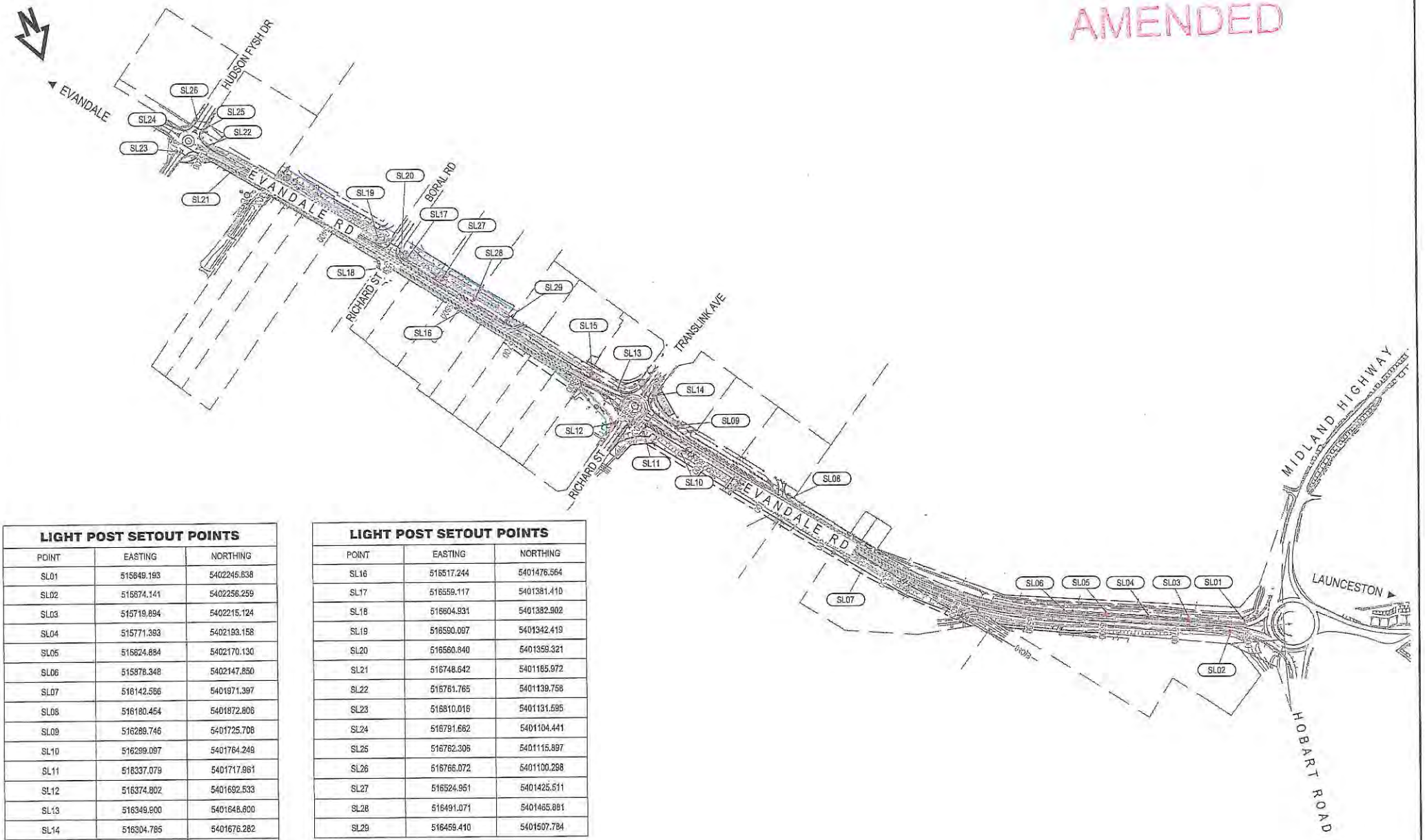
1–329



LIGHT POST SETOUT POINTS		
POINT	EASTING	NORTHING
SL01	515849.193	5402246.838
SL02	515874.141	5402256.259
SL03	515719.894	5402215.124
SL04	515771.393	5402193.158
SL05	515824.884	5402170.130
SL06	515878.348	5402147.850
SL07	516142.566	5401971.397
SL08	516180.454	5401872.806
SL09	516289.746	5401725.708
SL10	516299.097	5401764.249
SL11	516337.079	5401717.961
SL12	516374.802	5401692.533
SL13	516349.900	5401648.600
SL14	516304.785	5401676.282
SL15	516376.600	5401619.307

LIGHT POST SETOUT POINTS		
POINT	EASTING	NORTHING
SL16	516517.244	5401476.564
SL17	516559.117	5401381.410
SL18	516604.931	5401382.902
SL19	516590.097	5401342.419
SL20	516560.840	5401359.321
SL21	516748.642	5401165.972
SL22	516761.765	5401139.758
SL23	516810.016	5401131.595
SL24	516791.662	5401104.441
SL25	516762.306	5401115.897
SL26	516766.072	5401100.298
SL27	516524.951	5401425.511
SL28	516491.071	5401465.881
SL29	516459.410	5401507.784

No.	Amendment Description	Initials	Date
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SCALE IN METRES - 1:5000

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD) ROADWORKS

STREET LIGHTING SETOUT PLAN

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1216	23-Sep-20, 12:27 PM	1216

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

LOCATION/DRAWING	ASSET No.	EXISTING/NEW	COLUMN TYPE - DRG No.	LUMINAIRE TYPE	FOUNDATION - DRG No.	NOTES
1211	SL01	EXISTING/RETAIN	8M POLE, 2M OUTREACH, POLE TYPE TBC	SYLVANIA S150C HPS	N/A	EXISTING LIGHT POLE TO BE RETAINED
1210/1211	SL02	EXISTING/RELOCATE	8M POLE, 2M OUTREACH, POLE TYPE TBC	SYLVANIA S150C HPS	N/A	RELOCATE EXISTING POLE TO SUIT ROAD WIDENING
1210	SL03	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 1800mm
1210	SL04	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 1800mm
1209/1210	SL05	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 1800mm
1209	SL06	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 1800mm
1207	SL07	EXISTING/UPGRADE	TASNETWORKS POLE, APPROX 6M MOUNTING HEIGHT, 1.5M OUTREACH	UPGRADE EXISTING SUBURBAN ECO 42CFL, TO 14W ALDRIDGE P-LED	N/A	NON CONTESTABLE WORKS. BY TASNETWORKS
1207	SL08	EXISTING/RETAIN	8M POLE, 2M OUTREACH	SYLVANIA S150C HPS	N/A	DESIGN AREA IS NOT FULLY COMPLIANT WITH CAT-V5. DSG CONFIRM THIS IS SATIFACTORY AS AREA IS NOT DEVELOPED (VERY RARE VEHICLE USE).
1205/1206	SL09	EXISTING/RELOCATE	8M POLE, 2M OUTREACH	SYLVANIA S150C HPS	N/A	RELOCATE EXISTING POLE TO SUIT ROAD WIDENING
1205/1206	SL10	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1205	SL11	EXISTING/RELOCATE	12M, 3M SINGLE OUTREACH, POLE TYPE TBC	SYLVANIA S250C HPS, REPLACE WITH ALDRIDGE 175W LED	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm REPLACE EXISTING HPS FIXTURE WITH LED
1205	SL12	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1205	SL13	EXISTING/RELOCATE	12M, 3M SINGLE OUTREACH, POLE TYPE TBC	SYLVANIA S250C HPS, REPLACE WITH ALDRIDGE 175W LED	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm REPLACE EXISTING HPS FIXTURE WITH LED
1205	SL14	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1205	SL15	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1203	SL16	EXISTING/UPGRADE	UPGRADE EXISTING 14W STREET LED ON TASNETWORKS POLE TO 75W VLED. INSTALL 3M 'COBRA' EXTENSION ARM TO RAISE MOUNTING HEIGHT TO APPROX 9.5M AND 3M OUTREACH	STREET LED 14W, UPGRADE TO ALDRIDGE 75W LED D2 PE CELL	N/A	NON CONTESTABLE WORKS. BY TASNETWORKS
1203	SL17	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1203	SL18	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1203	SL19	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1203	SL20	EXISTING/UPGRADE	UPGRADE EXISTING 150W HPS STREET LED ON TASNETWORKS POLE TO 75W VLED. INSTALL 'COBRA' EXTENSION ARM TO RAISE MOUNTING HEIGHT AND OUTREACH	SYLVANIA S150C HPS, UPGRADE TO ALDRIDGE 75W LED D2 PE CELL	N/A	NON CONTESTABLE WORKS. BY TASNETWORKS
1201	SL21	NEW	MOUNT TO EXISTING TASNETWORKS POLE. INSTALL 3M 'COBRA' EXTENSION ARM TO RAISE MOUNTING HEIGHT TO APPROX 9.5M AND 3M OUTREACH	ALDRIDGE 75W LED D2 PE CELL	N/A	NON CONTESTABLE WORKS. BY TASNETWORKS
1201	SL22	EXISTING/UPGRADE	12M, 3M SINGLE OUTREACH, POLE TYPE TBC	SYLVANIA S250C HPS, REPLACE WITH ALDRIDGE 175W LED	N/A	
1201	SL23	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1201	SL24	EXISTING/UPGRADE	12M, 3M SINGLE OUTREACH, POLE TYPE TBC	SYLVANIA S250C HPS, REPLACE WITH ALDRIDGE 175W LED	N/A	
1201	SL25	EXISTING/UPGRADE	12M, 3M SINGLE OUTREACH, POLE TYPE TBC	SYLVANIA S250C HPS, REPLACE WITH ALDRIDGE 175W LED	N/A	
1201	SL26	EXISTING/RETAIN	8M, 1.5M SINGLE OUTREACH, POLE TYPE TBC	STREET LED 14W LED	N/A	
1203	SL27	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1203/1204	SL28	NEW	12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	ALDRIDGE 175W LED D2 PE CELL	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm
1204	SL29	EXISTING/UPGRADE	EXISTING - 8M POLE, 2M OUTREACH, POLE TYPE TBC INSTALL - 12M, 3M SINGLE OUTREACH, RIGID POLE - SFL12FSO30	SYLVANIA S150C HPS REPLACE WITH ALDRIDGE 175W LED	PILE - GA12732	PILE DIA: 600mm, DEPTH: 2400mm

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No.	Amendment Description	Initials	Date
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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

STREET LIGHTING SHEDULE

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3266	HB19503-C1217	23-Sep-20, 12:27 PM	1217

REGISTRATION NUMBER
A1109.001

REVISION 0

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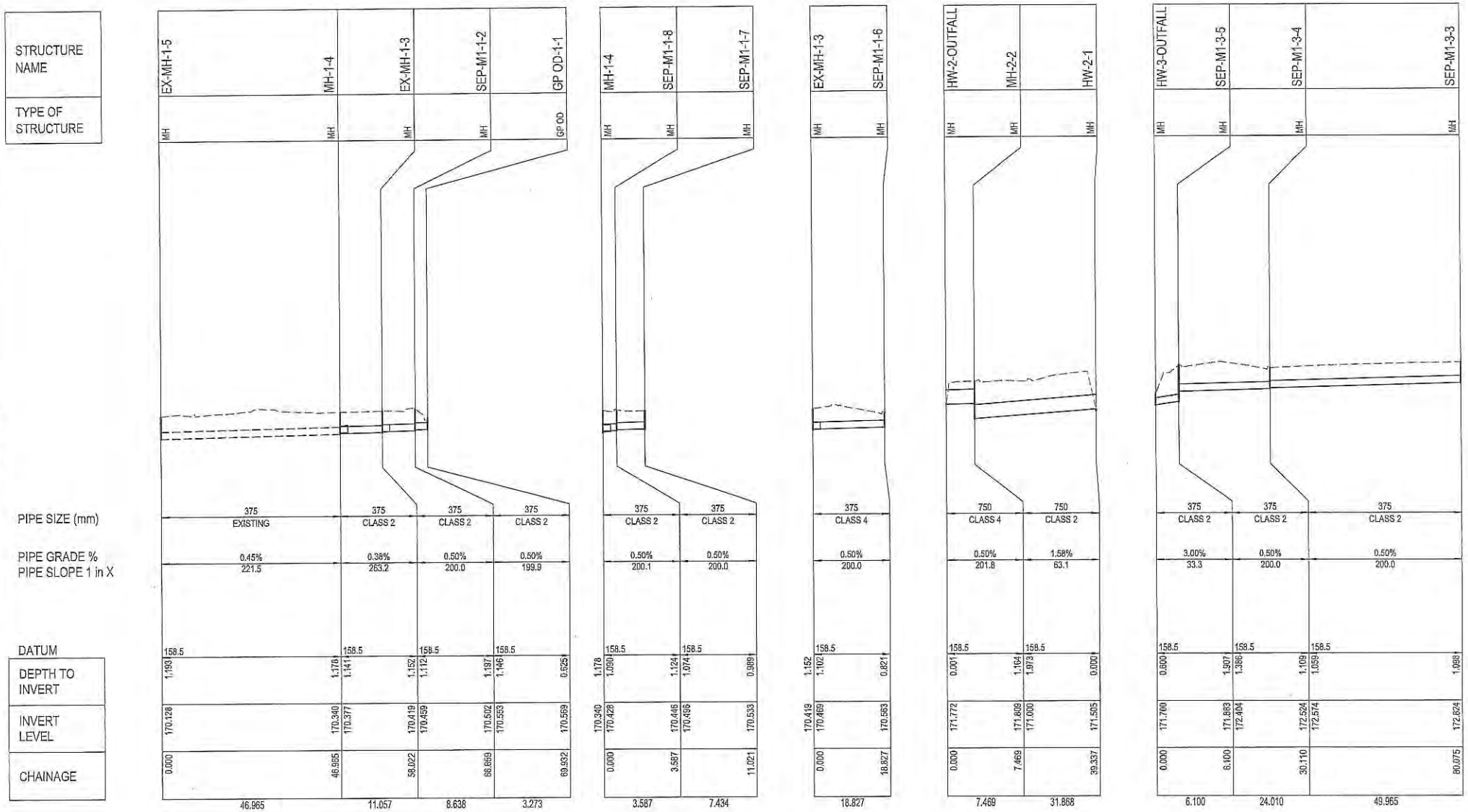

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
DRAINAGE PROFILES - SHEET 1

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1221	23-Sep-20, 12:28 PM	1221

REGISTRATION NUMBER
A1109.001

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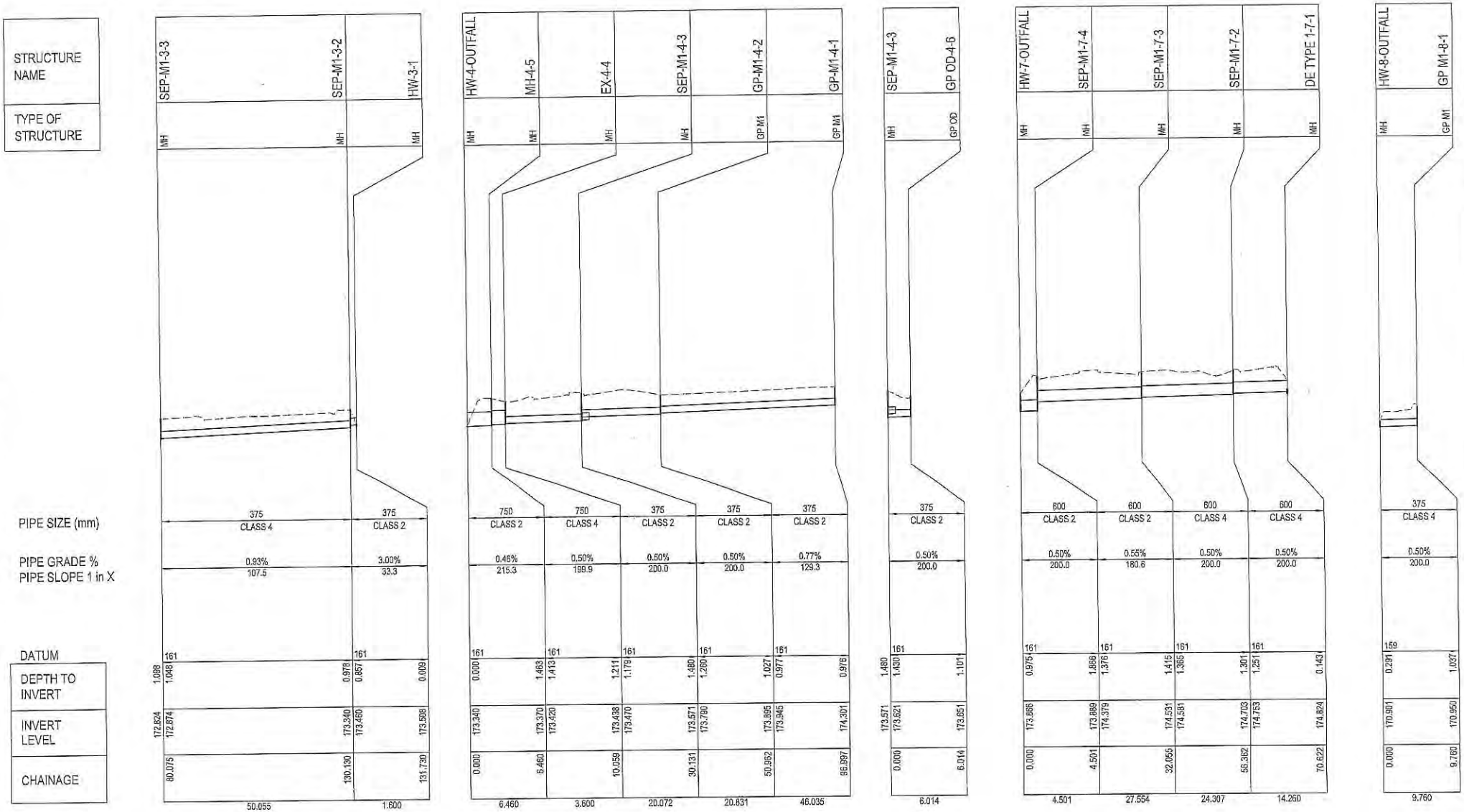

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ROADWORKS

DRAINAGE PROFILES - SHEET 2

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1222	23-Sep-20, 12:28 PM	1222

REGISTRATION NUMBER
A1109.001

REVISION 0

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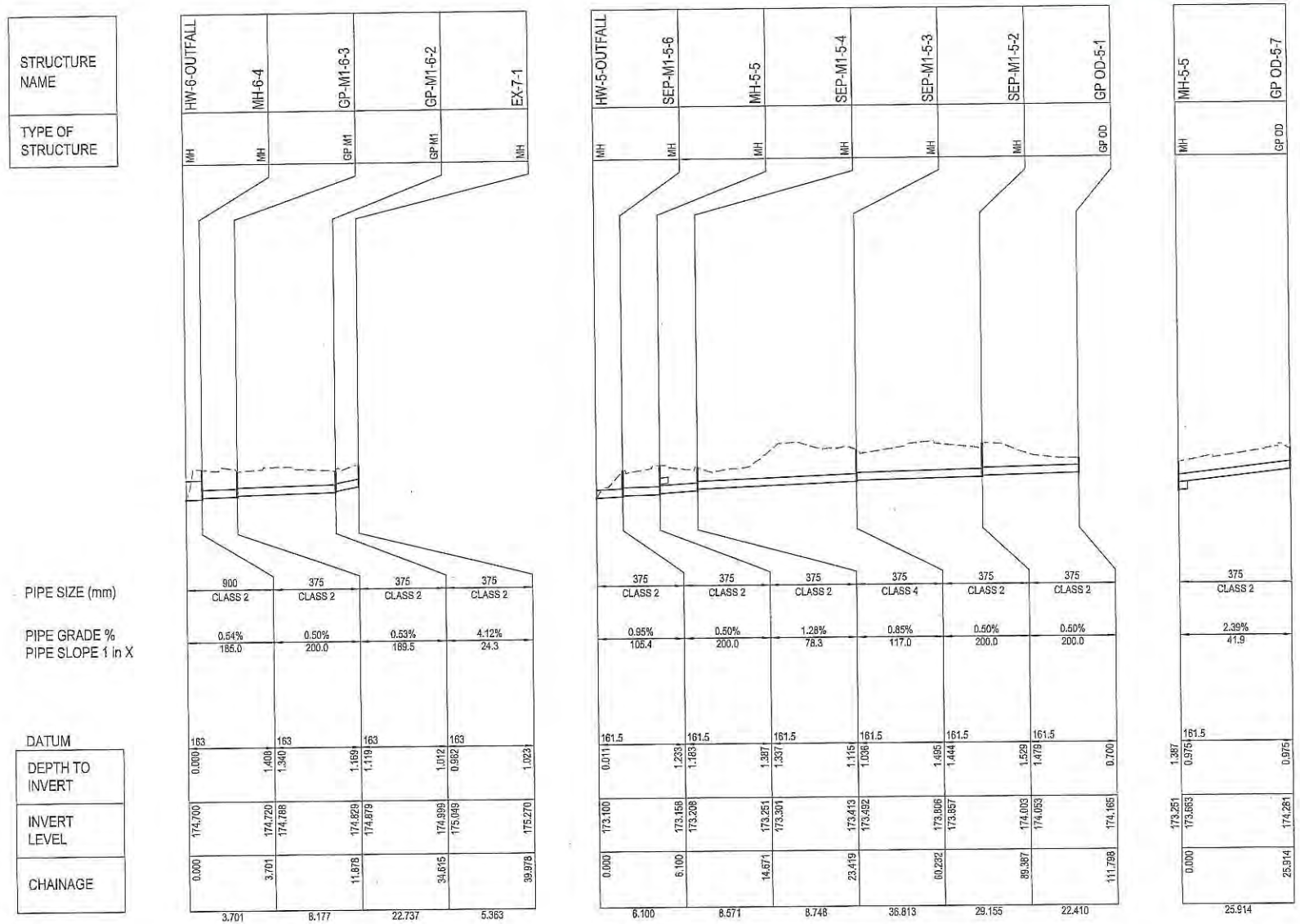
1-333



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ROADWORKS

DRAINAGE PROFILES - SHEET 3

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1223	23-Sep-20, 12:28 PM	1223

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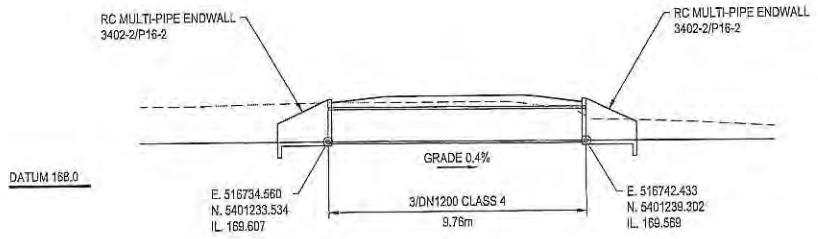

3/DN1200 CULVERT CH.12 MCN0
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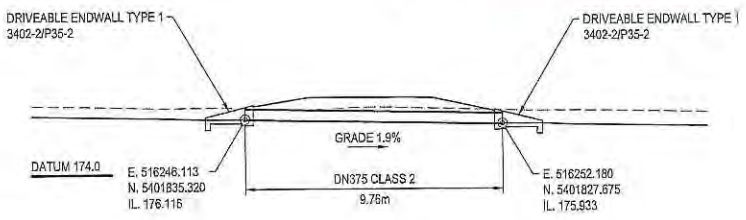

DN375 CULVERT CH.16 MCD0
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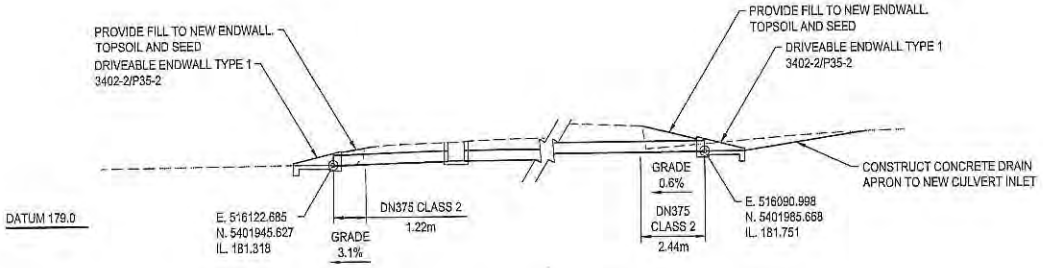

DN375 CULVERT EXTENSIONS CH.6240 MC10
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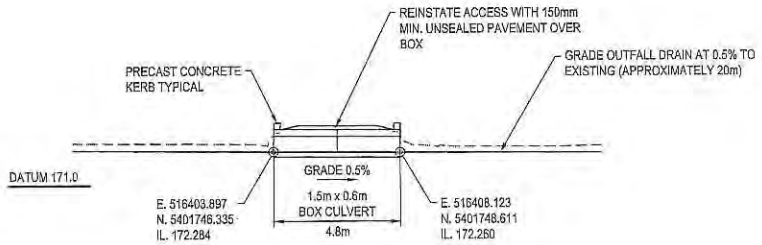
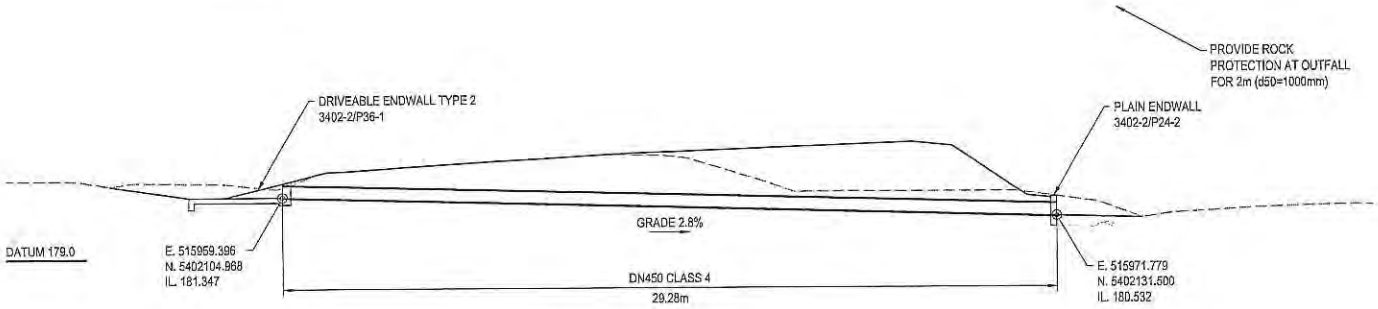


1.5m x 0.6m BOX CULVERT RICHARD STREET
SCALE 1:200



DN450 CULVERT CH.6455 MC10
SCALE 1:200

1-334

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALES
1:200 (A3)
SCALE IN METRES - 1:200

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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
DRAINAGE PROFILES - SHEET 4

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1224	23-Sep-20, 12:28 PM	1224

REGISTRATION NUMBER
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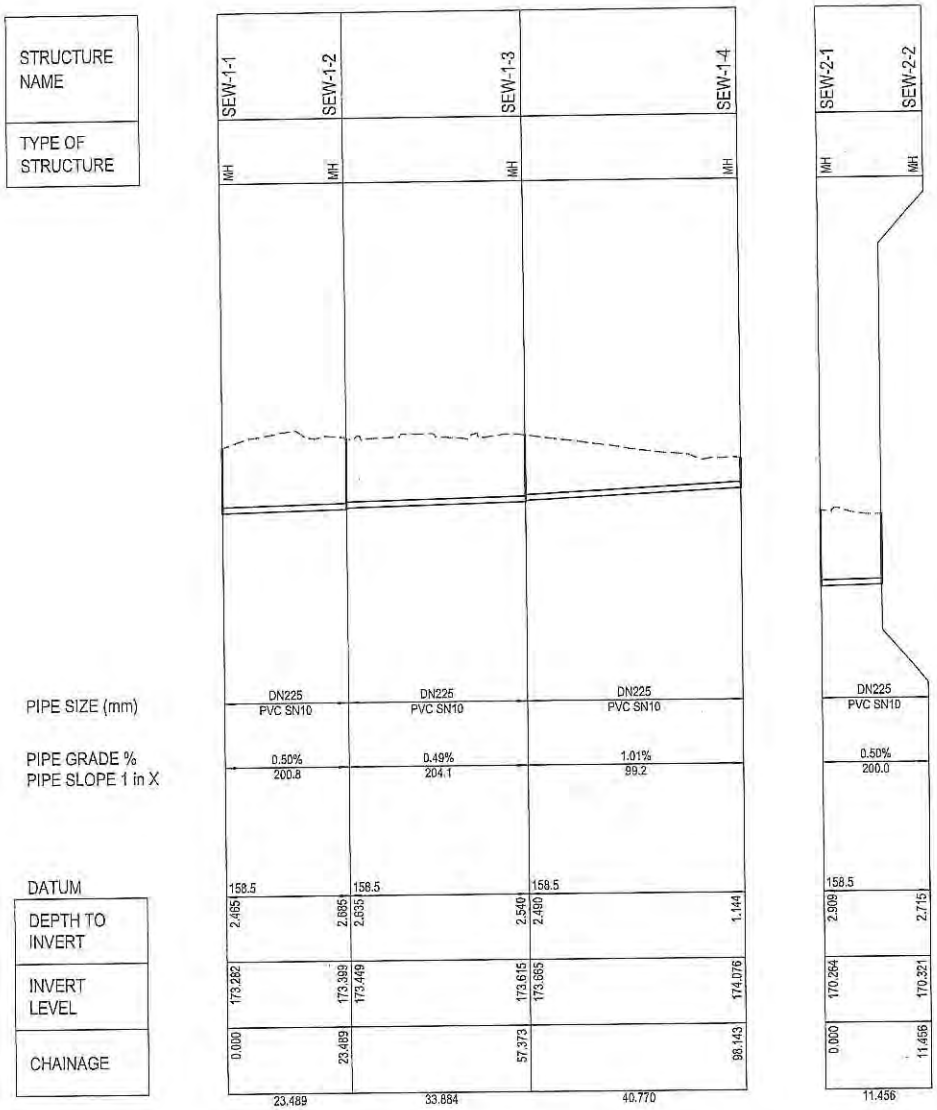
1-335



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No.	Amendment Description	Initials	Date
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SCALE IN METRES - 1:1000

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SEWER PROFILES - SHEET 1

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3288	HB19503-C1226	23-Sep-20, 12:28 PM	1226

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EVANDALE MAIN ROAD (A1109)

LAUNCESTON AIRPORT ACCESS (EVANDALE ROAD) ROADWORKS

1-336

STRUCTURE 6216
FROG CULVERT AT CH. 5294 (MC10)

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date

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SCALES
AS SHOWN

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
STRUCTURE 6216 FROG CULVERT AT CH.5294 (MC10)
COVER PAGE

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1229	23-Sep-20, 12:28 PM	1229

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1-337

GENERAL NOTES

1. CONTRACTOR SHALL CONFIRM ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART BE OVERSTRESSED DURING CONSTRUCTION ACTIVITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY WORKS. WORKMANSHIP & MATERIALS ARE TO BE IN ACCORDANCE WITH (IN ORDER OF PRECEDENCE) THE PROJECT SPECIFICATION, THE DRAWINGS, DEPARTMENT OF STATE GROWTH STANDARD SPECIFICATIONS AND THE BRIDGE DESIGN CODE AS5100-2017.
4. THE CONTRACTOR SHALL ONLY BUILD FROM DRAWINGS WITH STATUS OF "FOR CONSTRUCTION". DRAWINGS HAVING ANY OTHER STATUS, INCLUDING "WORK IN PROGRESS" AND "FOR APPROVAL", MAY BE SUBJECT TO CHANGE.
5. U.N.O. DENOTES UNLESS NOTED OTHERWISE.
6. C.O.S. DENOTES CONFIRM ON SITE.
7. ALL WORKMANSHIP AND MATERIALS SHALL BE UNDERTAKEN IN ACCORDANCE WITH AS 5100.5—2017 AND AS 1597.2—2013 EXCEPT AS VARIED BY THE DEPARTMENT OF STATE GROWTH SPECIFICATIONS: 210, 602, 610, 611, 614, 619, 620, AND 626. IN CASE OF DISCREPANCIES THE ORDER OF PRECEDENCE SHALL BE THE DEPARTMENT OF STATE GROWTH SPECIFICATIONS THEN WITH CURRENT EDITION OF AS5100 THEN WITH CURRENT EDITION AS1597.2 UNLESS SPECIFICALLY NOTED OTHERWISE.
8. PRIOR TO LAYING BEDDING SAND OR PLACING BLINDING, FOUNDATIONS SHALL BE INSPECTED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO CONFIRM THEY ACHIEVE THE BEARING CAPACITIES AS SPECIFIED ON THE DRAWINGS.
9. ANTI-GRAFFITI COATING TO BE APPLIED TO EXPOSED CONCRETE SURFACES WITHIN 2.5m OF ADJACENT GROUND LEVEL IN ACCORDANCE WITH DEPARTMENT OF STATE GROWTH SPECIFICATION 685.
10. TWO COATS OF DECORATIVE/ANTI-CARBONATION COATING TO BE APPLIED TO ALL EXPOSED CONCRETE SURFACES IN ACCORDANCE WITH DEPARTMENT OF STATE GROWTH SPECIFICATION 686.
11. THE CONTRACTOR SHALL PROVIDE DATE PLATES IN ACCORDANCE WITH SPECIFICATION
12. PROVIDE FULL WIDTH SAW CUT JOINTS NOM. 10x10x4400mm AT 6m CENTRES TO TOP SURFACE OF INSITU BASE SLAB. FILL JOINTS WITH POLYURETHANE JOINT SEALANT.

DIMENSIONS

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. REDUCED LEVELS, CHAINAGES & COORDINATES ARE ALL IN METRES. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM..
3. DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.
4. ANY DISCREPANCIES SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE DESIGNERS.
5. ALL CHAINAGES REFER TO THE ROAD DESIGN LINE AND ARE IN METRES.

PRECAST BOX CULVERTS

1. INSTALLATION OF BOX CULVERTS IS TO BE IN ACCORDANCE WITH THE DEPARTMENT OF STATE GROWTH SPECIFICATION 626
2. BOX CULVERTS ARE TO HAVE A100 YEAR DESIGN LIFE
3. DESIGN LOADS FOR BOX CULVERTS:
   - THE RANGE OF FILL DEPTHS ON TOP OF THE CULVERTS AS NOTED ON THE DRAWINGS.
   - SM1600 (WHICH INCLUDES W80, A160, M1600, M1600 TRI—AXLE GROUP AND S1600 TRAFFIC DESIGN CLASS LOADS) AND HLP400 VEHICLE LOADS.
   - LOADS OF OTHER ANCILLARY ITEMS SHOWN ON THE DRAWINGS SUCH AS HEADWALLS, HANDRAILS ETC.
   - CONSTRUCTION LOADS TO THE DEPARTMENT OF STATE GROWTH SPECIFICATION 626.11.

CHAMFERS AND FILLETS

1. UNLESS NOTED OTHERWISE, ALL EXPOSED CONCRETE EDGES HAVING A CONTAINED ANGLE LESS THEN 120° SHALL BE PROVIDED WITH 20mm FILLETS OR CHAMFERS AS APPROPRIATE.

CONSTRUCTION JOINTS

1. CJ DENOTES CONSTRUCTION JOINT
2. EJ DENOTES EXPANSION JOINT
3. CONSTRUCTION JOINTS SHALL BE USED ONLY AS SHOWN ON THE DRAWINGS.
4. NO CONSTRUCTION JOINTS SHOWN ON THE DRAWINGS SHALL BE OMITTED WITHOUT THE WRITTEN APPROVAL OF THE DESIGNERS.
5. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER. CONTRACTORS SHALL ALLOW FOR ALL NECESSARY CONSTRUCTION JOINTS.
6. CONSTRUCTION JOINT SURFACE SHALL BE PREPARED IN ACCORDANCE WITH DEPARTMENT OF STATE GROWTH STANDARD SPECIFICATION SECTION 610.20

REINFORCEMENT

1. ALL REINFORCEMENT IS DESIGNATED AS FOLLOWS UNLESS IT IS DESCRIBED FULLY IN ACCORDANCE WITH AS 4671 SECTION 5.

SYMBOL	DESCRIPTION	TYPE TO AS 4671
SL	MESH-SQUARE GRID	D500L
RL	MESH-RECTANGULAR GRID	D500L
R	PLAIN BARS	R250N
S	DEFORMED BARS	D250N
N	DEFORMED BARS	D500N

2. REINFORCEMENT SPACING NOT SHOWN SHALL BE TAKEN AS EQUAL.
3. REINFORCING BAR SHOWN ON THESE DRAWINGS ARE DIAGRAMMATIC ONLY. IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
4. BARS SHOWN MAY REPRESENT MORE THAN ONE LENGTH AND/OR PROFILE.
5. BARS MAY NOT BE SHOWN IN TRUE POSITION FOR CLARITY.
6. ALL HOOKS, BEND AND COGS ARE STANDARD AND SHALL BE IN ACCORDANCE WITH AS5100 BRIDGE DESIGN 2017 UNLESS NOTED OTHERWISE.
7. ALL REINFORCEMENT IS DIMENSIONED OUT-TO-OUT ALONG EACH STRAIGHT PORTION OF THE BAR.
8. WELDING OF REINFORCEMENT NOT PERMITTED UNLESS NOTED OTHERWISE.
9. MATERIALS AND PLACEMENT OF REINFORCEMENT SHALL COMPLY WITH DEPARTMENT OF STATE GROWTH SPECIFICATION 611.
10. SYMBOLS ON DRAWINGS FOR GRADE AND TYPE OF REINFORCEMENT ARE AS FOLLOWS:
    — R: STRUCTURAL GRADE 250 PLAIN ROUND BAR TO AS/NZS4671
    — N: HOT ROLLED GRADE 500 DEFORMED (RIBBED) BAR DUCTILITY CLASS N TO AS/NZS4671.
11. DESIGNATION OF REINFORCEMENT BARS IS AS SHOWN:
    eg. 17 N20-350 FF
    17: DENOTES NO OF BARS AND TYPE IN GROUP
    N: DENOTES BAR GRADE AND DUCTILITY CLASS LOADS
    20: DENOTES NOMINAL BAR DIAMETER IN mm
    350: DENOTES SPACING IN mm
    EF: DENOTES LOCATION
12. FOLLOWING ABBREVIATIONS APPLY TO LOCATION OF REINFORCEMENT:
    EW: EACH WAY FF: FAR FACE BB: BOTTOM BOTTOM (LAID FIRST)
    EF: EACH FACE B: BOTTOM TT: TOP (LAID LAST)
    NF: NEAR FACE T: TOP C OR CP: CENTRALLY PLACED
13. LAPPED SPLICE LENGTHS FOR HORIZONTAL BARS TO COMPLY WITH THE FOLLOWING UNO:

LOCATION		N12	N16	N20	N24	N28	N32
LAPS STAGGERED	HORZ. BAR WITH >300mm CONCRETE BELOW BARS	480	610	760	920	1160	1420
	HORZ. BARS WITH ≤300mm CONCRETE BELOW BARS & VERTICAL BARS	350	470	580	710	900	1090
LAPS NOT STAGGERED	HORZ. BARS WITH >300mm CONCRETE BELOW BARS	460	620	880	1150	1450	1770
	HORZ. BARS WITH ≤300mm CONCRETE BELOW BARS & VERTICAL BARS	350	480	680	890	1120	1370

DO NOT INTERPOLATE INTERMEDIATE VALUES OF SPLICE LENGTHS, TABULATED VALUES WERE CALCULATED IN ACCORDANCE WITH AS5100.5—2017.

CONCRETE

CONCRETE MIX

1. WORKMANSHIP AND MATERIALS TO COMPLY WITH AS5100.5—2017 AND DEPARTMENT OF STATE GROWTH SPECIFICATION 610.
2. CONCRETE MIXTURES SHALL BE ACCORDANCE WITH SPECIFICATION 610.
3. QUALITY OF CONCRETE ELEMENTS TO BE AS FOLLOWS:

STRUCTURAL ELEMENT	BLINDING	PRECAST BOX CULVERTS	PRECAST KERBS	CAST IN-SITU CONCRETE
CONCRETE GRADE TO SPECIFICATION 610	N15	VR450/50	VR450/50	VR450/50

REINFORCEMENT COVER

4. COVER IS CLEAR DISTANCE BETWEEN ANY REINFORCEMENT (INCLUDING LIGATURES, TIE WIRE etc) AND OUTSIDE SURFACE OF STRUCTURAL CONCRETE.
5. COVER MUST NOT BE LESS THAN SPECIFIED. PROVIDE MINIMUM CLEAR COVER TO REINFORCEMENT AS SHOWN BELOW, EXCEPT WHERE SPECIFIED OTHERWISE. EXPOSURE CLASSIFICATIONS ARE IN ACCORDANCE WITH AS5100.5—2017 UNLESS NOTED OTHERWISE:

LOCATION	EXPOSURE CLASSIFICATION	COVER (mm)
PRECAST BOX CULVERT & WINGWALLS	B1	50
PRECAST KERBS	B1	50
CAST IN-SITU BASE SLAB & APRON SLAB	B2	60

6. PROVIDE 50mm BLINDING CONCRETE UNDER STRUCTURAL REINFORCED CONCRETE CAST ON GROUND UNO.
7. CURING COMPOUNDS SHALL NOT BE USED ON ANY CONCRETE SURFACES WITHOUT WRITTEN APPROVAL OF THE DEPARTMENT OF STATE GROWTH.

STRUCTURAL STEELWORK

1. ALL WORKMANSHIP AND MATERIALS SHALL BE ACCORDANCE WITH AS 5100.
2. WELDING SHALL BE PERFORMED BY A QUALIFIED OPERATOR IN ACCORDANCE WITH AS 1554.
3. STRUCTURAL STEEL SHALL BE GRADE 300, UNLESS NOTED OTHERWISE.
4. BOLTS AND NUTS TO AS 1252 GRADE 8.8/S UNLESS NOTED OTHERWISE. WASHERS TO AS 1237.
5. STEEL PLATE SHALL BE GRADE 300 & COMPLY WITH AS 3678, UNLESS NOTED OTHERWISE.
6. SHS,RHS & CHS SHALL BE GRADE 350 AND COMPLY WITH AS 1163, UNLESS NOTED OTHERWISE.
7. ALL BOLTS, NUTS & WASHERS TO BE HOT DIPPED GALV.
8. ALL WELDS TO BE 6mm CONTINUOUS FILLET WELDS UNLESS NOTED OTHERWISE.
9. ALL STEELWORK SHALL BE HOT DIPPED GALV. AFTER FABRICATION.
10. GALVANIZING SHALL COMPLY WITH AS/NZS 4680.
11. WELDING SHALL BE CATEGORY SP WITH E48XX ELECTRODES TO COMPLY WITH AS/NZS 1554-PART 1.
12. CAST-IN ANCHOR ASSEMBLY SHALL BE HOT-DIP GALVANIZED. AFTER ASSEMBLY GALVANIZED SURFACES SHALL BE RENOVATED WITH TWO PACK INORGANIC ZINC-RICH PRIMER.
13. BOLT TYPES SHALL BE AS FOLLOWS :
    ALL BOLTS SHALL BE HOT DIP GALVANISED TO AS/NZS 4680:19994.6/S COMMERCIAL BOLTS TO AS 1111, SNUG TIGHTENED, 8.8/S HIGH STRENGTH STRUCTURAL BOLTS, WITH BOLTS, NUTS AND HARDENED WASHER TO AS 5100.6 / AS 1252:1996 8.8/TB HIGH STRENGTH STRUCTURAL BOLTS AS ABOVE, FULLY TENSIONED TO AS 5100.6 IN A BEARING TYPE JOINT. 8.8/TF HIGH STRENGTH STRUCTURAL BOLTS AS ABOVE, FULLY TENSIONED TO AS 5100.6 IN A FRICTION TYPE JOINT AND U.N.O. WITH FAYING SURFACES LEFT UNCOATED.
14. SLOTTED HOLES AND WASHERS TO BE FABRICATED AND INSTALLED IN ACCORDANCE WITH AS 5100.6
15. THE LENGTH OF A BOLT SHALL BE SUCH THAT AT LEAST ONE CLEAR THREAD SHOWS ABOVE THE NUT AND AT LEAST ONE THREAD PLUS THE THREAD RUN OUT IS CLEAR BENEATH THE NUT AFTER TIGHTENING. ONE FULL AND ONE HALF NUT MUST BE USED IN ORDER TO ACHIEVE A SOUND LOCKING MECHANISM TO PREVENT VIBRATION LOOSENING.

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Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
FROG CULVERTS CH. 5294 (MC10) & CH.5295 (MC20)
GENERAL NOTES

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1230	23-Sep-20, 12:28 PM	1230

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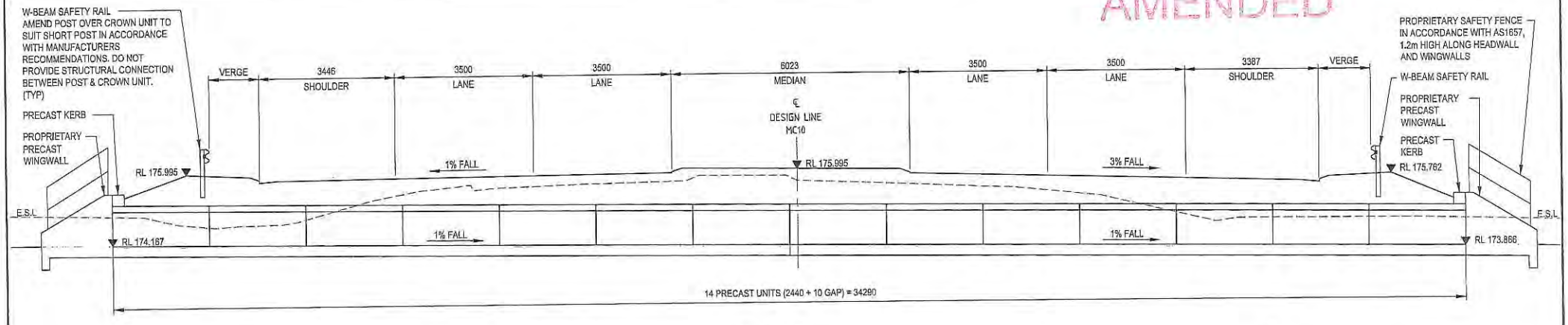

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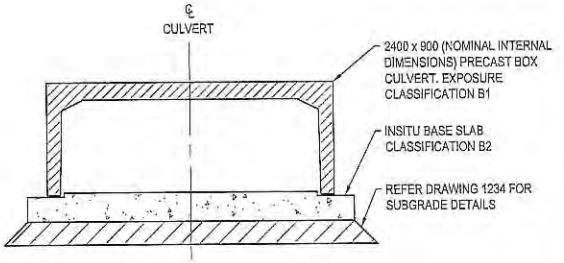

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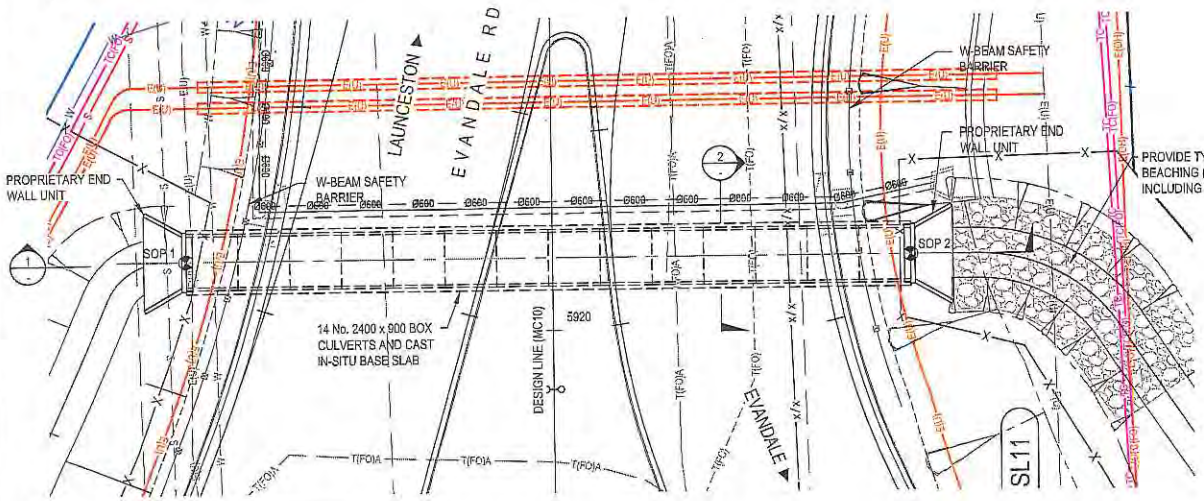

CULVERT SETOUT		
MARK	EASTING	NORTHING
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SOP 2	516325.865	5401727.092

PLAN
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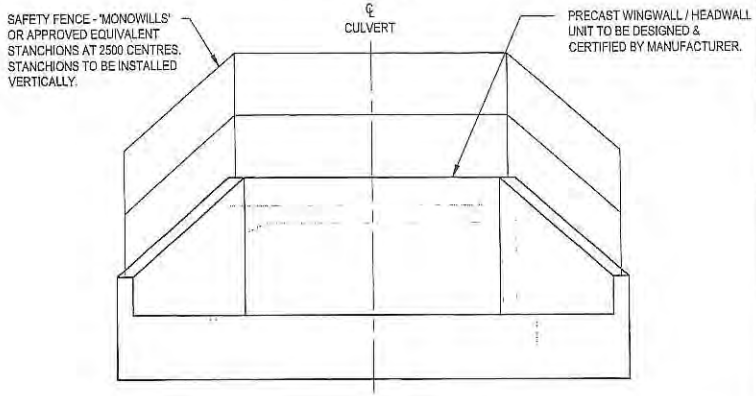

END ELEVATION
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NOTE:
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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
FROG CULVERT CH.5924 (MC10)
GENERAL ARRANGEMENT

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1231	23-Sep-20, 12:28 PM	1231

REGISTRATION NUMBER
A1109.001

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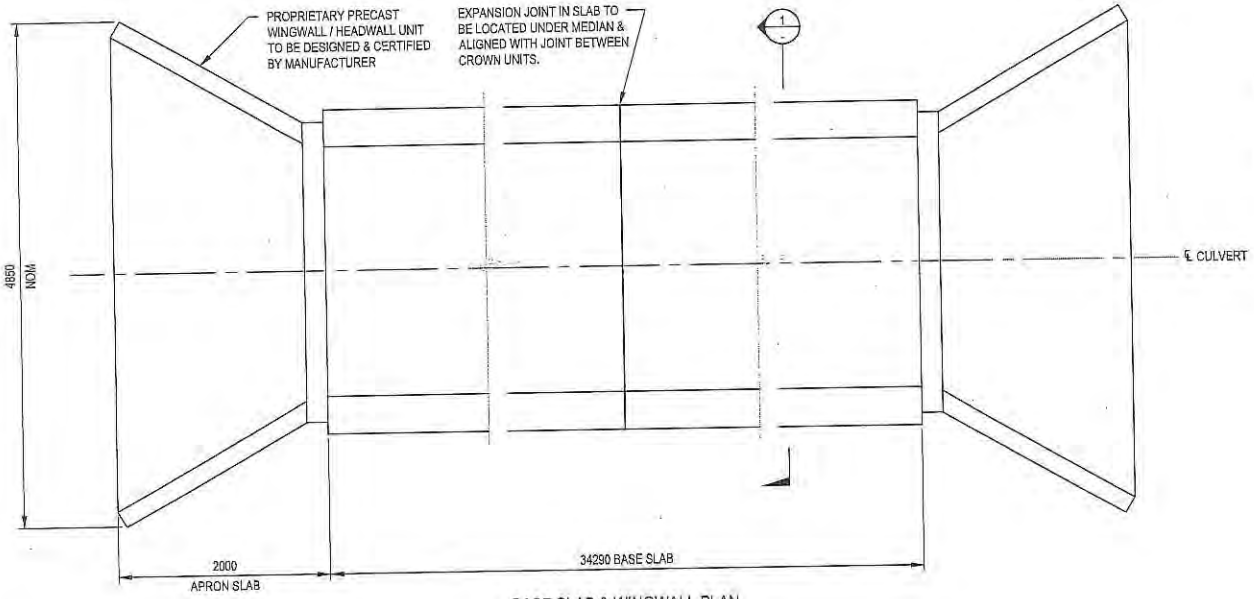
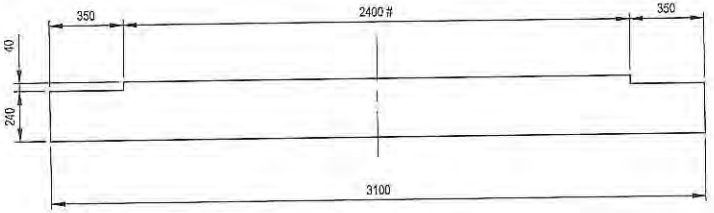
1-338

AMENDED

1-339

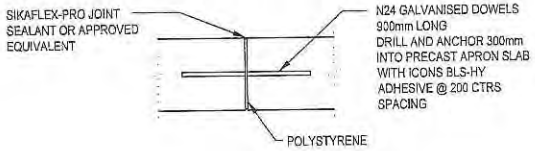


BASE SLAB & WINGWALL PLAN
SCALE 1:50

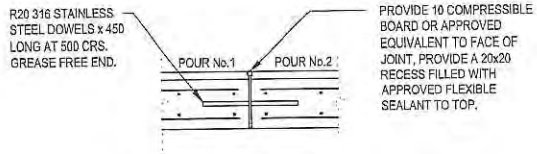


SECTION 1/- 1:25

TYPICAL BASE SLAB SECTION
AMEND TO SUIT PRECAST CROWN UNIT AS NECESSARY

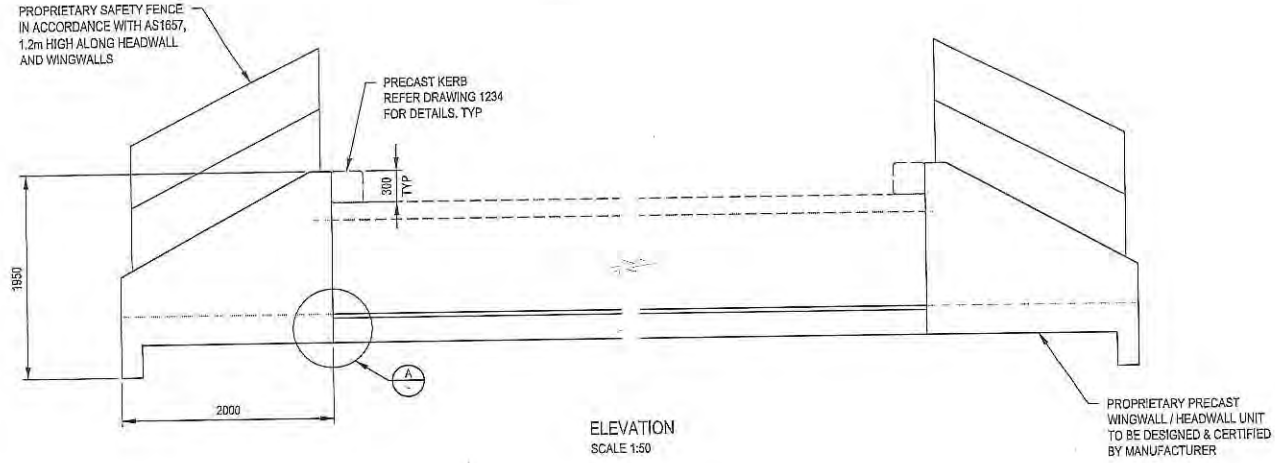


DETAIL A/- 1:25



EXPANSION JOINT IN BASE SLAB (TYP)
SCALE 1:25

NOTES :
1. EXPANSION JOINT IN SLAB TO BE LOCATED UNDER MEDIAN & ALIGNED WITH JOINT BETWEEN CROWN UNITS..
2. ALLOW 6 DAYS MIN. BETWEEN POUR 1 AND POUR 2.



ELEVATION
SCALE 1:50

NOTE:
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LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
FROG CULVERT CH.5924 (MC10)
BASE SLAB & WINGWALL CONCRETE

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1232	23-Sep-20, 12:29 PM	1232

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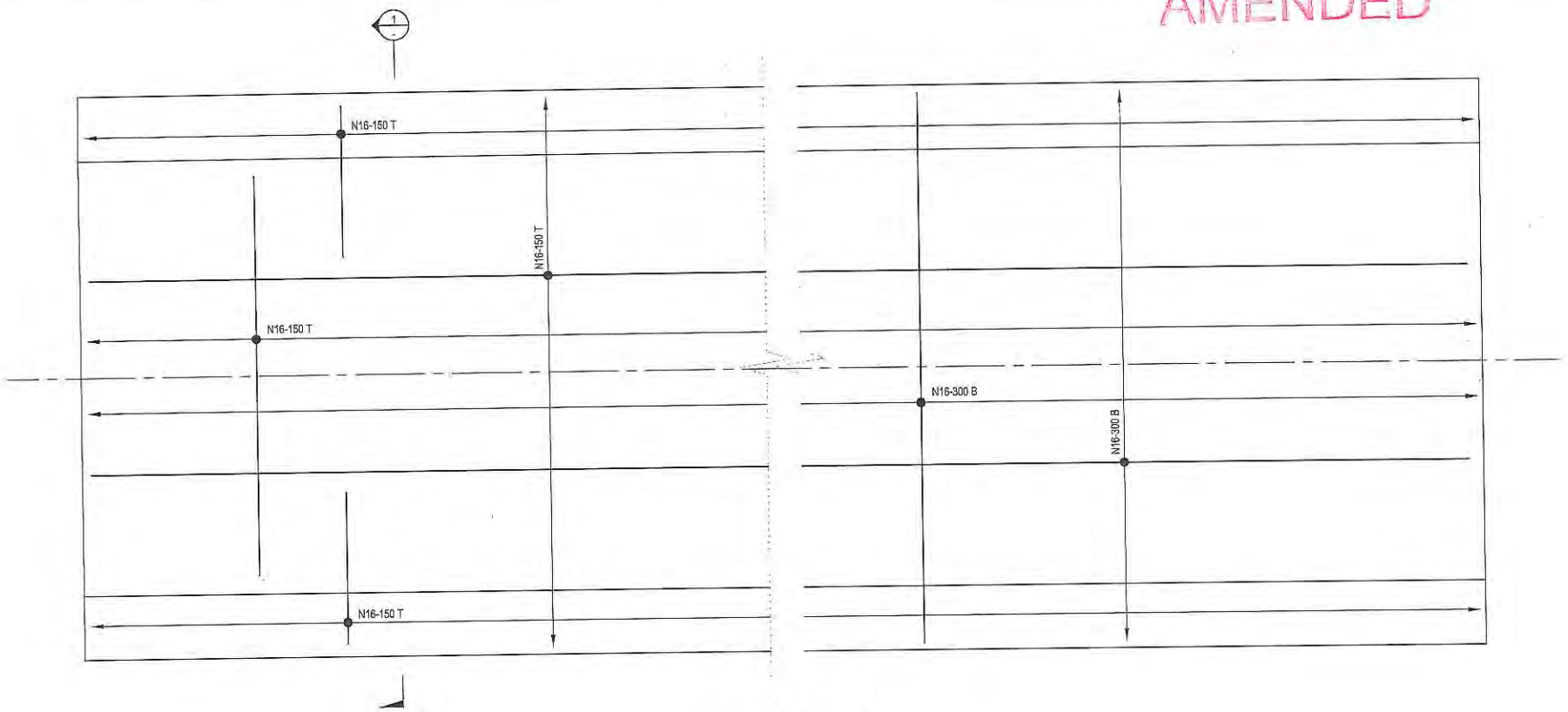
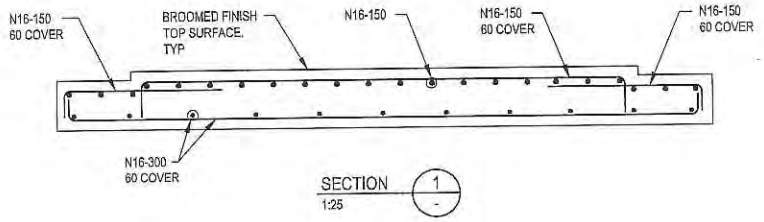


BASE SLAB PLAN
SCALE 1:25



SECTION 1 / - 1:25

NOTE:
REFER TO DRAWING 1230 FOR GENERAL NOTES.

1-340

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
FROG CULVERT CH.5924 (MC10)
BASE SLAB REINFORCEMENT

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1233	23-Sep-20, 12:29 PM	1233

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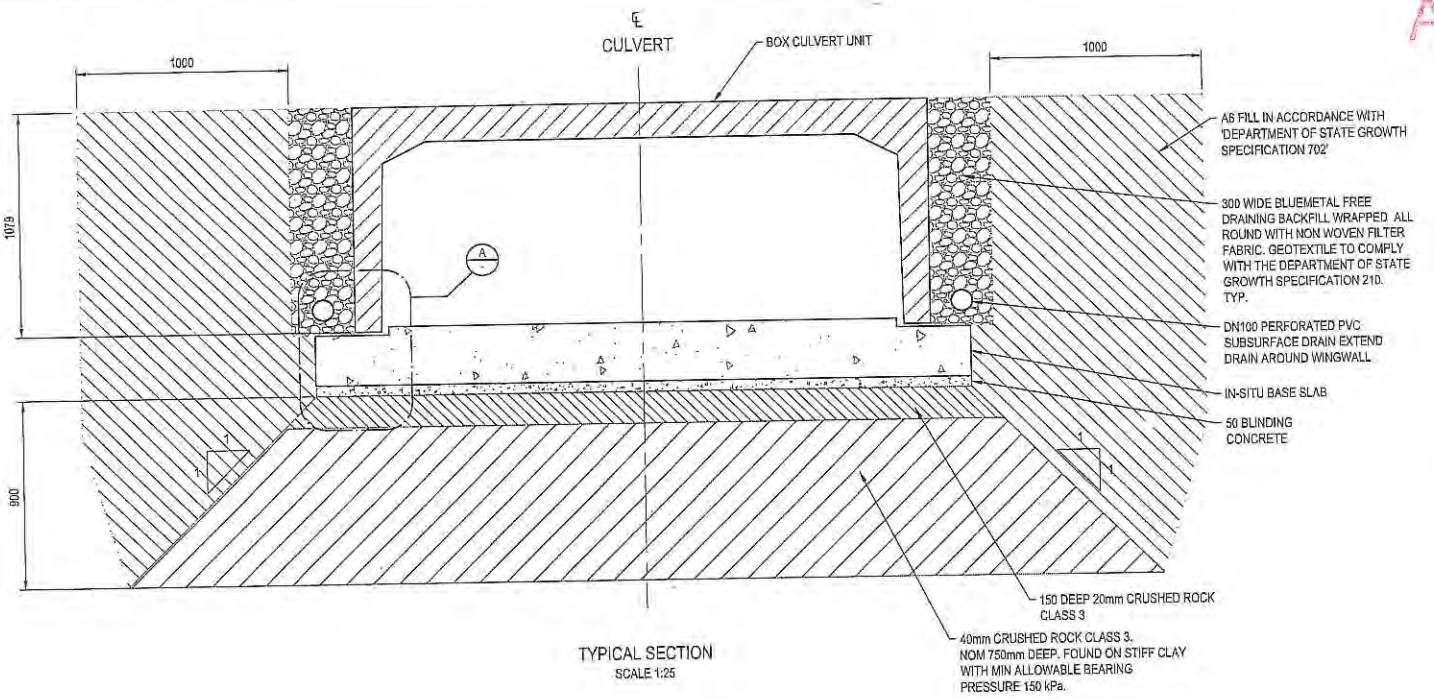
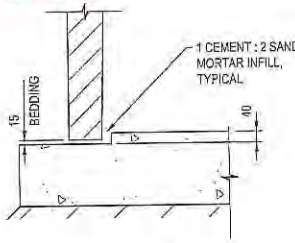
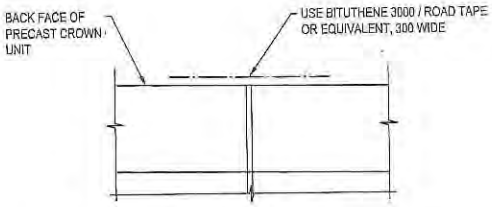


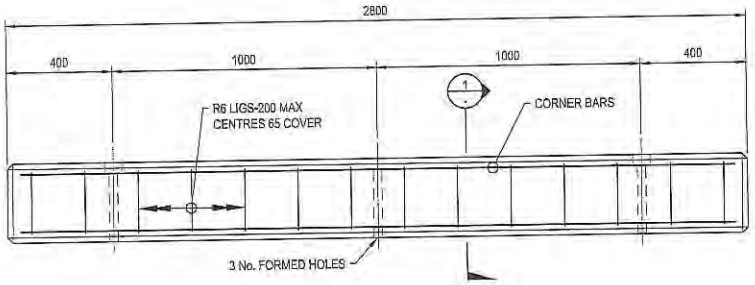
TYPICAL SECTION
SCALE 1:25



DETAIL A
1:20



TYPICAL PRECAST CROWN UNIT JOINTING DETAIL
SCALE 1:10



PRECAST KERB - 2No. REQUIRED
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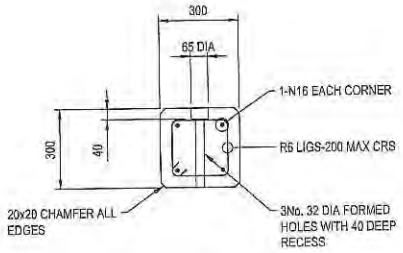
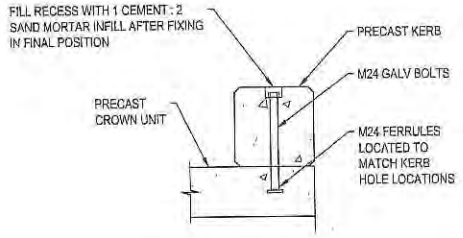


SECTION 1
1:20



PRECAST KERB FIXING DETAIL
SCALE 1:20

NOTE:
REFER TO DRAWING 1230 FOR GENERAL NOTES.

1-341

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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REVIEWED R. CASSIDY

Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
FROG CULVERT CH.5924 (MC10)
TYPICAL SECTION & DETAILS

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1234	23-Sep-20, 12:29 PM	1234

REGISTRATION NUMBER
A1109.001

REVISION 0

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Tasmanian Government

EVANDALE MAIN ROAD (A1109)

LAUNCESTON AIRPORT ACCESS (EVANDALE ROAD) ROADWORKS

1-342

STRUCTURE 6217
FROG CULVERT AT CH. 5295 (MC20)

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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DESIGNED L. ALLEN

REVIEWED D. COE

Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
STRUCTURE 6217 FROG CULVERT AT CH.5295 (MC20)
COVER PAGE

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1239	23-Sep-20, 12:30 PM	1239

REGISTRATION NUMBER
A1109.001

REVISION 0

1-343

GENERAL NOTES

1. CONTRACTOR SHALL CONFIRM ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART BE OVERSTRESSED DURING CONSTRUCTION ACTIVITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY WORKS. WORKMANSHIP & MATERIALS ARE TO BE IN ACCORDANCE WITH (IN ORDER OF PRECEDENCE) THE PROJECT SPECIFICATION, THE DRAWINGS, DEPARTMENT OF STATE GROWTH STANDARD SPECIFICATIONS AND THE BRIDGE DESIGN CODE AS5100-2017.
4. THE CONTRACTOR SHALL ONLY BUILD FROM DRAWINGS WITH STATUS OF "FOR CONSTRUCTION". DRAWINGS HAVING ANY OTHER STATUS, INCLUDING "WORK IN PROGRESS" AND "FOR APPROVAL", MAY BE SUBJECT TO CHANGE.
5. U.N.O. DENOTES UNLESS NOTED OTHERWISE.
6. C.O.S. DENOTES CONFIRM ON SITE.
7. ALL WORKMANSHIP AND MATERIALS SHALL BE UNDERTAKEN IN ACCORDANCE WITH AS 5100.5—2017 AND AS 1597.2—2013 EXCEPT AS VARIED BY THE DEPARTMENT OF STATE GROWTH SPECIFICATIONS: 210, 602, 610, 611, 614, 619, 620, AND 626. IN CASE OF DISCREPANCIES THE ORDER OF PRECEDENCE SHALL BE THE DEPARTMENT OF STATE GROWTH SPECIFICATIONS THEN WITH CURRENT EDITION OF AS5100 THEN WITH CURRENT EDITION AS1597.2 UNLESS SPECIFICALLY NOTED OTHERWISE.
8. PRIOR TO LAYING BEDDING SAND OR PLACING BLINDING, FOUNDATIONS SHALL BE INSPECTED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO CONFIRM THEY ACHIEVE THE BEARING CAPACITIES AS SPECIFIED ON THE DRAWINGS.
9. ANTI-GRAFFITI COATING TO BE APPLIED TO EXPOSED CONCRETE SURFACES WITHIN 2.5m OF ADJACENT GROUND LEVEL IN ACCORDANCE WITH DEPARTMENT OF STATE GROWTH SPECIFICATION 695.
10. TWO COATS OF DECORATIVE/ANTI-CARBONATION COATING TO BE APPLIED TO ALL EXPOSED CONCRETE SURFACES IN ACCORDANCE WITH DEPARTMENT OF STATE GROWTH SPECIFICATION 686.
11. THE CONTRACTOR SHALL PROVIDE DATE PLATES IN ACCORDANCE WITH SPECIFICATION
12. PROVIDE FULL WIDTH SAW CUT JOINTS NOM. 10x10x4400mm AT 6m CENTRES TO TOP SURFACE OF INSITU BASE SLAB. FILL JOINTS WITH POLYURETHANE JOINT SEALANT.

DIMENSIONS

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. REDUCED LEVELS, CHAINAGES & COORDINATES ARE ALL IN METRES. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM..
3. DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.
4. ANY DISCREPANCIES SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE DESIGNERS.
5. ALL CHAINAGES REFER TO THE ROAD DESIGN LINE AND ARE IN METRES.

PRECAST BOX CULVERTS

1. INSTALLATION OF BOX CULVERTS IS TO BE IN ACCORDANCE WITH THE DEPARTMENT OF STATE GROWTH SPECIFICATION 626
2. BOX CULVERTS ARE TO HAVE A100 YEAR DESIGN LIFE
3. DESIGN LOADS FOR BOX CULVERTS:
   - THE RANGE OF FILL DEPTHS ON TOP OF THE CULVERTS AS NOTED ON THE DRAWINGS.
   - SM1600 (WHICH INCLUDES W80, A160, M1600, M1600 TRI—AXLE GROUP AND S1600 TRAFFIC DESIGN CLASS LOADS) AND HLP400 VEHICLE LOADS.
   - LOADS OF OTHER ANCILLARY ITEMS SHOWN ON THE DRAWINGS SUCH AS HEADWALLS, HANDRAILS ETC.
   - CONSTRUCTION LOADS TO THE DEPARTMENT OF STATE GROWTH SPECIFICATION 626.11.

CHAMFERS AND FILLETS

1. UNLESS NOTED OTHERWISE, ALL EXPOSED CONCRETE EDGES HAVING A CONTAINED ANGLE LESS THEN 120° SHALL BE PROVIDED WITH 20mm FILLETS OR CHAMFERS AS APPROPRIATE.

CONSTRUCTION JOINTS

1. CJ DENOTES CONSTRUCTION JOINT
2. EJ DENOTES EXPANSION JOINT
3. CONSTRUCTION JOINTS SHALL BE USED ONLY AS SHOWN ON THE DRAWINGS.
4. NO CONSTRUCTION JOINTS SHOWN ON THE DRAWINGS SHALL BE OMITTED WITHOUT THE WRITTEN APPROVAL OF THE DESIGNERS.
5. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER. CONTRACTORS SHALL ALLOW FOR ALL NECESSARY CONSTRUCTION JOINTS.
6. CONSTRUCTION JOINT SURFACE SHALL BE PREPARED IN ACCORDANCE WITH DEPARTMENT OF STATE GROWTH STANDARD SPECIFICATION SECTION 610.20

REINFORCEMENT

1. ALL REINFORCEMENT IS DESIGNATED AS FOLLOWS UNLESS IT IS DESCRIBED FULLY IN ACCORDANCE WITH AS 4671 SECTION 5.

SYMBOL	DESCRIPTION	TYPE TO AS 4671
SL	MESH-SQUARE GRID	D500L
RL	MESH-RECTANGULAR GRID	D500L
R	PLAIN BARS	R250N
S	DEFORMED BARS	D250N
N	DEFORMED BARS	D500N

2. REINFORCEMENT SPACING NOT SHOWN SHALL BE TAKEN AS EQUAL.
3. REINFORCING BAR SHOWN ON THESE DRAWINGS ARE DIAGRAMMATIC ONLY. IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
4. BARS SHOWN MAY REPRESENT MORE THAN ONE LENGTH AND/OR PROFILE.
5. BARS MAY NOT BE SHOWN IN TRUE POSITION FOR CLARITY.
6. ALL HOOKS, BEND AND COGS ARE STANDARD AND SHALL BE IN ACCORDANCE WITH AS5100 BRIDGE DESIGN 2017 UNLESS NOTED OTHERWISE.
7. ALL REINFORCEMENT IS DIMENSIONED OUT-TO-OUT ALONG EACH STRAIGHT PORTION OF THE BAR.
8. WELDING OF REINFORCEMENT NOT PERMITTED UNLESS NOTED OTHERWISE.
9. MATERIALS AND PLACEMENT OF REINFORCEMENT SHALL COMPLY WITH DEPARTMENT OF STATE GROWTH SPECIFICATION 611.
10. SYMBOLS ON DRAWINGS FOR GRADE AND TYPE OF REINFORCEMENT ARE AS FOLLOWS:
    - R: STRUCTURAL GRADE 250 PLAIN ROUND BAR TO AS/NZS4671
    - N: HOT ROLLED GRADE 500 DEFORMED (RIBBED) BAR DUCTILITY CLASS N TO AS/NZS4671.
11. DESIGNATION OF REINFORCEMENT BARS IS AS SHOWN:
    eg. 17 N20-350 FF
    17: DENOTES NO OF BARS AND TYPE IN GROUP
    N: DENOTES BAR GRADE AND DUCTILITY CLASS LOADS
    20: DENOTES NOMINAL BAR DIAMETER IN mm
    350: DENOTES SPACING IN mm
    EF: DENOTES LOCATION
12. FOLLOWING ABBREVIATIONS APPLY TO LOCATION OF REINFORCEMENT:
    EW: EACH WAY FF: FAR FACE BB: BOTTOM BOTTOM (LAID FIRST)
    EF: EACH FACE B: BOTTOM TT: TOP (LAID LAST)
    NF: NEAR FACE T: TOP C OR CP: CENTRALLY PLACED
13. LAPPED SPLICE LENGTHS FOR HORIZONTAL BARS TO COMPLY WITH THE FOLLOWING UNO:

LOCATION		N12	N16	N20	N24	N28	N32
LAPS STAGGERED	HORZ. BAR WITH >300mm CONCRETE BELOW BARS	460	610	760	920	1160	1420
	HORZ. BARS WITH ≤300mm CONCRETE BELOW BARS & VERTICAL BARS	350	470	580	710	900	1090
LAPS NOT STAGGERED	HORZ. BARS WITH >300mm CONCRETE BELOW BARS	460	620	890	1150	1450	1770
	HORZ. BARS WITH ≤300mm CONCRETE BELOW BARS & VERTICAL BARS	350	480	695	890	1120	1370

DO NOT INTERPOLATE INTERMEDIATE VALUES OF SPLICE LENGTHS, TABULATED VALUES WERE CALCULATED IN ACCORDANCE WITH AS5100.5—2017.

CONCRETE

AMENDED

CONCRETE MIX

1. WORKMANSHIP AND MATERIALS TO COMPLY WITH AS5100.5—2017 AND DEPARTMENT OF STATE GROWTH SPECIFICATION 610.
2. CONCRETE MIXTURES SHALL BE ACCORDANCE WITH SPECIFICATION 610.
3. QUALITY OF CONCRETE ELEMENTS TO BE AS FOLLOWS:

STRUCTURAL ELEMENT	BLINDING	PRECAST BOX CULVERTS	PRECAST KERBS	CAST IN-SITU CONCRETE
CONCRETE GRADE TO SPECIFICATION 610	N15	VR450/50	VR450/50	VR450/50

REINFORCEMENT COVER

4. COVER IS CLEAR DISTANCE BETWEEN ANY REINFORCEMENT (INCLUDING LIGATURES, TIE WIRE etc) AND OUTSIDE SURFACE OF STRUCTURAL CONCRETE.
5. COVER MUST NOT BE LESS THAN SPECIFIED. PROVIDE MINIMUM CLEAR COVER TO REINFORCEMENT AS SHOWN BELOW, EXCEPT WHERE SPECIFIED OTHERWISE. EXPOSURE CLASSIFICATIONS ARE IN ACCORDANCE WITH AS5100.5—2017 UNLESS NOTED OTHERWISE:

LOCATION	EXPOSURE CLASSIFICATION	COVER (mm)
PRECAST BOX CULVERT & WINGWALLS	B1	50
PRECAST KERBS	B1	50
CAST IN-SITU BASE SLAB & APRON SLAB	B2	60

6. PROVIDE 50mm BLINDING CONCRETE UNDER STRUCTURAL REINFORCED CONCRETE CAST ON GROUND UNO.
7. CURING COMPOUNDS SHALL NOT BE USED ON ANY CONCRETE SURFACES WITHOUT WRITTEN APPROVAL OF THE DEPARTMENT OF STATE GROWTH.

STRUCTURAL STEELWORK

1. ALL WORKMANSHIP AND MATERIALS SHALL BE ACCORDANCE WITH AS 5100.
2. WELDING SHALL BE PERFORMED BY A QUALIFIED OPERATOR IN ACCORDANCE WITH AS 1554.
3. STRUCTURAL STEEL SHALL BE GRADE 300, UNLESS NOTED OTHERWISE.
4. BOLTS AND NUTS TO AS 1252 GRADE 8.8/S UNLESS NOTED OTHERWISE. WASHERS TO AS 1237.
5. STEEL PLATE SHALL BE GRADE 300 & COMPLY WITH AS 3678, UNLESS NOTED OTHERWISE.
6. SHS,RHS & CHS SHALL BE GRADE 350 AND COMPLY WITH AS 1163, UNLESS NOTED OTHERWISE.
7. ALL BOLTS, NUTS & WASHERS TO BE HOT DIPPED GALV.
8. ALL WELDS TO BE 6mm CONTINUOUS FILLET WELDS UNLESS NOTED OTHERWISE.
9. ALL STEELWORK SHALL BE HOT DIPPED GALV. AFTER FABRICATION.
10. GALVANIZING SHALL COMPLY WITH AS/NZS 4680.
11. WELDING SHALL BE CATEGORY SP WITH E48XX ELECTRODES TO COMPLY WITH AS/NZS 1554-PART 1.
12. CAST-IN ANCHOR ASSEMBLY SHALL BE HOT-DIP GALVANIZED. AFTER ASSEMBLY GALVANIZED SURFACES SHALL BE RENOVATED WITH TWO PACK INORGANIC ZINC-RICH PRIMER.
13. BOLT TYPES SHALL BE AS FOLLOWS :
    ALL BOLTS SHALL BE HOT DIP GALVANISED TO AS/NZS 4680:19994.6/S COMMERCIAL BOLTS TO AS 1111, SNUG TIGHTENED, 8.8/S HIGH STRENGTH STRUCTURAL BOLTS, WITH BOLTS, NUTS AND HARDENED WASHER TO AS 5100.6 / AS 1252:1996 8.8/TB HIGH STRENGTH STRUCTURAL BOLTS AS ABOVE, FULLY TENSIONED TO AS 5100.6 IN A BEARING TYPE JOINT. 8.8/TF HIGH STRENGTH STRUCTURAL BOLTS AS ABOVE, FULLY TENSIONED TO AS 5100.6 IN A FRICTION TYPE JOINT AND U.N.O. WITH FAYING SURFACES LEFT UNCOATED.
14. SLOTTED HOLES AND WASHERS TO BE FABRICATED AND INSTALLED IN ACCORDANCE WITH AS 5100.6
15. THE LENGTH OF A BOLT SHALL BE SUCH THAT AT LEAST ONE CLEAR THREAD SHOWS ABOVE THE NUT AND AT LEAST ONE THREAD PLUS THE THREAD RUN OUT IS CLEAR BENEATH THE NUT AFTER TIGHTENING. ONE FULL AND ONE HALF NUT MUST BE USED IN ORDER TO ACHIEVE A SOUND LOCKING MECHANISM TO PREVENT VIBRATION LOOSENING.

No.	Amendment Description	Initials	Date
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AS SHOWN

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Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
STRUCTURE 6217 FROG CULVERT AT CH.5295 (MC20)
GENERAL NOTES

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB18503-C1240	23-Sep-20, 12:30 PM	1240

REGISTRATION NUMBER
A1109.001

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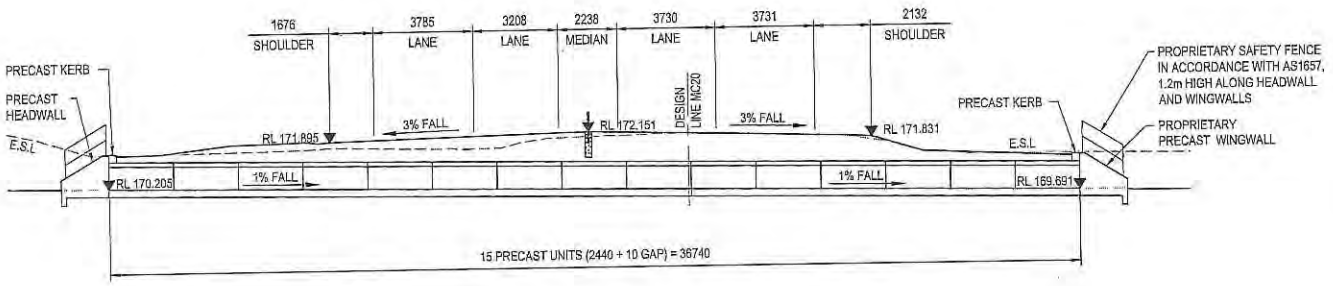

SECTION 1
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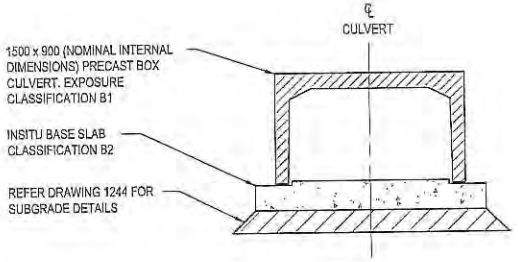
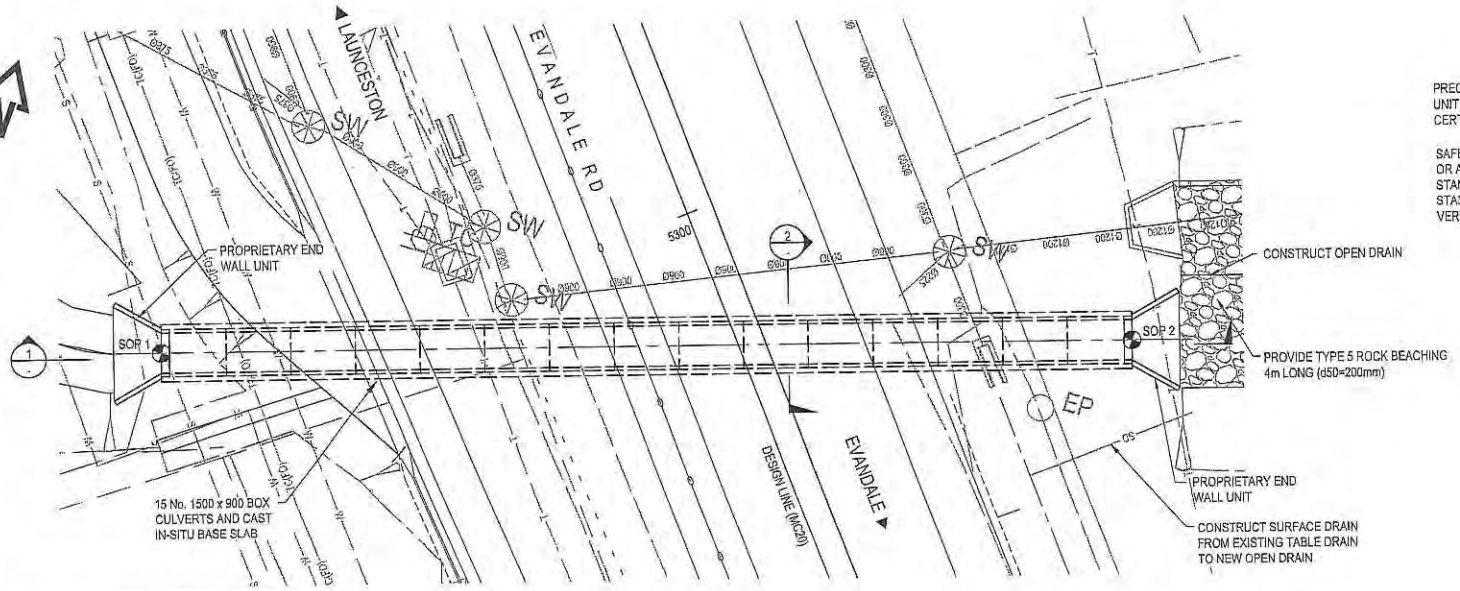


SECTION 2
SCALE 1:50

1-344



PLAN
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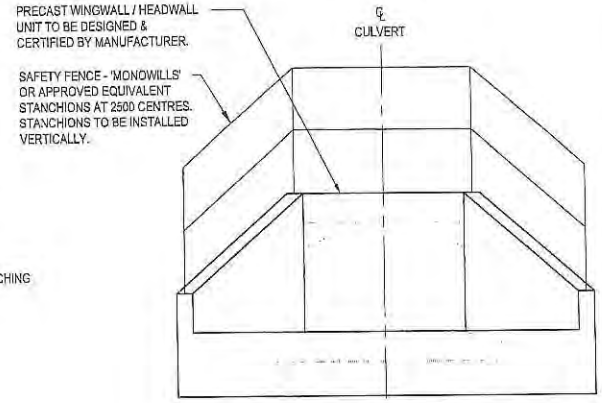

END ELEVATION
SCALE 1:50

CULVERT SETOUT		
MARK	EASTING	NORTHING
SOP 1	516687.823	5401214.006
SOP 2	516722.708	5401225.533

NOTE:
REFER TO DRAWING 1240 FOR GENERAL NOTES.

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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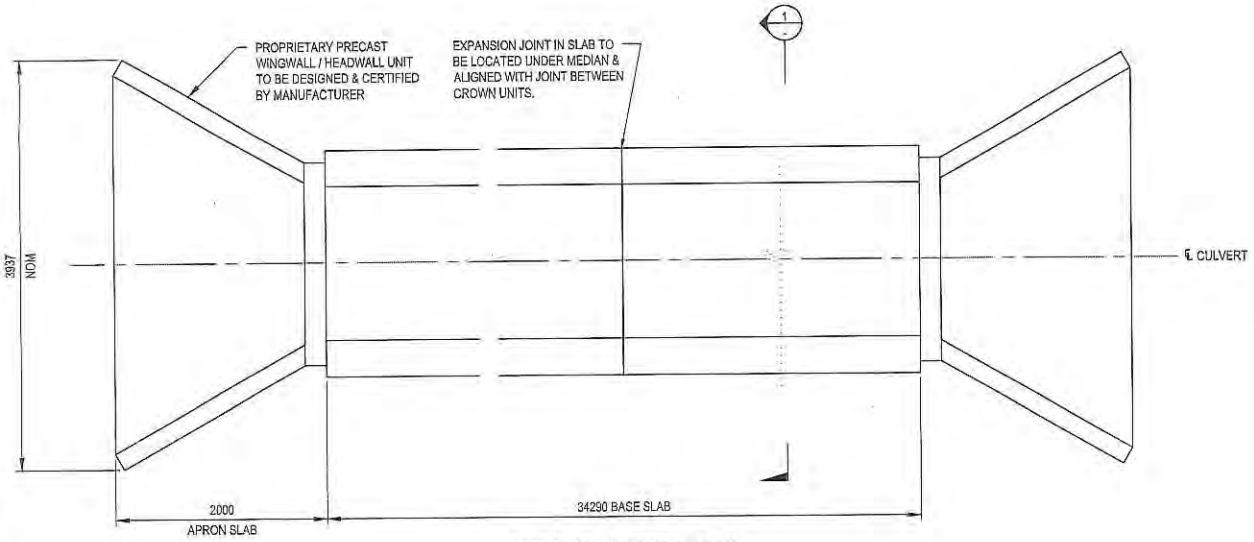
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
FROG CULVERT CH.5295 (MC20)
GENERAL ARRANGEMENT

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1241	23-Sep-20, 12:30 PM	1241

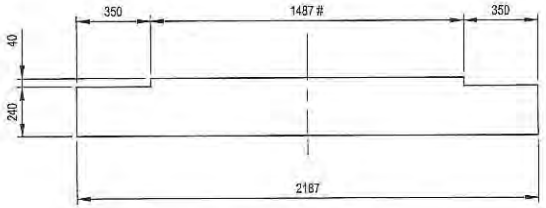
REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

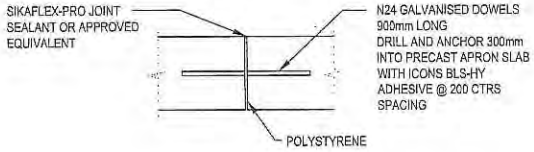


BASE SLAB & WINGWALL PLAN
SCALE 1:50

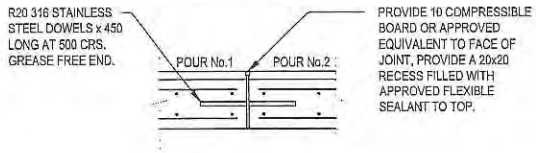


SECTION 1 / 1:25

TYPICAL BASE SLAB SECTION
AMEND TO SUIT PRECAST CROWN UNIT AS NECESSARY

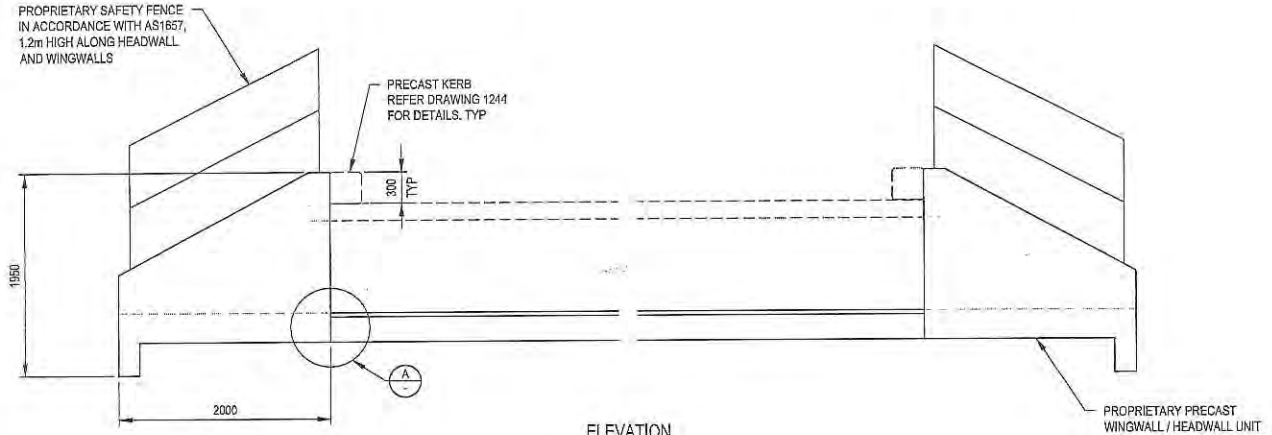


DETAIL A / 1:25



EXPANSION JOINT IN BASE SLAB (TYP)
SCALE 1:25

NOTES :
1. EXPANSION JOINT IN SLAB TO BE LOCATED UNDER MEDIAN & ALIGNED WITH JOINT BETWEEN CROWN UNITS.
2. ALLOW 6 DAYS MIN. BETWEEN POUR 1 AND POUR 2.



ELEVATION
SCALE 1:50

NOTE:
REFER TO DRAWING 1240 FOR GENERAL NOTES.

1-345

No.	Amendment Description	Initials	Date
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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
FROG CULVERT CH.5295 (MC20)
BASE SLAB & WINGWALL CONCRETE

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB18503-C1242	23-Sep-20, 12:30 PM	1242

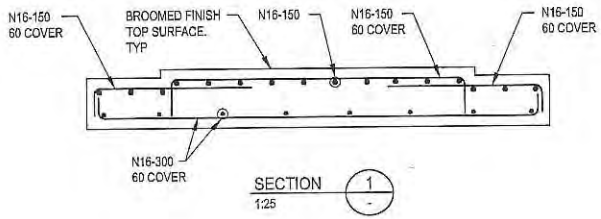
REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

1-346

BASE SLAB PLAN
SCALE 1:25



SECTION 1
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NOTE:
REFER TO DRAWING 1240 FOR GENERAL NOTES.

0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied	Co-ordinate System: MGA 94 ZONE 55	Height Datum: A.H.D.

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EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
FROG CULVERT CH.5295 (MC20)
BASE SLAB REINFORCEMENT

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1243	23-Sep-20, 12:31 PM	1243

REGISTRATION NUMBER
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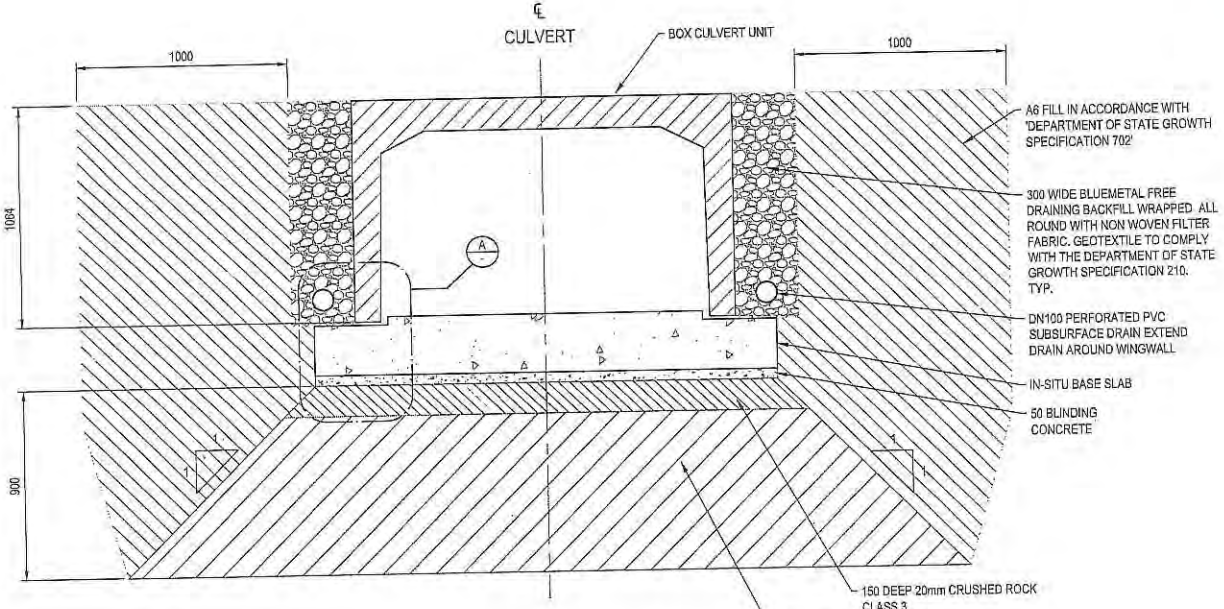
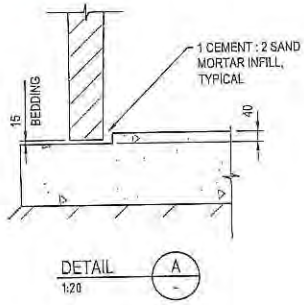
REVISION 0

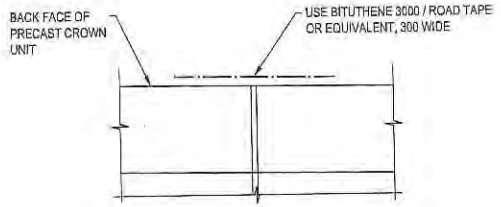
AMENDED



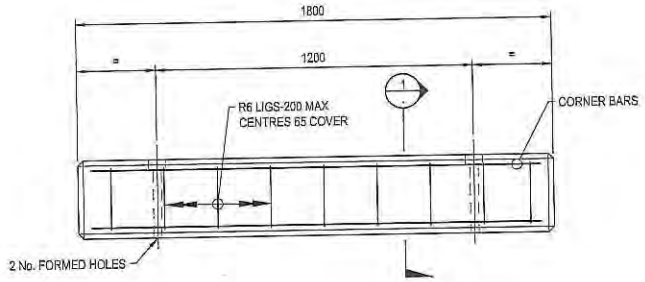
TYPICAL SECTION
SCALE 1:25



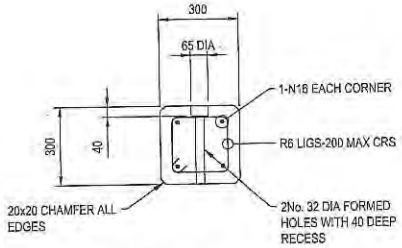
DETAIL A
1:20



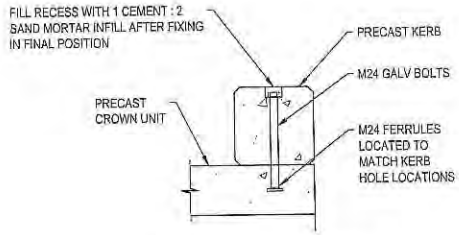
TYPICAL PRECAST CROWN UNIT JOINTING DETAIL
SCALE 1:10



PRECAST KERB - 2No. REQUIRED
SCALE 1:20



SECTION 1
1:20



PRECAST KERB FIXING DETAIL
SCALE 1:20

NOTE:
REFER TO DRAWING 1240 FOR GENERAL NOTES.

1-347

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALES
AS SHOWN

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REVIEWED D. COE

Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS
FROG CULVERT CH.5295 (MC20)
TYPICAL SECTION & DETAILS

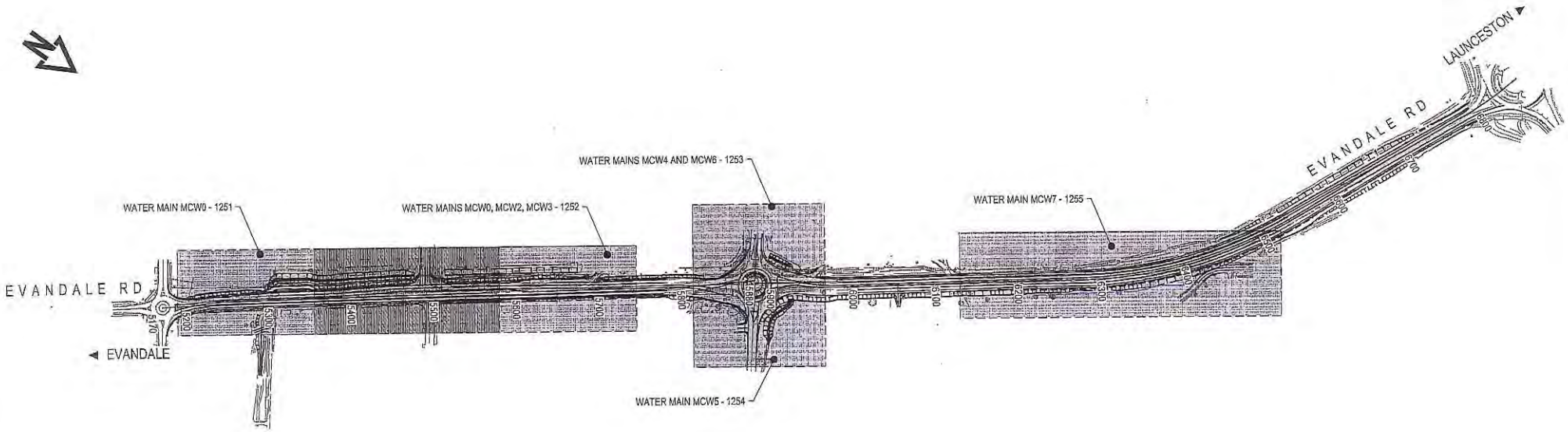
CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1244	23-Sep-20, 12:31 PM	1244

REGISTRATION NUMBER
A1109.001

REVISION 0

AMENDED

1-348



0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020
No.	Amendment Description	Initials	Date
A3 original	This sheet may be prepared using colour and may be incomplete if copied		

SCALES
1:5000 (A3)
50 0 50 100 150 200
SCALE IN METRES - 1:5000

Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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Tasmanian Government

DESIGNED L. ALLEN
REVIEWED D. COE

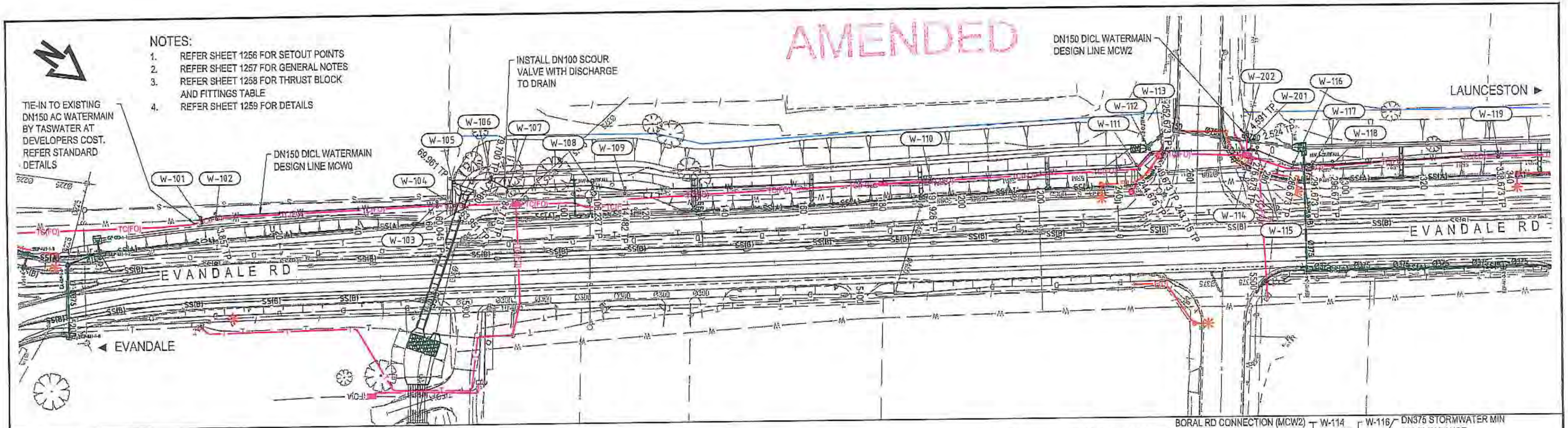
Department of State Growth
EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

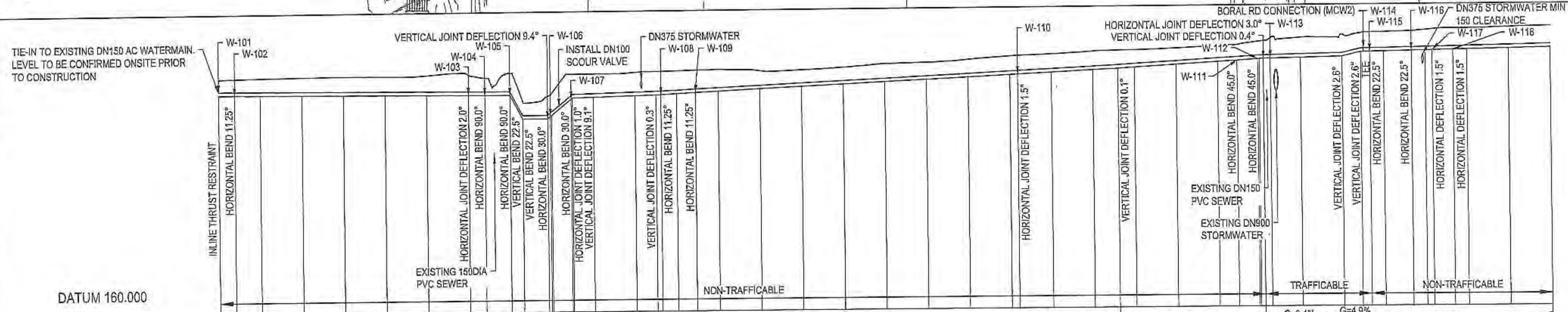
WATERMAIN KEY PLAN

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3268	HB19503-C1250	23-Sep-20, 12:32 PM	1250

REGISTRATION NUMBER
A1109.001

REVISION 0





PIPELINE GRADE: L=70m G=-0.2% | L=3m G=-38.5% | L=6m G=0.0% | G=16.6% L=6m | G=0.5% L=20m | G=1.0% L=111m | G=1.1% L=35m | G=0.4% L=19m | G=4.9% L=5m | G=0.4% L=176m

CHAINAGE	PIPE INVERT	GROUND LEVELS	DEPTH TO INVERT	PIPE COVER
0.00	170.750	171.522	-0.772	-0.600
3.857	170.743	171.543	-0.800	-0.628
10.00	170.733	171.562	-0.829	-0.657
20.00	170.716	171.591	-0.875	-0.703
30.00	170.699	171.603	-0.904	-0.732
40.00	170.682	171.589	-0.907	-0.735
50.00	170.665	171.630	-0.964	-0.792
60.00	170.648	171.652	-1.004	-0.832
60.045	170.648	171.652	-1.004	-0.832
63.951	170.641	171.490	-0.849	-0.677
69.961	170.631	171.715	-1.084	-0.912
70.00	170.631	171.715	-1.084	-0.912
73.00	169.475	170.339	-0.864	-0.692
79.00	169.475	170.558	-1.083	-0.911
79.700	169.591	170.615	-1.024	-0.852
80.00	169.641	170.696	-1.054	-0.882
84.713	170.423	171.630	-1.207	-1.035
85.00	170.471	171.630	-1.159	-0.987
90.00	170.496	171.630	-1.133	-0.961
100.00	170.546	171.680	-1.134	-0.962
105.00	170.571	171.712	-1.141	-0.969
106.237	170.583	171.712	-1.129	-0.957
110.00	170.619	171.734	-1.115	-0.943
114.462	170.662	171.759	-1.097	-0.925
120.00	170.716	171.774	-1.059	-0.887
130.00	170.812	171.694	-0.882	-0.710
140.00	170.908	171.718	-0.810	-0.638
150.00	171.005	171.819	-0.815	-0.643
160.00	171.101	171.971	-0.870	-0.698
170.00	171.198	172.014	-0.817	-0.645
180.00	171.294	172.129	-0.835	-0.663
190.00	171.390	172.274	-0.883	-0.711
191.926	171.409	172.296	-0.887	-0.715
200.00	171.487	172.354	-0.867	-0.695
210.00	171.583	172.469	-0.885	-0.713
216.00	171.641	172.507	-0.866	-0.694
220.00	171.687	172.521	-0.834	-0.662
230.00	171.802	172.587	-0.786	-0.614
240.00	171.917	172.689	-0.772	-0.600
244.675	171.970	172.728	-0.758	-0.586
249.673	172.028	172.880	-0.852	-0.680
250.00	172.032	172.886	-0.855	-0.683
251.00	172.043	172.904	-0.861	-0.689
252.673	172.050	173.032	-0.982	-0.810
260.00	172.079	173.056	-0.977	-0.805
270.00	172.119	173.195	-1.076	-0.904
274.50	172.340	173.261	-0.921	-0.749
276.673	172.348	173.292	-0.944	-0.772
280.00	172.360	173.300	-0.940	-0.768
286.673	172.385	173.335	-0.950	-0.778
290.00	172.397	173.389	-0.992	-0.820
291.673	172.403	173.415	-1.012	-0.840
296.673	172.421	173.457	-1.036	-0.864
300.00	172.434	173.454	-1.020	-0.848
310.00	172.470	173.504	-1.033	-0.861
320.00	172.507	173.539	-1.031	-0.859

DN150 DICL PN20 WATERMAIN LONGITUDINAL SECTION (MCW0)

No.	Amendment Description	Initials	Date
0	ISSUE FOR CONSTRUCTION	D.C.	23/09/2020

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SCALES
1:1000 (H); 1:200 (V)
10 0 10 20 30 40
SCALE IN METRES - 1:1000
Co-ordinate System: MGA 94 ZONE 55 | Height Datum: A.H.D.

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DESIGNED L. ALLEN
REVIEWED D. COE

Department of State Growth

EVANDALE MAIN ROAD (A1109)
LAUNCESTON AIRPORT ROAD ACCESS (EVANDALE ROAD)
ROADWORKS

WATERMAIN MCW0

CONTRACT No. 3268
DRAWING HB19503-C1251
PRINTED DATE 23-Sep-20, 12:32 PM
REGISTRATION NUMBER A1109.001
SHEET No. 1251
REVISION 0