

MP ref: M2349  
QA: hw.ms.mc

25 October 2024

Assessment Manager  
Townsville City Council  
PO Box 1268  
TOWNSVILLE QLD 4810  
Via: *TOLS*

**Attention: Planning and Development**

Dear Sir/ Madam,

**Re: Development Application seeking a Development Permit for Material Change of Use – Special Industry (Battery Anode Manufacturing Demonstration Plant) on land described as Lot 4 on RP901581 and Lot 5 on SP221657 and located at 39-45 Crocodile Crescent, Mount St John**

On behalf of the Applicant, Milford Planning hereby make the enclosed development application seeking the abovementioned development approval on the abovementioned land in accordance with Section 51 of the *Planning Act 2016*.

**Assessment Fee**

The relevant assessment fee for the proposed development has been calculated below in accordance with Townsville City Council's (Council) Schedule of Fees and Charges 2024/25.

Component	Calculation	Fee
Other Industry Activities Type Uses (Special Industry)	Equal to or greater than 1,000 m <sup>2</sup> and less than 2,500 m <sup>2</sup> Total Use Area – \$4,726.00 Impact assessment fee – \$1,112.00	<b>\$5,838.00</b>
<b>TOTAL ASSESSMENT FEE:</b>		<b>\$5,838.00</b>

We request that the abovementioned assessment fee is charged to Milford Planning's account with Council (account number 35665) following receipt of this application.

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**Proceeding**

We look forward to working with Council to progress the proposed development, and request the opportunity to discuss any queries or further information that may be required prior to the issue of any formal correspondence.

In the instance that Council requires no further information, we look forward to receipt of Council's advice to this effect to allow public notification of the development to proceed.

If you have any questions regarding this correspondence, please contact the undersigned on TEL: (07) 4724 0095.

Yours sincerely,

**MILFORD PLANNING**

A handwritten signature in black ink, appearing to read 'MS' or similar initials, with the word 'Electronic' written in a light grey font across it.

Matteo Sandona

SENIOR TOWN PLANNER

Encl: Development application package

Applicant **Graphinex Anodes Pty Ltd**  
Reference **M2349**  
Date **October 2024**

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# Development Application

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Proposed  
Development **Material Change of Use –  
Special Industry (Battery  
Anode Manufacturing  
Demonstration Plant)**

Property  
Details **Lot 4 on RP901581; and  
Lot 5 on SP221657  
39-45 Crocodile Crescent,  
Mount St John**





## DOCUMENT CONTROL

<b>Applicant</b>	Graphinex Anodes Pty Ltd
<b>Proposed Development</b>	Material Change of Use – Special Industry (Battery Anode Manufacturing Demonstration Plant)
<b>Contact</b>	Matteo Sandona

### Quality Assurance

<b>Date</b> 25.10.24 <b>Version</b> 1 <b>Issue</b> Final <b>Template</b> DA-STN-1	 Matteo Sandona SENIOR TOWN PLANNER	 George Milford DIRECTOR
	<b>Author</b>	<b>Reviewer</b>

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## APPENDICES

<b>Appendix 1</b>	DA Form 1; and land owners consent
<b>Appendix 2</b>	SmartMap; and site aerial plan of the subject site
<b>Appendix 3</b>	State Assessment Referral Agency mapping
<b>Appendix 4</b>	Proposed development plans
<b>Appendix 5</b>	Risk and Hazard Management Plan



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## 1.0 INTRODUCTION

### 1.1 Purpose

The purpose of this development application is to seek approval for Material Change of Use – Special Industry (Battery Anode Manufacturing Demonstration Plant) (the proposed development) under the provisions of the *Planning Act 2016* (the Act).

The purpose of this report is to provide information about the site on which the subject development is proposed, detail of the proposed development, and an assessment against the relevant assessment benchmarks. The assessment detailed in this report has been undertaken in accordance with the provisions and subordinate planning controls under the Act.

### 1.2 Structure

This report provides the following information with respect to the assessment of the proposed development:

- overview of the site and surrounding area;
- description of the proposed development;
- overview of the relevant assessment framework;
- assessment of the proposed development against the relevant assessment benchmarks;
- other relevant matters; and
- conclusion and recommendation.

This development application is made in accordance with Section 51 of the Act and contains the mandatory supporting information specified in the applicable DA Form. **Appendix 1** comprises DA Form 1 and the accompanying land owner's consent.



## 2.0 SUBJECT SITE

### 2.1 Site Parameters

The following parameters are applicable to the site of the proposed development (the subject site).

<b>Property Owner</b>	Red Bull Investments Pty Ltd (TTE) (refer <b>Appendix 1</b> )
<b>Street Address</b>	39-45 Crocodile Crescent, Mount St John
<b>Formal Description</b>	<ul style="list-style-type: none"><li>Lot 4 on RP901581; and</li><li>Lot 5 on SP221657.</li></ul>
<b>Site Area</b>	3,217 m <sup>2</sup> (refer <b>Appendix 2</b> )
<b>Easements</b>	The land is not burdened by any easements.
<b>Street Frontage</b>	Crocodile Crescent and Ingham Road.
<b>Topography</b>	The site has generally even topography.
<b>Existing Use</b>	Medium Impact Industry
<b>Existing Infrastructure</b>	The site is serviced by the following infrastructure: <ul style="list-style-type: none"><li>reticulated water (Council);</li><li>reticulated sewer (Council);</li><li>electricity (Ergon); and</li><li>telecommunications.</li></ul>
<b>Local Heritage Register</b>	The site is not listed on the Local Heritage Register.
<b>Contaminated Land</b>	The land is not known to be included on the State Environmental Management Register or Contaminated Land Register.
<b>Relevant State Interests</b>	The following State interests are relevant to the proposed development as detailed in the State Assessment Referral Agency (SARA) mapping (refer <b>Appendix 3</b> ): <ul style="list-style-type: none"><li>Coastal area – medium storm tide inundation area.</li></ul>





## 2.2 Surrounding Area

<b>North</b>	The Crocodile Crescent road frontage is located directly to the north, with an array of industrial uses on similarly scaled sites located within the estate and linked by Crocodile Crescent.
<b>East</b>	There is adjoining established industrial operations on similarly scaled lots to the east.
<b>South</b>	The Ingham Road, road frontage is located directly to the south, along with similarly scaled industrial sites.
<b>West</b>	The site is adjoining established industrial tenancies in a warehouse configuration to the west.



## 3.0 PROPOSED DEVELOPMENT

### 3.1 Description of Proposed Development

The proposed development involves repurposing an existing industrial warehouse in the Medium Impact Industry Zone for use as a demonstration plant for the specialised processing of graphite ore. Specific detail of the proposed development is provided below.

#### Purpose of Development

The proposed demonstration plant involves the processing and refining of graphite ore to produce Coated Purified Spherical Graphite (CPSG), a key component in lithium-ion battery anodes. The purpose of CPSG production at this facility is to demonstrate the technical and commercial viability of Active Anode Material manufacturing by producing an exportable product. The location of the facility in Townsville offers location efficiencies in the production process, given the regional proximity to the mining of graphite ore, being near Croydon in Far North Queensland.

#### Design Overview

The proposed facility will utilise an existing industrial building to produce CPSG. The existing building, which has previously housed major construction and manufacturing companies, is comprised of a 1,036 m<sup>2</sup> workshop, a 240 m<sup>2</sup> warehouse, and a 135 m<sup>2</sup> office. The workshop and warehouse areas will accommodate CPSG production equipment (refer to **Appendix 4**). In particular, the workshop space will accommodate the majority of processing and production equipment, with activities including receiving, milling, flotation, filtration and drying, spheronising, coating and carbonisation, packaging, bagging and dispatch. The existing warehouse space, which is adjacent to the workshop floor, will be used primarily for two purposes, being leaching and roasting, and storage of process material, being both liquid and dry.

#### Operational Overview

The proposed facility intends to typically operate Monday to Friday from 6:00 am to 6:00 pm and be managed by no more than three employees at any given time. The relatively low operational intensity has been determined due to the batch process manner. The facility is capable of and anticipated to produce approximately six tonnes of CPSG per year, through the processing of approximately 200 t of graphite ore.

Movements in and out of the site, which include ore delivery, reagent delivery, waste dispatch and product dispatch, is anticipated to occur approximately five times per month. The low number of deliveries can be afforded to the low production quota and bulk storage of materials, as appropriate given the demonstrative nature of the facility. Stored inputs, including sulphuric acid, sodium hydroxide, pitch, flotation reagent, sodium silica, demineralised water and graphite ore, will be delivered to the site, ranging from fortnightly to annually. CPSG product will be packaged



in 25 kg sample bags and stored in 200 L drums for dispatch. Byproducts of the production process, including neutralised water and nonproduct solids will be stored and removed off site by suitable waste disposal contractors (e.g. Cleanaway). Emissions will be mitigated through layout and operation. In particular, the production process will occur within a closed building, with equipment acoustically rated to approximately 85 dB, and will not result in external noise emissions that would impact the amenity of the locality. Air emissions, including dust, will be mitigated primarily through emission treatment systems built into equipment and machinery. The integrated emission treatment systems will limit fugitive emissions to negligible levels.

The operation of the facility will be managed in accordance with the recommendations and requirements of the Risk and Hazard Management Plan provided at **Appendix 5**.

### **Access and Parking**

The existing warehouse currently contains two access points, being Crocodile Crescent and Ingham Road. The primary site access will remain from Ingham Road, which provides gated access to the site, including staff parking, truck manoeuvring area and direct access in the eastern side of the warehouse, which will be used for receipt and dispatch. This existing access arrangement allows for all vehicles expected to use the site to enter and exit in a forward motion.

The site contains seven car parking spaces. Given the operation will involve a total of three employees on site, the availability of parking space is more than sufficient to service the facility. Considering the nature of the use, being a demonstration plant, the facility will not be open to public visitation, limited only to authorised government or investment visitation. Employees will access the site via a swipe card and will grant access to deliveries at the gate. All deliveries and collections will be scheduled by the operators of the facility to ensure efficiency and to avoid conflict. These measures will ensure the efficient operation of the facility and will ensure the facility does not impact on traffic flow on Ingham Road and is compatible with existing and anticipated traffic associated with industrial uses in the locality.

### **Water and Sewer**

The proposed development will make no changes to the existing water and sewage connections on site. Whilst the production process does require water, the majority will be sourced externally and delivered in bulk to the site, to ensure demineralisation and purity. Potable water used in the production will be sourced at a rate of approximately 0.75 ML per year, which is equivalent to a standard household. Neutralised process water, which will be a byproduct of the production process, will be stored on site for transportation to a local wastewater treatment plant. The operator will seek to obtain the relevant waste approvals prior to commencement of the use.

The existing sewerage connection and arrangement servicing the site will remain unchanged. The Applicant will seek to obtain the relevant trade waste approval for this aspect of the development



prior to the commencement of the use. Council operated water and sewerage networks will continue to service the ancillary office and amenities aspect of the facility, consistent with or lesser than the previous demand generated by the site.

### **Stormwater**

The proposed development will continue to utilise the existing stormwater arrangements associated with the site. The existing stormwater regime is considered sufficient given no changes to the existing structures or other built form on the subject site is required to facilitate the proposed operation.

### **Electricity and Communications**

The subject site is currently serviced by electricity and communication services which remain suitable to service the requirements of the proposed development.

### **Landscaping**

The proposal will retain the established landscaping along the site frontages, comprising shrubbery and turf. The existing landscaping remains appropriate for the nature of both the locality and the proposed operation.

## **3.2 Development Plans**

The proposed development is detailed in the plans provided at **Appendix 4** and listed below. In addition, the proposed development is further detailed in the associated reports listed below and appended as referenced.

<b>Title</b>	<b>Number</b>	<b>Issue</b>	<b>Date</b>
Floorplan	-	-	17-10-24
Site Plan	PA4011C/01D	-	14-04-05
Southern Elevation	PA4011A/02D	-	14-04-05
Eastern, Northern and Western Elevation	PA4011A/03D	-	14-04-05
<b>Associated Reports</b>			
Risk and Hazard Management Plan (refer <b>Appendix 5</b> )			



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### **3.3 Prelodgement Meeting**

The proposed development was the subject of a prelodgement meeting between Townsville City Council (Council), the Applicant, and the Applicant's representatives on 4 September 2024. Council were generally supportive of the proposed development and noted that the subject site and existing facility was suitable for the intended use. It was also confirmed that the applicable use definition was Special Industry. It was suggested that the development application should detail dust and noise mitigation measures.



## 4.0 ASSESSMENT FRAMEWORK

### 4.1 Planning Act 2016

The *Planning Act 2016* (the Act) provides the framework for Queensland's planning system and coordinates local, regional, and State planning. The Act allows for the establishment and is supported by subordinate planning legislation and instruments such as planning schemes. The provisions of the Act are therefore applicable to the proposed development.

### 4.2 Planning Regulation 2017

The *Planning Regulation 2017* (the Regulation) is established under the Act and provides support to the Act by detailing how it functions at a practical level. The Regulation determines the Assessment Manager and Referral Agencies relevant to assessable development, and relevant State interests through the State Planning Policy (SPP) and State Development Assessment Provisions (SDAP). The provisions of the Regulation are therefore applicable to the proposed development.

### 4.3 Approval Sought

<b>Approval Type</b>	Development Permit
<b>Development Type</b>	Material Change of Use
<b>Definition or General Description</b>	Special Industry
<b>Specific Description</b>	(Battery Anode Manufacturing Demonstration Plant)

### 4.4 Assessment Manager Assessment Parameters

<b>Assessment Manager</b>	Townsville City Council
<b>Planning Instrument</b>	<i>Townsville City Plan 2014</i> (the planning scheme)
<b>Zone and Precinct</b>	Medium Impact Industry Zone
<b>Triggered Overlays</b>	<ul style="list-style-type: none"><li>▪ Airport Environs Overlay – Operational airspace - Airspace more than 15m above ground level</li><li>▪ Airport Environs Overlay – Wildlife hazard buffer zones and public safety areas – Distance from airport runway – 3km</li><li>▪ Airport Environs Overlay – Light Intensity – 6km radius, Zones C and D</li><li>▪ Flood Hazard Overlay – Low and medium hazard area</li></ul>
<b>Category of Assessment</b>	Impact



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<b>Table of Assessment Reference</b>	Table 5.5.19 – Material Change of Use in the Medium Impact Industry Zone (Any other use not listed)
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<b>Assessment Manager Assessment Benchmarks</b>	<ul style="list-style-type: none"><li>▪ Strategic Framework</li><li>▪ Medium Impact Industry Zone Code</li><li>▪ Healthy Waters Code</li><li>▪ Landscape Code</li><li>▪ Transport Impact, Access and Parking Code</li><li>▪ Works Code</li><li>▪ Airport Environs Overlay Code</li><li>▪ Flood Hazard Overlay Code</li></ul>
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#### 4.5 Referral Agency Assessment Parameters

<b>Referral Agencies</b>	State Assessment Referral Agency
<b>Planning Instrument</b>	<i>Planning Regulation 2017</i> (the Regulation)
<b>Referral Triggers</b>	<p>The proposed development does not trigger referral to any Referral Agencies.</p> <p>In particular, the proposed development does not trigger the threshold for ERA 31 – Mineral Processing given the facility will not exceed the 1,000 t annual threshold for processing mineral products (other than coke).</p>

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## 5.0 ASSESSMENT MANAGER CONSIDERATIONS

### 5.1 State Planning Policy

The *State Planning Policy* (the SPP) is a State planning instrument established under the Act and is designed to ensure the State's interests in planning are protected and delivered as part of local government planning across Queensland. Local government use the SPP when making or amending its planning scheme. Local government will also assess aspects of development applications using the SPP if their local planning scheme has not integrated certain State interests.

In accordance with Section 2.1 – State Planning Policy (SPP) of the planning scheme, the Minister has identified that all relevant State interests as outlined in the SPP dated July 2017 have been integrated into the planning scheme.

For the purpose of the proposed development, we consider that assessment against the provisions of the SPP is not required, and all relevant matters will be dealt with under the provisions of the planning scheme.

### 5.2 Regional Plan

Regional plans are State planning instruments established under the Act, and set the long term strategic direction for how regions grow and respond to change. Regional plans are designed to facilitate economic growth, development, liveable communities, and the protection of natural resources. Regional plans seek to balance the State interests identified by the SPP in the context of the particular region they apply to.

The *North Queensland Regional Plan* (the Regional Plan) applies to the local government areas of Townsville City, Hinchinbrook Shire, Burdekin Shire, Charters Towers Regional, and Palm Island Aboriginal Shire. The Regional Plan was implemented in March 2020, and seeks to capitalise on the growth, prosperity, and diversity of the region by supporting a vibrant economy, generating jobs, improving business investment, protecting our natural environment, and encouraging tourism and lifestyle opportunities over the next 25 years.

The proposed development is considered to align with the goals outlined in the Regional Plan. In particular, the proposed development will further Goal 1 – A leading economy in regional Australia.

### 5.3 Planning Scheme Strategic Framework

The planning scheme incorporates a strategic framework, which sets the policy direction and basis for ensuring appropriate development occurs within the planning scheme area.





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The strategic framework is represented by the following four themes:

- shaping Townsville;
- strong, connected community;
- environmentally sustainable future; and
- sustaining growth.

The strategic framework provides strategic outcomes for each of the above four themes.

The proposed development furthers the outcomes sought by the above themes and the relevant outcomes, particularly when considering:

- the proposed Battery Anode Manufacturing Demonstration Plant will contribute to diversifying Townsville's economy;
- the proposal will strengthen Townsville's role in specialised manufacturing, particularly through the processing of ore mined in North Queensland, for national and international export;
- the proposal repurposes an existing facility to capitalise on the growth of renewable energy by manufacturing a critical element in battery technology; and
- the proposed development expands the growing renewables economy in Townsville and positions the city for continued investment in battery technology.

#### **5.4 Planning Scheme Purpose and Overall Outcomes**

The proposed development is considered to further the purpose and overall outcomes sought by the relevant planning scheme codes by demonstrating compliance with the relevant performance and accepted outcomes.



### 5.5 Planning Scheme Assessment Matrix

The assessment matrix below summarises the outcome of an assessment of the proposed development against the relevant performance and accepted outcomes of the applicable Assessment Manager assessment benchmarks. The assessment matrix identifies the level of compliance of the proposed development in accordance with the legend below.

Legend	
<span style="color: green;">■</span>	Criteria is clearly met and no further assessment is required.
<span style="color: orange;">■</span>	Criteria is met and further explanation is provided for clarity.
<span style="color: red;">■</span>	Criteria is not met and further performance assessment is required.
<span style="color: gray;">■</span>	Not applicable or no criteria prescribed.

Outcome PO or AO	Medium Impact Industry Zone Code		Healthy Waters Code		Landscape Code		Transport Impact, Access and Parking Code		Works Code		Airport Environs Overlay Code		Flood Hazard Overlay Code							
	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO
1	Green	Green	Green	Gray	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green						
2	Green	Green	Green	Gray	Green	Green	Green	Gray	Green	Green	Green	Green	Green	Gray	Gray					
3	Green	Green	Green	Gray	Green	Green	Green	Gray	Green	Green	Green	Green	Green	Gray	Gray					
4	Green	Green	Green	Gray	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green						
5	Green	Green	Green	Gray	Green	Green	Green	Orange	Green	Green	Green	Green	Green	Gray	Gray					
6	Green	Orange	Green	Gray	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green	Gray					
7	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Gray					
8	Gray	Gray	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Gray	Gray				
9	Gray	Gray	Green	Green	Green	Gray	Green	Green	Green	Green	Green	Green	Green	Green	Orange					
10	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
11	Green	Gray	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green	Green	Green						
12	Green	Gray	Green	Gray	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green						
13	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
14	Green	Gray	Green	Gray	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green						
15	Green	Gray	Green	Gray	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green						
16	Green	Gray	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green	Green	Green	Gray	Gray				
17	Gray	Gray	Green	Gray	Green	Gray	Green	Orange	Red	Gray	Gray	Green	Green	Green						
18	Gray	Gray	Green	Gray	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green						
19	Gray	Gray	Green	Gray	Green	Gray	Green	Green	Green	Green	Green	Green	Green	Green						



Outcome PO or AO	Medium Impact Industry Zone Code		Healthy Waters Code		Landscape Code		Transport Impact, Access and Parking Code		Works Code		Airport Environs Overlay Code		Flood Hazard Overlay Code								
	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	PO	AO	
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Criteria identified in the assessment matrix as requiring further explanation or further assessment is addressed in the following subsection.



## 5.6 Planning Scheme Detailed Assessment

### Medium Impact Industry Zone Code

#### PO6

Development provides for the collection, treatment and disposal of liquid wastes or sources of contamination such that off-site releases of contaminants do not occur.

**Editor's note**—Applicants should also have regard to Section 9.3.7 Works code, Section 9.3.2 Healthy waters code and other relevant legislative, industry and licensing requirements.

#### AO6.1

Areas where potentially contaminating substances are stored or used, are roofed and sealed with concrete, asphalt or similar impervious substance and banded.

#### AO6.2

Roof water is piped away from areas of potential contamination.

### Complies with AO6.1 and AO6.2

The proposed development will involve the storage of potentially contaminating substances, including liquid and dry chemicals, and graphite ore. These inputs will be delivered and stored on site in either self banded Immediate Bulk Containers (IBC's) or sealed 'bulka' bags. Inputs are to be stored in a dedicated storage area (refer to **Appendix 4**), within the existing warehouse.

Waste outputs, including neutralised water and non product solids, will also be stored in IBC's, ready for transport by a waste disposal contractor. CPSG product is to be stored in 25 kg bags, and within 200 L drums. These storage measures, combined with the existing nature of the warehouse, being enclosed with a concrete floor with stormwater management infrastructure, will ensure contaminating substances are not released off site by way of run off.

Given the above, the proposed development achieves the requirements of Acceptable Outcome 6.1 and Acceptable Outcome 6.2 of the Medium Impact Industry Zone Code.

### Transport Impact, Access and Parking Code

#### PO5

Access arrangements are appropriate for:

- (a) the capacity of the parking area;
- (b) the volume, frequency and type of vehicle usage;
- (c) the function and characteristics of the access road and adjoining road network; and
- (d) the safety and efficiency of the road network.

#### AO5

Access is provided in accordance with the standards identified in the Development manual planning scheme policy SC6.4 — [SC6.4.5.5 Driveways](#), [SC6.4.5.3 Public Transport Facilities](#) and [SC6.4.5.4 Car Parking](#).

**Editor's note**— Applicants should refer to the Development manual planning scheme policy no. SC6.4 - [SC6.4.5.1 Townsville Road Hierarchy](#) and [SC6.4.5.2 Traffic Impact Assessment \(TIA\)](#).

### Complies with PO5

The proposed demonstration plant has been designed to operate within the existing industrial warehouse and access arrangement. The site has two access points, being from Crocodile Crescent and Ingham Road. The access from Ingham Road is to remain as the primary access, and comprises an asphalt crossover, leading to a sealed car parking and manoeuvring area.



Vehicles reasonably expected to use the site, including semi-trailer trucks, will have adequate space to enter and exit the site in a forward motion (refer to **Appendix 4**). Considering this, combined with the frequency of deliveries in and out of the site, being approximately five per month, the proposal is not considered to impact on either the safety or efficiency of the road network. We also note that road reserve is approximately 20 m wide, allowing adequate room for vehicles to enter the site without causing queuing to Ingham Road.

The existing access arrangement is considered appropriate for the intended use, including parking capacity, frequency and type of vehicle usage, and connection to the road network.

Given the above, the proposed development achieves the requirements of Performance Outcome 5 of the Transport Impact, Access and Parking Code.

**PO17**

Provision is made for on-site vehicle parking to:

- (a) meet the demand likely to be generated by the development; and
- (b) avoid on street parking that would adversely impact on the safety or capacity of the road network or unduly impact on local amenity.

**AO17**

Parking is provided in accordance with the standards identified in [Parking rates planning scheme policy no. SC6.10](#).

**Editor's note**— Applicants should refer to the Development manual planning scheme policy no. SC6.4 - SC6.4.5.3 Public Transport Facilities, SC6.4.5.4 Car Parking, SC6.4.5.2 Traffic Impact Assessments (TIA), SC6.4.6.1 Geometric Road Design, and SC6.4.5.1 Townsville Road Hierarchy to assist in complying with this outcome.

**Complies with PO17**

The proposed demonstration plant will make use of the existing car parking spaces established on the subject site. The site provides a total of seven formalised car parking spaces.

Considering the operation of the facility will be managed by three employees at any given time and will not permit unauthorised visitation by way of a gate, the existing car parking provision and arrangement is considered more than sufficient to meet the demand for car parking generated by the development.

Given the above, the proposed development achieves the requirements of Performance Outcome 17 of the Transport Impact, Access and Parking Code.



## Works Code

### PO29

The following are provided along the full extent of the road frontage and to a standard that is appropriate to the function of the road or street and the character of the locality:

- (a) paved roadway;
- (b) appropriate pavement edging (including kerb and channel);
- (c) pedestrian paths and cycleways;
- (d) streetscaping and street tree planting;
- (e) stormwater drainage;
- (f) street lighting systems; and
- (g) conduits to facilitate the provision of and other utility services.

### AO29

Design and construction of external road works are undertaken in accordance with the [Development manual planning scheme policy no. SC6.4](#).

**Editor's note**—Applicants should have regard to the following sub-sections of the Development manual planning scheme policy no. SC6.4 - SC6.4.14.2 Public Lighting (Urban, Urban Residential and Rural); SC6.4.14.3 Utility Services; SC6.4.9 Stormwater Quantity; SC6.4.10 Stormwater Quality; SC6.4.4 Active Transport Infrastructure; SC6.4.12 Landscaping and Open Space; SC6.4.6.1 Geometric Road Design; SC6.4.20.1 Footpath Treatment Policy; and SC6.4.23 Construction Management, Quality Management, Inspection and Testing.

### Complies PO29

The existing condition of access and road frontage are considered as suitable for the proposed development. Both the Ingham Road and Crocodile Crescent access points have asphalt crossovers, gates, and landscaping. The arrangement has existed for almost two decades, to service an industrial warehouse, and as such, is considered to remain appropriate for the operation of the demonstration plant and the industrial character of the locality.

Given the above, the proposed development achieves the requirements of Performance Outcome 9 of the Works Code.



## Flood Hazard Overlay Code

### PO9

Public safety and the environment are not adversely affected by the detrimental impacts of flooding on hazardous materials manufactured or stored in bulk.

### AO9.1

Development does not involve the manufacture or storage of hazardous materials within a high flood hazard area identified on overlay map OM-06.1 or 06.2.

### AO9.2

Within the low or medium flood hazard area identified on overlay map OM-06.1 or 06.2, structures used for the manufacture or storage of hazardous materials in bulk are designed to prevent the intrusion of flood waters up to at least a 0.2% AEP flood event.

### Complies AO9.1 and AO9.2

The proposed development will involve the use and storage of hazardous materials, such as liquid and dry chemicals, however, the existing warehouse is outside the identified extend of flooding in a 1 in a 100 year flood event.

Additionally, the storage of inputs are not by definition stored in 'bulk'. This has been determined by the ERA 8 threshold (Chemical Storage), which involves the storage of solid or liquid chemicals at 200 t or m<sup>3</sup>. The largest input stored on site will be graphite ore, being delivered and stored in 'bulka' bags, of which no more than 40 are expected to be delivered per month. Moreover, liquid chemicals will be stored in self banded IBC's, large enough to capture the full content of the IBC, ensuring not material can be released off site.

The intended storage methodology, combined with the existing condition of the warehouse, ensure that the proposal is not adversely affected by flooding.

Given the above, the proposed development achieves the requirements of Acceptable Outcome 9.1 and Acceptable Outcome 9.2 of the Flood Hazard Overlay Code.



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## **6.0 OTHER RELEVANT MATTERS**

### **6.1 Other Relevant Matters**

There are substantial other relevant matters to support the approval of the proposed development. In accordance with Section 45, Item 5 (b) of the Act, an impact assessment may be carried out against, or having regard to, any other relevant matter, other than a person's personal circumstances, financial, or otherwise.

Other relevant matters supporting the approval of the proposed development include (but are not limited to) the following:

- the proposal will diversify local industry and the local economy;
- the proposal seeks to capitalise on the growth of renewable energy by manufacturing a critical element in battery technology; and
- the proposal contributes to the growing renewable energy industry in Townsville and positions the city for continued investment in battery technology.





## 7.0 CONCLUSION

### 7.1 Assessment Summary

The assessment of the proposed development against the relevant assessment benchmarks detailed in this development application supports a recommendation for approval based on the following reasons:

- the proposed development complies with the relevant assessment benchmarks; and
- compliance with the relevant assessment benchmarks can be managed through reasonable and relevant conditions.

### 7.2 Recommended Conditions of Approval

Given the above facts and circumstances presented in this development application, we recommend that Council **approve** the proposed development subject to the following reasonable and relevant conditions that are considered specifically relevant to the proposed development.

#### Condition 1 – Approved Plans and Supporting Documentation

- (a) The development must generally comply with the plan(s) and supporting documentation referenced in the table below and attached as stamped “Approved Subject to Conditions” which forms part of this approval, unless otherwise specified by any condition of this approval.

Title	Number	Issue	Date
Floorplan	-	-	17-10-24
Site Plan	PA4011C/01D	-	14-04-05
Southern Elevation	PA4011A/02D	-	14-04-05
Eastern, Northern and Western Elevation	PA4011A/03D	-	14-04-05
Associated Reports			
Risk and Hazard Management Plan			

- (b) The recommendations outlined in the above reports/s must be implemented prior to the commencement of the use.

#### Condition 2 – Car Parking

- a) All car parking facilities, associated ramps, and driveways must be provided in accordance with Part 9.3.5 Transport impact, access and parking code and designed in accordance with SC6.4 Development manual planning scheme policy, and must be maintained to a safe operating standard at all times thereafter.
- b) A minimum of 3 car spaces must be provided on site.

# Appendix 1

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# DA Form 1 – Development application details

Approved form (version 1.6 effective 2 August 2024) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) and parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

**Note:** All terms used in this form have the meaning given under the *Planning Act 2016*, the *Planning Regulation 2017*, or the *Development Assessment Rules (DA Rules)*.

## PART 1 – APPLICANT DETAILS

### 1) Applicant details

Applicant name(s) <i>(individual or company full name)</i>	Graphinex Anodes Pty Ltd c/- Milford Planning
Contact name <i>(only applicable for companies)</i>	Matteo Sandona
Postal address <i>(P.O. Box or street address)</i>	PO Box 5463
Suburb	Townsville City
State	Queensland
Postcode	4810
Country	Australia
Contact number	(07) 4724 0095
Email address <i>(non-mandatory)</i>	info@milfordplanning.com.au
Mobile number <i>(non-mandatory)</i>	
Fax number <i>(non-mandatory)</i>	
Applicant's reference number(s) <i>(if applicable)</i>	M2349

### 1.1) Home-based business

Personal details to remain private in accordance with section 264(6) of *Planning Act 2016*

### 2) Owner's consent

#### 2.1) Is written consent of the owner required for this development application?

- Yes – the written consent of the owner(s) is attached to this development application  
 No – proceed to 3)

## PART 2 – LOCATION DETAILS

### 3) Location of the premises (complete 3.1) or 3.2), and 3.3) as applicable)

**Note:** Provide details below and attach a site plan for any or all premises part of the development application. For further information, see DA Forms Guide: Relevant plans.

#### 3.1) Street address and lot on plan

- Street address **AND** lot on plan (all lots must be listed), **or**  
 Street address **AND** lot on plan for an adjoining or adjacent property of the premises (appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).

a)	Unit No.	Street No.	Street Name and Type	Suburb
		39-45	Crocodile Crescent	Mount St John
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4818	4	RP901581	Townsville City
b)	Unit No.	Street No.	Street Name and Type	Suburb
		39-45	Crocodile Crescent	Mount St John
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4818	5	SP221657	Townsville City
c)	Unit No.	Street No.	Street Name and Type	Suburb
			Ingham Road	Mount St John
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4818	102	RP901581	Townsville City

#### 3.2) Coordinates of premises (appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)

**Note:** Place each set of coordinates in a separate row.

- Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other: <input type="text"/>	

- Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> 54 <input type="checkbox"/> 55 <input type="checkbox"/> 56	<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other: <input type="text"/>	

#### 3.3) Additional premises

- Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application  
 Not required

#### 4) Identify any of the following that apply to the premises and provide any relevant details

- In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

- On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

- In a tidal area

Name of local government for the tidal area *(if applicable)*:

Name of port authority for tidal area *(if applicable)*

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<input type="checkbox"/> On airport land under the <i>Airport Assets (Restructuring and Disposal) Act 2008</i>
Name of airport: <input type="text"/>
<input type="checkbox"/> Listed on the Environmental Management Register (EMR) under the <i>Environmental Protection Act 1994</i>
EMR site identification: <input type="text"/>
<input type="checkbox"/> Listed on the Contaminated Land Register (CLR) under the <i>Environmental Protection Act 1994</i>
CLR site identification: <input type="text"/>

**5) Are there any existing easements over the premises?**

*Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see [DA Forms Guide](#).*

- Yes – All easement locations, types and dimensions are included in plans submitted with this development application
- No

## PART 3 – DEVELOPMENT DETAILS

### Section 1 – Aspects of development

**6.1) Provide details about the first development aspect**

a) What is the type of development? *(tick only one box)*

- Material change of use     Reconfiguring a lot     Operational work     Building work

b) What is the approval type? *(tick only one box)*

- Development permit     Preliminary approval     Preliminary approval that includes a variation approval

c) What is the level of assessment?

- Code assessment     Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):*

Special Industry (Battery Anode Manufacturing Demonstration Plant)

e) Relevant plans

**Note:** *Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms guide: Relevant plans](#).*

- Relevant plans of the proposed development are attached to the development application

**6.2) Provide details about the second development aspect**

a) What is the type of development? *(tick only one box)*

- Material change of use     Reconfiguring a lot     Operational work     Building work

b) What is the approval type? *(tick only one box)*

- Development permit     Preliminary approval     Preliminary approval that includes a variation approval

c) What is the level of assessment?

- Code assessment     Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):*

e) Relevant plans

**Note:** *Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).*

- Relevant plans of the proposed development are attached to the development application



**6.3) Additional aspects of development**

- Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application
- Not required

**6.4) Is the application for State facilitated development?**

- Yes - Has a notice of declaration been given by the Minister?
- No

**Section 2 – Further development details****7) Does the proposed development application involve any of the following?**

Material change of use	<input checked="" type="checkbox"/> Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	<input type="checkbox"/> Yes – complete division 2
Operational work	<input type="checkbox"/> Yes – complete division 3
Building work	<input type="checkbox"/> Yes – complete <i>DA Form 2 – Building work details</i>

**Division 1 – Material change of use**

**Note:** This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

**8.1) Describe the proposed material change of use**

Provide a general description of the proposed use	Provide the planning scheme definition <i>(include each definition in a new row)</i>	Number of dwelling units <i>(if applicable)</i>	Gross floor area (m <sup>2</sup> ) <i>(if applicable)</i>
Battery Anode Manufacturing Demonstration Plant	Special Industry	N/A	1,415

**8.2) Does the proposed use involve the use of existing buildings on the premises?**

- Yes
- No

**8.3) Does the proposed development relate to temporary accepted development under the Planning Regulation?**

- Yes – provide details below or include details in a schedule to this development application
- No

Provide a general description of the temporary accepted development	Specify the stated period dates under the Planning Regulation

**Division 2 – Reconfiguring a lot**

**Note:** This division is only required to be completed if any part of the development application involves reconfiguring a lot.

**9.1) What is the total number of existing lots making up the premises?**

--

**9.2) What is the nature of the lot reconfiguration? *(tick all applicable boxes)***

<input type="checkbox"/> Subdivision <i>(complete 10)</i>	<input type="checkbox"/> Dividing land into parts by agreement <i>(complete 11)</i>
<input type="checkbox"/> Boundary realignment <i>(complete 12)</i>	<input type="checkbox"/> Creating or changing an easement giving access to a lot from a constructed road <i>(complete 13)</i>





14.3) What is the monetary value of the proposed operational work? (include GST, materials and labour)

\$

## PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application

Townsville City Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?

- Yes – a copy of the decision notice is attached to this development application
- The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached
- No

## PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements?

**Note:** A development application will require referral if prescribed by the Planning Regulation 2017.

- No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the Planning Act 2016:**

- Clearing native vegetation
- Contaminated land (*unexploded ordnance*)
- Environmentally relevant activities (ERA) (*only if the ERA has not been devolved to a local government*)
- Fisheries – aquaculture
- Fisheries – declared fish habitat area
- Fisheries – marine plants
- Fisheries – waterway barrier works
- Hazardous chemical facilities
- Heritage places – Queensland heritage place (*on or near a Queensland heritage place*)
- Infrastructure-related referrals – designated premises
- Infrastructure-related referrals – state transport infrastructure
- Infrastructure-related referrals – State transport corridor and future State transport corridor
- Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
- Infrastructure-related referrals – near a state-controlled road intersection
- Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
- Koala habitat in SEQ region – key resource areas
- Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
- Ports – Brisbane core port land – environmentally relevant activity (ERA)
- Ports – Brisbane core port land – tidal works or work in a coastal management district
- Ports – Brisbane core port land – hazardous chemical facility
- Ports – Brisbane core port land – taking or interfering with water
- Ports – Brisbane core port land – referable dams
- Ports – Brisbane core port land – fisheries
- Ports – Land within Port of Brisbane's port limits (*below high-water mark*)
- SEQ development area
- SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
- SEQ regional landscape and rural production area or SEQ rural living area – community activity
- SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
- SEQ regional landscape and rural production area or SEQ rural living area – urban activity
- SEQ regional landscape and rural production area or SEQ rural living area – combined use
- SEQ northern inter-urban break – tourist activity or sport and recreation activity



Queensland  
Government

- SEQ northern inter-urban break – community activity
- SEQ northern inter-urban break – indoor recreation
- SEQ northern inter-urban break – urban activity
- SEQ northern inter-urban break – combined use
- Tidal works or works in a coastal management district
- Reconfiguring a lot in a coastal management district or for a canal
- Erosion prone area in a coastal management district
- Urban design
- Water-related development – taking or interfering with water
- Water-related development – removing quarry material *(from a watercourse or lake)*
- Water-related development – referable dams
- Water-related development – levees *(category 3 levees only)*
- Wetland protection area

**Matters requiring referral to the local government:**

- Airport land
- Environmentally relevant activities (ERA) *(only if the ERA has been devolved to local government)*
- Heritage places – Local heritage places

**Matters requiring referral to the Chief Executive of the distribution entity or transmission entity:**

- Infrastructure-related referrals – Electricity infrastructure

**Matters requiring referral to:**

- The **Chief Executive of the holder of the licence**, if not an individual
- The **holder of the licence**, if the holder of the licence is an individual
- Infrastructure-related referrals – Oil and gas infrastructure

**Matters requiring referral to the Brisbane City Council:**

- Ports – Brisbane core port land

**Matters requiring referral to the Minister responsible for administering the Transport Infrastructure Act 1994:**

- Ports – Brisbane core port land *(where inconsistent with the Brisbane port LUP for transport reasons)*
- Ports – Strategic port land

**Matters requiring referral to the relevant port operator, if applicant is not port operator:**

- Ports – Land within Port of Brisbane’s port limits *(below high-water mark)*

**Matters requiring referral to the Chief Executive of the relevant port authority:**

- Ports – Land within limits of another port *(below high-water mark)*

**Matters requiring referral to the Gold Coast Waterways Authority:**

- Tidal works or work in a coastal management district *(in Gold Coast waters)*

**Matters requiring referral to the Queensland Fire and Emergency Service:**

- Tidal works or work in a coastal management district *(involving a marina (more than six vessel berths))*

**18) Has any referral agency provided a referral response for this development application?**

- Yes – referral response(s) received and listed below are attached to this development application
- No

Referral requirement	Referral agency	Date of referral response

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application *(if applicable)*.

## PART 6 – INFORMATION REQUEST

### 19) Information request under the DA Rules

- I agree to receive an information request if determined necessary for this development application  
 I do not agree to accept an information request for this development application

**Note:** By not agreeing to accept an information request I, the applicant, acknowledge:

- that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties
- Part 3 under Chapter 1 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules or
- Part 2 under Chapter 2 of the DA Rules will still apply if the application is for state facilitated development

Further advice about information requests is contained in the [DA Forms Guide](#).

## PART 7 – FURTHER DETAILS

### 20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)

- Yes – provide details below or include details in a schedule to this development application  
 No

List of approval/development application references	Reference number	Date	Assessment manager
<input type="checkbox"/> Approval <input type="checkbox"/> Development application			
<input type="checkbox"/> Approval <input type="checkbox"/> Development application			

### 21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)

- Yes – a copy of the receipted QLeave form is attached to this development application  
 No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid  
 Not applicable (e.g. building and construction work is less than \$150,000 excluding GST)

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
\$		

### 22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

- Yes – show cause or enforcement notice is attached  
 No

## 23) Further legislative requirements

### Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

- Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below
- No

**Note:** Application for an environmental authority can be found by searching "ESR/2015/1791" as a search term at [www.qld.gov.au](http://www.qld.gov.au). An ERA requires an environmental authority to operate. See [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information.

Proposed ERA number:		Proposed ERA threshold:	
Proposed ERA name:			

- Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

### Hazardous chemical facilities

23.2) Is this development application for a **hazardous chemical facility**?

- Yes – *Form 536: Notification of a facility exceeding 10% of schedule 15 threshold* is attached to this development application
- No

**Note:** See [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information about hazardous chemical notifications.

### Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

- Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)
- No

**Note:** 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.  
2. See <https://www.qld.gov.au/environment/land/vegetation/applying> for further information on how to obtain a s22A determination.

### Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

- Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter
- No

**Note:** The environmental offset section of the Queensland Government's website can be accessed at [www.qld.gov.au](http://www.qld.gov.au) for further information on environmental offsets.

### Koala habitat in SEQ Region

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

- Yes – the development application involves premises in the koala habitat area in the koala priority area
- Yes – the development application involves premises in the koala habitat area outside the koala priority area
- No

**Note:** If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at [www.desi.qld.gov.au](http://www.desi.qld.gov.au) for further information.



### Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the *Water Act 2000***?

Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development

No

**Note:** Contact the Department of Resources at [www.resources.qld.gov.au](http://www.resources.qld.gov.au) for further information.

DA templates are available from [planning.statedevelopment.qld.gov.au](http://planning.statedevelopment.qld.gov.au). If the development application involves:

- Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1
- Taking or interfering with water in a watercourse, lake or spring: complete DA Form 1 Template 2
- Taking overland flow water: complete DA Form 1 Template 3.

### Waterway barrier works

23.7) Does this application involve **waterway barrier works**?

Yes – the relevant template is completed and attached to this development application

No

DA templates are available from [planning.statedevelopment.qld.gov.au](http://planning.statedevelopment.qld.gov.au). For a development application involving waterway barrier works, complete DA Form 1 Template 4.

### Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants**?

Yes – an associated resource allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

No

**Note:** See guidance materials at [www.daf.qld.gov.au](http://www.daf.qld.gov.au) for further information.

### Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake under the *Water Act 2000***?

Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

No

**Note:** Contact the Department of Resources at [www.resources.qld.gov.au](http://www.resources.qld.gov.au) and [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information.

### Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water under the *Coastal Protection and Management Act 1995***?

Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

No

**Note:** Contact the Department of Environment, Science and Innovation at [www.desi.qld.gov.au](http://www.desi.qld.gov.au) for further information.

### Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the *Water Supply Act*)?

Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the *Water Supply Act* is attached to this development application

No

**Note:** See guidance materials at [www.resources.qld.gov.au](http://www.resources.qld.gov.au) for further information.

### **Tidal work or development within a coastal management district**

23.12) Does this development application involve **tidal work or development in a coastal management district**?

- Yes – the following is included with this development application:
- Evidence the proposal meets the code for assessable development that is prescribed tidal work (*only required if application involves prescribed tidal work*)
  - A certificate of title

No

**Note:** See guidance materials at [www.desi.qld.gov.au](http://www.desi.qld.gov.au) for further information.

### **Queensland and local heritage places**

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

Yes – details of the heritage place are provided in the table below

No

**Note:** See guidance materials at [www.desi.qld.gov.au](http://www.desi.qld.gov.au) for information requirements regarding development of Queensland heritage places. For a heritage place that has cultural heritage significance as a local heritage place and a Queensland heritage place, provisions are in place under the Planning Act 2016 that limit a local categorising instrument from including an assessment benchmark about the effect or impact of, development on the stated cultural heritage significance of that place. See guidance materials at [www.planning.statedevelopment.qld.gov.au](http://www.planning.statedevelopment.qld.gov.au) for information regarding assessment of Queensland heritage places.

Name of the heritage place:

Place ID:

### **Decision under section 62 of the Transport Infrastructure Act 1994**

23.14) Does this development application involve new or changed access to a state-controlled road?

Yes – this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)

No

### **Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation**

23.15) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

Yes – Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

No

**Note:** See guidance materials at [www.planning.statedevelopment.qld.gov.au](http://www.planning.statedevelopment.qld.gov.au) for further information.

## **PART 8 – CHECKLIST AND APPLICANT DECLARATION**

### **24) Development application checklist**

I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17

Yes

**Note:** See the *Planning Regulation 2017* for referral requirements

If building work is associated with the proposed development, Parts 4 to 6 of [DA Form 2 – Building work details](#) have been completed and attached to this development application

Yes

Not applicable

Supporting information addressing any applicable assessment benchmarks is with the development application

**Note:** This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see [DA Forms Guide: Planning Report Template](#).

Yes

Relevant plans of the development are attached to this development application

**Note:** Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).

Yes

The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 21)

Yes

Not applicable



**Queensland  
Government**

### 25) Applicant declaration

- By making this development application, I declare that all information in this development application is true and correct
- Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001*

**Note:** It is unlawful to intentionally provide false or misleading information.

**Privacy** – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.

Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or
- required by other legislation (including the *Right to Information Act 2009*); or
- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

## PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received:  Reference number(s):

### Notification of engagement of alternative assessment manager

Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

### QLeave notification and payment

*Note: For completion by assessment manager if applicable*

Description of the work	
QLeave project number	
Amount paid (\$)	Date paid (dd/mm/yy)
Date receipted form sighted by assessment manager	
Name of officer who sighted the form	

MP ref: M2349  
QA: hw.ms

18 October 2024


Assessment Manager  
Townsville City Council  
PO Box 1268  
TOWNSVILLE QLD 4810

**Attention: Planning and Development**

Dear Sir/ Madam,

**Re: Land Owner Consent**

Under the provisions of the *Planning Act 2016*, we **RED BULL INVESTMENTS PTY LTD (TTE)**, being the registered owner of land described as **LOT 4 ON RP901581** and **Lot 5 on SP221657** and located at **39-45 CROCODILE CRESCENT, MOUNT ST JOHN**, do hereby authorise and confirm the engagement and appointment of Milford Planning to act on our behalf with respect to the procurement of all development approvals for the aforementioned land.

<b>Date</b>	24 <sup>th</sup>	Oct	2024
	Day	Month	Year
<b>Signature</b>			
<b>Name</b>	Justin Pascoe		
<b>Position</b>	Director		

**Note**

Where registered owner is a company the ACN must be included and accompanied by:

- (a) the signature of either:
  - two directors of the company;
  - a director and a company secretary of the company; or
  - if a proprietary company that has a sole director who is also the sole company secretary, that director; or
- (b) the company seal (if the company has a common seal) witnessed by:
  - two directors of the company;
  - a director and a company secretary of the company; or
  - for a proprietary company that has a sole director who is also the sole company secretary, that director.



1 November 2024

Assessment Manager  
Townsville City Council  
PO Box 1268  
TOWNSVILLE QLD 4810

**Attention: Planning and Development**

Dear Sir/ Madam,


**Re: Land Owner Consent**

Under the provisions of the *Planning Act 2016*, we **TOWNSVILLE CITY COUNCIL**, being the registered owner of land described as **LOT 102 ON RP901581** and located at **INGHAM ROAD, MOUNT ST JOHN**, do hereby provide consent for Milford Planning to lodge a development application for material change of use including access over the aforementioned land.

Council's consent relates only to the requirements under the *Planning Act 2016* for lodging with the assessment manager and is a completely separate process to assessment of the application under the *Planning Act 2016*.

Owner's consent has no influence or impact on the assessment and decision making process or Council's role as an assessment manager of the development application. Providing owner's consent will not influence any statutory role the council may have in this assessment.

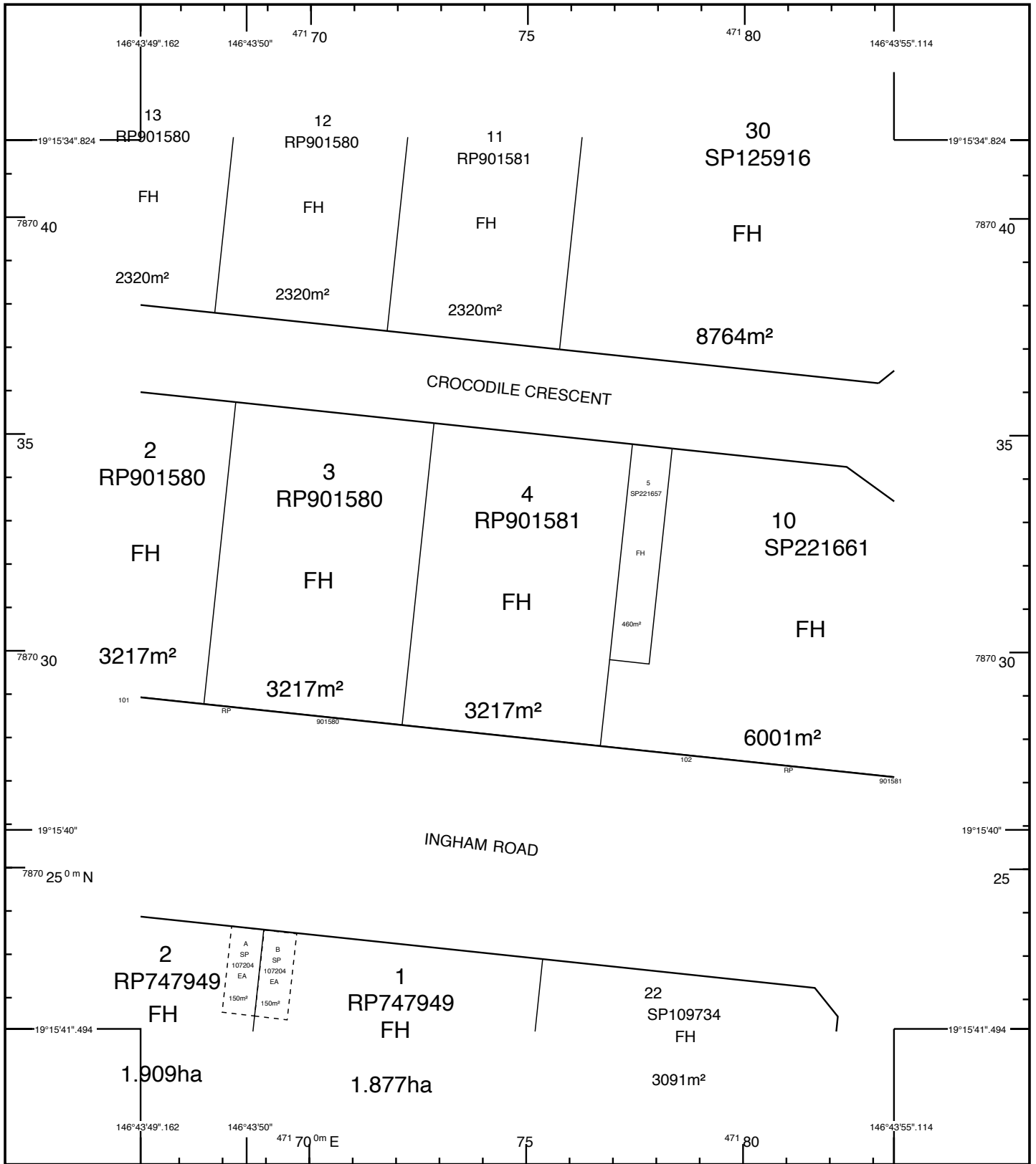
The application will be assessed and decided in accordance with the relevant assessment benchmarks prescribed by the *Planning Act 2016*.

<b>Date</b>	12	November	2024
	<b>Day</b>	<b>Month</b>	<b>Year</b>
<b>Signature</b>			
<b>Name</b>	Paul Needham		
<b>Position</b>	Chief Planning & Development Officer		

---

# Appendix 2

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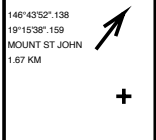
STANDARD MAP NUMBER  
8259-31114



**SmartMap**

An External Product of  
SmartMap Information Services  
Based upon an extraction from the  
Digital Cadastral Data Base

MAP WINDOW POSITION &  
NEAREST LOCATION



**SUBJECT PARCEL DESCRIPTION**

DCDB	
Lot/Plan	4/RP901581
Area/Volume	3217m <sup>2</sup>
Tenure	FREEHOLD
Local Government	TOWNSVILLE CITY
Locality	MOUNT ST JOHN
Segment/Parcel	62451/37

**CLIENT SERVICE STANDARDS**

PRINTED	16/10/2024
DCDB	15/10/2024
Users of the information recorded in this document (the Information) accept all responsibility and risk associated with the use of the Information and should seek independent professional advice in relation to dealings with property.	
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For further information on SmartMap products visit <a href="https://www.qld.gov.au/housing/buying-owning-home/property-land-valuations/smartmaps">https://www.qld.gov.au/housing/buying-owning-home/property-land-valuations/smartmaps</a>	



**Queensland Government**  
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**Drawing**  
Site Aerial

**Property**  
39-45 Crocodile Crescent, Mount St John  
Lot 4 on RP901581; and  
Lot 5 on SP221657.

Drawing Number	Issue	Sheet
M2349-SK-01	A	1
Date	Author	Reviewer
16.10.24	HW	MS

**Legend**

- Cadastre
- Subject Site



CROCODILE CRESCENT

INGHAM ROAD

LOT 2  
RP901580

LOT 3  
RP901580

LOT 4  
RP901581

LOT 5  
SP221657

LOT 10  
SP221661

**Scale** (A3 Original)  
1:500



**Sources**  
Milford Planning GIS (2024)  
DCDB extract - State of Queensland (2024)  
Aerial imagery - Bing (2024)

**Disclaimer**  
Areas and dimensions are approximate only  
and are subject to site survey.



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# Appendix 3

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# State Assessment and Referral Agency

Date: 16/10/2024

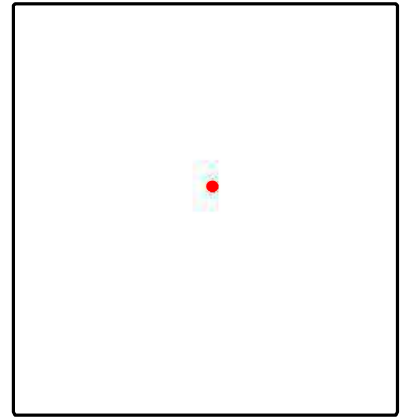


Queensland Government

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## Matters of Interest for all selected Lot Plans

*Coastal area - medium storm tide inundation area*

## Matters of Interest by Lot Plan

**Lot Plan: 4RP901581 (Area: 3217 m<sup>2</sup>)**

*Coastal area - medium storm tide inundation area*

**Lot Plan: 5SP221657 (Area: 460 m<sup>2</sup>)**

*Coastal area - medium storm tide inundation area*



## State Assessment and Referral Agency

Date: 16/10/2024




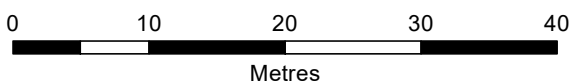
Queensland Government

© The State of Queensland 2024.

### Legend

Coastal area - medium storm tide inundation area

 Coastal area - medium storm tide inundation area



**Disclaimer:**

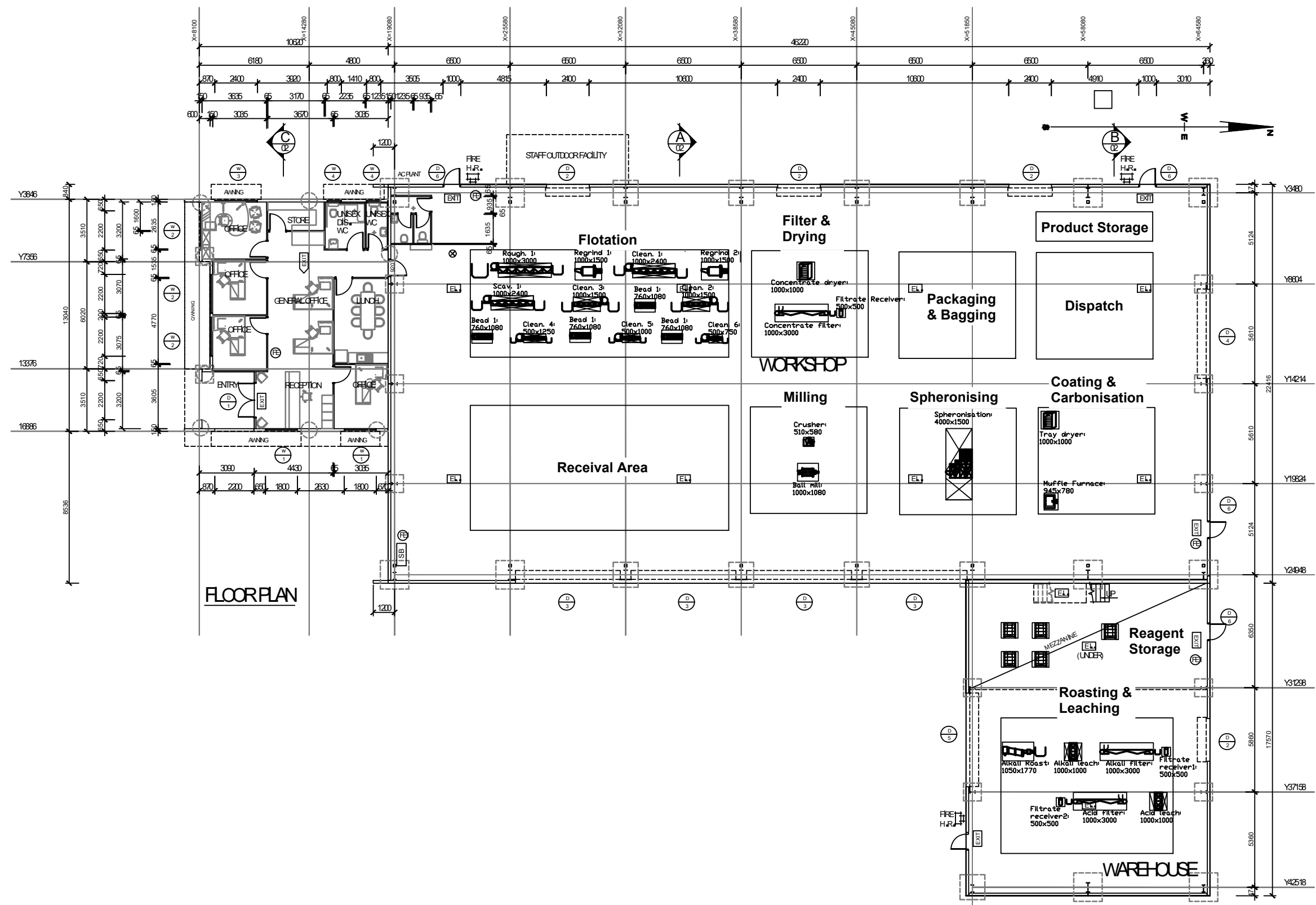
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# Appendix 4

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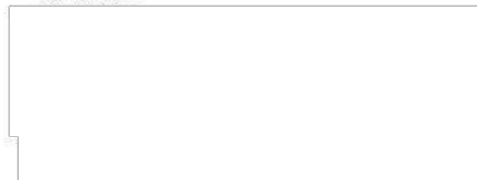


FLOOR PLAN

FLOOR PLAN  
17-10-2024

### LOCALITY PLAN

NOT TO SCALE

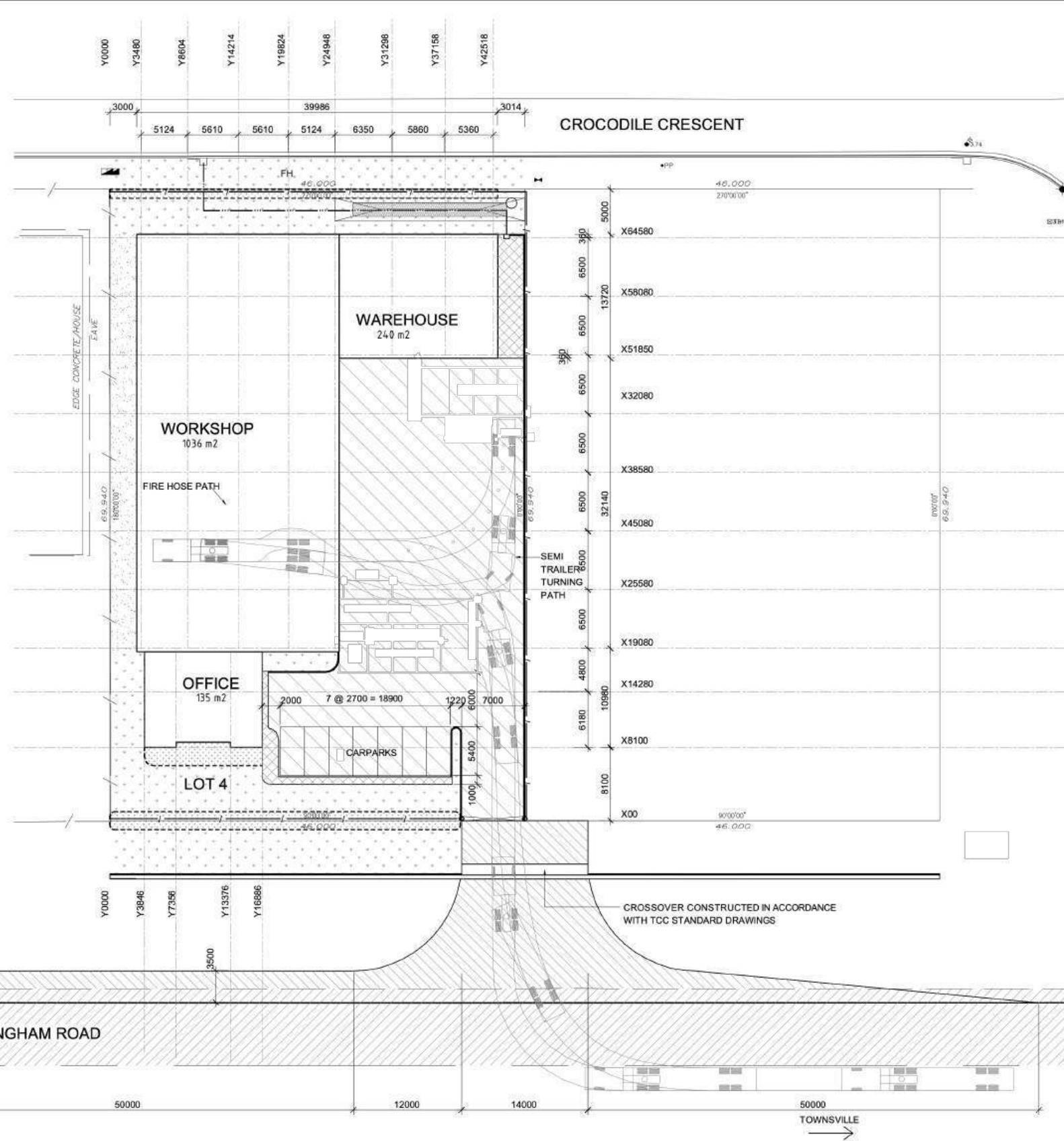


- 150mm N25 CONCRETE 1074 sq.m.  
SL 82 MESH 40 TOP COVER
- TURF 505 sq.m  
TURF FOOTPATH 227 sq.m.
- MULCHED GARDEN BED 505 sq.m  
MULCHED GARDEN BED FOOTPATH 227 sq.m.
- 100mm N25 CONCRETE 88 sq.m  
SL 72 MESH CENTRAL
- HARDSTAND 139sq.m  
100mm GRAVEL TYPE 2.4
- SWALE DRAIN
- BUILDING FOOTPRINT 1411 sq.m
- SITE AREA 3217 sq.m

EXIST EDGE LINE  
EXISTING EDGE OF BITUMEN

### SITE PLAN

**PROPERTY DESCRIPTION**  
Lot 4 on RP901581  
Parish of Coonambelah  
County of Elphinstone  
Site Area 3217 sq.m.



CROSSOVER CONSTRUCTED IN ACCORDANCE WITH TCC STANDARD DRAWINGS

No.	Amendment	Date
D	SWALE DRAIN ADDED	27.10.06
C	TITLE AMENDED	12.10.06
B	FOR DEVELOPMENT APPROVAL	04.07.06
A	FOR CLIENT APPROVAL	30.10.05

NOTES:-

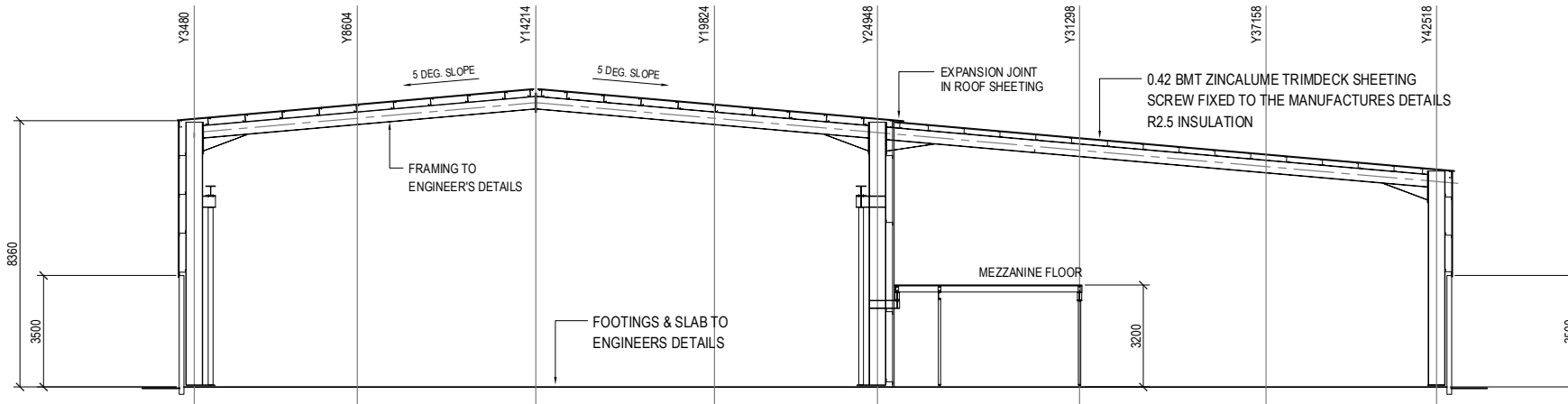
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1. Dimensions are in millimetres unless otherwise noted. 3.0/0.1  
2. Figured dimensions take precedence over scale dimension.  
3. Verify all dimensions and levels prior to the start of work.  
4. All work is to be in accordance with the 1991 Building Act Amendment Act, The Local Authority By-Laws, The current Australian Standards and The Manufacturer's Specification.  
5. Confirm the location of underground services prior to the start of work.



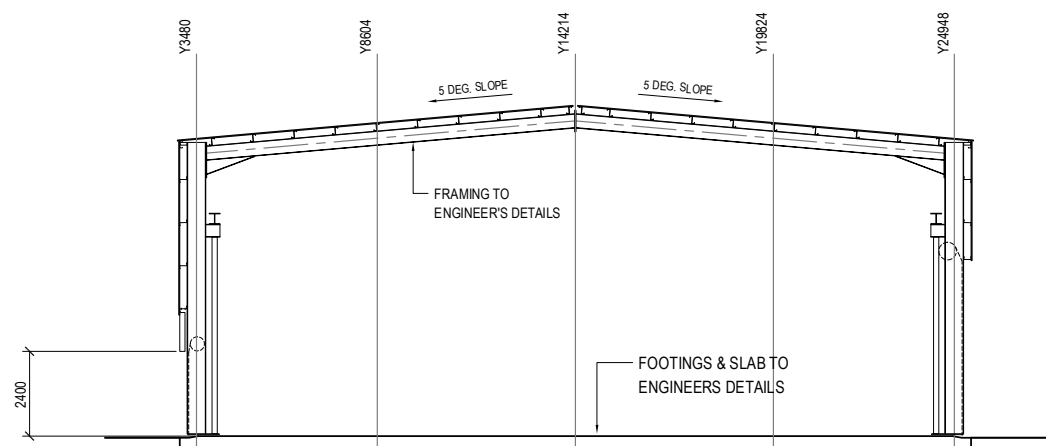
**BILL BARBER DESIGN & DRAFTING**  
W.L. Barber Lic. No. 65808 expires Jun 2005  
Lic. under QBSA Act 1191  
Building Design - Medium Rise  
262 HUGH STREET, GULLIVER, TOWNSVILLE 4812  
Phone (07) 4728 8879 Fax (07) 4728 8974

DESIGNED	CHECKED
W.L.B.	
DRAWN	APPROVED
DB	
HT. DATUM	DATE
	14.04.05
AZIMUTH	DISK FILE

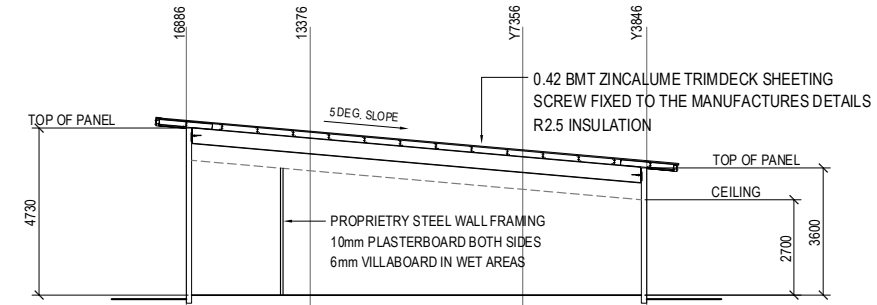
JUSTIN PASCOE  
**WORKSHOP, WAREHOUSE AND OFFICE**  
**35-45 CROCODILE CRESCENT**  
**BOHLE**  
SCALE:- 1:250 @ A1  
**PA4011C/01D**



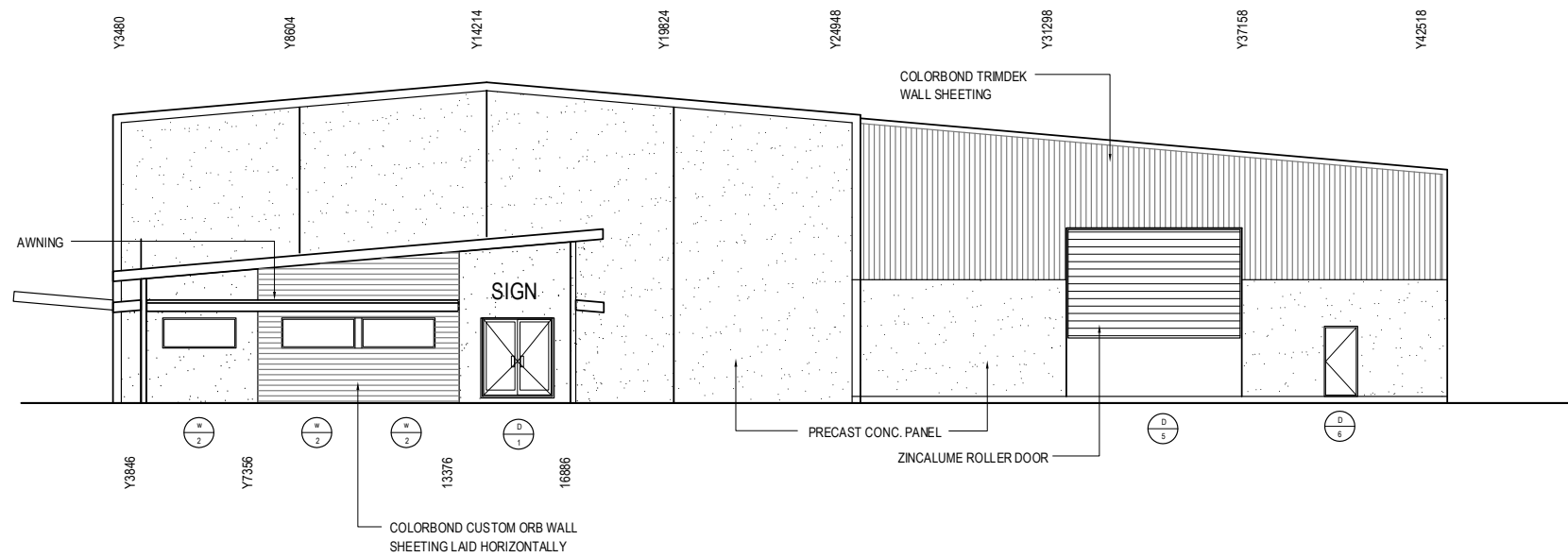
SECTION B  
01



SECTION A  
01



SECTION C  
01



SOUTHERN ELEVATION

NOTES:

No.	Amendment	Date
D	FOR DEVELOPMENT APPROVAL	04.07.06
C	AMENDED FOR PRECAST PANELS	06.04.06
B	FOR CONSTRUCTION	09.01.06
A	FOR CLIENT APPROVAL	30.10.05

GENERAL NOTES:

1. Dimensions are in millimetres unless otherwise noted. (U.O.N.)
2. Figured dimensions take precedence over scale dimensions.
3. Verify all dimensions and levels prior to the start of work.
4. All work is to be in accordance with the 1991 Building Act Amendment Act, The Local Authority By-Laws, The current Australian Standards and The Manufacturers' Specification.
5. Confirm the location of underground services prior to the start of work.

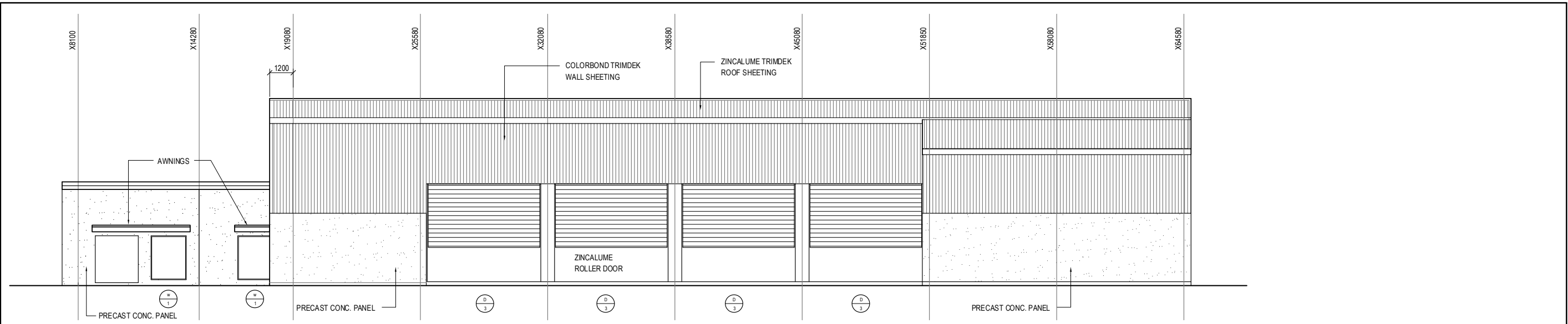


**BILL BARBER  
DESIGN & DRAFTING**

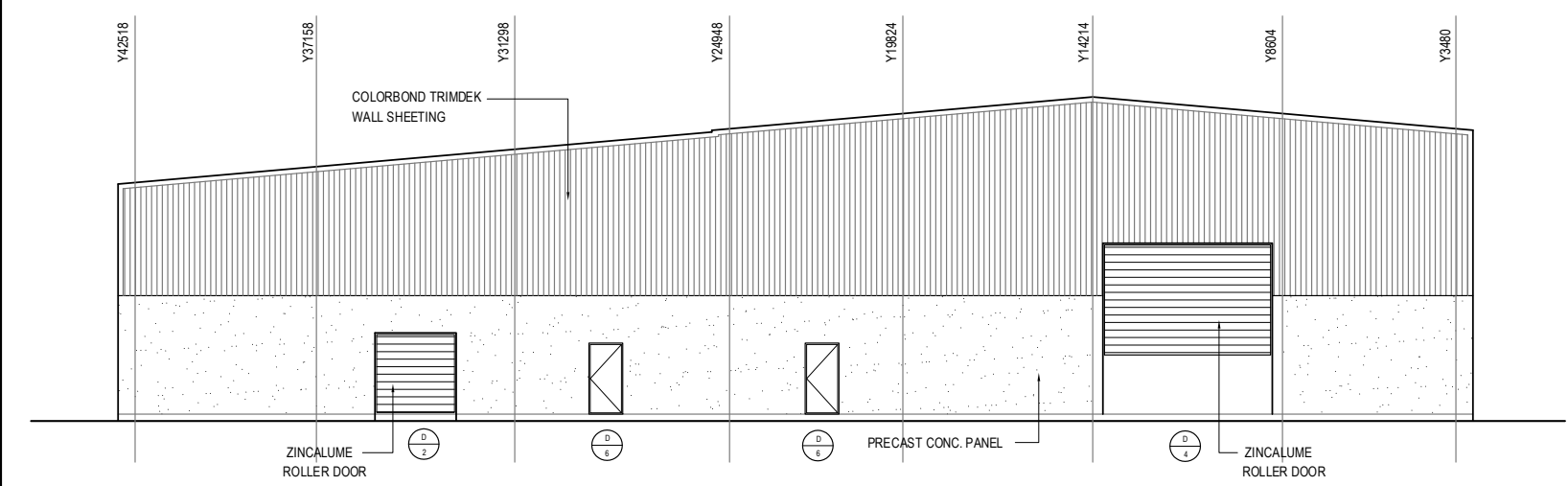
W.L. Barber Lic. No. 65800 expires Jun 2005  
Lic. under QB-SA Act 1991  
Building Design - Medium Rise  
**262 HUGH STREET,  
GULLIVER, TOWNSVILLE. 4812**  
Phone (07) 4728 6679 Fax (07) 4728 6974

DESIGNED W.L.B.	CHECKED JUSTIN PASCOE
DRAWN DB	APPROVED JUSTIN PASCOE
HT. DATUM	DATE 14.04.06
AZIMUTH	DISK FILE

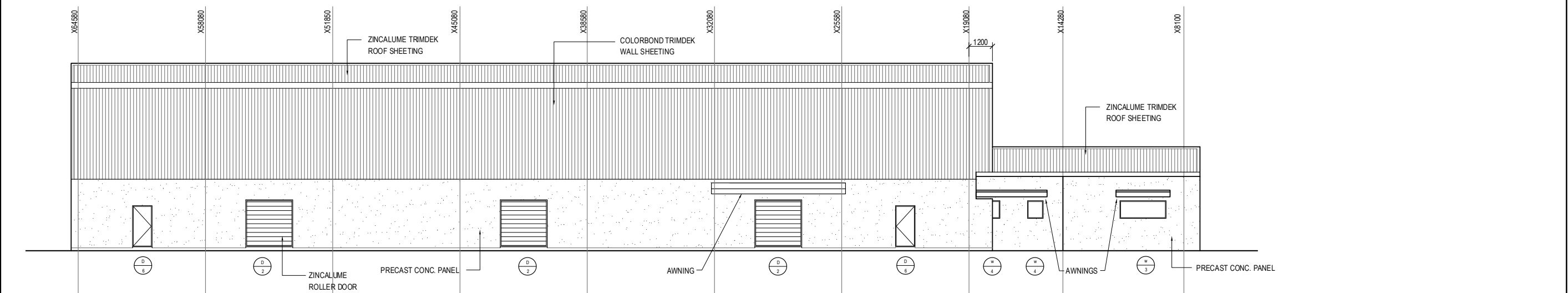
SCALE:-	1:100 @ A1	PA4011A/02D
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**EASTERN ELEVATION**



**NORTHERN ELEVATION**



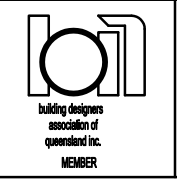
**WESTERN ELEVATION**

No.	Amendment	Date
D	FOR DEVELOPMENT APPROVAL	04.07.06
C	AMENDED FOR PRECAST PANELS	06.04.06
B	FOR CONSTRUCTION	09.01.06
A	FOR CLIENT APPROVAL	30.10.05

**NOTES:**

**GENERAL NOTES:**

- Dimensions are in millimetres unless otherwise noted. (U.O.N.)
- Figured dimensions take precedence over scale dimensions.
- Verify all dimensions and levels prior to the start of work.
- All work is to be in accordance with the 1997 Building Act Amendment Act, The Local Authority By-Laws, The current Australian Standards and The Manufacturers' Specification.
- Confirm the location of underground services prior to the start of work.



**BILL BARBER DESIGN & DRAFTING**  
 W.L. Barber Lic. No. 65800 expires Jun 2005  
 Lic. under QB SA Act 1991  
 Building Design - Medium Rise  
**262 HUGH STREET, GULLIVER, TOWNSVILLE. 4812**  
 Phone (07) 4728 6679 Fax (07) 4728 6974

DESIGNED	CHECKED
W.L.B.	JUSTIN PASCOE
DRAWN	APPROVED
DB	JUSTIN PASCOE
HT. DATUM	DATE
	14.04.06
AZIMUTH	DISK FILE
	PA4011A/03D

SCALE:- 1:100 @ A1

# Appendix 5

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Item	Hazards	Prevention Statements	Emergency Procedures
<b>Sulphuric acid (H<sub>2</sub>SO<sub>4</sub>)</b>	<ul style="list-style-type: none"> <li>• Skin/eye corrosion/irritation, may cause severe skin burns and eye damage</li> <li>• Respiratory irritation if inhaled, may cause cancer by inhalation</li> <li>• May be corrosive to metals</li> <li>• Can fume when in high concentrations.</li> <li>• Elevated temperature accelerating burns.</li> </ul>	<ul style="list-style-type: none"> <li>• Sulphuric acid is stored and locked in self-bunded IBCs as containment precaution in event of leak. The bunding can catch 100% of the volume of the IBC.</li> <li>• Areas where sulphuric acid are used will include containment bunding.</li> <li>• Wetted parts are chemically resistant to minimize corrosion and contamination.</li> <li>• Vessels and pipes are sealed.</li> <li>• Entering reagents storage area requires PPE: monogoggles, PVC or nitrile gloves.</li> <li>• Use protective gloves, clothing, eye protection in case manual handling is required. Wash face, hands and any exposed skin thoroughly after handling.</li> <li>• Isolation procedures including method of verifying isolation will be documented and communicated (embedded in training) to facilitate safe access to parts of the plan requiring adjustment or maintenance.</li> </ul>	<ul style="list-style-type: none"> <li>• In case of an any incident, call a poison center or doctor/physician.</li> <li>• In case of contact with skin take off contaminated clothing. Wash skin immediately with shower for at least 15 minutes. Wash contaminated clothing before reuse.</li> <li>• Contact with eye, rinse immediately with eye-washing station for at least 15 minutes, also under eyelid. Remove contact lenses if present. Continue rinsing. Seek immediate medical assistance.</li> <li>• Ingestion by swallowing, rinse mouth. DO NOT induce vomiting. Never give anything by mouth to unconscious person.</li> <li>• In case of inhalation, move to fresh air and keep at rest in position comfortable for breathing. Seek immediate medical assistance. If breathing is difficult, give oxygen. Do not use mouth-to-mouth if victim ingested or inhaled substance. Use a pocket mask equipped with a one-way valve or other proper respiratory medical apparatus.</li> <li>• In case of spillage, neutralize and absorb to prevent material damage. Full PPE is required when dealing with sulphuric acid clean-ups.</li> <li>• Emergency STOP buttons outside the reagent storage area will be installed to ensure safe and swift shutdown of the equipment.</li> </ul>
<b>Caustic soda (NaOH)</b>	<ul style="list-style-type: none"> <li>• Skin/eye corrosion/irritation, may cause severe skin burns and eye damage</li> <li>• Respiratory irritation if inhaled, may cause cancer by inhalation</li> <li>• May be corrosive to metals</li> </ul>	<ul style="list-style-type: none"> <li>• Caustic soda is stored and locked in self-bunded IBCs as containment precaution in event of leak. The bunding can catch 100% of the volume of the IBC.</li> <li>• Areas where caustic soda are used will include containment bunding.</li> <li>• Do not breath mist, ensure good ventilation in reagent storage room.</li> <li>• Store sodium hydroxide solution locked up in tightly closed corrosion resistant container.</li> </ul>	<ul style="list-style-type: none"> <li>• In case of an any incident, call a poison center or doctor/physician.</li> <li>• In case of contact with skin take off contaminated clothing. Wash skin immediately with shower for at least 15 minutes. Wash contaminated clothing before reuse.</li> <li>• Contact with eye, rinse immediately with eye-washing station for at least 15 minutes, also under eyelid. Remove contact lenses if present. Continue rinsing. Seek immediate medical assistance.</li> <li>• Ingestion by swallowing, rinse mouth. DO NOT induce vomiting. Never give anything by mouth to unconscious person.</li> </ul>

# Risk/Hazard Management Measures

# Esmeralda Graphite

		<ul style="list-style-type: none"> <li>• Anhydrous sodium hydroxide may be used and mixed onsite. Store dry, using protective equipment.</li> <li>• Use protective gloves, clothing, eye protection in case manual handling is required. Wash face, hands and any exposed skin thoroughly after handling.</li> </ul>	<ul style="list-style-type: none"> <li>• In case of inhalation, move to fresh air and keep at rest in position comfortable for breathing. Seek immediate medical assistance. If breathing is difficult, give oxygen. Do not use mouth-to-mouth if victim ingested or inhaled substance. Use a pocket mask equipped with a one-way valve or other proper respiratory medical apparatus.</li> <li>• In case of spillage, neutralize and absorb to prevent material damage. Full PPE is required when dealing with caustic soda clean-ups.</li> <li>• Emergency STOP buttons outside the reagent storage area will be installed to ensure safe and swift shutdown of the equipment.</li> </ul>
<p><b>Pitch (Petroleum pitch)</b></p>	<ul style="list-style-type: none"> <li>• Skin/eye corrosion/irritation, may cause severe skin irritation, burning, itching and changes to pigmentation. Can cause severe irritation and damage to eyes.</li> <li>• Respiratory irritation possible if vapors or dust inhaled.</li> <li>• May cause cancer</li> <li>• May cause genetic defects</li> <li>• Suspected of damaging fertility and fetuses.</li> </ul>	<ul style="list-style-type: none"> <li>• Stored in a cool, well-ventilated reagent storage.</li> <li>• Store dry.</li> <li>• Do not breath dust, fumes, gas, mist, vapors, ensure good ventilation in reagent storage room.</li> <li>• Use protective gloves, clothing, eye protection in case manual handling is required. Wash face, hands and any exposed skin thoroughly after handling.</li> <li>• Do not take contaminated clothing out of the workplace.</li> </ul>	<ul style="list-style-type: none"> <li>• In case of contact with skin take off contaminated clothing. Wash skin twice with mild detergent. waterless hand cleaner, or soap and water. Exposed area should be examined by medical personnel if irritation or pain persists. Do not use solvents on skin as that may promote absorption. Seek immediate medical assistance.</li> <li>• Contact with eye, rinse immediately with eye-washing station for at least 15 minutes, occasionally lift eyelid. Seek immediate medical assistance.</li> <li>• In case of an any incident, call a poison center or doctor/physician.</li> <li>• In case of inhalation, move to fresh air and keep at rest in position comfortable for breathing. Seek immediate medical assistance. If breathing is shallow, give oxygen. If breathing has stopped give artificial respiration. Keep affected person warm and at rest.</li> <li>• Thermal exposure, contact with molten pitch causes serious burns. For contact with molten pitch, do not remove contaminated clothing. Flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. Pack affected area with ice and get medical assistance immediately.</li> <li>• Containment procedures:             <ul style="list-style-type: none"> <li>○ Solid pitch spill; shovel spilled material into disposal containers.</li> </ul> </li> </ul>

			<ul style="list-style-type: none"> <li>○ Liquid pitch spill; absorb material using inert solids (earth, sand, etc.). Allow for cooling and shovel cooled pitch in disposal container.</li> <li>● Clean-up procedures &amp; equipment:             <ul style="list-style-type: none"> <li>○ Protective PPE required.</li> <li>○ Remove all ignition sources.</li> <li>○ Ventilate area of spill</li> </ul> </li> </ul>
<p><b>Sodium Silicate (Na<sub>2</sub>SiO<sub>3</sub>)</b></p>	<ul style="list-style-type: none"> <li>● Skin/eye corrosion/irritation, may cause severe skin irritation, burning. Skin inflammation is characterised by itching, scaling, reddening or blistering. Can cause severe irritation and damage to eyes. Eye may become red, watery and itchy.</li> <li>● Respiratory irritation possible if vapors or mist inhaled. This may be characterised by coughing, choking, shortness of breath.</li> <li>● Liquid or spray mist may produce tissue damage on mucous membranes of eyes, mouth and respiratory tract.</li> </ul>	<ul style="list-style-type: none"> <li>● Do not breath dust, fumes, gas, mist, vapors, ensure good ventilation in reagent storage room.</li> <li>● In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible.</li> <li>● Avoid contact with skin and eyes.</li> <li>● Keep away from incompatibles such as oxidizing agents, acids.</li> <li>● PPE includes face shield, full suit, vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves and boots.</li> </ul>	<ul style="list-style-type: none"> <li>● Contact with eye, rinse immediately with eye-washing station for at least 15 minutes, occasionally lift eyelid. Seek immediate medical assistance. Do not use an eye ointment.</li> <li>● In case of contact with skin take off contaminated clothing. Wash skin immediately with deluge shower. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, cervices, creases and groin. Wash contaminated clothing before reuse.</li> <li>● If inhaled, remove victim to area with fresh air and keep at rest in comfortable position for breathing.</li> <li>● Ingestion by swallowing, rinse mouth. DO NOT induce vomiting. Never give anything by mouth to unconscious person. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical assistance.</li> <li>● In event of small spill, dilute with water and mop up or absorb with inert dry material, dispose of in appropriate waste container.</li> <li>● In event of large spill, stop leak if possible. Absorb with dry earth, sand or other non-combustible material. Do not use water. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.</li> </ul>



# Risk/Hazard Management Measures

# Esmeralda Graphite

<p><b>Electricity</b></p>	<ul style="list-style-type: none"> <li>• Electrocution</li> <li>• Burns</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure electrical supply is earthed and designed to provide energy in the electrochemical process only in a safe manner (designed to comply with AS3000 wiring regulations).</li> <li>• Overload circuits exist to prevent an unsafe condition from occurring.</li> <li>• Maintenance procedures to safely isolate key equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure plant is shut down from electrical source. Remove them from the hazard area.</li> <li>• If anyone is affected by an electroshock, perform first aid:             <ul style="list-style-type: none"> <li>○ Monitor pulse and breathing. Perform CPR if required.</li> <li>○ Treat the burns (cover with gauze).</li> <li>○ If person is nauseous, elevate legs if able to without pain.</li> </ul> </li> </ul>
<p><b>Noise</b></p>	<ul style="list-style-type: none"> <li>• Prolonged exposure to loud noise can lead to permanent hearing loss or tinnitus (ringing in the ears).</li> <li>• Constant noise can cause psychological stress and fatigue, reducing overall productivity.</li> <li>• High noise levels can interfere with communication, leading to misunderstandings and accidents.</li> <li>• Long-term exposure to noise can contribute to cardiovascular problems such as hypertension.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure all plant equipment is rated in accordance with occupational health and safety exposure limits.</li> <li>• Select machinery and tools that produce less noise where possible.</li> <li>• Implement noise barriers, silencers, and vibration dampers to reduce noise at the source.</li> <li>• Limit the time workers spend in noisy areas and rotate tasks to minimize exposure.</li> <li>• Provide earplugs or earmuffs to workers in high-noise environments.</li> <li>• Ensure machinery and equipment are well-maintained to prevent increased noise levels due to wear and tear.</li> </ul>	<ul style="list-style-type: none"> <li>• If someone shows signs of hearing damage, seek medical attention.</li> <li>• Move the affected person to a quieter area and provide hearing protection if necessary.</li> <li>• Regularly train workers on noise hazards, prevention strategies, and emergency procedures.</li> </ul>
<p><b>Dust</b></p>	<ul style="list-style-type: none"> <li>• Inhalation of dust can cause respiratory problems such as asthma, bronchitis, and chronic obstructive pulmonary disease.</li> <li>• Prolonged exposure to certain types of dust, like silica or asbestos, can lead to serious lung diseases such as silicosis, asbestosis, and lung cancer.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement dust collection and extraction systems where manual handling occurs to capture dust at the source.</li> <li>• Ensure adequate ventilation to reduce dust concentration in the air.</li> <li>• Use wet milling or wet suppression methods to minimize dust generation if possible.</li> <li>• Provide appropriate PPE such as masks, respirators, and protective clothing to workers.</li> </ul>	<ul style="list-style-type: none"> <li>• When someone is exposed to a high concentration of dust, move them to a well-ventilated area and seek medical attention if necessary.</li> <li>• Provide first aid for any skin or eye irritation caused by dust exposure.</li> </ul>

	<ul style="list-style-type: none"> <li>• Dust can cause skin rashes and eye irritation.</li> <li>• Certain types of dust, like graphite dust mixtures in air, can be explosive when ignited.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain a regular cleaning schedule to remove dust from surfaces and equipment.</li> </ul>	
<p><b>Hot work / hot surfaces</b></p>	<ul style="list-style-type: none"> <li>• Direct contact with hot surfaces can cause severe burns to the skin.</li> <li>• Sparks and molten material from hot surfaces can ignite flammable materials nearby.</li> <li>• Heat stress. Working in extreme heat for prolonged periods of time can cause the body to overheat, causing heat related illness such as heat stroke and heat exhaustion.</li> </ul>	<ul style="list-style-type: none"> <li>• Holistic handling procedures will be developed.</li> <li>• Regularly train workers on hot work safety practices and emergency procedures</li> <li>• Wear appropriate personal protective equipment (PPE) such as gloves, face shields, and flame-resistant clothing</li> <li>• Ensure proper ventilation to disperse fumes and gases.</li> <li>• Keep fire extinguishers, fire blankets, and other firefighting equipment readily available.</li> </ul>	<ul style="list-style-type: none"> <li>• Call emergency medical services immediately if someone is injured.</li> <li>• While waiting for help, raise the burned area above the heart and ensure no clothing is stuck to the injury</li> <li>• Have fire extinguishing equipment on hand and monitor the area for at least 30 minutes after completing hot work to ensure there is no risk of fire.</li> <li>• Plan and practice evacuation procedures regularly to ensure everyone knows how to respond in an emergency</li> </ul>