



DEMEZA CIVIL CONSULTING

DEMEZA REF: 25-017

21 August 2026

Shire of Denmark

Daniel Mans

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Dear Daniel,

Lot 3002 Hardy Street, Denmark

Safety in Design (SiD) Report

The SiD process, as required under the *Work Health and Safety Act 2020 (WA)* and the *Work Health and Safety (General) Regulations 2022 (WA)*, and as recommended within the *Safe Design of Structures Code of Practice (2022)*, involves the systematic integration of hazard identification and risk assessment throughout all stages of a project's lifecycle. The purpose is to eliminate risks or, where this is not reasonably practicable, to reduce risks to a level that is 'As Low As is Reasonably Practicable' (ALARP).

The SiD report communicates the hazards and risks identified during the design process, and the associated treatment measures implemented to control these risks using the hierarchy of control. The aim is to ensure, so far as is reasonably practicable, the safety of all individuals involved in construction, use, maintenance, and eventual demolition of the structure.

The following SiD report has been prepared by Demeza Civil Consulting Pty Ltd in fulfilment of our obligations and responsibilities as the designer, as defined under Section 22 of the *Work Health and Safety Act 2020 (WA)*. This includes the duty to ensure that structures are designed to be safe when used for their intended purpose and during foreseeable maintenance or modifications.

Outstanding risks that could not be eliminated during the design stage are summarised in the attached SiD Register. It is the Developer's responsibility to provide this report and register to the Contractor prior to the commencement of construction.

It is important to note that the SiD process must be ongoing. If there are any changes to the design during construction or future maintenance, the Designer must be informed to enable review and update of this SiD documentation. This is necessary to account for any new risks or changes to previously assumed controls. The Designer cannot be held responsible for risks arising from changes made by other parties without notification of consultation, in accordance with the duties of consultation outlined under Section 22(4) of the *WHS Act 2020 (WA)*.



Risk Assessment Criteria

Risks are classified from low to extreme using a matrix based on the likelihood of occurrence and the potential consequence, as follows:

Likelihood Rating Table

Descriptor	Description	Frequency
Almost Certain	The event is expected or known to occur more than once per year. Event is common for the infrastructure designed within industry.	Will occur more than once a year
Likely	The event is known to occur approximately once per year. Event is relatively common for the infrastructure designed within industry.	Will occur once per year
Possible	The event should occur at some time and is expected generally within five (5) years. Event has occurred several times to the infrastructure designed within industry.	Will occur once every five (5) years
Unlikely	The event could occur at some time and is expected generally within ten (10) years. Event has occurred once or twice to the infrastructure designed within industry.	Will occur once in ten (10) years
Rare	The event may occur in exceptional circumstances. Historic event to the infrastructure designed within industry.	Will occur once in thirty (30) years

Consequence Rating Table

Catastrophic	Multiple fatalities and / or life shortening illness for multiple persons
Major	Single fatality and / or injury / illness resulting in significant permanent disability or life shortening illness
Moderate	Injury or illness requiring specialist medical treatment or hospitalisation resulting in loss of functional ability or time off work
Minor	Injury / illness requiring medical treatment with no loss of functional ability
Insignificant	Injury / illness requiring no treatment or first aid treatment only



Resulting Risk Matrix

		Likelihood				
		Rare	Unlikely	Possible	Likely	Almost Certain
Consequence	Catastrophic	High	High	Extreme	Extreme	Extreme
	Major	Moderate	High	High	Extreme	Extreme
	Moderate	Low	Moderate	High	High	High
	Minor	Low	Low	Moderate	High	High
	Insignificant	Low	Low	Low	Moderate	Moderate

Summary of SiD outcomes

Risks that could not be eliminated during the design stage are recorded in the attached SiD Register, and several of these have also been flagged directly on the design documentation to ensure the Contractor is appropriately informed.

It should be noted that this report focuses on design-related risks. It does not address general construction risks that fall under standard industry practice, which must be managed by a competent Contractor through appropriate safety management systems, work method statements, and site-specific safety plans.

Design risk controls have been applied in accordance with the hierarchy of control measures, prioritising elimination and substitution wherever feasible. Where elimination was not possible, engineering or administrative controls have been applied to reduce risks to ALARP.

Please do not hesitate to contact myself if you have any queries with respect to the aforementioned information.

Regards,



Travis Demeza

MIEAust | CPEng (Civil) | NER (Civil) | BEP 169 (Civil, WA)

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Attached: SiD Register



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Hazard Identification			Uncontrolled Risk Assessment				Risk Treatment			Residual Risk Assessment			
Asset Life Cycle Stage	Hazard Item	Hazard Description	Consequence Description	Consequence Severity Rating	Likelihood Rating	Risk Level	Treatment Control Type	Treatment Action	Action Assignee	Consequence Severity Rating	Likelihood Rating	Risk Level	
When the hazard may be encountered		The potential source of harm	What could happen and who could be affected?	Refer to consequence severity table for description	Refer to likelihood table for description	Refer to risk matrix	As per the control hierarchy, the highest practical control should be implemented	What has been done to reduce the risk so far as is reasonably practical. If not practical to reduce risk to Moderate, or lower, further action is required of others.	Who is responsible for putting further control actions into place to mitigate risk	What is the consequence severity rating following implementation of control action	What is the likelihood rating following implementation of control action	What is the residual risk level following implementation of control action	
Construction & Commissioning	Electrical	Working beneath existing overhead and / or adjacent underground power mains and connections	Contact with plant (excavator) during excavation may result in serious injury or death.	Major	Possible	High	Administrative	Contractor shall abide by Western Power's requirements for working near their assets, as per standard industry convention. As unable to remove risk, have placed notes on drawing advising Contractor. To be discussed at Start-Up Meeting. https://www.westernpower.com.au/safety/working-near-our-network/excavation/	Contractor	Major	Possible	High	
Construction & Commissioning	Contamination	Excavation through existing road reserve and / or private lot may encounter contaminated soils	Contact with contaminated material during excavation may result in illness	Moderate	Possible	High	Engineering	No testing has been conducted for the project to confirm the presence of contaminated materials. Contractor shall take all due precautions and undertake measures as per relevant legislation if contaminated material encountered. As unable to remove risk, have placed notes on drawing advising Contractor. To be discussed at Start-Up Meeting.	Contractor	Moderate	Possible	High	
Construction & Commissioning	Hazardous Materials: Asbestos	Excavation through existing road reserve and / or private lot may encounter asbestos	Contact with asbestos containing material during excavation may result in illness	Moderate	Possible	High	Engineering	No testing has been conducted for the project to confirm the presence of asbestos containing materials. Contractor shall take all due precautions and undertake measures as per relevant legislation if ACM encountered. As unable to remove risk, have placed notes on drawing advising Contractor. To be discussed at Start-Up Meeting.	Contractor	Moderate	Possible	High	
Construction & Commissioning	Live Services	BYDA plans advise existing telecommunications are within the verge of the proposed works.	Contact with existing telecommunications may result in loss of service	Minor	Possible	Moderate	Administrative	Contractor shall abide by telecommunication provider's working in close proximity to their assets, as per standard industry convention. As unable to remove risk, have placed notes on drawing advising Contractor. To be discussed at Start-Up Meeting.	Contractor	Minor	Possible	Moderate	
Construction & Commissioning	Live Services	Unknown services being encountered on site, not shown on BYDA	Contact with existing services (unknown in nature, potentially electrical, or pressurised), resulting in serious injury or death.	Major	Rare	Moderate	Administrative	Contractor shall proactively locate prior to excavation. If encountered, best attempt to confirm existing service. Then once known, Contractor to abide by relevant working in close proximity to existing asset documentation, as per standard industry convention. As unable to remove risk, have placed notes on drawing advising Contractor. To be discussed at Start-Up Meeting.	Contractor	Major	Rare	Moderate	
Construction & Commissioning	Pressure	Existing water mains with high pressure	Exposing existing live water main during construction, potential release of high pressure may result in serious injury or death	Major	Unlikely	High	Administrative	Contractor shall abide by Water Corporation's requirements for working near their assets, as per standard industry convention. As unable to remove risk, have placed notes on drawing advising Contractor. https://www.watercorporation.com.au/-/media/WaterCorp/Documents/Developing-and-Building/Working-near-assets/Technical-guidelines-working-near-our-assets.pdf	Contractor	Major	Rare	Moderate	
Construction & Commissioning	Vehicles	Vehicles on adjacent roadway during construction	Vehicle hitting Contractor employee during construction resulting in serious injury or death	Major	Unlikely	High	Isolation	Utilise appropriate traffic management, to the satisfaction of Local Authority, as recommended by a suitably qualified Traffic Management Consultant throughout construction.	Contractor	Major	Rare	Moderate	
Operation & Maintenance	Vehicles	Vehicles on adjacent roadway during operation / maintenance	Vehicle hitting Water Corporation employee during operation / maintenance resulting in serious injury or death	Major	Unlikely	High	Isolation	Utilise appropriate traffic management, to the satisfaction of Local Authority, as recommended by a suitably qualified Traffic Management Consultant throughout operation / maintenance	Water Corporation	Major	Rare	Moderate	
Construction & Commissioning	Contamination	Excavation for the proposed stormwater basin and localised stormwater drainage works may disturb residual contaminated / uncontrolled fill beneath the existing clean cover layer within the identified contamination management area.	Contact with or exposure to contaminated soil, waste fill or asbestos-containing material during excavation may result in illness and/or uncontrolled spread of contaminated material.	Moderate	Possible	High	Administrative	Existing contamination and the indicative contamination management area have been identified on the civil drawings, sections, notes and Technical Specification, with reference to the previous GHD remediation and validation report. Excavation associated with the required stormwater basin and drainage infrastructure cannot reasonably be designed out. Contractor shall manage the residual risk during construction in accordance with the Contract Documentation, including approved contamination management / unexpected finds procedures and appropriate controls for classification, handling, transport and disposal of affected material.	Contractor	Moderate	Possible	High	