

Value in Engineering and Management

Existing Utilities Report

Proposed Subdivision 'Illawarra Regional Business Park' Albion Park, NSW

Prepared For Delmo Albion Park Pty Ltd

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1. BACKGROUND

The project involves the subdivision of an existing rural area of Albion Park located adjacent to the Illawarra Regional Airport. The proposed subdivision occupies an area of approximately 81.2 hectares. The eastern side of the site is bounded by the Illawarra Regional Airport. To the south the site is bounded by Tongarra Rd with the Illawarra Highway adjacent to the northern boundary. Frazer Creek passes through the site starting from the southern boundary at Tongarra Rd and running north-west toward an existing wetland. From the wetland Frazer creek passes through the north-west of the siten then turning east toward Croome Lane. The existing wetland is included in the State Environmental Protection Policy No.14-Coastal Wetlands (SEPP no.14).

Costin Roe Consulting have been commissioned by Delmo Albion Park Pty Ltd to investigate the current existing services/utilities in the area of the proposed subdivision.

2. EXISTING INFRASTRUCTURE

2.1 Gas

There are currently two gas infrastructure asset owners in the proximity of the proposed subdivision. These are Alinta and AGL.

The Eastern Gas Pipeline is owned and operated by Alinta Ltd, this pipeline transports gas from the Gippsland Basin in Victoria to markets in Sydney and regional centres along the route. As shown in the EXISTING SERVICES PLAN the pipeline passes through the western side of the site running from the south from Tongarra Road to the north where it follows the Illawarra Highway. There is an easement in place that extends for 10 meters either side of the pipeline.

AGL currently have two assets in the vicinity of the proposed development. There is a Ø150mm secondary main that runs along the western side of the Illawarra Highway. There is a Ø75mm Nylon main that runs along the northern side of Tongarra Road.

2.2 Electricity

Integral Energy are the main asset owner with regard to the electricity infrastructure in the area. Existing power lines are located along the northern and southern sides of Tongarra Road.

2.3 Telecommunications

Telstra has existing optical fibre cables running along the northern side of Tongarra Road. These are in a multiple configuration of four conduits, with one conduit being empty enabling for increased capacity to be catered for.

2.4 Water and Sewer

Sydney Water are the current asset owners with regard to potable water and sewerage infrastructure.

With regard to the existing potable water infrastructure there currently exists a Ø375mm DICL (ductile iron cement lined) water main running along the southern side of Tongarra Road and a Ø300mm CICL (cast iron cement lined) water main running along the eastern side of the Illawarra Highway.

The existing sewer infrastructure involves a Ø500mm DICL (ductile iron cement lined) pressure main which runs from Stapleton Ave toward

the east along the southern side of Tongarra Road, this changes to a $\emptyset600$ VC (vitrified clay) line at approximately 400 metres from Stapleton Ave or just opposite 54 Tongarra Road, at this point the line changes to a $\emptyset900$ mm FIBG (fibreglass line) before continuing toward Croome Road.

3. REQUIRED AUGMENTATION WORKS

3.1 Gas

To provide gas services to the new development a junction should be installed in consultation with AGL at the proposed entrance to the site on Tongarra Road. New gas mains would then be constructed within the proposed road alignment as sown on the typical arrangement services plan. Note that final gas main sizing and location would need to be determined based on the exact energy requirements of individual users within the proposed development.

3.2 Electricity

To provide electrical services to the new development connection to the current power lines with conversion from above ground power lines to buried cables at the proposed site entrance at Tongarra Road in consultation with Integral Energy. It will be necessary to utilise connection to the existing high voltage lines to provide required capacity to the new development. Individual properties would need to provide sub-station and transformers dependant on their individual demand. New street lighting would be connected to the existing infrastructure in Tongarra Road.

3.3 Telecommunications

Telephone and internet services would be provided by extension and expansion of the existing services in Tongarra Road. Actual expansion requirements would be determined based on individual user requirements when this information is available. Capacity for expansion is available in the existing services.

3.4 Water and Sewer

Water services to the new development would be provided by connection into the existing \emptyset 375 DICL at the proposed site entrance at Tongarra Road. The extension is to run underneath Tongarra Road north into the site. For normal industrial use the existing water supply should have reasonable capacity. Actual requirements would be assessed and confirmed based on individual requirements when these are known.

Sewer services shall be provided by connection into the existing $\emptyset 600$ VC sewer line. The site levels will require that a pumping station and rising main be constructed to this connection.

In both the above cases consultation with Sydney Water is to be conducted when final demand requirements are better understood.



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