



Infrastructure Servicing Report R1

25 Cressy Road, Winchelsea

Reference No. 30042884E.00 Prepared for Spectrum Planning Solutions 10 November 2023





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1 Introduction

This report has been prepared by SMEC Australia Pty Ltd at the request of our client for the purpose of providing a high-level infrastructure servicing analysis in association with the proposed development of 25 Cressy Road, herein referred to as the "Subject Site".

We understand that this report will form part of the lodgement documentation associated with the Re-Zoning and Planning Permit Application for the Subject Site.

The scope of this report is to identify any servicing and/or engineering constraints to the urban development of the Subject Site in accordance with any local authority requirements.

The following infrastructure will be further assessed herein:

- Road & Intersection connectivity;
- Outfall Drainage requirements;
- Internal Drainage & overland flow paths;
- External and Internal sewer servicing;
- External and Internal Water Reticulation;
- Electrical and Communications reticulation; and
- Gas reticulation.

The Subject Site consists of 9 (nine) titles currently zoned as farming land, intended to be rezoned to Industrial 1 (one) zone, located in Winchelsea and bounded by Cressy Road (North), the Geelong-Warrnambool Railway line to (South) and government road reserve (west).

Figure 1-1 shows the locality of the Subject Site which is the outlined section shown below.



Figure 1-1: Subject Site - 25 Cressy Road, Winchelsea (Nearmap, 2020)

The Subject Site is located approximately 35km West of the Geelong CBD and is in the vicinity of the Winchelsea Township – which falls under the Surf Coast Shire Council's catchment area.

Where specific information has not been available, we have made strategic assumptions based on conversations and informal advice from authorities, similar project experience and knowledge developed within the precinct.

The information in this report is subject to variation upon formal advice from the relevant authorities, future planning permit conditions, detailed design and provision of further detailed survey information. SMEC will not accept any responsibility for changes in authority requirements or more accurate information received after the date of this report.

Based on the Company's experience and the investigations carried out, SMEC believes that the Subject Site does have availability and access (subject to service authority approvals and negotiations) for connection to all necessary services, and that these services can accommodate the proposed development of the Subject Site.

The external service connections (drainage & sewer) will require further confirmation through detailed feature survey of the land topography and existing infrastructure connection points to confirm the preliminary advice supplied by authorities and SMEC.

2 Engineering Infrastructure Review

2.1 Servicing Authorities

The following authorities are applicable to the Subject Site:

Table 1-1: Servicing Authorities

SERVICE	AUTHORITY
Municipality, Roads and Drainage	Surf Coast Shire Council
Sewer & Water	Barwon Water
Electricity	Powercor
Telecommunications	NBN Co, Telstra
Gas	AusNet Services Pty Ltd

2.2 Roads

The site is located at 25 Cressy Road, Winchelsea and has direct access to Cressy Road (north) and government road reserve (south and west).

Cressy Road is accessed from the Winchelsea township via Gosney Street which forms a connection with the Princess Highway at its eastern end. Direct access to the site from Cressy Road is likely to be delivered via T-intersections from either internal road reserves. Both intersections will provide left-in, left-out and right-in, right-out access between the internal road reserves and Cressy Road under a give-way condition to the satisfaction of the co-ordinating Road Authority (Surf Coast Shire Council).

The proposed carriageway within the existing government road reserve to the West of the site is shown to truncate at its southern end.

All internal roads will be delivered in accordance with the Infrastructure Design Manual (IDM) and the Surf Coast Shire Council (SCSC) standards as applicable. The internal roads will be required to accommodate emergency services, refuse collection, construction and service vehicles, whilst meeting accessibility requirements and relevant standards. Internal road reserve widths are expected to be 20m in-line with other industrial subdivisions within the Surf-Coast Shire Council jurisdiction. The indicative internal road layout is presented in Figure 2-1.



Figure 2-1: Indicative Internal Road Network



Figure 2-2: Existing Roads Bordering Subject Site

2.3 Stormwater Drainage

2.3.1 General Requirements

The Surf Coast Shire Council is the responsible authority for all roadworks, minor and major drainage within the proposed development, and will be responsible for maintenance of the assets as described below.

All proposed stormwater drainage will need to comply with best practice for stormwater management under clause 56.07 of the 'Victorian Planning Provisions and the stormwater quality objectives of the Urban Stormwater – Best Practice Environment Guidelines' (Victorian Stormwater Committee 1999).

The detailed design and documentation of all drainage infrastructure must address all major and minor drainage system element requirements and comply with Surf Coast Shire's Infrastructure Design Manual (IDM).

The following design standards and reference documents are relevant to the proposed works:

2.3.1.1 Stormwater Drainage Design

- Melbourne Water: Design Guidelines; and
- The Institute of Engineers, Australia (1998): Australian Rainfall and Runoff.

2.3.1.2 Water Sensitive Urban Design (WSUD)

Victoria Stormwater Committee (1999): Urban Stormwater – Best Practice Environmental Management.

2.3.1.3 Guidelines

- Melbourne Water (2004): WSUD Engineering Procedures Stormwater; and
- Engineers Australia (2006): Australian Runoff Quality.

2.3.2 Underground Drainage

Underground drainage is required to be designed in accordance with the Local Government Infrastructure Design Manual (IDM). The current minimum standard as nominated in the IDM for Industrial Development within the Surf Coast Shire Council is AEP 10% (10 Year ARI Event). Increased capacity in both inlet and underground drainage could be adopted should the site require supplemented control to convey surface flows to an appropriate discharge location.

The internal underground stormwater reticulation for the Subject Site will be positioned within road reserves and drainage easements to the satisfaction of SCSC. An indicative reticulation layout for the Subject Site is presented in Figure 2-1.

Flows exiting the proposed development are likely to occur from the south-east corner. Direct discharge into the existing roadside swale is expected to contribute to pooling at the rail line, as there is currently no existing drainage crossing beneath the rail for the water to pass from west to east. To ensure this can be satisfied a piped drainage crossing is expected to be required to convey the flows exiting the proposed development site to the east side of the rail line and to an appropriate discharge location. A schematic of the proposed piped drainage crossing is presented in Figure 2-1.

Based on information supplied by SCSC, it appears the logical point of connection for the pipe drainage outfall is opposite Armytage Street. The ability to connect to the existing drainage network at this location shall be confirmed via detailed feature survey of the land topography of the Subject Site, existing infrastructure and is subject to review and approval by SCSC.

Refer to the information supplied by SCSC, demonstrating the existing drainage infrastructure near to the site in Figure 2-2.

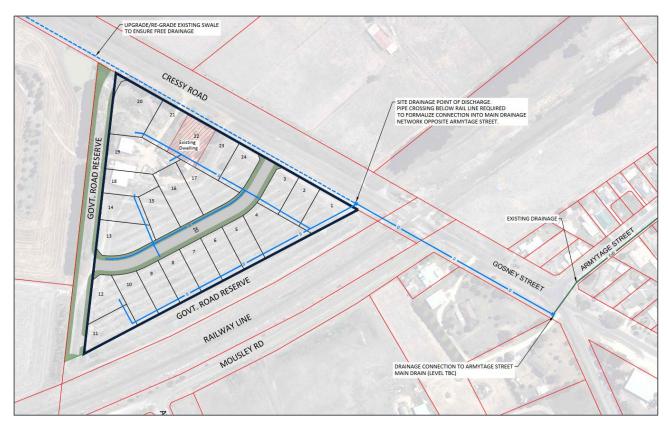


Figure 2-1: Indicative Internal Drainage Reticulation



Figure 2-2: Existing Drainage Infrastructure near to the Subject Site

2.3.3 Overland Flow

All overland flow both within and exiting the Subject Site is required to be demonstrated to comply with IDM minimum standards for control and safe conveyance. The residual component of total flow between the AEP 10% (1 in 10-year ARI flow) and AEP 1% (1 in 100-year ARI flow), referred to as gap flow, will require overland flow paths to assist in exiting the site safely to the proposed Drainage facility.

It is envisaged that most of the catchment gap flow will be conveyed within the Subject Site via road reserve to the existing Cressy Road Swale drain. Pavement construction with appropriate grading will be required to be to promote safe conveyance of overland flow with adequate freeboard to all allotments to the satisfaction of SCSC.

The existing Swale drain may need to be regraded to accommodate for the volume and direction of overland flow.

Proposed allotments and existing properties located near flow paths will need to be designed to demonstrate that adequate freeboard is achieved. Minimum freeboard to all properties will be 300mm as specified in IDM.

Based on preliminary site inspection, Cressy Road is noted to contain a highpoint at the railway crossing and another high point near the existing property driveway access (refer Figure 2-3). The high point near the existing property driveway results in splitting flows in the existing roadside swale in either direction of the highpoint.



Figure 2-3: Subject Site Overland Flow Path

2.3.4 WSUD Requirements

Based on preliminary advice from SCSC, the requirement for on-site detention and/or treatment of stormwater will depend on the proposed end use of the developed lots.

At present there has been no allowance made for on-site detention or treatment within the proposed concept development layout. This is based on similar scale mixed-use industrial developments within the Winchelsea.

2.3.5 Flood Overlay

The Subject Site is not mapped to contain any current flood overlays as presented in Figure 2-4.

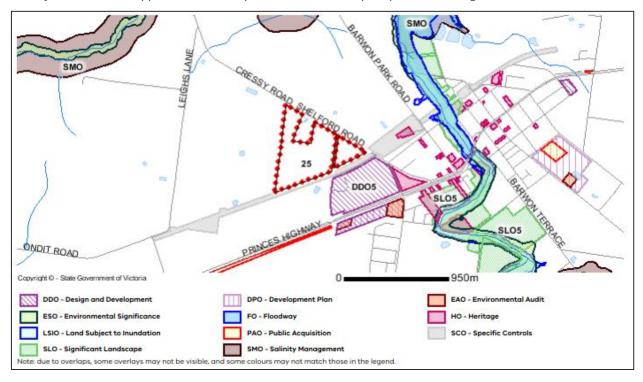


Figure 2-4: Flood Overlay Mapping (DELWP Mapshare, 2020)

2.4 Sewer

Barwon Water is the responsible authority for the provision of sewer reticulation to service the Subject Site. Barwon Water have provided preliminary advice in relation to servicing requirements for the Subject Site, subject to future planning permit conditions and formal execution of a Developer Deed.

This preliminary advice from Barwon Water suggests that a rail crossing on the north side of Cressy Road will be required based on indicative site levels & proposed connection levels to the existing Sewer network.

The existing sewer manholes on the south-east side of the rail crossing are expected to be too shallow for connection. Therefore, it is expected the connection will be required to be made on the north side of Gosney Street by casting a new manhole over the existing sewer line.

The preliminary servicing information supplied by Barwon Water has been included in Appendix A.

An indicative layout of the internal sewer infrastructure is illustrated in Figure 2-5.

Detailed feature survey of the land topography will be required to confirm the feasibility of the proposed sewer outfall and connection into the existing Barwon Water Sewer network.

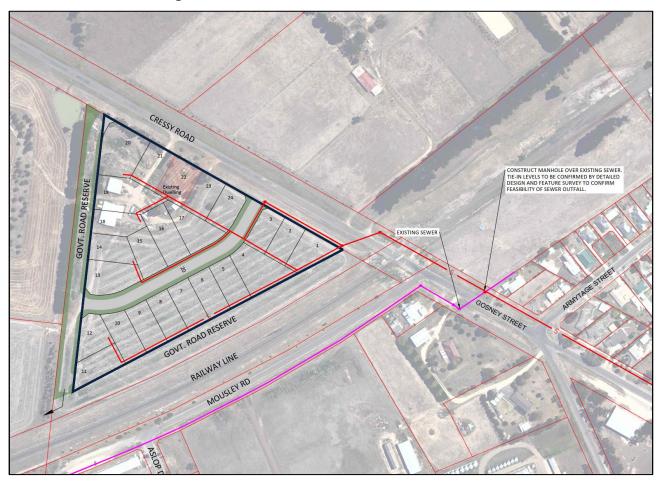


Figure 2-5: Indicative Internal Sewer Reticulation

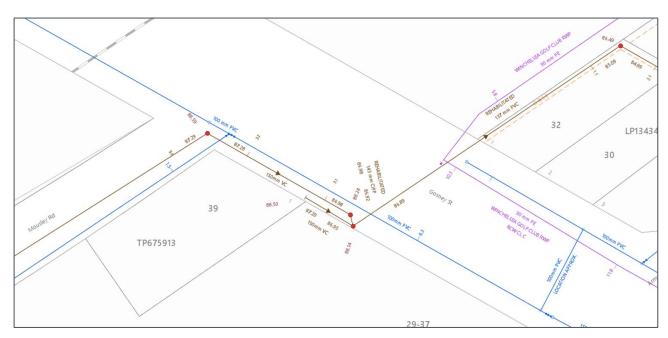


Figure 2-6: Barwon Water Existing Services Information (PROFIS, 2020)

2.5 Potable Water

Barwon Water is the responsible authority for the provision of potable water reticulation to service the Subject Site. Barwon Water have provided preliminary advice in relation to servicing requirements for the Subject Site, subject to future planning permit conditions and formal execution of a Developer Deed.

The preliminary servicing information supplied by Barwon Water has been included in Appendix B.

Barwon Water advises that the DN100 existing water main is available for connection. However, it is noted that the water supply in the immediate areas is limited to around 5 L/s availability (based on peak requirements) and this is likely to be insufficient for the purposes of direct fires services of water intensive industrial usage.

An indicative layout of the internal potable water reticulation is illustrated in Figure 2-7.

It is probable that Barwon Water will require two connections to the existing DN100mm PVC main located in Cressy Road to establish a loop: one from the internal road reserve and another to service lots that front the proposed government road reserve to the West of the site.



Figure 2-7: Indicative Internal Potable Water Reticulation

2.6 Gas

AusNet Services Pty Ltd is the principal authority responsible for the provision of gas to service the Subject Site.

There is an existing DN180 gas main currently located on Cressy Road within the south verge. It is noted on Dial-Before-You-Dig information that the existing gas main is located approximately 13 m offset from the title boundary of the property.

It is recommended that contact is made with Ausnet closer to the time of application for gas supply to determine the appropriate location for connection for internal reticulation purposes.

Direct property tappings into the existing DN180 high pressure gas main have been illustrated in Figure 2-8. Confirmation is yet to be received from Ausnet Services on the suitability of direct property tappings in this scenario. Alternatively, AusNet may propose an extension of a smaller size reticulation main (DN125 or less) to service the lots fronting Cressy Road. It will need to be confirmed with AusNet if an additional connection to the existing DN180 main in Cressy Road will be required from the western government road reserve to provide a continuity loop, or whether a single connection will be sufficient for this development

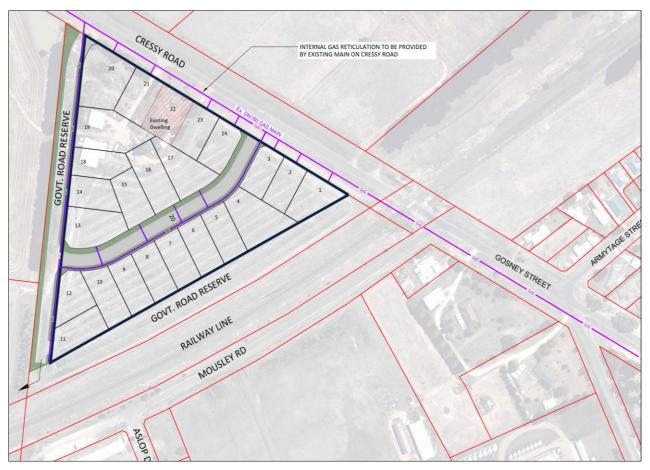


Figure 2-8: Indicative Internal Gas Reticulation

2.7 Electrical

Powercor is the responsible authority for the provision of electrical supply facilities to service the Subject Site. Existing distribution substations (overhead) are in proximity to the site on the North-East side of Cressy Road.

Further consultation will be required with Powercor upon lodgement of the supply offer for the site to determine the location for connection and any internal substation site requirements to supply reticulation for the proposed development site.

In line with other properties in this area, this development will be classified as an Industrial Development (URD) where each lot will be supplied with an underground electrical supply at the developer's cost.

Internal Reticulation is expected to utilise the same overhead pole for supply as the existing property. It is expected that a new road crossing will need to be installed to bring low voltage power to the estate. Refer Figure 2-9 for indicative internal electrical reticulation.

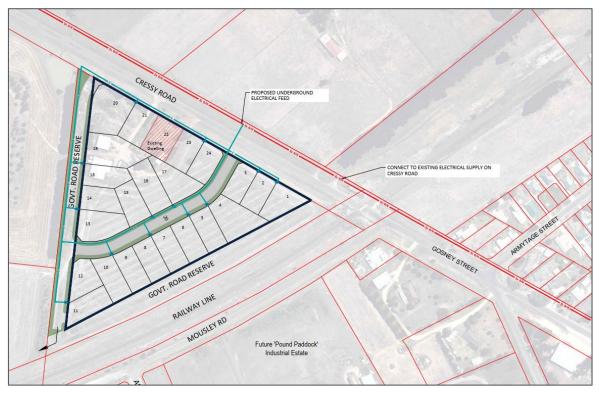


Figure 2-9: Indicative Internal Electrical Reticulation

2.8 Telecommunications

2.8.1 Telstra / NBN

Existing telecommunication assets, Telstra and NBN Co, are located within road reserve of Cressy Road immediately abutting the Subject Site. Subject to further discussion with authorities, it is assumed that connection of internal reticulation services to these mains is feasible dependent on developer preference and requirements for the proposed lots.

Subject to confirmation by Surf Coast Shire Council, it is expected that a Telecommunications connection to each lot will be required as part of the Statement of Compliance and Titles process.

An indicative internal reticulation layout is presented in Error! Reference source not found..



Figure 2-10: Indicative Telecommunications Reticulation

2.8.2 VicTrack

It should be noted that VicTrack Assets (optic fibre communications) run parallel to the Geelong-Warrnambool Railway reserve. These services will need to be duly considered for design approval and construction works in the vicinity of the rail crossing, including Drainage and Sewer works. Any works adjacent to the rail corridor and VicTrack assets will be required to follow the Vline & VicTrack permit to work (PTW) process. This will require the developer to pay fees & arrange necessary permits to facilitate these construction works.

3 Disclosure

Based on SMEC's experience and the investigations carried out, SMEC believes that the Subject Site has availability and access to all services required for this type of development, subject to authority approvals. The extension/augmentation of any services would be in accordance with the standard development process.

It should be noted that additional investigations (feature survey and design) are required to confirm the suitability of external service connections for Sewer and Drainage.

The information in this report is preliminary and has been obtained as a result of informal discussions with officers from the relevant authorities and review of MOCS information.

The information supplied by SMEC is subject to change pending official advice from the service authorities, detailed property investigation, detailed design, survey and future planning permit conditions. The information is current to the report date, however, SMEC cannot accept responsibility if any authority changes its requirements after the date of this report.

Appendix A Barwon Water Preliminary Service Advice - Sewer



Our Ref: L017747

Enquiries to: Natalie Clifford - Ph: 1300 656 007

24 July 2020

SMEC Australia Pty. Limited By Email: Tom.Moorfoot@smec.com

Dear Sir/Madam,

PRELIMINARY SERVICING ADVICE

RE: 25 Cressy Rd Winchelsea Servicing advice request as of 21 July 2020

We refer to your request for servicing advice regarding the above specified land.

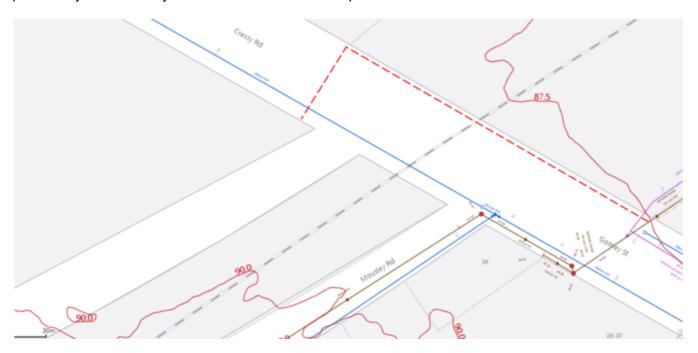
Please note that this is just preliminary advice based on the information you provided to Barwon Water.

Any information given in this preliminary servicing advice or otherwise by BW is not binding upon BW and you shall not undertake any commitment based on any information given until a formal execution of a Developer Deed or a Private Works Deed.

Preliminary advice is as follows:

Sewer

The preliminary servicing advice is to connect to reticulated sewer on the south side of the railway line in Gosney St. The closest MH has an IL of 87.28m and depth of 1.3m. This may be too shallow to cross under the railway line. Consideration may have to be given to connection further downstream, potentially as shown by the red dashed in in the clip below.



If you have any questions regarding this letter please contact Barwon Water's representative listed above.
Yours sincerely,
Manager Enterprise Project Delivery





Our Ref: L017747

Your Ref:

Enquiries to: Natalie Clifford - Ph: 1300 656 007

13 August 2020

SMEC Australia Pty. Limited By Email: Tom.Moorfoot@smec.com

Dear Sir/Madam,

PRELIMINARY SERVICING ADVICE

RE: 25 Cressy Rd Winchelsea Servicing advice request as of 06 August 2020

We refer to your request for servicing advice regarding the above specified land.

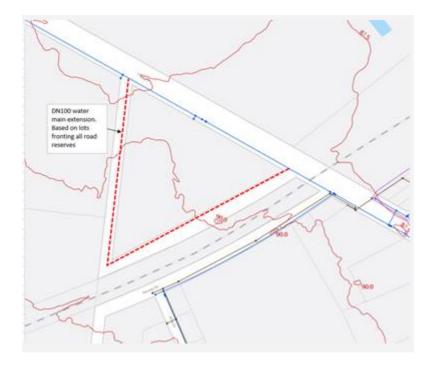
Please note that this is just preliminary advice based on the information you provided to Barwon Water.

Any information given in this preliminary servicing advice or otherwise by BW is not binding upon BW and you shall not undertake any commitment based on any information given until a formal execution of a Developer Deed or a Private Works Deed.

Preliminary advice is as follows:

Potable Water

The water servicing advice for this area is limited due to the preliminary nature of the information provided. Based on the current layout of lots fronting the road reserves a DN100 water main extension would be required around the subject parcel. It is noted that the purpose of this subdivision is for industrial works. The water supply in the immediate area is limited to around 5L/s availability (based on peak requirements) and is likely to be insufficient for the purposes of direct fire services or water intensive industrial usage.

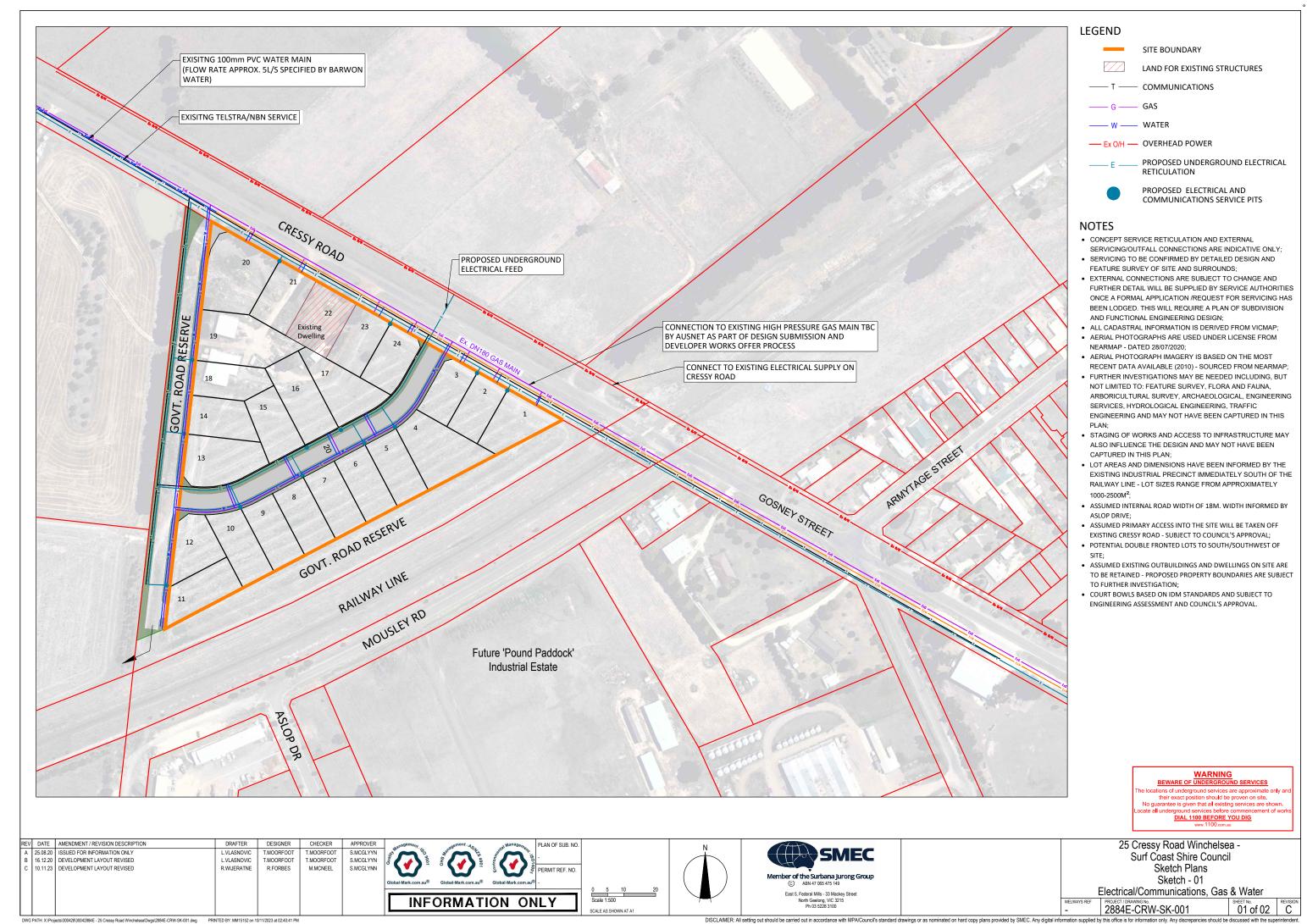


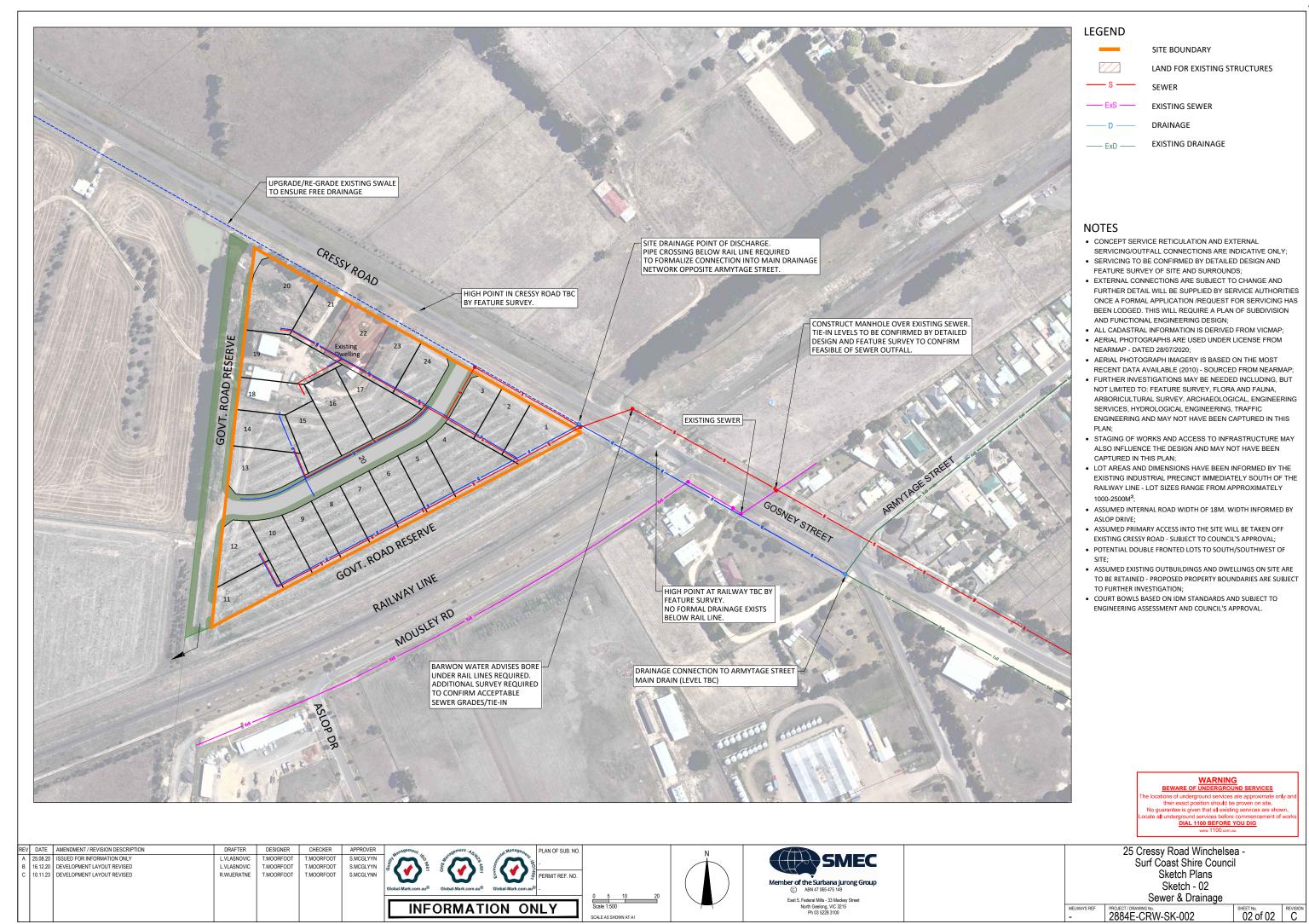
If you have any questions regarding this letter please contact Barwon Water's representative listed above.

Yours sincerely,

Manager Enterprise Project Delivery

Appendix C Concept Layout Sketches





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