



LATROBE CITY COUNCIL

**AGENDA FOR THE
SPECIAL COUNCIL MEETING**

**TO BE HELD VIA AUDIO-VISUAL LINK
AT 6PM ON
17 SEPTEMBER 2020**

SM554

Please note:

Pursuant to s66(2)(b) and s66(2)(c), this Council Meeting will not be open to the public to attend in person. Instead participation may occur by video link and the Meeting may be viewed live on the internet from Council's website or Facebook page.

Opinions expressed or statements made by participants are the opinions or statements of those individuals and do not imply any form of endorsement by Council.

By attending a Council Meeting via audio-visual link those present will be recorded or their image captured. When participating in the meeting, consent is automatically given for those participating to be recorded and have images captured.

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COUNCILLOR AND PUBLIC ATTENDANCE

PLEASE NOTE

THE VICTORIAN GOVERNMENT'S COVID-19 OMNIBUS (EMERGENCY MEASURES) ACT 2020 HAS INTRODUCED INTO THE LOCAL GOVERNMENT ACT 2020 NEW MECHANISMS THAT ALLOW FOR VIRTUAL COUNCIL MEETINGS TO ENSURE LOCAL GOVERNMENT DECISION-MAKING CAN CONTINUE DURING THE CORONAVIRUS PANDEMIC.

PURSUANT TO SECTION 394 OF THE COVID-19 OMNIBUS (EMERGENCY MEASURES) ACT 2020, A COUNCILLOR MAY ATTEND THIS COUNCIL MEETING REMOTELY BY ELECTRONIC MEANS OF COMMUNICATION; AND

PURSUANT TO SECTION 395 COVID-19 OMNIBUS (EMERGENCY MEASURES) ACT 2020 THIS COUNCIL MEETING MAY BE CLOSED TO THE ATTENDANCE BY MEMBERS OF THE PUBLIC BY MAKING AVAILABLE ACCESS TO A LIVE STREAM OF THE MEETING ON THE COUNCIL'S INTERNET SITE.

1. OPENING PRAYER

Our Father who art in Heaven, hallowed be thy name. Thy kingdom come, thy will be done on earth as it is in Heaven. Give us this day our daily bread, and forgive us our trespasses, as we forgive those who trespass against us, and lead us not into temptation but deliver us from evil. For the kingdom, the power, and the glory are yours now and forever. Amen.

2. ACKNOWLEDGEMENT OF THE TRADITIONAL OWNERS OF THE LAND

I would like to acknowledge that we are meeting here today on the traditional land of the Braiakaulung people of the Gunaikurnai nation and I pay respect to their elders past and present.

If there are other Elders present I would also like to acknowledge them.

3. APOLOGIES AND LEAVE OF ABSENCE

4. DECLARATION OF INTERESTS

5. PUBLIC PARTICIPATION TIME

Attend as an observer

The Victorian Government's COVID-19 Omnibus (Emergency Measures) Act 2020 has introduced into the Local Government Act 2020 new mechanisms that allow for virtual Council Meetings and allow for Council Meetings to be closed to the public.

The safety of Councillors, Council staff and our community is at the forefront of our decisions therefore this Meeting will be closed to physical participation by members of the public. To meet our legislated obligations and in the spirit of open, accessible and transparent governance, this Council Meeting is livestreamed and can be viewed by using the link on Council's website or Facebook page.

Public Speakers

An opportunity for members of the public to speak to an item on the agenda will be made available by necessary means. To participate, members of the public must have registered before 12noon on the day of the Council meeting.

REGIONAL CITY GROWTH AND INVESTMENT

6. REGIONAL CITY GROWTH AND INVESTMENT

Agenda Item: 6.1

Agenda Item: Use and development of land for an industry (used lead and acid battery recycling facility), reduction in car parking and bicycle space requirements at Fourth Road, Hazelwood North

Sponsor: General Manager, Regional City Growth and Investment

Council Plan Objective: Support job creation and industry diversification to enable economic growth in Latrobe City.

Status: For Decision

Proposed Resolution:

That Council:

Issues a Planning Permit for the use and development of land for an industry (used lead and acid battery recycling facility), reduction in car parking and bicycle space requirements at Fourth Road, Hazelwood North (CA 2047), with the following conditions:

Endorsed Plans Condition:

1. The use and development as shown on the endorsed plans must not be altered without the written consent of the Responsible Authority.

Development Conditions:

2. Once building works have commenced they must be completed to the satisfaction of the Responsible Authority.
3. All buildings and works must be maintained in good order and appearance to the satisfaction of the Responsible Authority.
4. Upon completion of the works, the site must be cleared of all excess and unused building materials and debris to the satisfaction of the Responsible Authority.
5. The use and development of the land must be in accordance with Works Approval No. 232330 issued by EPA on 31 August 2020.

Landscaping Conditions:

6. Before the development starts, and before any trees or vegetation are removed, a landscape plan to the satisfaction of the Responsible

Authority must be submitted to and approved by the Responsible Authority. The landscape plan must be generally in accordance with the landscape plan submitted with the application but modified to show:

- a) a planting schedule of all proposed vegetation (trees, shrubs and ground covers) which includes: botanical names, common names, pot size, mature size and total quantities of each plant;**
- b) the use of drought tolerant species;**
- c) features such as paths, paving and accessways;**
- d) the use of non-invasive plant species within any easements which will ensure that existing infrastructure assets are not damaged by root systems; and**
- e) an appropriate irrigation system.**

When approved, the landscape plan will be endorsed and will form part of the permit.

- 7. Before the use starts or the occupancy of the development or by such later date as is approved by the Responsible Authority in writing, the landscaping works shown on the endorsed plans must be carried out and completed to the satisfaction of the Responsible Authority.**
- 8. The landscaping shown on the endorsed plans must be maintained to the satisfaction of the Responsible Authority, including that any dead, diseased or damaged plants are to be replaced.**

Statement of Environmental Audit Condition:

- 9. The use and development, and buildings and works that are subject to this permit must strictly comply with all directions, conditions, requirements and recommendations contained within the Statement of Environmental Audit issued for the land.**

Amenity Conditions:

- 10. The use and development must be managed so that the amenity of the area is not detrimentally affected, through the:**
 - a) transport of materials, goods or commodities to or from the land;**
 - b) appearance of any building, works or materials;**
 - c) emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil;**
 - d) presence of vermin;**

or otherwise, to the satisfaction of the Responsible Authority.

11. Noise levels emanating from the premises must not exceed those required to be met under State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade), No. N-1.
12. Any external lighting must be designed, baffled and located so as to prevent any adverse effect on adjoining land to the satisfaction of the Responsible Authority.
13. No fewer than 54 car space(s) must be provided on the land for the use and development, including 4 spaces clearly marked for use by disabled persons.
14. The bicycle spaces shown on the endorsed plans must be provided and then maintained to the satisfaction of the Responsible Authority. No less than 10 spaces must be made available for staff and visitors.
15. No external storage of any materials is allowed to occur on the site, including but not limited to intermediate and finished product, solid and liquid wastes and decommissioned or out-of-service process equipment.

Decommissioning Conditions:

16. Once the ULAB recycling facility permanently ceases operation, the Responsible Authority must be notified within three months.
17. Once the ULAB recycling facility permanently ceases operation, all infrastructure, equipment, buildings, structures and works must be either removed or rehabilitated so they can be used for industrial purposes (or any proposed alternative use).
18. Within three months of the ULAB recycling facility permanently ceasing operation, a Decommissioning Management Plan (DMP) prepared by a suitably qualified and experienced person must be submitted to, approved and endorsed by the Responsible Authority. Once endorsed, the DMP will form part of the permit.

The DMP must include, as a minimum:

- a) Identification of infrastructure, equipment, buildings and structures to be removed, and details of how these will be removed.
- b) Details of how the land will be rehabilitated.
- c) A requirement that all decommissioning works identified in the DMP be completed to the satisfaction of the responsible authority as soon as practicable, but no later than 12 months after the DMP is endorsed, or such other period approved by the Responsible Authority.

- 19. The endorsed DMP must be implemented to the satisfaction of the Responsible Authority.**

Engineering Conditions:

- 20. Before the commencement of any works hereby permitted, a site drainage plan, including levels or contours of the land and all hydraulic computations, must be submitted to and approved by the Responsible Authority. When approved, the plan will be endorsed and will then form part of the permit. The plan must be drawn to scale with dimensions and an electronic copy in PDF format must be provided. The drainage plan must be prepared in accordance with the requirements of Latrobe City Council's Design Guidelines and must provide for the following:**

- a) How the stormwater from all buildings, open space and paved areas will be detained within the site for a 1 % AEP (Annual Exceedance Probability) storm event. The stormwater detention system must be designed to ensure that stormwater does not discharge from the land for all storm events up to and including the 1% AEP event. Calculations must be provided to demonstrate the adequacy of the proposed stormwater storage facilities.**
- b) Detail proposed measures for control and prevention of stormwater from the site entering external drainage systems.**

- 21. Prior to the commencement of any works hereby permitted, an environmental management plan shall be submitted to and be approved by the Responsible Authority. The plan must detail how issues such as erosion prevention, flood and stormwater mitigation, dust generation and sediment control will be managed, on site, during the construction of the permitted works and during operation of the permitted use. Details of a contact person/site manager must also be provided, so that this person can be easily contacted should any issues arise. Reference should be made to the Environment Protection Authority's publication 960 'Doing it right on subdivisions'.**

- 22. Appropriate measures must be implemented throughout the construction stage of the development to rectify and/or minimise mud, crushed rock or other debris being carried onto public roads or footpaths from the subject land, to the satisfaction of the Responsible Authority.**

- 23. Control measures in accordance with the approved environmental management plan, shall be employed throughout the construction stage and during the operation of the permitted development to the satisfaction of the Responsible Authority. The Responsible Authority must be kept informed in writing of any departures from the environmental management plan. If, in the opinion of the Responsible Authority, the departure from the approved plan is significant then an amended plan must be submitted to and approved by the Responsible**

Authority. The approved measures must be carried out continually and completed to the satisfaction of the Responsible Authority.

- 24. Before the use commences of the development hereby permitted, or by such later date as is approved by the Responsible Authority in writing, the following works must be completed in accordance with the endorsed plans and to the satisfaction of the Responsible Authority including all necessary permits being obtained and inspections undertaken:**
- a) All stormwater discharging from the proposed building and works must be conveyed to the legal point of discharge by the existing property drainage system. The areas shown on the endorsed plans for car parking and vehicle access to the car parking must be constructed to such levels that they can be used in accordance with the approved plans including surfacing with an all-weather sealed surface, drained, line marking to indicate each car space and all access lanes; and clearly marked to show the direction of traffic along access lanes and roadways.**
 - b) The proposed vehicle crossing must be constructed in accordance with the endorsed plans, at right angles to the road and must comply with the vehicle crossing standards set out in Latrobe City Council's Standard Drawing LCC 307.**
- 25. Polluted stormwater must be treated on the land from which it emanates to the satisfaction of the Responsible Authority. Polluted drainage must not be discharged beyond the boundaries of the land from which it emanates or into a watercourse or easement drain.**
- 26. Stormwater from the land and works must be managed so as not to cause pollution or nuisance to the surrounding land to the satisfaction of the Responsible Authority.**
- 27. The loading and unloading of goods from vehicles must only be carried out on the land subject to this permit and must not disrupt the circulation and parking of vehicles on the land or adjacent roads.**
- 28. Car spaces, vehicle access ways and driveways must be kept available for these purposes at all times.**
- 29. The areas set aside for car parking and vehicle access ways must be maintained in a continuously useable condition to the satisfaction of the Responsible Authority.**

Health Services Conditions:

- 30. Wastewater from the office sanitary and staff kitchen facilities will be directed to the existing reticulated sewerage system that extends along part of the site's southern boundary.**

- 31. Wastewater from fixtures such as showers, toilets and kitchen amenities must not be directed into treatment of industrial wastewater streams – in line with the Victorian Environment Protection Authority’s publication IWRG632 Industrial Water Reuse Guidelines 2017.**
- 32. Wastewater from the laboratory and truck wash is to be treated in line with the Victorian EPA’s IWRG632 Industrial Water Reuse Guidelines.**
- 33. Sewage, sullage and other liquid wastes to arise from the development shall be treated and retained on site by a septic tank system in accordance with the requirements of the Environment Protection Act 1970, the Guidelines for Environmental Management: Code of Practice – Onsite Wastewater Management 891.4 (2016) and the Responsible Authority.**
- 34. No buildings or works shall occur over any part of the approved waste disposal system including the septic tank in accordance with the requirements of the Environment Protection Act 1970, the Guidelines for Environmental Management: Code of Practice – Onsite Wastewater Management 891.4 (2016) and the Latrobe City Council.**
- 35. Stormwater from the proposed facilities must not be permitted to enter the septic tank treatment system and/or the disposal field.**
- 36. Prior to the commencement of construction of the processing plant and associated facilities, an Application for a Permit to install a septic tank system must be submitted and approved by Council prior to any installation.**
- 37. A Land Capability Assessment must be submitted with the Application to Install Septic tank wastewater system.**

Worksafe Condition:

- 38. The proposed development must comply with the relevant requirements of the Dangerous Goods Act and its subordinate legislation, in particular the Dangerous Goods (Storage and Handling) Regulations 2012 with specific regard to risk assessment and control of risks, fire protection and spill containment for any risks arising from the storage and handling of Class 8 dangerous goods.**

Expiry of Permit:

- 39. This permit will expire if one of the following circumstances applies:**
 - a) The development is not started within two years of the date of this permit; or**
 - b) The development is not completed and the use has not**

commenced within four years of the date of this permit;

The Responsible Authority may extend the periods referred to if a request is made in writing before the permit expires, or within six months of expiry of permit. An extension of time to complete the development may be requested if—

- **the request for an extension of time is made within 12 months after the permit expires; and**
- **the development or stage started lawfully before the permit expired.**

Executive Summary:

A planning permit application was submitted on 3 February 2020 seeking to use and develop the land at Fourth Road, Hazelwood North for a used lead acid battery (ULAB) recycling facility.

The proposal requires both a Works Approval from the Environmental Protection Authority (EPA) and a planning permit from Council. EPA has issued a Works Approval with conditions for the ULAB recycling facility.

The planning permit application proposes to construct an enclosed plant building, laboratory, water treatment building, office and gatehouse on the site along with associated water treatment facilities, weigh bridge, accessways and car and bicycle parking. The facility is proposed to process 50,000 tonnes of spent lead acid batteries and recycle them into 28,000 tonnes of refined lead per year.

Under the provisions of the Latrobe Planning Scheme (Scheme), the site is located in the Industrial 2 Zone whereby a planning permit application is exempt from the notice requirements of the Planning and Environment Act 1987 (the Act) and third party review rights at VCAT. Despite this, 93 community members/groups made submissions to the proposal, some on numerous occasions, with 89 of these submitters objecting, including one in the form of a petition containing 4,909 signatures. Under section 60(3) of the Act, Council is not legally required to consider objections due to the notice exemption.

All 93 submissions have been provided to Councillors as confidential attachments, at Attachment 3 and Attachment 4, this includes a petition with 4,909 signatures.

In accordance with Latrobe City Council Governance Rules, consistent with the *Local Government Act 2020*, for a petition to be presented and treated as a petition on its own merits and separately to this report, it must not relate to a submission process relevant to the *Planning and Environment Act 1987*. As the petition lodged with Latrobe City Council relates to the planning permit process for the ULAB facility it has been treated as an objection to this proposal and provided at

Attachment 4.

All submissions, including the petition are treated as confidential attachments under subsection (f) of the definition of confidential information contained in section 3(1) of the *Local Government Act 2020*, as they relate to personal information, being information which if released would result in the unreasonable disclosure of information about any person or their personal affairs. Both the submissions and petition contain personal details.

Given the level of community interest in the proposal, a Community Information Session was facilitated virtually on 6 August 2020 to outline the planning permit process to the community, with 25 community members/families/couples attending the session. In addition, Councillors hosted four Community Listening posts on 11 and 13 August 2020 in an effort to understand community sentiment before making a decision on the planning permit application.

Due to the highly technical nature of the proposal and to assist Council Planning Officers in their assessment of the planning permit application, an environmental consultant was engaged to undertake an independent review of the Works Approval Application (WAA). The independent review concludes that:

- The buffer distance between the proposed facility and sensitive receptors is well in excess of that required and that recommended by EPA; and
- Based on the information contained in the WAA they cannot identify areas of environmental significance that would be impacted to an extent that there is a regulatory or administrative basis for disallowing the development.

Having considered the proposal against the relevant provisions of the Scheme, it is considered that the proposal is generally in accordance with the purpose and decision guidelines of the Industrial 2 Zone, relevant planning policy and particular provisions.

It is considered that the proposal would add to the economic base of Latrobe City through the construction and operation of an industrial use in an appropriate location. The evaluation of the environmental impacts of the proposal and the issue of the Works Approval by the EPA have demonstrated that the proposal should not have a negative impact on the health and wellbeing of nearby sensitive land uses or the broader community. In addition, the proposal would contribute to achieving resource recovery targets set by the State Government through the extraction of materials from the ULABs for reuse.

It is therefore recommended that a Planning Permit be issued, subject to the inclusion of appropriate conditions.

Background:

Summary

Land: Fourth Road, Hazelwood North, known as CA 2047

Proponent: Chunxing Corporation c/- Beveridge Williams & Co

Zoning: Industrial 2 Zone (IN2Z)

Overlay Environmental Audit Overlay (EAO)

Design and Development Overlay Schedule 1 (part) (DDO1)

A planning permit is required for the use and development of land for industry in accordance with Clause 33.02-1 and Clause 33.02-4 respectively of the IN2Z.

A planning permit is required for a reduction in car parking requirements pursuant to Clause 52.06-3, and for a reduction in bicycle space requirements pursuant to Clause 52.34-2 of the Scheme.

Proposal

The application proposes to use and develop the subject land for a ULAB recycling facility. The facility would recycle 50,000 tonnes per year of used lead acid motor vehicle batteries into 28,000 tonnes of refined lead per year using secondary lead smelting technology. The proposal estimates that 98% of the lead, plastic and electrolyte (sulfuric acid) in ULABs will be recycled at the site.

The applicant has provided the following description of the ULAB recycling process:

- *First stage – physical breakdown of the batteries into its components, i.e. metallic lead grid, lead oxide paste, plastics and spent acids.*
- *Second stage – further processing of the plastics and spent acids to convert them into value added products, such as chipped plastic for further recycling and fertiliser grade zinc sulfate.*
- *Third stage – melting and smelting of lead components recovered into refined lead products.*

The proposal would involve the construction of a processing facility and associated buildings, structures, vehicle accessways and car parking on the eastern side of the site as follows:

- A plant and storage building where all industrial processes and ULAB deliveries, including truck wash down area, would be carried out. This building would also have staff amenities. The building would be located towards the middle of the site and would be set back 115 metres from the site frontage. It would have an overall height of 15 metres, a floor area of 14,281 square metres, and would be constructed from dark blue colorbond cladding. A 30 metre high emissions

stack and associated scrubber system would be located to the north of the main plant building;

- An administration office, reception and staff amenities building. This building would be located in the south-eastern corner of the site, set back 33 metres from the site frontage. It would have a floor area of 736 square metres and an overall height of 4.6 metres. It would be constructed from dark blue colorbond cladding;
- A laboratory building which would also contain a kitchen/lunchroom and amenities. The building would have a total floor area of 378 square metres and an overall height of 4.6 metres. It would be constructed from dark blue colorbond cladding;
- A gatehouse located at the entry to the site;
- Stormwater and wastewater treatment areas and water storage facilities, noting that the applicant has proposed that only wastewater from the office sanitary and staff kitchen facilities will be directed to reticulated sewerage and all other will be directed to on-site wastewater treatment areas for re-use;
- Liquid oxygen storage vessels; and
- A weighbridge and truck parking bay.

Vehicle access to the site would be via a 20 metre wide crossover located at the eastern end of the site frontage which would provide access to the developed area of the site.

All land not required to be used as part of the proposal would be fenced off and remain as a grassed paddock. Two building restriction zones, areas of land subject to contamination as identified in the Statement of Environmental Audit issued on 29 September 2008 for the subject land, adjacent to the northern and southern boundaries of the site, will be fenced off from these areas.

The following operational information has been provided by the applicant:

- The proposed facility would operate 24 hours a day, 7 days per week.
- Truck movements into and out of the site are proposed to occur Monday to Saturday between 7.00 am and 5.00 pm, with the maximum number of truck movements per day expected to be 16.
- ULABs would be sourced from Victoria, New South Wales, South Australia and Northern Territory and transported to the site via B-Double articulated vehicles.
- All other trucks to the site are expected to be 20-30 metre rigid vehicles.
- All deliveries including unloading of batteries from the B-Doubles would be carried out within the processing building which would have an impermeable

acid-resistant concrete floor drained to the on-site waste water treatment system.

- All trucks carrying ULABs would be washed down following unloading before the vehicle is permitted to exit the building.
- ULAB delivery trucks would take backloads of product and waste from the site on return trips.

The proposed facility is expected to generate 50 full time equivalent jobs.

A total of 54 on-site car parking spaces are proposed for employees and visitors to the site. Ten bicycle parking spaces would also be provided, located near the main office building.

Air and noise emissions are addressed in detail in sections 8 and 9 of the EPA WAA which is a supporting document to this report. In summary, the report states that the proposed facility would meet best practice in air quality management, and that maximum noise levels are significantly below day, evening and night recommended noise levels.

A copy of the current plans of the proposal can be viewed at Attachment 1.

Subject Land:

The subject site is an 'L' shaped lot that is located on the northern side of Fourth Road in Hazelwood North. It has a frontage to Fourth Road of 261 metres, a length of 522 metres, a width of 319 metres and an overall area of 13.36 hectares. The site is vacant, is relatively flat, and does not contain any significant vegetation. Drainage and water supply easements run along the western boundary and an easement for sewerage is located near the southern boundary of the site. There is currently no established vehicle access to the site.

The land at Fourth Road, Hazelwood North has an EAO applied to the whole of the land. An Environmental Audit was carried out on the land in 2008 and a Statement of Environmental Audit was issued on 29 September 2008. The audit statement details that the site is suitable for '*the beneficial uses associated with commercial and industrial land uses, subject to conditions...*'

Surrounding Land Use:

- | | |
|--------|---|
| North: | Site developed with industrial buildings, outdoor storage and stockpiling areas associated with a fertiliser production facility. Located in the IN2Z. |
| South: | Site developed with a number of industrial buildings and large open areas used for stockpiling associated with the processing of wood chips and a transport depot which is located in the IN2Z. |
| West: | Vacant industrial land in the IN2Z. |
| East: | Vacant industrial land in the IN2Z. |

The closest residential property to the site is approximately 970 metres to the south-east. The nearest education centre is the Hazelwood North Primary School which is approximately 1.5 kilometres to the south-east.

Attachment 2 shows the location and context of the subject site.

Reasons for Proposed Resolution:

The proposal is considered to be:

- Consistent with the strategic direction of the Municipal Planning Strategy and the Planning Policy Framework;
- Consistent with the 'Purpose' and 'Decision Guidelines' of the Industrial 2 Zone;
- Consistent with the 'Purpose' and 'Decision Guidelines' of Clause 52.06 for the reduction in car parking requirements and Clause 52.34 for the reduction in bicycle space requirements;
- Consistent with Clause 65 Decision Guidelines; and
- The submissions received have been considered against the provisions of the Scheme and the relevant planning concerns have also been considered.

Issues:

Strategy Implications

Objective 7 of the Council Plan 2017-2021 seeks to *'provide a connected, engaged and safe community environment, which is improving the well-being of all Latrobe City citizens'*. A strategy to achieve this is Strategy 10 - *'implement a town planning regime which facilitates appropriate urban growth, industry diversification, liveability and connectivity of Latrobe City'*.

Communication

Notification:

The planning permit application is exempt from notification requirements of section 52(1)(a),(b) and (d) of the Act and review rights at VCAT under section 82(1) of the Act. Nevertheless, 93 community members/groups have made submissions in relation to the facility, some on numerous occasions, with 89 of these submitters objecting to the proposal, including a petition with 4,909 signatures. A copy of the submissions can be viewed at Attachment 3 and the petition can be viewed at Attachment 4 to this report.

As the application is exempt from notification requirements, Council, pursuant to section 60(3) of the Act, is not required to consider any objection or submission received in respect of the application before making a decision.

All 93 submissions have been provided to Councillors as confidential attachments, at Attachment 3 and Attachment 4, this includes a petition with 4,909 signatures.

In accordance with Latrobe City Council Governance Rules, consistent with the *Local Government Act 2020*, for a petition to be presented and treated as a petition on its own merits and separately to this report, it must not relate to a submission process relevant to the *Planning and Environment Act 1987*. As the petition lodged with Latrobe City Council relates to the planning permit process for the ULAB facility it has been treated as an objection to this proposal and provided at Attachment 4.

All submissions, including the petition are treated as confidential attachments under subsection (f) of the definition of confidential information contained in section 3(1) of the *Local Government Act 2020*, as they relate to personal information, being information which if released would result in the unreasonable disclosure of information about any person or their personal affairs. Both the submissions and petition contain personal details.

In addition, given the level of community interest in the proposal, a virtual Community Information Session was facilitated by Council officers on 6 August 2020 to outline the planning permit process to the community and Councillors hosted four virtual Community Listening Posts on 11 and 13 August 2020 to hear community views prior to making a decision.

The main themes of the community submissions can be summarised as follows:

1. Health concerns with regard to lead and other chemicals involved.

Comment:

Council Officers engaged the services of Monarc Environmental (Monarc) to provide an independent and expert review of the planning permit and WAA information submitted by the applicant. A copy of the review can be found at Attachment 5 to this report.

The review provided information about primary and secondary lead smelters in Australia, and examined the site location, proposed buildings, storage, potential emissions, and alternative technologies.

The review provided the following conclusions about the proposal:

In conclusion, considerable comfort that the claimed environmental performance of the proposed ULAB recycling facility can be achieved is given by virtue of:

- *The buffer distance between the proposed facility and sensitive receptors is well in excess of that required and that recommended by EPA.*
- *All processing occurring within a fully enclosed building that is maintained under a negative atmospheric pressure.*
- *The relatively few similarities between primary lead smelting and the more sophisticated process involving secondary lead smelting outlined by the proponent.*
- *The highly automated emissions management systems, each with designed redundancy.*

- *These features provide a sound foundation for achieving a high standard of environmental performance. Should they be absent then we would not be making such a conclusion.*
- *The large margin of safety between the maximum predicted ground level concentrations and the maximum allowed ground level concentrations.*
- *The offer from the proponent to make available live and on-line emissions monitoring data.*
- *The regulatory powers available to the EPA and council.*
- *The soon to become available rights of affected individuals to commence their own court actions in the event of alleged environmental breaches.*

Based on the above conclusions, it is considered that the proposal would achieve a high standard of environmental performance with emissions from the use able to be contained and treated within the enclosed confines of the plant building through the use of dedicated air pollution control equipment.

In addition, the Works Approval issued by EPA includes maximum emissions for the proposal, requirements in relation to fugitive air emission control systems and a requirement for the design of a continuous and periodical air emission monitoring program to demonstrate compliance with air quality standards, including testing of stack emissions, as well as site boundary, soil and surface water monitoring.

2. Potential impacts on agricultural activities

Comment:

Concerns were raised about the possibility of animals (cattle, chickens, sheep etc.), crops and home grown produce being contaminated by lead and other pollutants and the possibility of the transfer of these pollutants to the edible produce.

In the assessment of the WAA, EPA requested that the proponent to engage a suitably qualified specialist to undertake a public health risk assessment, including an assessment of the following:

- *Assess the likely long-term adverse impacts due to the potential accumulation of lead on local land, waterway, agricultural food crops and public health.*

The public health risk assessment details the following:

- *'The maximum impacts predicted from the plant are located on the site, or on the site boundary, where exposures evaluated for residential and agricultural type exposures cannot occur'.*
- *'Multiple pathway exposures: Risks to human health associated with chronic exposures to pollutants, bound to particulates, that may deposit to surfaces and taken up into produce for home consumption relevant to all surrounding areas, including all rural residential and lowdensity residential properties, are negligible'.*

It can therefore be considered that the proposal will not result in the contamination of animals, crops and home grown produce and resultant contamination of the edible produce. In addition, as detailed previously the Works Approval issued by EPA includes maximum emissions for the proposal, requirements in relation to fugitive air emission control systems and ongoing monitoring systems to demonstrate compliance with air quality standards, including testing of stack emissions, as well as site boundary, soil and surface water monitoring.

3. Buffer distances – too close to Hazelwood North Primary School and playground, Latrobe City Transfer Station and dwellings.

Comment:

The activities proposed in the facility are identified in Clause 53.10 - Uses with Adverse Amenity Potential. There are two separate threshold distances based on the proposal activities with Clause 53.10:

- Non-ferrous metal production – requires a 500m threshold distance; and
- Materials recovery and recycling component - none specified.

As the materials recovery and recycling facility aspect of the proposal does not have a specified threshold distance, the planning permit application was referred to EPA who is the determining referral authority under Section 55 of the Act. EPA detailed that they had no concerns with Council issuing a permit, pending the outcome of the Works Approval; the Works Approval was issued by EPA on 31 August 2020.

In EPA's assessment report for the WAA they have detailed the following:

The recommended separation distance for non-ferrous production (smelting or melting) with a capacity greater than 2,000 tpa is 500m and is specified in Table 1 of EPA's publication 1518. The measured buffer between the proposed ULAB and the closest sensitive receiver is approximately 1,100m.

Considering the modelling results and human health assessments (see section 13.3), it is concluded that the proposed separation distances are adequate for the facility.

In addition, as previously detailed in the report prepared by Monarc, the buffer distances between the proposed facility and sensitive receptors are well in excess of that required and that recommended by EPA.

4. Lack of Environmental Effects Statement and other assessment tools;

Comment:

The Minister for Planning has determined that an Environmental Effects Statement (EES) is not required for the proposed ULAB recycling facility.

5. Future of Latrobe Valley – heavy industry vs sustainable greener industry.

Comment:

The site is located in the Industrial 2 Zone which is designated for heavy industry. In addition, the Live Work Latrobe Industrial and Employment Strategy (2019) identifies the site as being located in the Firmans Lane Heavy Industry Park where heavy industry is supported.

Council must consider the proposal on its merits and against the Scheme and has considered relevant adopted documents including Living Well Latrobe Municipal Health and Wellbeing Plan.

The approval of such an industry does not preclude 'green' industries from the area. To illustrate this, there are currently a number of solar and wind farm projects in train for the region which would not be impacted by the proposal should they be approved.

6. Will not benefit community.

Comment:

The applicant has detailed that there will be an investment of \$40 million from the development of the facility and that they expect that the facility will employ 50 people including laboratory staff and administration. This will bring with it flow on benefits to the community through employment and investment in Morwell, this will be discussed later in this report.

7. Poor community engagement by the proponent.

Comment:

As previously detailed in this report the application is exempt from notification under the provisions of the Scheme. Any engagement undertaken by the proponent is not a consideration in the determination of the planning permit.

8. Does not fit in with community values relating to public safety, environmental and social benefits.

Comment:

The proposal needs to be considered on its merits and against the Scheme. The concerns raised and in particular *'the proposed plant may discourage people from moving to the Valley to live and work and may adversely impact future growth within the area'* will need to be a consideration for Latrobe City moving forward in terms of how it promotes its *'liveability'*.

9. End of project life.

Comment:

If a planning permit is approved, appropriate conditions will be considered including those in relation to the decommissioning of the plant at the cessation of the use.

10. Traffic impact and transport integration.

Comment:

The applicant has provided a Traffic Impact Assessment (Beveridge Williams & Co, 2020) which details that traffic generated by the facility would comprise 16 truck movements per day, an additional truck movement every 2-3 days, plus the traffic generated by the facility's workforce.

Trucks would generally come to the site via Princes Freeway and Tramway Road. These roads are able to accommodate the proposed truck sizes and loads as well as the additional movements that would be generated by the facility.

Traffic generated by staff would most likely come from Morwell, Moe, Traralgon and Churchill with the existing road network having the capacity to be able to accommodate this additional traffic.

11. Property values.

Comment:

This is not considered to be a valid planning consideration, as the valuation of an individual property is a complex matter and outside the scope of matters that can be considered in the assessment of a planning permit application.

12. Expansion of business in the future.

Comment:

Council must consider the application before it and cannot speculate if the proposal will expand in the future. In any event, any expansion to the facility would need planning approval.

13. Odour from sulphur dioxide and hydrogen sulphide.

Comment:

The peer review of the proposal undertaken by Monarc found that *'it is apparent that residual sulphur dioxide emissions would not be detected as odours outside of the facility'*. It also concluded that hydrogen sulphide would also not be detected as odour outside the facility.

In addition, a condition of the Works Approval requires the design of an environmental management system to include a monitoring program during construction and future operation in relation to manage: air emissions, solid and liquid waste, wastewater, noise and odour.

14. Noise.

Comment:

The EPA has determined that it is unlikely there will be any effects on the neighbourhood from noise levels with this conclusion supported by the peer review of the WAA material by Monarc. EPA have included a condition in the Works Approval for a noise monitoring program to be undertaken during commissioning to ensure the project complies with relevant State Environment Protection Policy. In addition there

are ongoing requirements for noise emissions to be monitored with this requirement to be reinforced in any planning permit issued for the proposal which will require that noise levels emanating from the premises must not exceed those required to be met under State Environment Protection Policy.

15. Impartiality of council a concern.

Comment:

It is noted that Council did not approach the applicant to establish the proposed facility in Latrobe City and that both Council officers and Councillors have sought to obtain and review information from both the applicant and submitters in a fair and transparent manner as part of the planning permit process. In addition, declarations of interest are required by all involved in the preparation of the report and decision makers as required by the Local Government Act.

16. The proposal is inconsistent with the Latrobe Planning Scheme.

Comment:

The proposal has been considered against the relevant provisions of the Scheme and is considered to be generally in accordance with the purpose and decision guidelines of the Industrial 2 Zone, relevant planning policy and particular provisions.

Four submissions supporting the proposal were also received including one from the Gippsland Climate Change Network. The main points raised were the benefits of recycling, reducing greenhouse gas emissions, adding diversity to industry in the region with the provision of employment in the renewables industry, and that the proposal conforms to the industrial zoning of the land.

External:

On receipt of the application on 3 February 2020 it was referred to the EPA and Worksafe Victoria pursuant to Section 55 of the Act.

On 26 May 2020 the Scheme was changed, in particular, the referral requirements under Clause 53.10 were amended with Worksafe Victoria no longer being a referral authority under Section 55 of the Act.

EPA did not object to the granting of a planning permit subject to the approval of the WAA.

Worksafe Victoria did not object to the granting of a planning permit subject to a permit condition stating that the development must comply with the relevant requirements of the Dangerous Goods Act.

Internal:

The application was referred internally to Council's Engineering, Health Services, Strategic Planning, Economic Development, Resource Recovery & Environment and Community Strengthening teams.

Council's Engineering team had no objection subject to conditions with regards to stormwater management and the provision of an environmental management plan to address such issues as how erosion prevention, flood and stormwater mitigation, dust generation and sediment control will be managed, on site, during the construction of the permitted works and during operation of the use.

Health Services had no objection subject to conditions with regard to the disposal of waste water from the site.

The application was referred to Council's Strategic Planning, Economic Development, Resource Recovery & Environment and Community Strengthening teams for consideration against relevant policies of Council.

Strategic Planning advised that the Live Work Latrobe Industrial and Employment Strategy (2019), which is a reference document in the Scheme, locates the site in the Firmans Lane Heavy Industry Park which contains large tracts of land zoned Industrial 1 and Industrial 2 capable of supporting a range of heavy industrial activities. Consistent with this response Council's Economic Development team detailed that the Gippsland Heavy Industry Park (GHIP) has been recognised as a key future employment zone for Latrobe City. Council's Resource Recovery team detailed that the precinct is considered to be suitable for resource recovery and associated remanufacturing developments and in providing contingency and viability of waste service in our region.

Council's Community Strengthening team detailed that it is a requirement of Victoria's *Public Health and Wellbeing Act 2008* to produce a plan every four years, being a Municipal Public Health & Wellbeing Plan (MPHWP). The *Public Health and Wellbeing Act 2008* also allows flexibility for local government to consider and plan for issues in locally determined ways, which fit with existing planning frameworks and strategies within local government. It can therefore be considered that if a planning permit application is consistent with the Scheme then it is consistent with any plan produced under the *Public Health and Wellbeing Act 2008*.

Financial Implications

Additional resources or financial cost will only be incurred should the planning permit application require determination at the Victorian Civil and Administrative Tribunal (VCAT). Based on the technical nature of the proposal Council would need to engage a consultant and expert witnesses to attend on Council's behalf and it would likely cost in excess of \$15,000.

Risk Analysis

Identified risk	Risk likelihood*	Controls to manage risk
Reputational Risk Reputational risk to Council from the community if Council	4 – Likely	To manage and limit the potential risk it is recommended that Council make an informed

supports the application due to objections received to the proposal		decision. An independent Environmental Consultant has been engaged to undertake a peer review of the WAA to assist Council Planning Officers in making a determination in relation to the application.
Negative perception of Council not supporting the application for the establishment of a ULAB recycling facility at Fourth Road, Hazelwood North	4 – Likely	To manage and limit the potential risk it is recommended that Council make an informed decision. An independent Environmental Consultant has been engaged to undertake a peer review of the WAA to assist Council Planning Officers in making a determination in relation to the application.
Strategic Risk Negative perception of Council from the development community, State Government and other interested parties due to Council advocating for the removal of the State Resource Overlay (SRO) from this land.	4 – Likely	The subject land is zoned Industrial 2 which allows for heavy industry to be established in these areas. If industry meets all relevant environmental requirements including emissions and buffer distances to sensitive land uses it should be considered on relevant planning considerations.

* For example, likelihood ratings: 1 (Rare); 2 (Unlikely); 3 (Possible); 4 (Likely); 5 (Almost Certain)

Legal and Compliance

Latrobe Planning Scheme

State Planning Policy Framework

- Clause 11.01-1S Settlement
- Clause 11.01-1R Settlement Gippsland
- Clause 11.03-6S Regional and Local Places

- Clause 13.02-1S Bushfire planning
- Clause 13.04-1S Contaminated and potentially contaminated land
- Clause 13.05-1S Noise Abatement
- Clause 13.06-1S Air quality management
- Clause 13.07-1S Land use compatibility
- Clause 17.01-1S Diversified economy
- Clause 17.01-1R Diversified Economy – Gippsland
- Clause 17.03-2S Industrial development siting
- Clause 18.02-4S Car parking
- Clause 19.03-3S Integrated water management
- Clause 19.03-5S Waste and resource recovery

Local Planning Policy Framework

- Clause 21.01: Introduction: Municipal Strategic Statement
- Clause 21.03-1 Sustainability
- Clause 21.04-10 Waste Management
- Clause 21.04-12 Bushfire
- Clause 21.06-1 Urban Design and Neighbourhood Character
- Clause 21.07-1 Economic Growth
- Clause 21.07-4 Industry
- Clause 21.09 Local Areas

Strategic direction of the Planning Policy Frameworks

The key elements of the Planning Policy Framework and Municipal Planning Strategy have been considered in the assessment of the application.

Local policy stipulates that industrial development should be established in preferred locations as guided by the Industrial Framework Plan found at Clause 21.07-8 of the Scheme and supported by the *Industrial and Employment Strategy 2019* (IES), a background document to the Scheme.

The site is located in an area identified for heavy industry on the Industrial Framework Plan. The accompanying planning policy states *‘encourage the establishment of large format and heavy industry uses on Industrial 2 Zone land’*.

The IES locates the site within the 'Firmins Lane Heavy Industry Park' and states *'There are large tracts of land located south of Morwell zoned Industrial 1 and Industrial 2 capable of supporting a range of heavy industrial activities. Its proximity and access to the Princes Highway and the quantum of land makes this area highly attractive for heavy industrial activities'*. Further work to be undertaken includes the preparation of a masterplan for this area *'in order to drive coordinated infrastructure planning and secure the precinct for large format and heavy industry investment opportunities'*.

The site and immediately surrounding area therefore has policy support for use for heavy industry, giving the proposed ULAB facility policy support to be located on the subject site. In addition, state planning policy found at Clause 17.01-1R Diversified economy – Gippsland includes a strategy which seeks to *'support the development of industry sectors focussed on growing Asian and other international markets'*.

In addition Clause 21.07-2 seeks *'to facilitate a vibrant and dynamic economic environment that will grow and diversify employment opportunities'* with a strategy to support this objective being to *'provide a balanced approach to economic development taking into account economic, social and environmental values'*. It is considered that while, at large, planning policy both at a state and local level supports the development of such industry on the subject land, consideration needs to be given to the wider economic impact that the establishment of the proposed ULAB recycling facility could have on Latrobe City. It is hard to come to the conclusion based on the peer review of the WAA and consideration of other relevant policy that the establishment of the proposal will result in any negative impact to the growth of Latrobe City's economy.

Clause 13.07-1S Land Use Compatibility of the Scheme requires community amenity, human health, and safety to be taken into consideration in the assessment of the application. The peer review undertaken by Monarc examined the proposed buildings, raw materials, processes, outputs and expected emissions from the facility.

Monarc concluded that as the proposal would be a secondary lead smelter with raw materials in a solid form (batteries) with processes located within a fully enclosed building maintained at negative atmospheric pressure, any emissions would be well within regulatory limits. The report comments *'that the proponent is proposing to undertake all processing activities within a fully enclosed building provides considerable confidence that elimination of fugitive emissions is achievable. This is the approach adopted by two comparable facilities and has to our understanding been extremely effective'*.

The setback of the proposal from sensitive land uses was also assessed by Monarc who found *'as non-ferrous primary metal production is an integral part of the development, Monarc concludes that a separation distance of 500 m is appropriate for the entire facility as proposed'*. This was also considered in EPA's assessment of the WAA who concluded that the proposed separation distances are adequate for the facility from sensitive receptors/uses. The proposal would be set back approximately 970 metres from the nearest sensitive land use (a dwelling in the Farming Zone) and

approximately 1.5 kilometres from the nearest education centre being Hazelwood North Primary School.

The application has been assessed against the Latrobe City Council Urban Design Guidelines for Industrial Development and found to comply with regard to setbacks, access, parking and fencing. A landscaping plan showing appropriate planting around the site frontage, car parking and office area can be made a condition of any approval issued.

The proposal is considered to accord with Clause 19.03-5S Waste and Resource Recovery of the Scheme as it would be appropriately located in a designated industrial area which will ensure it will not be encroached upon by incompatible land uses into the future. It would be sited, designed, built and operated so as to minimise impacts on surrounding communities and the environment. The proposed use is supported as it would recover marketable end products through the recovery and treatment of resources, would be integrated with compatible land uses and transport infrastructure, and would contribute to sustainable waste and resource recovery.

Overall, it is considered that the proposal is supported by the relevant State and local planning policy.

‘Purpose’ and ‘Decision Guidelines’ of IN2Z

The proposal is considered to be consistent with the zone purpose and decision guidelines as the site is located in the middle of the IN2Z and would abut industrial land on all boundaries. It would be located approximately 2 kilometres from the nearest zoned residential area and 970 metres to the closest dwelling which is located in Farming Zone to the south-east of the site and approximately 1.5 kilometres from the nearest education centre. Its location is therefore considered to be appropriate.

The EPA has determined that it is unlikely there will be any effects on the neighbourhood from noise levels, air-borne emissions or emissions to land or water. This conclusion is supported by the peer review of the WAA material by Monarc. In addition, the Works Approval includes maximum air emission levels and requires no more than 0.10316 g/min of lead (0.0062 kg/hr Pb), to be emitted to the atmosphere from the 30 metre stack. These levels are well below SEPP (AQM) design criteria and for comparison an existing battery recycling/smelting facility in Laverton North has a maximum lead emission level on their licence set at 0.3 kg/hr.

The level of traffic movements to and from the site is considered reasonable for an industrial area. A condition of any approval issued would ensure that there would not be any impact from light spill or glare from the site, and that noise levels are to be in accordance with State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade), No. N-1. In addition any noise generated by the proposal would be monitored through conditions imposed on the Works Approval through EPA.

The proposed buildings would blend in with the surrounding industrial buildings in design, size and materials, and landscaping is proposed at the frontage to the site

and around the office and car parking area. Adequate parking, site access, loading, and service areas would be provided on the site. Conditions of any approval issued can address outdoor storage, lighting and stormwater discharge from the site.

The proposal is considered to be consistent with the relevant provisions of the Scheme. The proposed use and development would be located within an existing industrial area and would therefore be an appropriately located land use and development.

Clause 52.06 Car Parking

The proposal generates a requirement of 476 car parking spaces. Fifty-four on-site car parking spaces are proposed to be provided for staff, contractors and any visitors to the site. The proposal therefore seeks a reduction of 422 car parking spaces.

The applicant has advised that the proposed car parking numbers are adequate as there would be 26 staff members at the facility during the day reducing to 12 in the afternoon and evening.

The reduction in car parking has been assessed and is considered to be acceptable as:

- The actual staffing levels of the use do not warrant the need to provide 476 car parking spaces.
- The provision of 54 spaces is considered to be acceptable given that it would be more than sufficient for the proposed staffing levels.
- Should any additional car parking be required, it could be provided on site and would therefore not impact the availability of car parking in the surrounding streets.

Clause 52.34 Bicycle Facilities

A total of 16 bicycle spaces are required for the proposal. It is proposed to provide ten bicycle spaces within the car park adjacent to the office building. Dispensation of six spaces is required. Given the location of the site it is unlikely that many employees would cycle to the site. The provision of ten bicycle spaces is considered to be acceptable. Additional spaces can be provided on site in the future should the need arise. Showers and change rooms would be provided in excess of the clause requirements.

Clause 53.10 Uses with Adverse Amenity Potential

The table to this clause lists activities that have the potential to impact on amenity and provides threshold distances a proposed use in the table should have from sensitive land uses such as residential uses. The proposal falls within two uses listed in the table:

- Non-ferrous metal production exceeding 2,000 tonnes per year – a threshold distance of 500 metres to sensitive uses is required;

- Materials recovery and recycling component – no threshold distance is specified therefore the proposal should be referred to EPA.

As discussed, the proposal would be set back greater than 500 metres to nearby sensitive uses.

The application has been referred to EPA who had no objection to the proposal subject to a note being included on the permit stating any obligations or duties under the EPA Act 1970 must be met and may include obtaining a works approval or licence. As discussed, a Works Approval has been granted for the use by EPA.

It is also noted that the peer review of the proposal by Monarc concluded that the separation distance of 500 metres to sensitive land uses is appropriate for the proposal.

Clause 53.14 Resource Recovery

The purpose of this clause is *‘to facilitate the establishment and expansion of a Transfer station and/or a Materials recycling facility in appropriate locations with minimal impact on the environment and amenity of the area’*.

The proposal addresses the purpose as it would be located in an appropriate location in an industrial area where there will be minimal impacts on the environment and the amenity of the area.

The proposal also satisfactorily addresses the decision guidelines as:

- The capacity of the site to recycle material would contribute to achieving resource recovery targets established by the Victorian Government.
- The EPA has issued a Works Approval. The proposal is therefore considered to be in accordance with best practice guidelines for resource recovery and recycling in Victoria.

Clause 65 (Decision Guidelines):

The relevant decision guidelines set out in Clause 65.01 have been considered and found:

- The proposal satisfies the Municipal Planning Strategy, the Planning Policy Framework and the purpose of the Industrial 2 Zone.
- The proposal would contribute to orderly planning as it would appropriately locate an industrial use in an industrial area, away from sensitive land uses.
- The proposal would not have a detrimental impact on the amenity of the area.
- The proposal would have adequate loading and unloading facilities within the plant building on the site.
- There would not be any traffic flow or road safety impacts as a result of the proposal.

Environmental Implications

Environmental implications have been considered and discussed throughout this report.

Other

Council has the following options in regard to this amendment application:

1. Issue a Planning Permit; or
2. Issue a Notice of Decision to Refuse to Grant a Permit.

Council's decision must be based on planning grounds, having regard to the provisions of the Latrobe Planning Scheme.

Declaration of Interests:

Officers preparing this report have declared they do not have a conflict of interest in this matter under the provisions of the *Local Government Act 1989*.

Supporting Documents:

A copy of the WAA can be found at <https://engage.vic.gov.au/epa-works-approvals/ulab>

Attachments

- 1 [↓](#). Attachment 1 - Development Plans
- 2 [↓](#). Attachment 2 - Site Context
3. Attachment 3 - Copy of Submissions (Published Separately)

This attachment is designated as confidential under subsection (f) of the definition of confidential information contained in section 3(1) of the *Local Government Act 2020*, as it relates to personal information, being information which if released would result in the unreasonable disclosure of information about any person or their personal affairs. The submissions contain personal details of submitters

4. Attachment 4 - Petition (Published Separately)

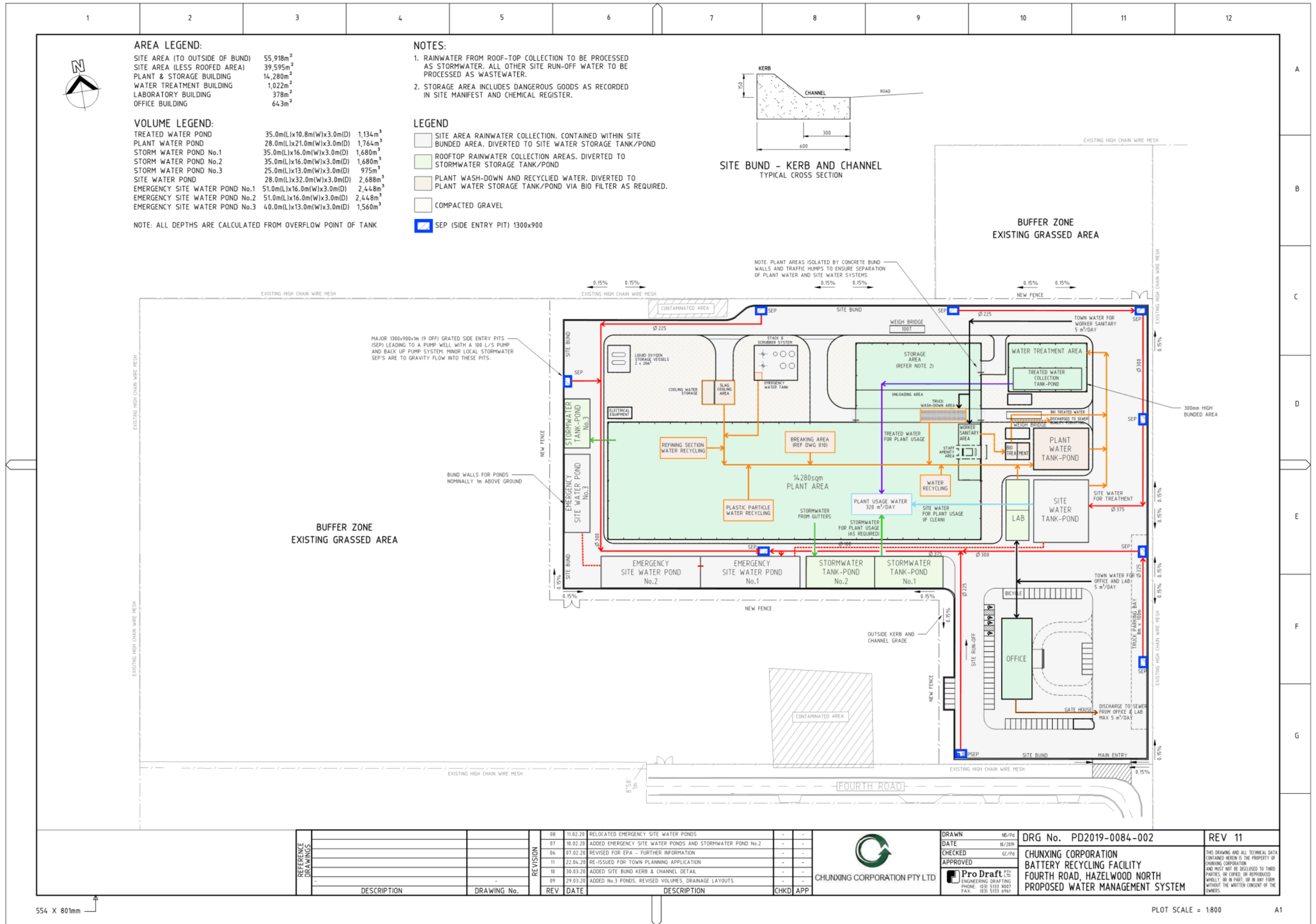
This attachment is designated as confidential under subsection (f) of the definition of confidential information contained in section 3(1) of the *Local Government Act 2020*, as it relates to personal information, being information which if released would result in the unreasonable disclosure of information about any person or their personal affairs. The petition contains personal details of those who signed the petition

- 5 [↓](#). Attachment 5 - Environmental Consultants Report
- 6 [↓](#). Attachment 6 - Works Approval

6.1

Use and development of land for an industry (used lead and acid battery recycling facility), reduction in car parking and bicycle space requirements at Fourth Road, Hazelwood North

1	Attachment 1 - Development Plans	34
2	Attachment 2 -Site Context	48
5	Attachment 5 - Environmental Consultants Report.....	49
6	Attachment 6 - Works Approval	69



AREA LEGEND:

SITE AREA (TO OUTSIDE OF BUND)	55,918m ²
SITE AREA (LESS ROOFED AREA)	39,595m ²
PLANT & STORAGE BUILDING	14,280m ²
WATER TREATMENT BUILDING	1,022m ²
LABORATORY BUILDING	378m ²
OFFICE BUILDING	643m ²

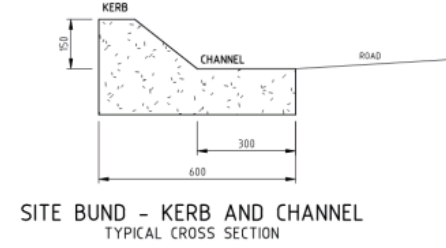
VOLUME LEGEND:

TREATED WATER POND	35.0m(L)x10.8m(W)x3.0m(D)	1,134m ³
PLANT WATER POND	28.0m(L)x21.0m(W)x3.0m(D)	1,764m ³
STORM WATER POND No.1	35.0m(L)x16.0m(W)x3.0m(D)	1,680m ³
STORM WATER POND No.2	35.0m(L)x16.0m(W)x3.0m(D)	1,680m ³
STORM WATER POND No.3	25.0m(L)x13.0m(W)x3.0m(D)	975m ³
SITE WATER POND	28.0m(L)x32.0m(W)x3.0m(D)	2,688m ³
EMERGENCY SITE WATER POND No.1	51.0m(L)x16.0m(W)x3.0m(D)	2,448m ³
EMERGENCY SITE WATER POND No.2	51.0m(L)x16.0m(W)x3.0m(D)	2,448m ³
EMERGENCY SITE WATER POND No.3	40.0m(L)x13.0m(W)x3.0m(D)	1,560m ³

NOTE: ALL DEPTHS ARE CALCULATED FROM OVERFLOW POINT OF TANK

- NOTES:**
1. RAINWATER FROM ROOF-TOP COLLECTION TO BE PROCESSED AS STORMWATER. ALL OTHER SITE RUN-OFF WATER TO BE PROCESSED AS WASTEWATER.
 2. STORAGE AREA INCLUDES DANGEROUS GOODS AS RECORDED IN SITE MANIFEST AND CHEMICAL REGISTER.

- LEGEND**
- [Light Blue Box] SITE AREA RAINWATER COLLECTION. CONTAINED WITHIN SITE BUNDED AREA. DIVERTED TO SITE WATER STORAGE TANK/POND
 - [Light Green Box] ROOFTOP RAINWATER COLLECTION AREAS. DIVERTED TO STORMWATER STORAGE TANK/POND
 - [Light Yellow Box] PLANT WASH-DOWN AND RECYCLED WATER. DIVERTED TO PLANT WATER STORAGE TANK/POND VIA BIO FILTER AS REQUIRED.
 - [Dotted Box] COMPACTED GRAVEL
 - [Blue Box with 'S'] SEP (SIDE ENTRY PIT) 1300x900



BUFFER ZONE
EXISTING GRASSED AREA

BUFFER ZONE
EXISTING GRASSED AREA

REFERENCE DRAWINGS	DESCRIPTION	DRAWING No.

REVISION	DATE	DESCRIPTION	CHKD	APP
08	11.02.20	RELOCATED EMERGENCY SITE WATER PONDS	-	-
07	10.02.20	ADDED EMERGENCY SITE WATER PONDS AND STORMWATER POND No.2	-	-
06	07.02.20	REVISED FOR EPA - FURTHER INFORMATION	-	-
11	22.04.20	RE-ISSUED FOR TOWN PLANNING APPLICATION	-	-
10	30.03.20	ADDED SITE BUND KERB & CHANNEL DETAIL	-	-
09	29.03.20	ADDED No.3 PONDS, REVISED VOLUMES, DRAINAGE LAYOUTS	-	-

CHUNXING CORPORATION PTY LTD

DRAWN	NB/PS
DATE	10/2019
CHECKED	GC/PS
APPROVED	

DRG No. PD2019-0084-002

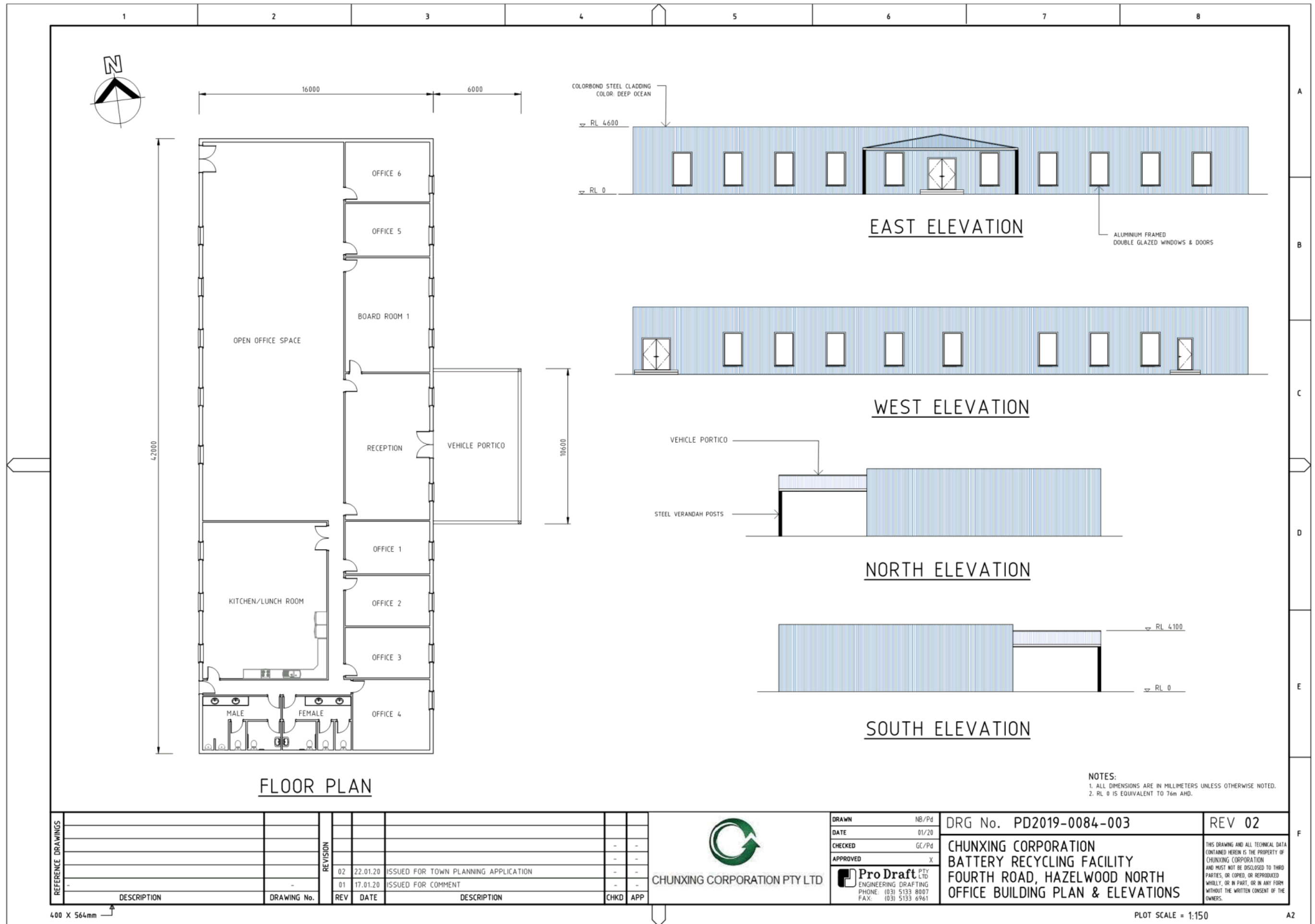
CHUNXING CORPORATION
BATTERY RECYCLING FACILITY
FOURTH ROAD, HAZELWOOD NORTH
PROPOSED WATER MANAGEMENT SYSTEM

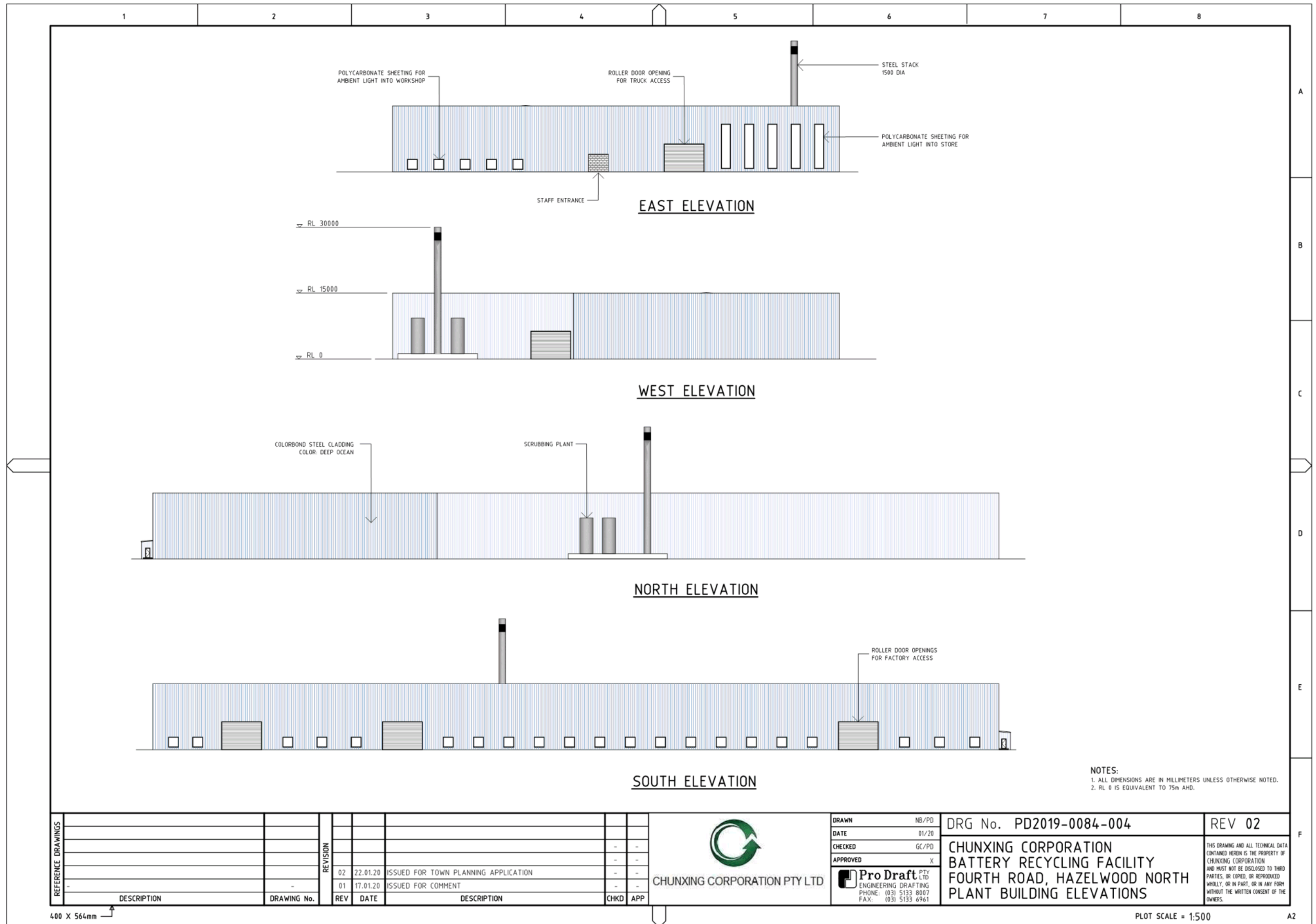
REV 11
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554 X 801mm

PLOT SCALE = 1:800

A1





DESCRIPTION	DRAWING No.	REV	DATE	DESCRIPTION	CHKD	APP
		02	22.01.20	ISSUED FOR TOWN PLANNING APPLICATION	-	-
		01	17.01.20	ISSUED FOR COMMENT	-	-


CHUNXING CORPORATION PTY LTD

DRAWN	NB/PD
DATE	01/20
CHECKED	GC/PD
APPROVED	X

Pro Draft PTY LTD
 ENGINEERING DRAFTING
 PHONE: (03) 5133 8007
 FAX: (03) 5133 6961

DRG No. PD2019-0084-004

**CHUNXING CORPORATION
 BATTERY RECYCLING FACILITY
 FOURTH ROAD, HAZELWOOD NORTH
 PLANT BUILDING ELEVATIONS**

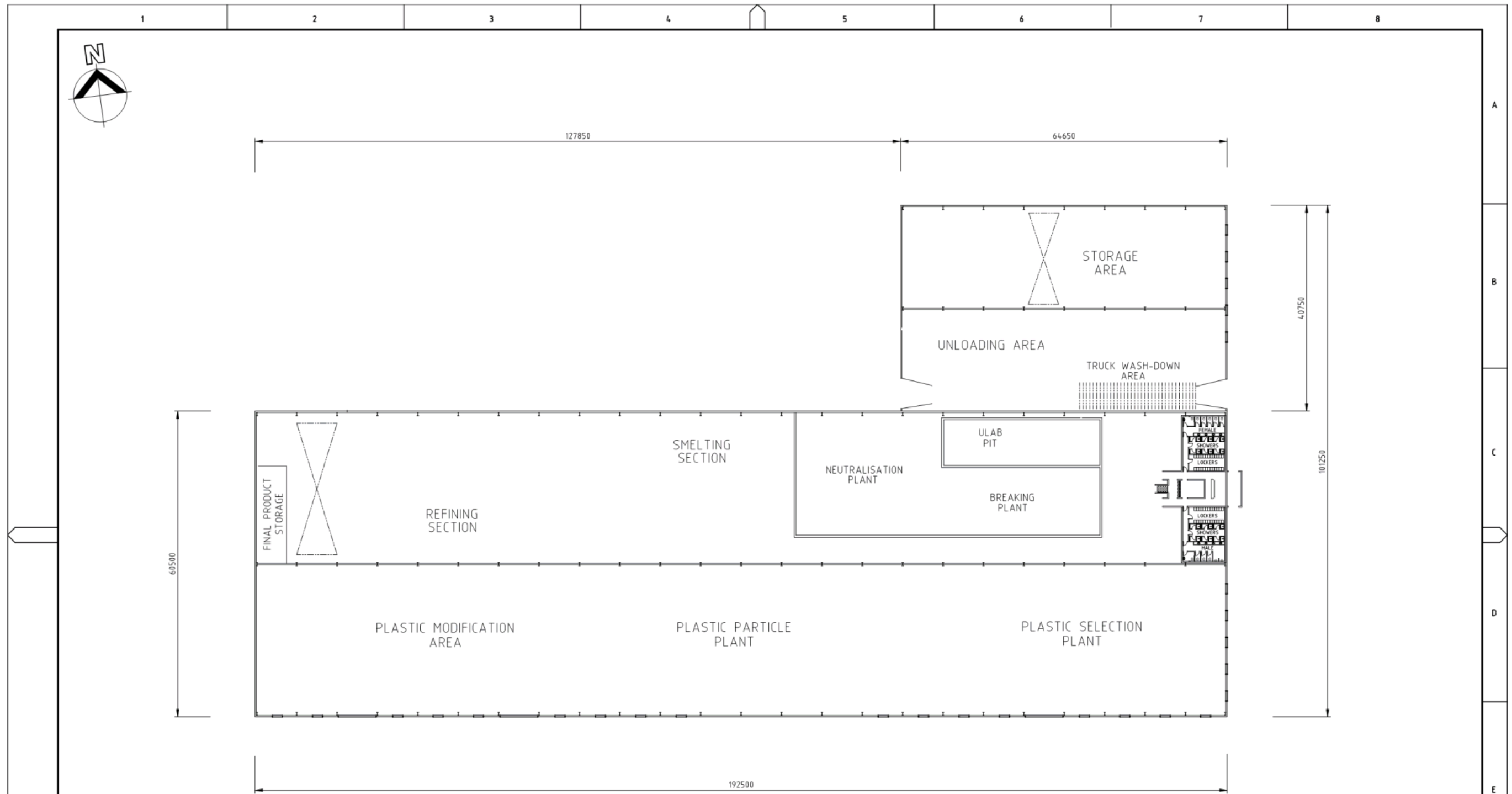
REV 02

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400 X 564mm

PLOT SCALE = 1:500

A2



FLOOR PLAN

DESCRIPTION	DRAWING No.	REV	DATE	DESCRIPTION	CHKD	APP
		03	22.04.20	RE-ISSUED FOR TOWN PLANNING APPLICATION	-	-
		02	22.01.20	ISSUED FOR TOWN PLANNING APPLICATION	-	-
		01	17.01.20	ISSUED FOR COMMENT	-	-

CHUNXING CORPORATION PTY LTD

DRAWN	NB/PD
DATE	01/20
CHECKED	GC/PD
APPROVED	X

Pro Draft PTY LTD
ENGINEERING DRAFTING
PHONE: (03) 5133 8007
FAX: (03) 5133 6961

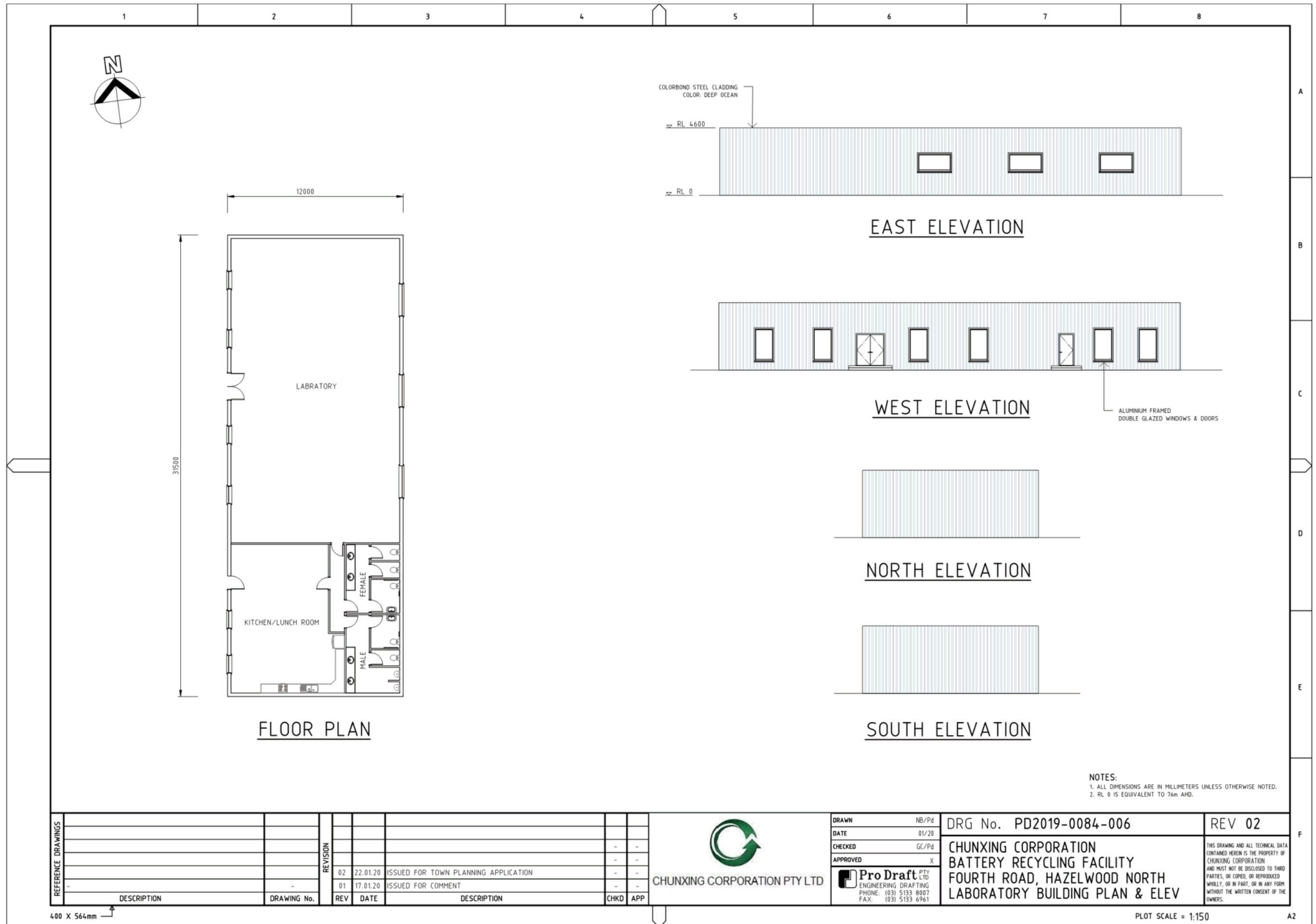
DRG No. PD2019-0084-005
CHUNXING CORPORATION
BATTERY RECYCLING FACILITY
FOURTH ROAD, HAZELWOOD NORTH
PLANT BUILDING FLOOR PLAN

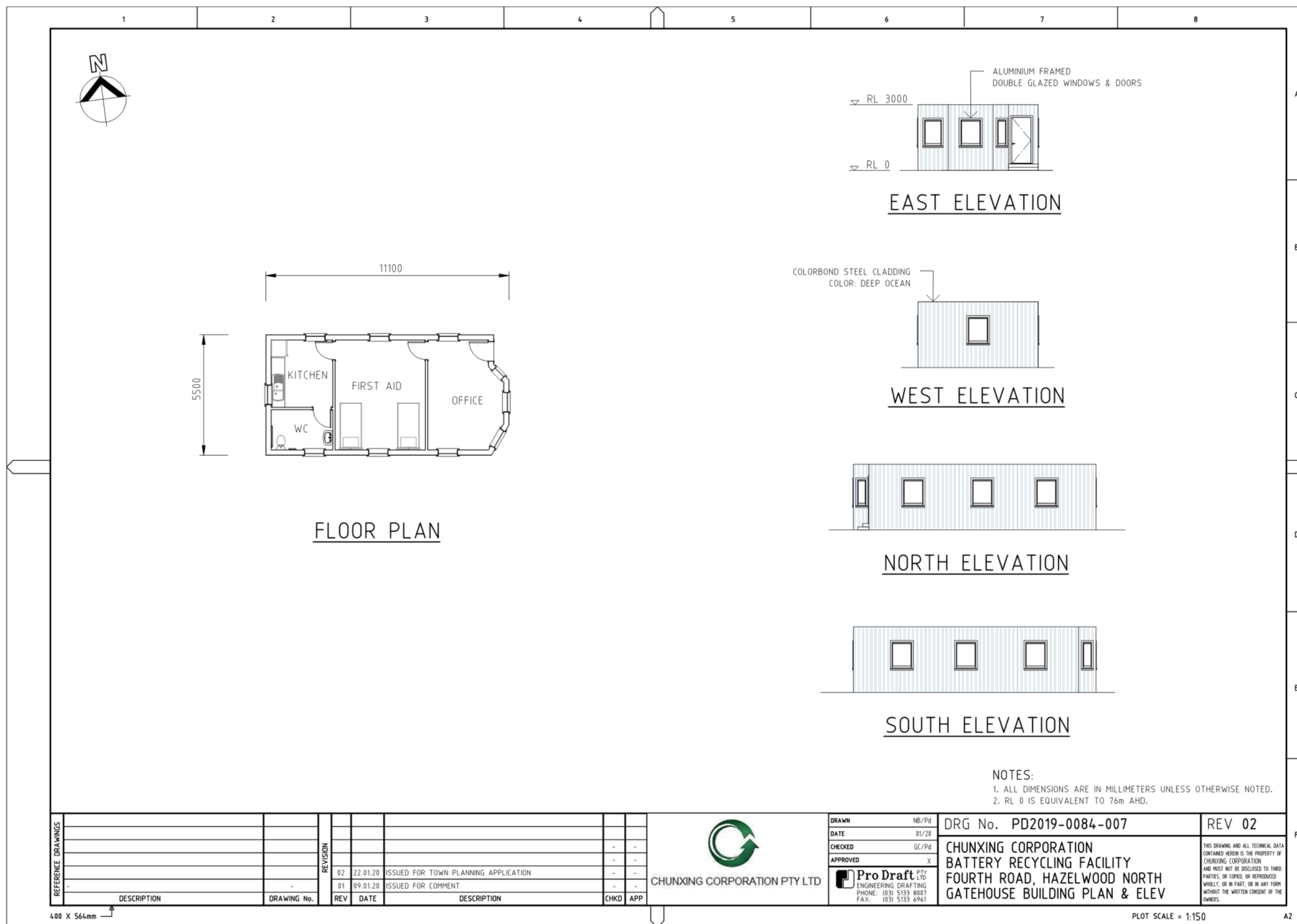
REV 03
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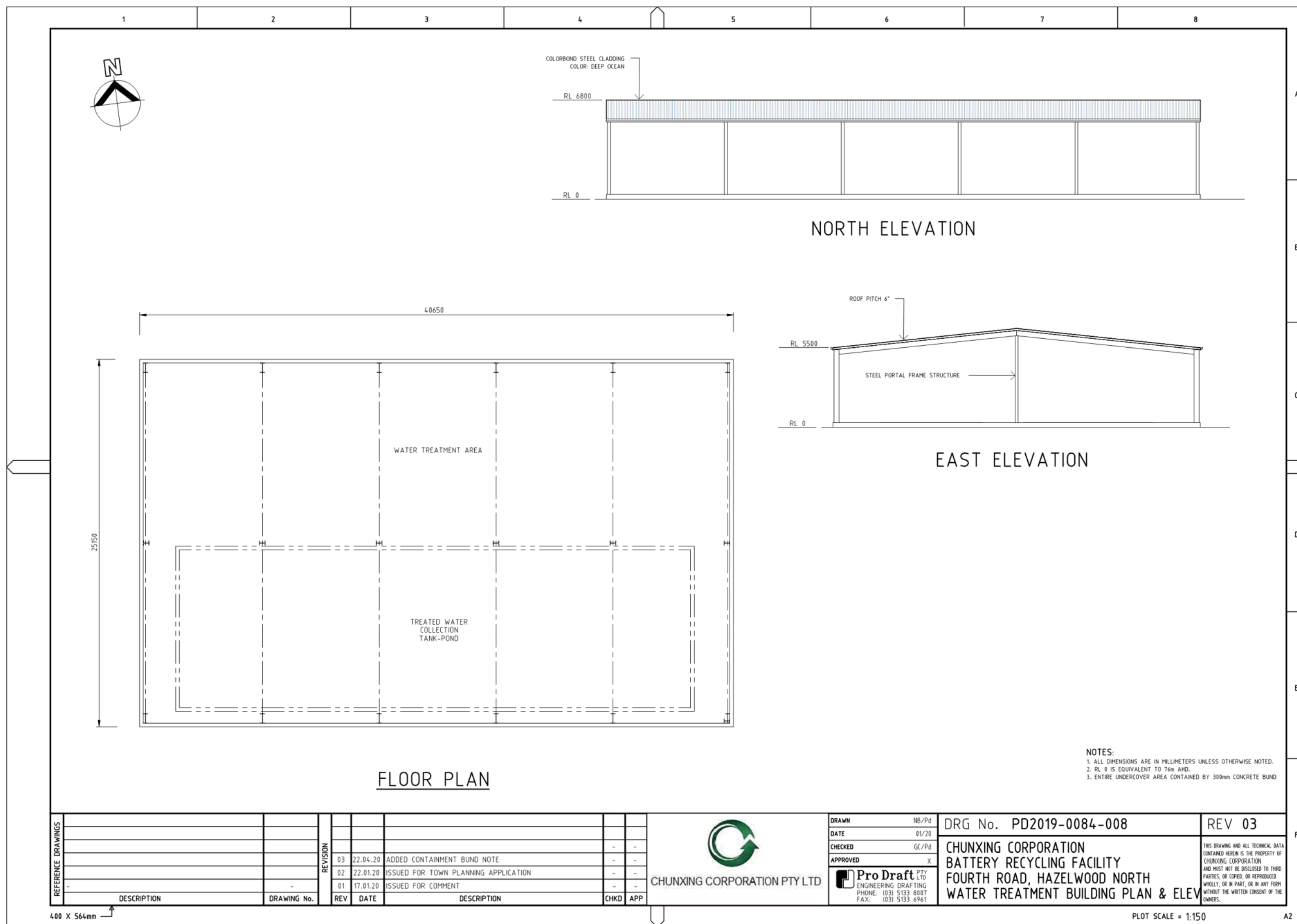
400 X 564mm

PLOT SCALE = 1:500

A2







NOTES:
 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
 2. RL 0 IS EQUIVALENT TO 76m AHD.
 3. ENTIRE UNDERCOVER AREA CONTAINED BY 300mm CONCRETE BUND

DESCRIPTION	DRAWING No.	REV	DATE	DESCRIPTION	CHKD	APP
		03	22.04.20	ADDED CONTAINMENT BUND NOTE	-	-
		02	22.01.20	ISSUED FOR TOWN PLANNING APPLICATION	-	-
		01	17.01.20	ISSUED FOR COMMENT	-	-

CHUNXING CORPORATION PTY LTD



DRAWN	NB/Pd
DATE	01/20
CHECKED	GC/Pd
APPROVED	X

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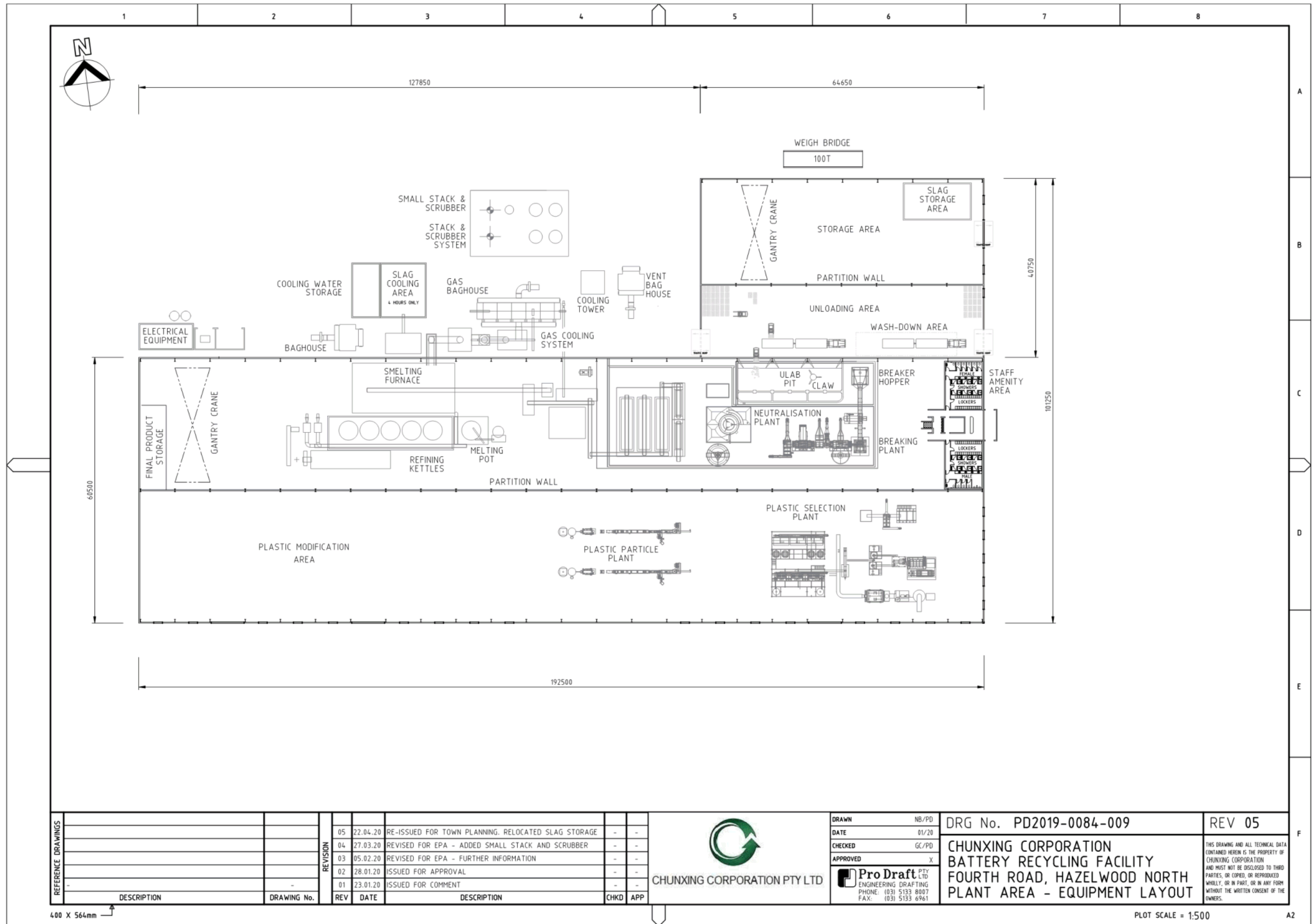
DRG No. PD2019-0084-008
CHUNXING CORPORATION
BATTERY RECYCLING FACILITY
FOURTH ROAD, HAZELWOOD NORTH
WATER TREATMENT BUILDING PLAN & ELEV

REV 03
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400 X 564mm

PLOT SCALE = 1:150

A2



REV	DATE	DESCRIPTION	CHKD	APP
05	22.04.20	RE-ISSUED FOR TOWN PLANNING. RELOCATED SLAG STORAGE	-	-
04	27.03.20	REVISED FOR EPA - ADDED SMALL STACK AND SCRUBBER	-	-
03	05.02.20	REVISED FOR EPA - FURTHER INFORMATION	-	-
02	28.01.20	ISSUED FOR APPROVAL	-	-
01	23.01.20	ISSUED FOR COMMENT	-	-


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DATE	01/20
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APPROVED	X

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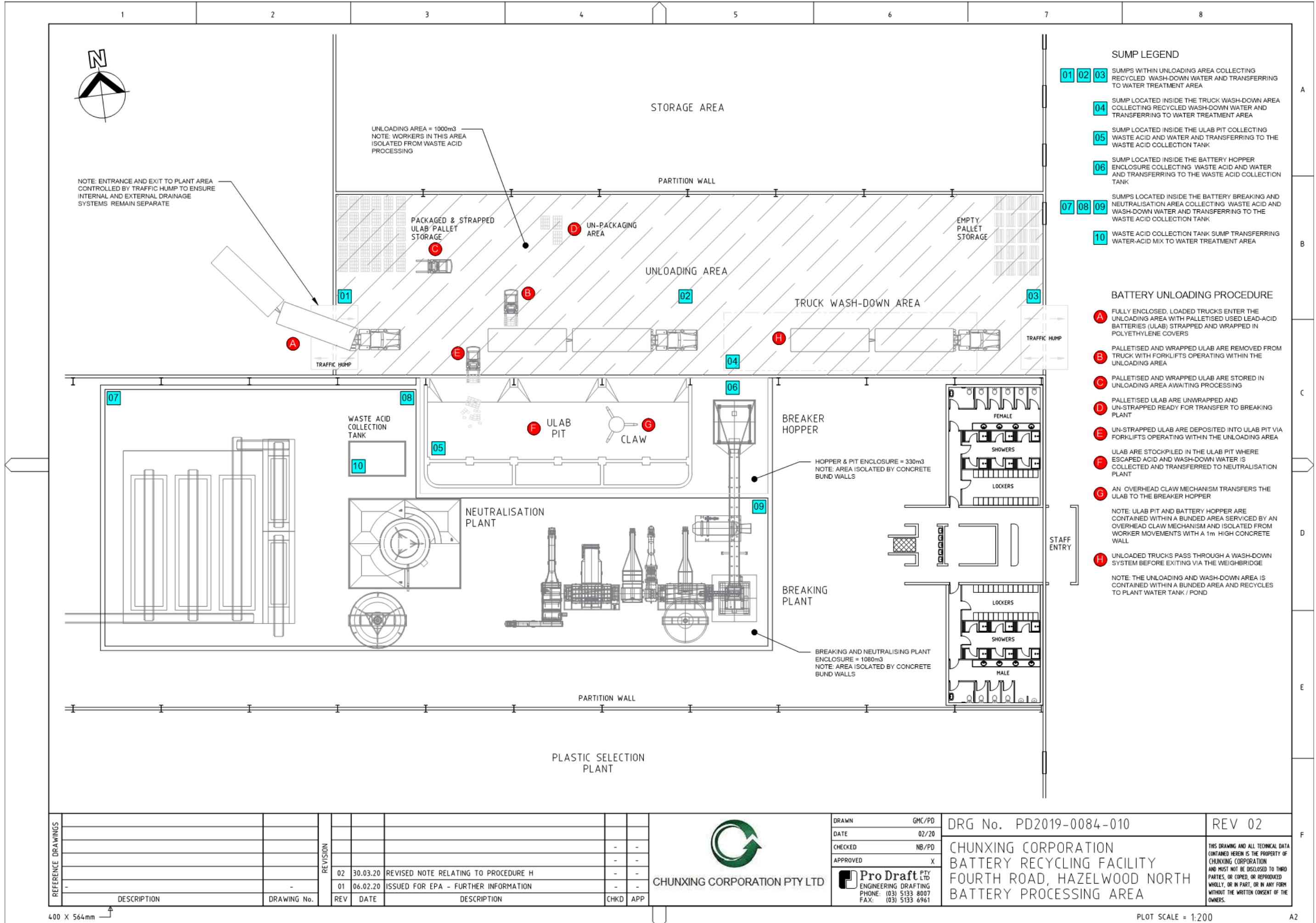
DRG No. PD2019-0084-009
CHUNXING CORPORATION
BATTERY RECYCLING FACILITY
FOURTH ROAD, HAZELWOOD NORTH
PLANT AREA - EQUIPMENT LAYOUT

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PLOT SCALE = 1:500

A2



- SUMP LEGEND**
- 01 02 03 SUMPS WITHIN UNLOADING AREA COLLECTING RECYCLED WASH-DOWN WATER AND TRANSFERRING TO WATER TREATMENT AREA
 - 04 SUMP LOCATED INSIDE THE TRUCK WASH-DOWN AREA COLLECTING RECYCLED WASH-DOWN WATER AND TRANSFERRING TO WATER TREATMENT AREA
 - 05 SUMP LOCATED INSIDE THE ULAB PIT COLLECTING WASTE ACID AND WATER AND TRANSFERRING TO THE WASTE ACID COLLECTION TANK
 - 06 SUMP LOCATED INSIDE THE BATTERY HOPPER ENCLOSURE COLLECTING WASTE ACID AND WATER AND TRANSFERRING TO THE WASTE ACID COLLECTION TANK
 - 07 08 09 SUMPS LOCATED INSIDE THE BATTERY BREAKING AND NEUTRALISATION AREA COLLECTING WASTE ACID AND WASH-DOWN WATER AND TRANSFERRING TO THE WASTE ACID COLLECTION TANK
 - 10 WASTE ACID COLLECTION TANK SUMP TRANSFERRING WATER-ACID MIX TO WATER TREATMENT AREA

- BATTERY UNLOADING PROCEDURE**
- A FULLY ENCLOSED, LOADED TRUCKS ENTER THE UNLOADING AREA WITH PALLETISED USED LEAD-ACID BATTERIES (ULAB) STRAPPED AND WRAPPED IN POLYETHYLENE COVERS
 - B PALLETISED AND WRAPPED ULAB ARE REMOVED FROM TRUCK WITH FORKLIFTS OPERATING WITHIN THE UNLOADING AREA
 - C PALLETISED AND WRAPPED ULAB ARE STORED IN UNLOADING AREA AWAITING PROCESSING
 - D PALLETISED ULAB ARE UNWRAPPED AND UN-STRAPPED READY FOR TRANSFER TO BREAKING PLANT
 - E UN-STRAPPED ULAB ARE DEPOSITED INTO ULAB PIT VIA FORKLIFTS OPERATING WITHIN THE UNLOADING AREA
 - F ULAB ARE STOCKPILED IN THE ULAB PIT WHERE ESCAPED ACID AND WASH-DOWN WATER IS COLLECTED AND TRANSFERRED TO NEUTRALISATION PLANT
 - G AN OVERHEAD CLAW MECHANISM TRANSFERS THE ULAB TO THE BREAKER HOPPER
 - H UNLOADED TRUCKS PASS THROUGH A WASH-DOWN SYSTEM BEFORE EXITING VIA THE WEIGHBRIDGE
- NOTE: ULAB PIT AND BATTERY HOPPER ARE CONTAINED WITHIN A BUNDED AREA SERVICED BY AN OVERHEAD CLAW MECHANISM AND ISOLATED FROM WORKER MOVEMENTS WITH A 1m HIGH CONCRETE WALL
- NOTE: THE UNLOADING AND WASH-DOWN AREA IS CONTAINED WITHIN A BUNDED AREA AND RECYCLES TO PLANT WATER TANK / POND

DESCRIPTION	DRAWING No.	REV	DATE	DESCRIPTION	CHKD	APP
		02	30.03.20	REVISED NOTE RELATING TO PROCEDURE H	-	-
		01	06.02.20	ISSUED FOR EPA - FURTHER INFORMATION	-	-


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DATE	02/20
CHECKED	NB/PD
APPROVED	X

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DRG No. PD2019-0084-010

CHUNXING CORPORATION
 BATTERY RECYCLING FACILITY
 FOURTH ROAD, HAZELWOOD NORTH
 BATTERY PROCESSING AREA

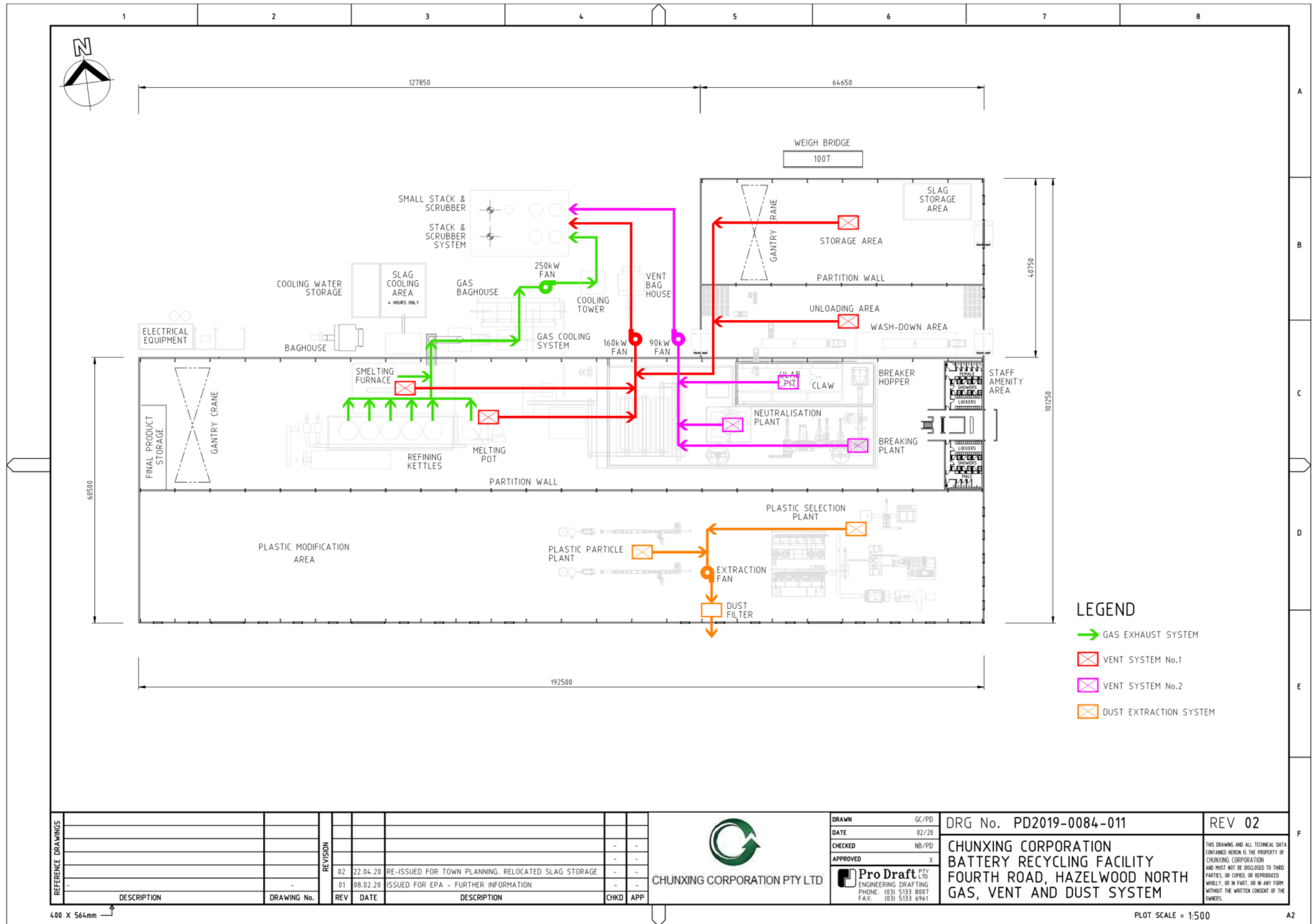
REV 02

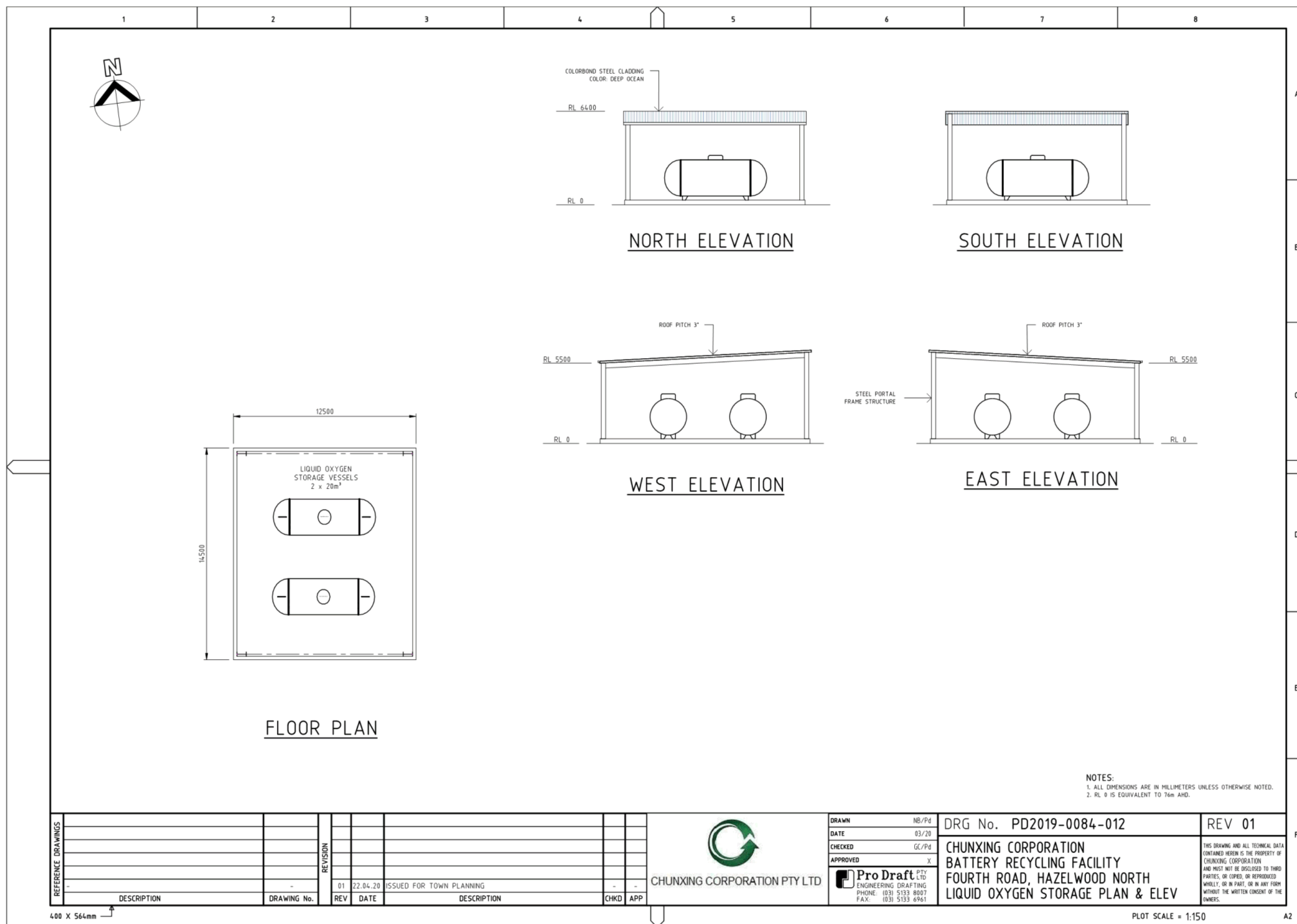
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400 X 564mm

PLOT SCALE = 1:200

A2





NOTES:
 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
 2. RL 0 IS EQUIVALENT TO 76m AHD.

DESCRIPTION	DRAWING No.	REV	DATE	DESCRIPTION	CHKD	APP
		01	22.04.20	ISSUED FOR TOWN PLANNING	-	-


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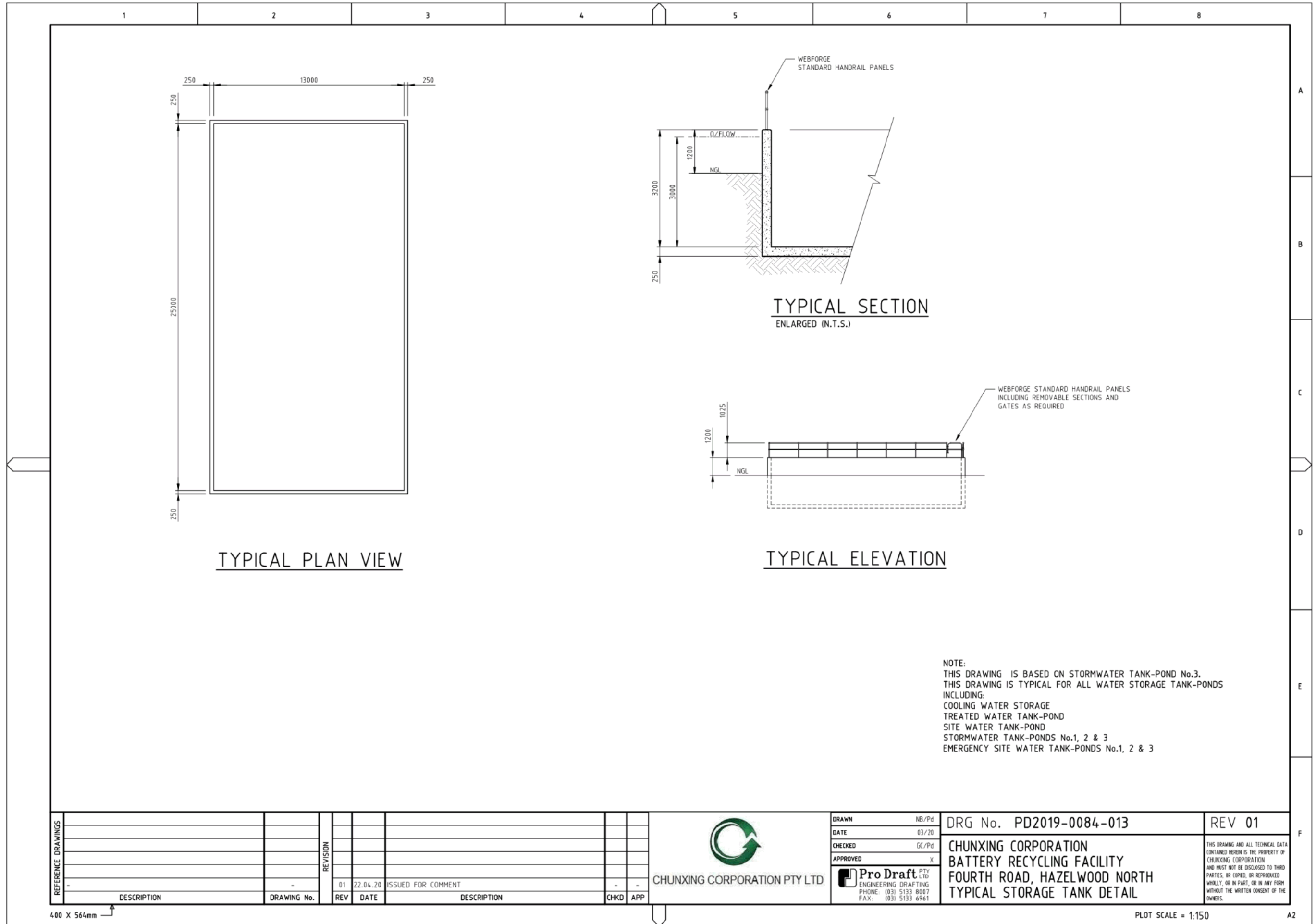
DRG No. PD2019-0084-012
CHUNXING CORPORATION
BATTERY RECYCLING FACILITY
FOURTH ROAD, HAZELWOOD NORTH
LIQUID OXYGEN STORAGE PLAN & ELEV

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400 X 564mm

PLOT SCALE = 1:150

A2



DESCRIPTION	DRAWING No.	REV	DATE	DESCRIPTION	CHKD	APP
		01	22.04.20	ISSUED FOR COMMENT	-	-

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DATE	03/20
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APPROVED	X

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DRG No. PD2019-0084-013

CHUNXING CORPORATION
BATTERY RECYCLING FACILITY
FOURTH ROAD, HAZELWOOD NORTH
TYPICAL STORAGE TANK DETAIL

REV 01

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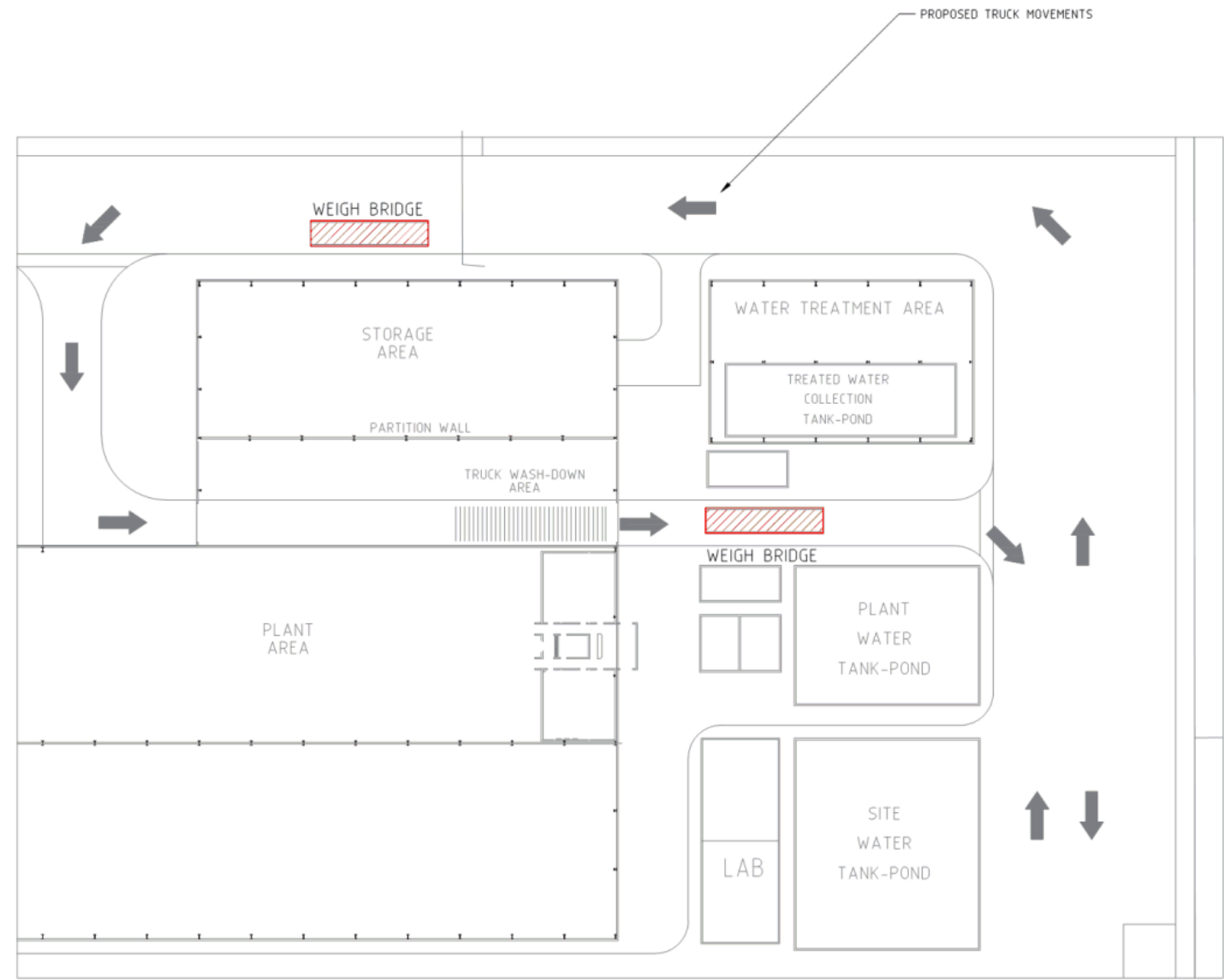
400 X 564mm

PLOT SCALE = 1:150

A2



TYPICAL WEIGH BRIDGE
100 TONNE CAPACITY



PARTIAL SITE PLAN
SHOWING WEIGH BRIDGE LOCATIONS (N.T.S.)

DESCRIPTION	DRAWING No.	REV	DATE	DESCRIPTION	CHKD	APP
		01	22.04.20	ISSUED FOR COMMENT	-	-

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DRAWN	NB/Pd
DATE	03/20
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APPROVED	X

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DRG No. PD2019-0084-014

CHUNXING CORPORATION
BATTERY RECYCLING FACILITY
FOURTH ROAD, HAZELWOOD NORTH
TYPICAL WEIGH BRIDGE

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400 X 564mm

PLOT SCALE = 1:150

A2

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Fyfe Pty Ltd
ABN 57 008 116 130



Our Ref: 80891-1

19 August 2020

Latrobe City Council
Karen Egan
PO Box 264
MORWELL, VIC, 3840

Dear Karen

PEER REVIEW OF PROPOSED USED LEAD ACID BATTERY RECYCLING FACILITY AT HAZELWOOD NORTH

Monarc Environmental (Monarc) has been engaged by Latrobe City Council (Council) to provide an independent and expert review of publicly available information regarding a used lead acid battery (ULAB) recycling facility that is proposed to be developed at Crown Allotment 2047 on Fourth Road, Hazelwood North, Victoria. The applicant for the proposed facility is Chunxing Corporation Pty Ltd (Chunxing) and they have submitted both a planning permit application to the Latrobe City Council and a Works Approval Application (WAA) to the Victorian Environment Protection Authority (EPA).

Following submission of the WAA, the EPA issued three Notices to Supply Further Information under Section 22(1) of the *Environment Protection Act (1970)*. Chunxing subsequently supplied three addendum documents to the EPA in satisfaction of the Section 22(1) notices.

Following the advertising of the WAA by the EPA 136 submissions were received from members of the community and other stakeholders and the EPA determined that a Section 20B Conference the *Environment Protection Act (1970)* would be useful to further explore community views and concerns about the proposal.

The Section 20B was held on 25 February 2020 and a report was then produced by the chair of the conference (RMCG 2020). It outlined the perspectives and questions of the conference participants and made a number of recommendations to EPA.

Council is currently assessing a planning permit application and planning permit application for the proposed ULAB recycling facility. Following an initial assessment of the application a further information request was made by Council Planning Officers on 27 February 2020 requiring plans to be amended to fix errors and include additional details/notes and also requiring confirmation regarding threshold distances to sensitive uses to inform Council's decision on the planning permit application. Monarc understands that Council and the applicant have not been able to get confirmation from the EPA about the appropriateness of threshold distances, and that the applicant provided additional information to Council on 5 August 2020 and that Council now considers that the further information request has been satisfied.

Monarc observes that a wealth of information has been provided in the WAA and numerous submissions made and concerns raised about the development. Monarc has reviewed the publicly available information and the Section 20B report and hereby provides a brief summary of the proposed ULAB recycling facility, and the key concerns raised by the proposal.

We then discuss in detail those concerns as they relate to the environmental siting of the proposal and the emissions from the facility. Monarc also identifies opportunities to address the key concerns identified. Our considerations are not all-encompassing, but rather are focused on community concerns relating to the

discharges to atmosphere of lead in particular, and of the environmental and health risks of those discharges, given the location and siting of the proposed facility.

Context

As a preliminary observation Monarc notes that the proposal is referred to in places as a 'lead smelter', and whilst this is accurate in many regards, it also hides the observation that there is a broad spectrum of activities that fall into this category.

We feel it is helpful to review some key similarities and differences between the proposed development and other facilities than have been mention in the WAA and/or community submissions.

Lead Smelting

The best known and largest lead smelter in Australia is the Port Pirie smelter in South Australia that is operated by Nyrstar Limited. That site has smelted lead for over 130 years and so is encumbered with historical technologies and legacies that have evolved over that period. Furthermore, the Nyrstar smelter uses as its predominant raw material a material known as lead concentrate – a mineral produced by mines, that if dried and subject to breezes generates lead containing dusts. Coal or coke is also a raw ingredient in the process, with a similar propensity to generate dust emissions. A photograph showing a part of the Port Pirie lead smelter is presented in Figure 1 below.

For these reasons the Nyrstar facility is known in the industry as a 'primary' lead smelter – in recognition that it directly smelts a mined ore.



Figure 1 – Photograph of a part of the Port Pirie lead smelter (source unknown).

Additionally the scale and nature of historical lead smelting has resulted in lead smelters being complexes where key buildings are not fully enclosed. That is, walls are typically not installed to ground level on all sides, at least in part to provide natural ventilation, and hence a source of 'uncontrolled' dispersion of dust outside of such buildings.

It is therefore understandable that communities like Port Pirie have experienced unacceptable exposures to lead from lead smelting operations.

It is also understandably that other communities would hesitate to endorse a similar or even a scaled down development of that nature in their locality. However, the proposed ULAB facility at Hazelwood is not by any definition a primary lead smelter. Rather it should be categorised as a secondary lead smelter – because its feedstock is lead recovered from used objects (in this case batteries). The Hazelwood North facility is inherently and explicitly designed to address far more stringent environmental requirements than historical (and even current) Australian primary metal smelters. Regardless of the metal they produce – all these facilities are much older and retrofitting environmental protections is never as effective.

Battery Recycling and the Hazelwood North Proposal

Just as with lead smelting, there is a long and world-wide history of ULAB recycling. Practices and technologies have evolved over the years. The worst aspects of the industry are usually associated with activities in developing countries where the recycling and smelting operations are often located in populated urban areas with minimal pollution control and safety measures (Ref-1). It is therefore understandably that communities also have that benchmark for the industry, when it is learnt that one is proposed to be located in their community.

Key distinguishing features of the Chunxing ULAB recycling facility, compared to traditional lead smelting and compared to 'historical' ULAB recycling include:

- The raw materials are in a solid form with no propensity to generate dust during transport or storage.
- All processing activities are performed in a purpose-built fully enclosed building. This makes it entirely feasible to achieve near 100% elimination of what is known as fugitive emissions (see below for further details).
- With fugitive emissions eliminated, it is quite practicable to then capture and treat in dedicated air pollution control equipment 100% of dust and other air contaminants.
- The elimination of fugitive emissions means that it is feasible and reasonable to achieve a high level of pollutant removal by the air pollution control equipment.
- The elimination of fugitive emissions and the anticipated improved removal of airborne emissions and contaminants through the dedicated air pollution control systems mean that it is conceivable that downwind airborne impacts can be substantially less than is currently the case with Australian metal-processing facilities.

The first point is significant, because it results in almost total elimination of lead dust sources during the transport, delivery, storage and reclamation of the primary raw ingredient – the used lead acid batteries. This risk is further reduced by virtue of the unloading and storage taking place indoors, in a fully enclosed building that is presumably maintained at a negative atmospheric pressure.

Whilst coal or coke is a secondary raw ingredient in traditional lead smelting, this is not the case with the proposed Chunxing ULAB recycling facility. Rather natural gas is understood to provide both the energy source for the furnace operations and carbon as a reductant. Furthermore, by virtue of the raw material being

predominantly lead metal (albeit impure) on receipt – rather than as lead sulphate with a typical lead content of 40 to 68% as is the case with a typical lead smelter, then is a much reduced requirement for a reductant (coal/coke) than is the case with a lead smelter. This further reduces the quantities of potentially dust producing raw ingredients that are required by the proposed facility.

The second point is also important, because without fully enclosed buildings it is very difficult to prevent dispersion of dust from a site. That the proponent is proposing to undertake all processing activities within a fully enclosed building provides considerable confidence that elimination of fugitive emissions is achievable. This is the approach adopted by two comparable facilities and has to our understanding been extremely effective.

As a comparison, the Renex facility at Dandenong South receives contaminated soils, processes them in a high temperature treatment system, and discharges waste gases to atmosphere via a stack. The finished product is a soil-like material. Hence both the raw material and product have the propensity to generate dust, and the facility addresses this by receiving, storing, processing and stockpiling them within their fully enclosed building that we understand is maintained under a negative atmospheric pressure. A photograph of the Renex facility is shown in Figures 2 to 4 below.

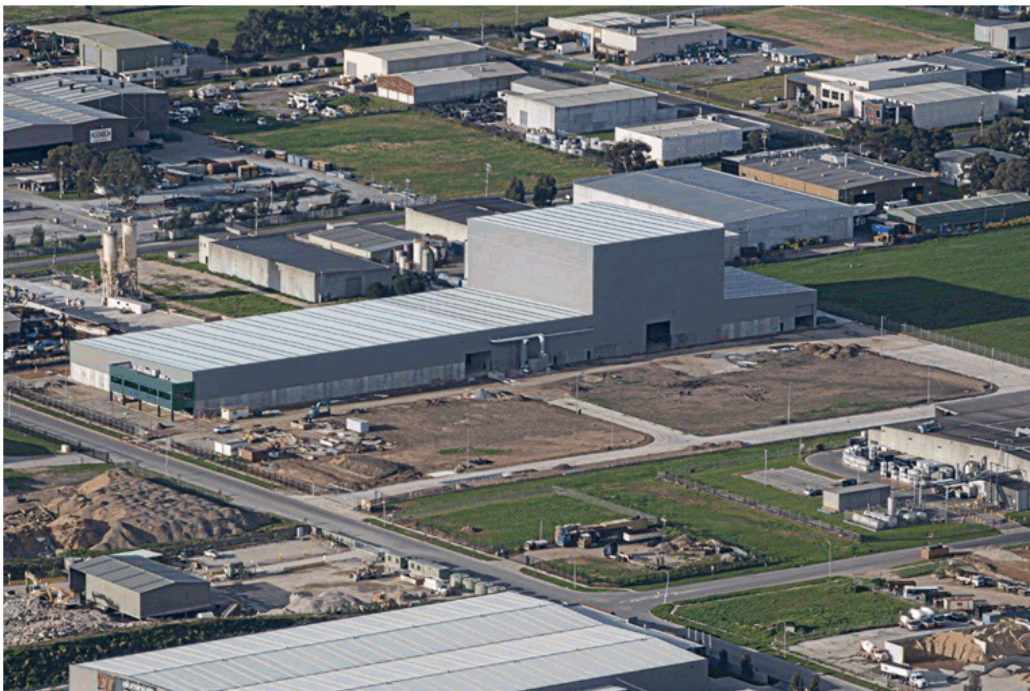


Figure 2 – Renex facility under construction in circa 2015 (source unknown).



Figure 3 – Renex Facility – 2017 (Image from NearMap)



Figure 4 – Renex Facility – 2020 showing more recent site developments and apparent storage of what is presumed to be treated soil in an external, covered stockpile (Image from NearMap).

Also relevant is the Enirgi ULAB recycling facility in Wagga Wagga NSW. Constructed in about 2015, it is broadly similar in raw materials, processing and finished products to the Chunxing proposal and is shown in a photograph in Figure 5 below.



Figure 5 – Enirgi Facility – Wagga Wagga NSW (image from Enirgi website <http://www.enirgipower.com.au/recycling/recycling-facility/>)

Figures 2 to 5 are presented to illustrate that recent recycling facilities have an external appearance that is supportive of the contention that current practice is to construct fully enclosed recycling facilities. To our knowledge both of these facilities have operated within the limits of their environmental licences, and have not been subject to enforcement actions by the their regulators. The same cannot be said of more traditional lead smelters and older technology battery recycling facilities, and thus affords some comfort that the proposed development incorporates a key element conducive to operating to a high environmental standard. The absence of this element (full enclosure) would raise serious concerns about the achievable environmental performance.

That the Hazelwood North proponent is adopting the same approach (Figure 6) must be taken as a positive factor, and also makes it appropriate that it is a point of distinction between their facility and more traditional lead smelters and poorer performing ULAB recycling facilities (not including the Enirgi facility).

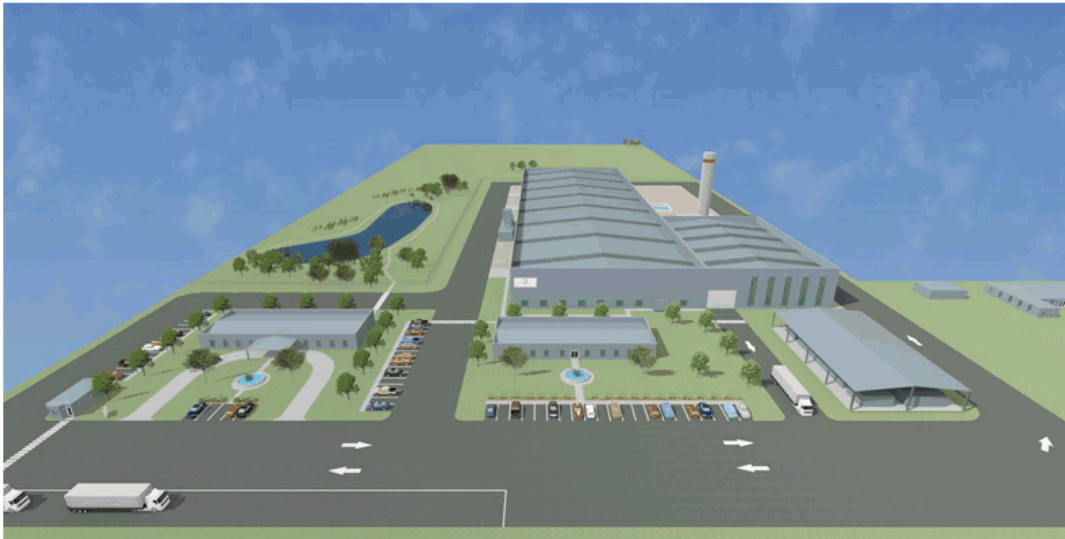


Figure 6 – Proponent's image of proposed Hazelwood North facility (source WAA)

It is recognised from Figure 4 that some presumed treated product is being stockpiled external to the Renex processing building. Without commenting on the appropriateness of that storage, it does highlight external storage as a factor for consideration by the Chunxing Works Approval Application. Whilst external storage is not being proposed at Hazelwood North, it cannot be ruled out that there would be no external storage into the future.

It therefore warrants consideration as to what items could be stored externally, if that storage would be permitted or not, and if it would change the environmental emissions and discharges from the facility.

Monarc expects that EPA licencing of the facility would require all raw materials to be stored indoors. This would include the ULABs, although it is noted that other raw materials such as fluxes and lime may be in solid or powder form, and hence at greater risk of being a source of dust emissions. Counter to this point is that such raw materials are likely to be moisture sensitive and potentially unusable if allowed to get wet, this providing an intrinsic incentive for their storage indoors.

The finished product – lead bullion – would not present a risk of dust or particulate emissions if stored outdoors as it is solid metal. It could however present a low risk of contaminating stormwater and soil.

The other material of significance that could potentially be stored externally and could generate dust emissions is the waste slag. Whilst typically a less friable, more glass-like substance, it would be preferable that this material be stored in a manner that prevents dust emissions and run-off to stormwater. Storage within the processing building would be ideal.

Monarc would expect that the EPA would clearly state in their licensing requirements restrictions on what can be stored external to the processing building. As external storage can be readily monitored by third parties, there are avenues open to council to initiate corrective actions with the operator should non-compliance on this matter be detected. The Section 20B report also makes a number of recommendations on this topic.

Given that all potential dust generating activities would be conducted in a fully enclosed building that is maintained under a negative atmospheric pressure, the subsequent element of capturing and treating dust and other emissions becomes a relatively routine engineering task. This is in part because enclosure reduces the quantity of air (typically expressed in units of m³ per minute) that needs to be captured compared to an unenclosed area. Clearly it is more practical and efficient to treat a reduced volume of air than a larger volume.

The Chunxing ULAB Proposal - Siting

An early consideration in applications such as the proposed ULAB recycling facility is the siting of the facility, and the distances that exist between the proposed facility and other land uses. In Victoria, the most authoritative guidance on such matters is the Victorian EPA Publication 1518 of March 2013 *Recommended separation distances for industrial residual air emissions* (EPA 2013).

A review of Table 1 of EPA Publication 1518 shows that two industry type categories are applicable to the ULAB recycling facility: 'Non-ferrous metal production greater than 2,000 tonnes per year', and 'materials recovery and recycling facility'. A recommended separation distance of 500 m is listed in Table 1 for the metal production category, whilst the recycling category has no recommendation made regarding separation distance. Rather, Table 1 states that the recommended separation distance would be a case by case determination 'to the satisfaction of the EPA'.

In the absence of a definitive recommendation on a separation distance from the Victorian EPA, Monarc has considered recommended separation or buffer distances that may have been published for other jurisdictions. A number of submissions noted that the Enirgi battery recycling facility at Wagga Wagga in NSW is subject to a 5 km buffer distance, and that is considered best practice. Monarc has reviewed NSW EPA publications and guidelines, and in particular the NSW EPA publication *Protection of the Environment Operations Risk-based Licensing Guidance on using the risk assessment tool* (NSW EPA 2016). That document notes that protection from industrial air emissions is achieved on a case-by-case risk-based determination. That is there is no NSW EPA recommendations on separation distances between industrial air emission sources and sensitive receptors.

Monarc also reviewed an assessment report published by the NSW Department of Planning, Industry and Environment (DPIE 2020) regarding an application by Enirgi to expand their Wagga Wagga battery recycling facility. The DPIE (2020) report made no mention of a 5 km buffer and noted that the nearest residence was 1.2 km from the Enirgi facility. The report also noted that the updated air quality impact assessment for the expanded facility remained compliant with air quality criteria at the nearest residential and industrial receptors.

Monarc therefore finds no basis for suggestions that the Enirgi facility in NSW (or any recycling facility in NSW) is subject to or required to have a buffer or separation distance of 5 km. Rather, the DPIE (2020) report indicates that a separation distance of 1.2 km from the Enirgi facility to the nearest residential receptor is in compliance with their air quality requirements.

The South Australian EPA also provides guidance on what they term 'evaluation distances for effective air quality and noise management' in their publication of the same name (SA EPA 2016). Appendix 1 of their publication lists recommended evaluation distances for numerous activities. The category most relevant to the consideration of the Hazelwood North facility is 'scrap metal recovery' and that has a recommended evaluation distance of 500 m.

Monarc understands that the available separation distance between the proposed Hazelwood North facility and the nearest applicable location (termed the nearest 'sensitive land use') is approximately 1.2 km. That is, the proposed metal production activities will be at a separation distance well in excess of that recommended by the Victorian EPA, and so can be considered appropriately located.

However, it is not sufficient to satisfy just one of the industry type classifications, so consideration needs to also be given to what an appropriate separation distance for the recycling land use might be. Monarc understands that EPA has not provided any specific advice on what they consider would be their recommended separation distance. We therefore present the following considerations, which we expect would be broadly consistent with EPA guidance and practices on the topic.

Publication 1518 states that separation distances relate to land uses that emit odour or dust, and how that may affect sensitive areas. Therefore in order to arrive at a view on an appropriate separation distance for the recycling facility category, consideration needs to be given to potential residual odour and dust emissions. A useful yardstick for such comparisons is the recommended separation distances listed in Table 1 for other waste management industries classified in the 'Material recovery and recycling' category. There are three such other industries listed in Publication 1518:

- Permanent contaminated soil treatment facility.
- Prescribed industrial waste treatment facility; and
- Transfer station.

The first two categories have a recommended separation distance of 500 m, whilst for transfer stations a distance of 250 m is recommended.

According to Publication 1518, separation distances are to address issues of residual odour and dust emissions. The proponent's addendum to the WAA (page 107) states that odour is not a relevant consideration for this type of industry. Whilst Monarc concurs with this assessment to the extent that it applies to the inputs to the process (used lead acid batteries, fluxing agents in a solid form, and natural gas), consideration of the propensity of the processing activities to generate odours is also warranted before we could concur with such a claim.

Appendix 8 of the WAA lists a range of contaminants that were tested for in an occupational disease hazard report prepared for a Chunxing recycling plant in Jiangsu, China. It lists the following potential fugitive emissions:

- Dust (as 10 or 2.5 micron particulate matter, i.e. PM₁₀ or PM_{2.5} respectively)
- Calcium and its compounds (CaO)
- Lead and its compounds
- Sodium hydroxide
- Carbon monoxide
- Hydrogen sulfide
- Sulfur dioxide
- Sulfuric acid

Of these substances, sulfur dioxide and hydrogen sulfide are the only two that have appreciable odorous properties. The *State Environment Protection Policy (Air Quality Management)* lists sulfur dioxide as an air quality indicator that is classified for reasons of its toxicity, and that hydrogen sulfide is classified for reasons of its odorous properties with a listed odour threshold of 0.14 µg/m³. The odour threshold for sulfur dioxide is listed as 0.67-4.75ppm (1.8 to 12.4 mg/m³) in the *Acute Exposure Guideline Levels for Selected Airborne Chemicals: Volume 8* published by the National Research Council (US) Committee on Acute Exposure Guideline Levels, Washington (DC) in 2010.

The air dispersion modelling submitted with the WAA shows the ground level concentrations of sulfur dioxide are at most predicted to be 0.0006 mg/m³. Even without further analysis it is apparent that residual sulfur dioxide emissions would not be detected as odours outside of the facility.

With regard to hydrogen sulfide, it is noted that it was not detected in the samples collected within the Jiangsu plant (which is not surprising given the chemical processes and the conditions involved) as it would be far less prevalent than sulfur dioxide. Monarc is therefore satisfied that hydrogen sulfide emissions would not be detected as odours outside of the facility. With no other potentially odorous substances present at or generated by the facility, Monarc concludes that there would be no basis for any separation distance from the facility, based on residual odorous emission.

This leaves the matter of residual dust emissions to be considered, and the potential separation distance that may be required because of them.

In arriving at an opinion on this matter, factors that can be taken into account include the scale of the operations, the actual potential sources of residual dust emissions, what could represent worst-case emissions, and the recommendations in place for other, broadly similar industries, and the reasons for those recommendations. However, these factors need only be considered to the extent that they are not already addressed by the 500 m recommended buffer distance listed in Publication 1518 – as applies to non-ferrous metal production (greater than 2,000 tonnes per annum).

Hence factors associated only with non-ferrous metal production (handling and storage of bulk solids, concentrates, coal, coke, sintering, furnace operations and associated discharges to atmosphere with or without air pollution controls) are considerations that are already captured in the 500 m recommendation.

Other factors that remain as potentially of consideration in identifying a separation distance could therefore include:

- Factors relating to the 'raw material' – the ULABs;
- Factors relating to the lead, acid and other constituents of the ULABs;
- The manner in which these raw materials are stored;
- Processing activities that may be more akin to waste management and recycling, than to metal production;

The first factor – the raw materials, are common and familiar items that are without any propensity to generate odour or dust in their normal use or storage. There may be some risk of fire or explosion (due to hydrogen that may be evolved when a battery is being charged), although we understand that is regulated and mitigated through the requirements of the *Australian Dangerous Goods Code for the Transport of Dangerous goods by Road & Rail, Edition 7.6 (NTC 2018)* by the National Transport Commission. We also understand that recharging of batteries will not occur at the facility. The NTC (2018) requirements also limiting the potential for overheating and shorting by stipulating that the batteries be separated through the use of insulating separator layers.

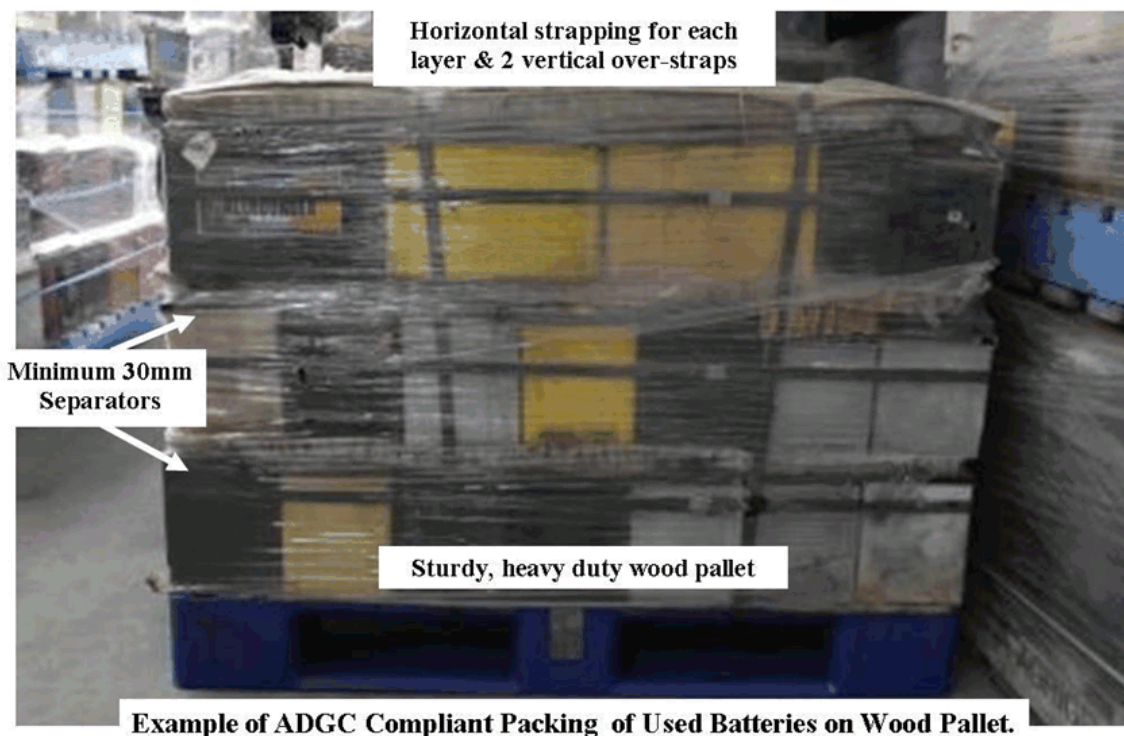


Figure 7 – Packing Requirements – ULAB

As the ULABs will be stored indoors, in a building that has a negative atmospheric pressure it is not possible to envisage there being any risk of dust emissions.

The pulverising of a raw waste material, has potential parallels with other waste management facilities. However the WAA describes the ULAB breaking process as involving transport by crane into a hopper, and from there via conveyor belt into an enclosed hammer mill in a wet system. Whilst we have no additional details, the specification of a 'wet' system is fundamentally superior to dry hammer-milling in terms of reducing potential dust emissions. Furthermore, the provision of localised fume extraction and the locating of the works in an enclosing building that is maintained under a negative atmospheric pressure provides further reassurance that no significant dust emissions would leave the plant.

It is noted that a wet crushing system may have a greater potential to generate mist emissions. However any generated mist would be collected and treated by the air pollution control system described above, just as would be the case for dust emissions. Furthermore, mist emissions, should they occur, would be transported in the atmosphere for shorter distances than would emissions of dust.

Monarc has not been able to identify any aspect of the lead material, or of other raw materials or products that could be problematic for reason of their potential to generate odour or dust.

There is no organic material, compostable or degradable materials involved, so there is no potential for compost or decay type odours.

The ULABs are a highly specific and relatively high value waste stream that presumably has little public involvement or mechanical/automated steps in its pre-treatment, consolidation and supply. This is significant because it means there should be negligible inclusion of other wastes that could be odorous or dust generating. Municipal waste transfer depots and recycling facilities have odorous emission by virtue of incomplete segregation of wastes and recyclables, and the inclusion of organic matter such as residual food wastes on packaging items.

Waste transfer and recycling facilities are also characterised by generally being in the open, or in facilities that may have roof coverings but not fully enclosed walls, and that are unlikely to operate under full negative pressure atmospheric conditions.

Waste transfer and recycling facilities are also at risk of fire – typically related to the stockpiling of combustible wastes and often exacerbated by co-mingled combustible or reactive wastes being unknowing included. Again, the likely highly uniform composition of the ULABs, and that the upstream collection and consolidation is not consumer dependant gives us reassurances that co-mingled or unexpected waste inclusions would not be of factor of any significance at the Hazelwood North facility.

Additionally, the finished products (lead bullion and zinc sulfate solution) are by their nature not odorous or at risk of being a source of dust emissions.

Monarc's analysis of residual emissions is considered to be consistent with that presented by Coterra Environment in their report *Technical Documentation and Environmental Assessment – Volume 1, 8-10 Winchester Road, Bibra Lake* dated September 2019 and submitted in support of a proposed 30,240 tonnes per annum ULAB recycling facility in Western Australia (Coterra 2019). That facility is broadly similar to that proposed at Hazelwood North, except there is no lead smelting component, no provision of all-enclosing factory buildings maintained under negative atmospheric pressure and no air pollution collection and treatment equipment. The Coterra (2019) report ranked the proposed Western Australian ULAB recycling facility as being at a low risk of dust emissions when applying a West Australian Department of Environment and Conservation (DEC) (now Department of Water and Environmental Regulation (DWER) guideline prepared for managing the impacts of dust and associated contaminants from land development sites.

A final consideration as discussed in EPA Publication 1518 is that separation distances are required for events such as equipment failures, accidents and abnormal weather conditions that can potentially impact sensitive land uses beyond the boundary of the source premises. Equipment failures and accidents cannot be ruled out, although it is difficult to conceive of a weather condition that could result in the facility impacting on sensitive land uses. We say this based on the results of the air dispersion modelling submitted by the proponent, and the large margins of safety between the predicted impacts and the applicable air quality standards.

Monarc does not rule out the potential for equipment failures or accidents at the Hazelwood North facility, and so provides the following for consideration. Accidents or emissions could indeed result or greater than normal emissions. Hence we would expect that the first response to such an event would be to stop or shut down the processing activities, should the failure or accident so warrant. For example, a significant problem with the air pollution control equipment should mean that processing activities are shut down.

However, such a shutdown would generally not result in emissions to atmosphere ceasing immediately. And an instantaneous shutdown may result in higher emissions than a more controlled shut down.

The WAA states that in the event of a major failure in the pollution control system, the processing activities would cease. Monarc expects that the worst-case timing of such an emergency shutdown would be if a feed batch had just been added to the smelting furnace. Such scenarios would have been addressed as one of the bases for the EPA's recommendation in Publication 1518 of a separation distance of 500 m for non-ferrous primary metal production greater than 2,000 tonnes per year. Monarc cannot envisage any non-smelter related accident or equipment failure that could result in greater emissions than an air pollution equipment control failure whilst a furnace is being charged.

In conclusion, Monarc finds that a separation distance of 500 m to sensitive land uses is appropriate for the proposed Hazelwood North ULAB recycling facility. This is based on parts of its operations being categorised by EPA as non-ferrous metal production greater than 2,000 tonnes per annum.

The other categorisation applicable to parts of the proposed facility is waste management – materials recovery and recycling. EPA Publication 1518 states that such facilities should have their separation distance determined on a case by case basis.

Based on our considerations above, Monarc concludes that an appropriate separation distance for the non-smelting aspects of the proposed Hazelwood North facility is substantially less than the 250 m separation distance recommended by EPA for transfer stations. However, as non-ferrous primary metal production is an integral part of the development, Monarc concludes that a separation distance of 500 m is appropriate for the entire facility as proposed.

The location of the proposed facility is considered by Monarc to satisfy EPA recommended separation distance guidelines for industrial residual air emissions, given the distance to the nearest sensitive land uses (residences and a primary school) is at least 1,100 m.

The Chunxing ULAB Proposal – Impacts of Emissions to Atmosphere

As discussed above, it is a substantial advantage to have potential dust and emission generating activities undertaken within fully enclosed buildings that are maintained under a negative atmospheric pressure. This greatly simplifies that engineering tasks of collecting both point source emissions from equipment and general emissions from anywhere within the buildings. Once captured (unlike what may escape from the wall openings in a traditional lead smelter) there are numerous technologies available to treat and reduce pollutant levels in air pollution control equipment prior to being discharged to atmosphere.

A secondary benefit is that the more manageable air volume is in turn more amenable to multiple and varied treatments, including the provision of redundant or backup capacity.

Finally, when all potentially contaminated airstreams are captured then treated, they can be discharged to atmosphere through elevated stacks. Discharge through elevated stacks further reduces the resultant concentrations of pollutions that would be experienced at ground level, compared to those same emissions entering the atmosphere through low-level building openings.

Our review of the proposed air pollution treatment system indicates that the design is consistent with comprehensive treatment of an airstream, including the provision of redundant (backup) items of key components. The provision of a continuous emissions monitoring system (CEMS) on the stack, along with likely (recommended) process control and alarm strategies (such as pressure monitoring, temperature monitoring and motor monitoring) is generally well established practice that can bring considerable comfort to concerned parties that it is designed to be (and likely to be) operated to a high performance standard. Monarc understands that a Continuous Operating Monitoring System is also proposed by the proponent. This would provide an added layer of confidence that the facility would only operate when it is sufficiently functional.

Should the worst happen, and there is a major malfunction of the air pollution control system, the WAA application states (page 144), and it is relatively standard and accepted practice, alarms and interlocks would see to the shutting down of the processing equipment within the facility. On this topic, such a shut-down would be relatively swift (less than 15 minutes), compared to a traditional lead smelter. This is by virtue of the relatively small scale of the proposed furnaces (which would be the most significant single source of internal emissions). A smaller device can more rapidly be brought to a condition (such as a low enough temperature for it to not generate emissions) faster than can an equivalent but larger device of the same type. This speed of shut-down is significant in that the quicker the generation of emissions is halted after a malfunction in the pollution control equipment, the smaller are the emissions to atmosphere, and hence the smaller the discharge of pollutants such as lead.

In practice, the majority of air pollution control system malfunctions are likely to be gradual in their onset (such as blinding or loss of baghouse filter integrity or drift of scrubber treatment chemical concentration) and so able to be rectified before any emissions limit is approached.

It is Monarc's opinion (and without pre-empting EPA's considerations) that the pollution control strategy and implementation is sufficiently well designed and engineered as to give comfort in its adequacy and ability to perform to the required standard. That is, the foundations for a robust and reliable system appear to be present.

The next steps in actually achieving the required environmental performance revolve around firstly constructing the facility to the standard proposed, and then operating the facility so as to routinely meet the promised level of environmental performance.

On the first point, of constructing the facility as promised, that is considered by Monarc to be likely with a considerable degree of confidence. The first level of comfort is provided by the Works Approval (should it be issued by the EPA). This is a permit like document that holds the proponent to construct the facility in accordance with their submission. It is not uncommon for additional requirements to be imposed at this point, based on the EPA's assessment of the application and on stakeholder input. Similarly, the council will place their own complimentary conditions. Permission to occupy and operate are not issued until both regulatory authorities are satisfied that all of their conditions are met. This is a strong hold point that has substantial court backing should it not be respected.

It is also noted that the same works approval application process is required should a proponent seek to increase or alter an existing discharge to the environment, or change the way in which waste is treated or stored. That is, any concerns stakeholders may have about 'the thin end of the wedge' or of future capacity increases or relaxation of processing requirements cannot legally occur with the operator passing the same regulatory hurdles as applies to this original proposal. (Although it is noted that were the changes are trivial, or result in reductions of impacts, the process may be more streamlined than is the consideration of the current application). Doing so (modifying their process) without such due process has the same legal and regulatory implications as constructing or operating the facility in the first instance without the necessary permits and approvals. That is, there are strong mechanisms in place to ensure there are no unapproved changes to the operation of such facilities.

On the second point, of maintaining operational performance to the required standard, this is regulated in the first instance by the issuing of a Commissioning Approval and in the second instance by the issuing of an operational licence by the EPA, and in the third instance by the broader obligations placed on industry by the Environment Protection Act 1970.

This staged approach can provide the community with considerable confidence that promised performance standards will be met. In effect it is a mechanism that means that it is the operator and not the community that must rely on the validity of design data (including data taken from a similar facility in China). Should that Chinese data be 'wrong' then the commission process would show that the environmental performance is not

at the required level and the onus would be on the operator to rectify the performance so that the commissioning requirements are satisfied and approval to operate is granted. There is now legal provision for the EPA to relax mandated air quality standards should the environment be worse than the proponent anticipated.

The risk of applying 'invalid' data is borne by the proponent and not by the community. It is in the proponent's interest to base their design on data that they trust. Should their design data be found to be invalid, then they will unavoidably incur additional costs and time delays in redesigning and/or modifying their plant (including any associated approvals). There is no avenue for a proponent to argue that they have spent a large amount of money getting to the point they have and then requesting that the environmental requirements be relaxed in order for their business to proceed. (Monarc understands that EPA could potentially increase a licence limit for example, but that is only if it is initially, and after being increased, still below levels protective of the mandated air quality standards). Whilst not aware of such increases ever having been granted by EPA, it is understood that works have been abandoned/not completed or sold when the cost of achieving the required environmental performance has not been viable. And that is as it should be – if a facility cannot operate to the required standard, then it should not operate at all.

Monarc also notes that there are other avenues open to concerned stakeholders that may serve to hold the proponent to account:

- Changes in the use of external areas are likely to be control by council and the EPA. If such a change is noted by a member of the community, then there are existing mechanisms in place for those regulators to investigate such claims, and if necessary, take remedial actions.
- The proponent has undertaken to make in-stack monitoring live and available on-line. Such information gives the community an insight into the operation and performance of an industrial facility that is not routinely available. Armed with this information, there would be opportunities to have unsatisfactory performance data brought to the attention of the operator, the regulators and even the broader public and/or the media.
- Environmental legislation has changed relatively recently in Victoria, and as of 1 July 2021 the *Environment Protection Amendment Act 2018* gives new rights to community members who are directly affected by alleged breaches environment protection laws. Monarc understands that should such community members feel that the regulators and/or operators have not adequately addressed alleged environmental breaches, then they may seek action through a court to remedy or restrain the breach.

It is acknowledged that there is some community scepticism regarding the EPA's capacity and history of holding industries to the legislated standards. This a valid position and has also been identified by an *Independent Inquiry into the Environment Protection Authority* in 2015/16 by a Ministerial Advisory Committee. It is noted that Victorian government and the EPA have committed to implementing many of the recommendations made by the Committee. These recognitions and commitments for improvement, in combination with the soon to be available rights of affected individuals should provide some level of confidence in the proponent being held to their obligations.

Impacts of the emissions to atmosphere

The information provided in the WAA indicates that the predicted maximum ground level concentrations at off-site locations, included the closest residences and the Hazelwood North Primary School will be substantially below the maximum levels allowed by Victorian policy and regulation. Concentrations below this level are, by implication, considered by the authorities and the regulators to be safe and acceptable to the affected communities.

Monarc has reproduced below (as Figure 8) the proponent's summary of key air pollutants and predicted impacts (as a percentage of the allowable – or design – criteria) that have been modelled. It shows that, apart

from nitrogen oxides, the impacts on air quality will be less than 5% of the allowable limit, even should the worst-case assumptions hold.

Table 12: Original v revised modelled GLC results (99.9th %ile) 2012 – 2016

Parameter	SUMMARY OF ANNUAL RESULTS (the highest min, max and ave found between 2012 and 2016) - NO BACKGROUND					
	Original WAA modelling (main stack) % Design Criteria			New modelling (both stacks) % Design Criteria		
	Lowest Stack Result	Highest Stack Result	Ave Stack Result	Lowest Stack Result	Highest Stack Result	Ave Stack Result
	%	%	%	%	%	%
Sulfur dioxide	0.03%	0.23%	0.14%	0.03%	0.23%	0.14%
Nitrogen oxides	0.84%	10.47%	3.29%	0.84%	10.47%	3.30%
Total Dust - (criteria for nuisance TPM)	0.16%	1.55%	0.54%	0.16%	1.55%	0.54%
PM ₁₀ - (assuming all TPM = PM ₁₀)	0.35%	3.39%	1.19%	0.35%	3.39%	1.19%
PM _{2.5} - (assuming 65% of TPM = PM _{2.5})	-	-	-	0.37%	3.52%	1.23%
Lead	0.02%	1.02%	0.31%	0.02%	1.02%	0.31%
Sulfuric Acid Mist	0.05%	3.93%	1.53%	0.05%	3.93%	1.53%
Chromium and its compounds	0.001%	0.05%	0.02%	0.001%	0.05%	0.02%
Arsenic and its compounds	2.91%	4.06%	3.63%	2.91%	4.06%	3.63%
Cadmium and its compounds	0.09%	0.94%	0.65%	0.09%	0.94%	0.65%
Tin and its compounds	-	-	-	-	-	-
Antimony and its compounds	0.002%	0.01%	0.01%	0.002%	0.01%	0.01%
Dioxins and Furans (as TCDD I-TEQs)	0.49%	0.50%	0.50%	0.49%	0.50%	0.50%

Figure 8 – Reproduction of the Table 12 of the proponent's Addendum to their WAA

This presents several considerations.

Firstly, if the predictions are erroneous, there is a risk that emissions that are presented as being at acceptable levels are subsequently found to be above those acceptable levels. That is, if the 'true' emissions were known, then the proposal in its current form would not be acceptable. The first answer to this risk is that one of the EPA's charters is to ensure that the data and predictions presented by the proponent are sufficiently robust as to support the conclusions being reached. Hence there is some reliance by the parties in the EPA's ability to discharge this responsibility. Monarc is not in this document confirming or otherwise the validity of the proponent's air dispersion modelling. However it can be stated that both the data and methodology used by the proponent appears to be at or beyond the scope and standard normally achieved in such cases, and that such evaluations by EPA are relatively routine. That is, Monarc is satisfied that a robust process is in place that would identify any significantly erroneous information or methodology.

Secondly, a sensitivity analysis by Monarc shows that errors in the air dispersion modelling would have to be of almost unheard-of magnitudes for the actual conclusion of the dispersion modelling to be invalid. That is, maximum predicted ground level concentrations could be several orders of magnitude higher than predicted, with the development still in compliance with the required air quality standards. Some comfort is therefore provided by the data that indicates that there is a very large margin between the predicted ground level concentrations, and the maximum allowable ground level concentrations.

Of considerable concern to some members of the community is that there will be any increase in their exposure to lead. This concern is understandable. However our reading of the data leads us to understand that

whilst it is correct that there will be numerically calculable increases in lead levels in the environment, those increase are scientifically inconsequential.

We do acknowledge that if a substance such as lead has health risks, then it intuitively follows that less lead is better than more lead. However this is not how environmental policy is framed. There is little legislative basis for requiring a site-specific environmental standard that is below the legislated environmental standard. That being said, the Hazelwood North is in effect seeking an environmental standard some several orders of magnitude below the policy limit. Specifically, the proponent is stating that the maximum predicted ground level concentration of lead is $0.009 \mu\text{g}/\text{m}^3$ (using average stack emission data and a one-hour averaging time) compared with the SEPP(AQM) design criterion of $3 \mu\text{g}/\text{m}^3$. Furthermore, the location where this maximum of $0.009 \mu\text{g}/\text{m}^3$ occurs is not near residences or the primary school. The maximum predicted ground level concentration of lead at any of the identified residences or the primary school is $0.002 \mu\text{g}/\text{m}^3$ (Table 37 of Appendix 49 of the WAA).

Monarc is therefore satisfied that the data presented shows a very big margin of safety between the allowed limit for lead at sensitive receptors of $3 \mu\text{g}/\text{m}^3$ and the predicted maximum exposure of $0.002 \mu\text{g}/\text{m}^3$. Even this value of $0.002 \mu\text{g}/\text{m}^3$ is likely to be experienced by any individual for only a small number of hours each year (as for the majority of hours each year the weather conditions will result in much lower concentrations at any single location).

Whilst the proponent predicts there to be some increased exposure to lead (and other pollutants), the magnitude of this increase is considered by Monarc to be inconsequential – and somewhat analogous to increasing a driving speed from 60 to 60.04 km/hr.

Monarc noted that some submissions commented on the likelihood that strong winds would carry pollutants to locations beyond that considered in the WAA. Whilst this is correct, the modelling data clearly shows that the maximum concentrations fall within the area studied and that at distances further from the plant, the contaminant concentrations experienced will be even lower than those discussed above for the sensitive receptors.

Alternative technologies

As discussed above, the proposed Hazelwood North facility would recover lead by what is known as secondary lead smelting. Monarc has undertaken a review of publicly available information to identify if secondary lead smelting can be considered 'best practice', or if an alternative technology should be considered.

The WAA and a number of community submissions refer to alternative technologies that could potentially be adopted in place of secondary lead smelting. As these alternatives do not involve smelting of lead (which involves high temperatures such that lead is in the molten state), they have the potential to generate fewer lead emissions than a secondary lead smelting process.

One alternative is a hydrometallurgical process that involves electrolytic reduction of lead from a water based solution that includes hydrofluoric acid. The only known commercial plant using this technology is understood to be in Asia, although Monarc could not locate any further information about it.

The WAA also describes a technology by a US company (AquaMetals) that is a room temperature, water based process that utilises electroplating to produce metallic lead from lead paste (but not from the metallic lead in ULABs). Monarc understands that a sub-commercial scale implementation of this technology is operating in McCarran, Nevada, USA.

Rather than attempt to undertake a technical evaluation of these technologies (for which there is very little information publicly available), Monarc has referred to a publication by the Canadian based Commission for Environmental Cooperation (CEC). The CEC is a north American based intergovernmental organisation that has

the support of Canada, the United States of America and Mexico. In 2016 the CEC published a document entitled *Environmentally Sound Management of Spent Lead-Acid Batteries in North America – Technical Guidelines* (CEC 2016). That document states that it identifies and consolidates ‘best practices and technologies for recycling SLABs [spent lead-acid batteries] in a manner that protects the environment, health and safety of workers and the public’.

The CEC (2016) report does not identify or discuss any alternative to secondary lead smelting of ULABs as best practice. It does, however, give a great deal of information about what constitutes best practice at a ULAB recycling facility. For example, it defines three levels of fugitive emissions capture (Levels 1 to 3 Enclosure) that could potentially be implemented. Monarc finds that the works and procedures proposed at the Hazelwood North facility appear to meet all the requirements of a Level 3 Enclosure – with Level 3 being the most stringent category. We are therefore able to conclude that the facility proposed for Hazelwood North represents best practice for the recycling of ULABs.

The alternative proposals may well offer some potential environmental advantages. However given that the environmental impacts of the secondary smelting based proposal have been shown to be low and well below the established health and environmental criteria, any additional environmental benefits would be small at best, and likely to introduce some different environmental risks. These alternative technologies also introduce technology and commercialisation risks, by virtue of there being no existing commercial scale facilities in operation. It would be expecting the proponent to have to scale up and/or develop technologies that are currently unproven at the scale required. The unproven nature of the alternative technologies means, by definition, that problems are likely to be encountered during the design, construction and commissioning of the works that cannot be foreseen, and that therefore require modifications that are not foreseen, and changed environmental impacts to what was originally envisaged.

Whilst one or more of these alternative technologies may appear to offer environmental advantages, at this stage in the planning process there is far less certainty that any such advantages would be realised once operational. This is because the alternatives need to be compared with a technology (secondary lead smelting) that is well established, that has evolved through many iterations of incremental improvement, that is considered world’s best practice, and that can be expected to achieve environmental impacts at levels well below the applicable regulatory limits.

Monarc understands that the proponent is aware of and has considered the potential applicability of these alternative technologies, and reaches the same conclusion as the proponent, that technology type proposed for the Hazelwood North facility in their WAA is entirely appropriate.

Conclusions

Monarc has reviewed the available public information regarding the Chunxing ULAB recycling facility and the associated public hearing report and public submissions. Monarc does not pre-empt the EPA’s technical review and evaluation of the information and does not purport to have undertaken a detailed technical analysis of the information. Rather we present our views and conclusions regarding the information and submissions based on our knowledge and experience in metal smelting, waste management, air dispersion modelling, air pollution control and Works Approvals Application.

The information submitted by the proponent is in our view comprehensive and sufficient to form a clear understanding of how the facility would operate. Equally, the wide range of community concerns are appreciated and understandable and are in no way dismissed by Monarc.

Some of these concerns appear to be due to misunderstandings regarding the technical and other information submitted with the proposal, and Monarc has attempted to clarify some of those points. There are other concerns that we consider can be resolved through the placement of specific conditions or requirements on the proponent and/or the regulators.

Monarc's considerations have focused on matters that relate in large part to the primary environmental concern raised by the application – namely the emissions to atmosphere of particulate lead.

Monarc cannot identify areas of environmental significance that would be impacted to an extent that there is a regulatory or administrative basis for disallowing the development. For individuals and communities that feel that their interests may be strongly impacted, Monarc finds that the technical evidence all points towards such impacts being both unlikely to be realised and to be below (and in many cases well below) the Victorian regulatory limits for such impacts. This conclusion is reached without having to rely on factors such as the use of overseas data for design purposes, or the unknown future management and performance of the facility, should it be built.

There is understandable cynicism about the ability of the environmental regulatory to prevent unacceptable environmental impacts and to hold industry to account. However with both the stated commitment of the EPA and of the government to rectify this, Monarc is of the view that such outcomes are highly unlikely at Hazelwood North. This is not solely because of those commitments, but because the historical regulatory failings have tended to be with matters that were not generally in the public domain. This is not the case at Hazelwood North, where the high level of public knowledge and interest is likely to be a significant factor in ensuring the EPA fully discharges its responsibilities.

Should this not be the case, as of 1 July 2021 new environmental legislation will take effect in Victoria. For the first time affected individuals will have a legal basis by which they can bring alleged environmental offences directly before the courts themselves.

Monarc however considers that this channel of rectification is unlikely to be called upon, as the foundations for a well performing facility appear to be present, and such a solid foundation makes achieving and maintaining a high standard of environmental compliance and environmental performance much more likely.

In conclusion, considerable comfort that the claimed environmental performance of the proposed ULAB recycling facility can be achieved is given by virtue of:

- The buffer distance between the proposed facility and sensitive receptors is well in excess of that required and that recommended by EPA.
- All processing occurring within a fully enclosed building that is maintained under a negative atmospheric pressure.
- The relatively few similarities between primary lead smelting and the more sophisticated process involving secondary lead smelting outlined by the proponent.
- The highly automated emissions management systems, each with designed redundancy.
- These features provide a sound foundation for achieving a high standard of environmental performance. Should they be absent then we would not be making such a conclusion.
- The large margin of safety between the maximum predicted ground level concentrations and the maximum allowed ground level concentrations.
- The offer from the proponent to make available live and on-line emissions monitoring data;
- The regulatory powers available to the EPA and council
- The soon to become available rights of affected individuals to commence their own court actions in the event of alleged environmental breaches.

In addition, Monarc has identified some specific features of the proposal that are either explicitly or implicitly included in the design, but are of sufficient significance that consideration could be given to making them conditions of the works approval and/or planning permit. These include:

- All raw materials, intermediate and finished product, solid and liquid wastes and decommissioned or out-of-service process equipment be stored at all times within fully enclosed buildings that are

maintained at a negative atmospheric pressure and the building are passed through the air pollution control system before being discharged to atmosphere.

- All stored items be maintained in a manner that prevents the generation of dust and run-off to stormwater.
- Internal and external housekeeping and cleanliness be maintained at a standard at least as good as that described as best practice in the CEC publication *Environmentally Sound Management of Spent Lead-Acid Batteries in North America – Technical Guidelines* (CEC 2016).

For matters, such as individuals not wishing to be exposed to increased levels of contaminants, we are not aware of any legal or regulatory basis for insisting that upon the proponent. Rather, the only comfort Monarc can provide is that (i) the best scientific and medical evidence available has been used to set the environmental standards that apply in Victoria and (ii) the process that is being followed in Victoria to ensure that those standards are not breached is thorough and comprehensive and we see no basis for doubting the rigour and validity of what will be the outcomes of the process.

Recommendations

Monarc's recommendations are provided to address the outcome where a Works Approval and planning permit are granted for the proposed ULAB facility.

Should the WAA and planning permit be granted, then Monarc recommends that the following suggestions be considered for incorporation in Works Approval, Licence or planning permit conditions where appropriate:

1. It is recommended that the offer by the proponent to provide a Continuous Emissions Monitoring System (CEMS), a Continuous Operating Monitoring System and live web reporting of the stack discharge be formalised as a condition of approval.
2. It is recommended that the expectation that there be no external storage of intermediate and finished product, solid and liquid wastes and decommissioned or out-of-service process equipment in external areas be formalised as a condition of approval.
3. It is recommended that the proponent be required to maintain internal and external housekeeping and cleanliness standards and practices that are at least as good as that described as best practice in the CEC publication *Environmentally Sound Management of Spent Lead-Acid Batteries in North America – Technical Guidelines* (CEC 2016).
4. It is recommended that the community be given the opportunity to be consulted during the development the facility's Environmental Management Plan.
5. It is recommended that a community consultative committee be formalised as a condition of approval.

Monarc also considers that it would be beneficial for council to continue to engage with the local community, to inform them of the systems and safeguards in place to ensure that the facility is constructed and operated in compliance with all permits, approvals and licences, and to be responsive to community complaints should the ULAB recycling facility be constructed and operated.

Regards,



Glenn Thiele
Environmental Manager – Victoria

LIMITATIONS

The opinions and conclusions presented in this report are specific to the proposal described and the state of legislation currently enacted as at the date of this report. Fyfe does not make any representation or warranty that the opinions and conclusions in this report will be applicable in the future as there may be changes in the proposal, applicable legislation or other factors that would affect the opinions and conclusions contained in this report.

Fyfe has used the degree of skill and care ordinarily exercised by reputable members of our profession practising in the same or similar locality. This report has been prepared for Latrobe City Council, for the specific purpose identified in the report. Fyfe accepts no liability or responsibility to any third party for the accuracy of any information contained in the report or any opinion or conclusion expressed in the report. Neither the whole of the report nor any part or reference thereto may be in any way used, relied upon or reproduced by any third party without Fyfe's prior written approval. This report must be read in its entirety, including all tables, figures and attachments.

ENVIRONMENT PROTECTION ACT 1970
SECTION 19B**WORKS APPROVAL****CHUNXING CORPORATION PTY LTD**

Holder of
Works Approval: 232330

Issued: 31/08/2020

ACN: 632 456 538

Registered Address: LEVEL 1, UNIT 7
11 LORD STREET
BOTANY, NSW 2019

Premises Address: CROWN ALLOTMENT 2047
FOURTH ROAD
HAZELWOOD NORTH, VIC 3840

Scheduled Categories: I02 Metal Works and A02 (Other Waste Treatment)

Description: This approval allows the construction of a used lead acid battery (ULAB) recycling facility (secondary lead smelter) to process 50,000 tonnes per annum of ULAB to produce 28,000 tonnes per annum of refined lead.

TIM EATON
Executive Director

Delegate of the Environment Protection Authority

Issued under the *Environment Protection Act 1970*, Section 19B

PREAMBLE

Works Approvals

Who we are: The Environment Protection Authority (“EPA”) is an independent statutory authority established under the *Environment Protection Act 1970* (“the Act”). Our purpose is to protect and improve our environment by preventing harm to the environment and human health.

Why we issue works approvals: EPA is responsible for preventing or controlling pollution (including noise) and improving the quality of the environment. This responsibility includes regulating activities that may present a danger to the environment. One of the tools available to EPA is issuing works approvals for scheduled premises to prevent or minimise risk to the environment.

Section 19A of the Act requires the occupier of a “scheduled premises” to obtain works approval to construct or install plant and equipment in order to discharge, handle, treat or dispose of waste to the environment. These types of premises are defined in the *Environment Protection (Scheduled Premises and Exemptions) Regulations 2007* (“the Regulations”).

When we issue works approvals: EPA will issue a works approval when satisfied that an applicant has put in place measures to protect the environment. Works approvals allow construction of works to occur and set control measures to minimise a site’s environmental risk. EPA can amend a works approval in response to changes in standards and site activities. Works approval holders must submit reports if required by a condition of the approval.

Works Approval information and obligations

For the purposes of this works approval “You” means the works approval holder identified on the first page of this works approval at the “premises” identified on the first page and represented in Schedule 1.

If you object to any of the works approval conditions, you may have the decision reviewed by applying in writing to the Registrar, Planning and Environment Division, Victorian Civil and Administrative Tribunal (“VCAT”), 7th Floor, 55 King Street, Melbourne within 21 days of the date of issue. An application fee may be applicable when lodging an appeal with VCAT. Contact VCAT on (03) 9628 9777 for further details on fees associated with an appeal. A copy of the appeal should also be forwarded to the Manager, Development Assessments Unit, Environment Protection Authority, GPO Box 4395, Melbourne, 3001, within 7 days of lodgement of the appeal.

Interested (third) parties may also appeal against the works approval within 21 days of the date of issue. The Tribunal will notify you if such appeals are received. If an appeal is lodged, you must not go ahead with the works until the appeal is resolved.

Compliance: You must comply at all times with the Act and all policies and regulations administered by EPA. Strict penalties apply for non-compliance with any part of your works approval.

Works Approval structure

Structure: Your works approval has:

- Works conditions - setting out requirements for construction or installation;
- Schedule 1A - locality plan of your premises;
- Schedule 1B - plan of premises (provided by you).

CONDITIONS

General Conditions

WA_G1

Subject to the following conditions, this approval allows the construction of the following works and associated equipment – a used lead acid battery (ULAB) recycling facility with secondary smelter which is capable of processing 50,000 tonnes per annum of ULABs to produce 28,000 tonnes per annum of refined lead. It consists of the following key components:

- 1) Recycling processing facility consisting of:
 - a) ULAB storage and sorting
 - b) a continuous ULAB breaking process unit
 - c) acid neutralisation using hydrated lime, $\text{Ca}(\text{OH})_2$
 - d) pre-desulphurisation of lead paste process
 - e) a set of dual chamber furnaces, each 5m in diameter and with a capacity of 75 tonnes for smelting lead paste
 - f) slag tapping and quenching
 - g) metallics melting in one kettle, 3m in diameter and with a capacity of 120 tonnes
 - h) five refining kettles (each 3m in diameter and with a capacity of 120 tonnes) and refinery process
 - i) by-product productions
 - j) plastics processing plant.
- 2) Air emission control system for flue gas designed to emit to the atmosphere via a 30m stack (DP1) at maximum mass emission rates of no more than the following:
 - a) $\text{SO}_2 \leq 3.5 \text{ g/min}$.
 - b) $\text{NO}_2 \leq 67 \text{ g/min}$.
 - c) Sulphuric acid mist, $\text{H}_2\text{SO}_4 \leq 2.3 \text{ g/min}$.
 - d) Metals: $\text{Pb} \leq 0.103 \text{ g/min}$; $\text{Cr} \leq 0.015 \text{ g/min}$; $\text{As} \leq 0.012 \text{ g/min}$;
 $\text{Cd} \leq 0.00055 \text{ g/min}$; and $\text{Sb} \leq 0.004 \text{ g/min}$.
 - e) Dust: $\text{PM}_{10} \leq 9.2 \text{ g/min}$ and $\text{PM}_{2.5} \leq 6 \text{ g/min}$.
 - f) Dioxin $< 0.00000003 \text{ g/min}$.
- 3) Air emission control system for fugitive emissions designed to emit to the atmosphere via 20m stack (DP2) at maximum mass emission rates of no more than the following:
 - a) $\text{SO}_2 \leq 4.1 \text{ g/hour}$.
 - b) $\text{NO}_2 \leq 24 \text{ g/hour}$.
 - c) Sulfuric acid mist $\leq 0.05 \text{ g/hour}$.
 - d) Metal: $\text{Pb} \leq 0.01 \text{ g/hour}$; $\text{Cr} \leq 0.15 \text{ g/hour}$; $\text{As} \leq 0.0036 \text{ g/hour}$;

$Cd \leq 0.0019$ g/hour; and $Sb \leq 0.0008$ g/hour

- e) Dust: $PM_{10} \leq 1.1$ g/hour and $PM_{2.5} \leq 0.72$ g/hour.
- 4) Fugitive air emission control system, designed to achieve the following:
- total enclosure of recycling process in buildings which are free of significant cracks or gaps, provided with ventilation and under negative pressure of at least 1.73 Pascals (0.013 mm mercury), except for the plastics plant area.
 - an inward flow of air maintained through all-natural draft openings.
 - collection of fugitive emissions throughout the storage, smelting and melting areas of the process buildings and discharge to a baghouse.
 - collection of gaseous emissions from battery breaking area.
 - final treatment of collected fugitive emissions, through a wet scrubber prior to discharge to the atmosphere via a stack (DP2).
- 5) Fit for purpose wastewater treatment plant capable of treating all process water generated to the standards suitable for reuse on-site and/or discharge to sewer.
- 6) Stormwater management system which is designed to contain stormwater run-off in one in 100-year rainfall event and firefighting water.
- 7) Fit for purpose storage facilities designed for chemicals, dangerous goods and combustible materials.
- 8) Risk and emergency management system, including firefighting protection system meeting the requirements in WA_W1.

WA_G2 The works must be constructed in accordance with the application accepted on 6 December 2019 as augmented or amended by additional information dated 30 June 2020, 13, 20, 28 and 31 July 2020, as well as 7, 12, 26 and 27 August 2020 ('the application'), except that, in the event of any inconsistency arising between the application and the conditions of this approval, the conditions of this approval shall apply.

WA_G3 This approval will not take effect until any permit which is required under the *Planning and Environment Act 1987* has been served on the Authority by the applicant.

WA_G4 This approval expires:

- On the issue or amendment of a licence relating to all works covered by this approval
- When EPA advises in writing that all works covered by this approval have been satisfactorily completed and no licence is required, or
- On 30 August 2022, unless the works have been commenced by this date to the satisfaction of EPA.

Works Conditions

WA_W1 Before commencing construction of the following components of the works, you must provide to EPA the following plans or reports:

- Reports of the final detailed process design. The reports, with any accompanying plans and specifications (prepared under section a) through c) of this condition must be endorsed by a suitably qualified person or persons approved by the EPA in writing.

- a) The complete process, including:
 - i. ULAB storage and sorting
 - ii. a continuous ULAB breaking process
 - iii. acid neutralisation using hydrated lime, $\text{Ca}(\text{OH})_2$
 - iv. pre-desulphurisation process to achieve $< 1.2\%$ sulphur remaining in paste
 - v. smelting lead paste in a set of dual chamber furnaces
 - vi. slag tapping and quenching
 - vii. metallics melting and refining in one kettle
 - viii. five refining kettles and refinery process
 - ix. by-products production
 - x. storage and shipment of finished goods and waste
 - xi. plastics processing plant.
 - b) a report of the detailed design of equipment, demonstrating good engineering practice, including compliance with Australian engineering, occupational health, and safety standards.
 - c) a report of the detailed design of the process building, including storage and holding areas for: rejected wastes, excess product from the breaker, other sources of materials in the plant, i.e. the refinery and external purchases of scrap or feed material. All storages must be fit for purpose.
- 2) A report of the final detailed design and schematics of the building's negative pressure ventilation system, except for the plastics plant area, prepared by a suitably qualified building ventilation designer, including:
- a) free of significant cracks or gaps, corrosion or other deterioration that could cause lead bearing material to be released from the primary barrier.
 - b) negative pressures of at least 1.73 Pascals (0.013 mm mercury).
 - c) an inward flow of air through all-natural draft openings.
 - d) the locations of doors, windows/or intake vents, sealing of the building.
 - e) building ventilation extraction rate and extraction fan capacity.
- 3) A report of the detailed design of pollution control system, including:
- a) the flue gas emission control system, including both the furnace and refining area:
 - i. must consist of baghouses and scrubbers as a minimum, with the investigation of the feasibility of installing a wet electrostatic precipitator, to meet the performance specifications in WA_G1 2)
 - ii. must design conceptual provision for retrofitting of additional pollution control equipment that may be required in the future.
 - b) vent collection of fugitive emissions must be designed to maintain lead compounds in any process vent gas $< 0.20 \text{ mg/m}^3$ (dry weight) concentrations and the discharge to atmosphere must meet the performance specifications in WA_G1 3).
- 4) A report of the final detailed designs and schematics of the wastewater treatment plant, including:
- a) designed capacity to treat the maximum hydraulic and pollutant loadings.

- b) critical control points related to Process Flow Diagram and Pipe and Instrument Diagram.
 - c) operational monitoring
- 5) A report detailing the final stormwater water management system design, including the
 - a) the water balance of roof rainwater and stormwater.
 - b) the storage pond design.
 - c) the bunding around the premises.
 - d) capacity to manage firefighting water on-site and/or seek agreement with Gippsland Water to discharge fire water into the sewer system if fire water cannot be contained within the storage ponds and bunded area.
 - e) consideration for installing cut-off valves to prevent off-site run-off in the event of incidents, i.e. fire and spills.
- 6) A report detailing the fit for purpose investigation of the baseline land and groundwater conditions, prepared by an EPA-appointed environmental auditor, including:
 - a) an investigation of the existing land and groundwater conditions at the site and in the surrounding areas.
 - b) construction environmental management plan (CEMP) for managing contaminated soil and groundwater to meet the requirements in the *Environmental management Plan Former Lurgi Gasworks Site Morwell, Victoria, 24 September 2008*.¹
 - c) recommendation for revising the contaminated land EMP, because of the redevelopment of the site.
- 7) A report of the final detailed designs and schematics of all chemicals, dangerous goods, combustible and hazardous substances storages, including:
 - a) inventory of substances (input materials and by-products), including the information of their material safety data sheets.
 - b) location and volume of each substance to be stored at any one time.
 - c) the designs for storage and handling of dangerous goods and flammable and combustible liquids/substances, are demonstrated to be in accordance with:
 - i. the *Dangerous Goods (Storage and Handling) Regulations 2012*
 - ii. the *Storage and Handling of Combustible Recyclable and Waste Materials* (EPA publication 1667.2)
 - iii. the *Liquid Storage and Handling Guidelines* (EPA's Publication 1698),
 - iv. all relevant Australian Standards.
 - d) design for loading and unloading chemicals and dangerous goods.
- 8) A report of a full plant and operations risk assessment, including a comprehensive risk management study that considers all process and environmental risks for operation (normal and other than normal operating conditions), including the following:
 - a) Hazard and Operability Study (HAZOP).
 - b) a report of the final detailed designs and schematics of the fire mitigation controls, informed by a fire risk study and endorsed by a suitably qualified fire

¹ Link to the plan: https://apps.epa.vic.gov.au/EnvAuditFiles/53X/51360-1/51360-1_c.pdf



SECTION 19B WORKS APPROVAL

- safety engineer which includes implementation of all recommendations of the Country Fire Authority/Fire Rescue Victoria.
- c) emergency management plan which must be developed in consultation with and reviewed by CFA's State Infrastructure and Dangerous Good Unit.
 - d) the detailed requirements for process control and monitoring, and alarm system.
 - e) air pollution control equipment maintenance, performance monitoring and alarm system.
 - f) real time monitoring for process and control system which is capable of monitoring the performance of air pollution control equipment (baghouses and scrubbers), vent extraction rates and wastewater treatment plant. This must include relevant performance parameters and indicative alarm set points.
 - g) contingency measures to manage air quality in the event of incidents or emergencies.
- 9) Design for continuous and periodical air emission monitoring programs to demonstrate compliance with air quality standards, including testing of stack emissions, as well as site boundary monitoring, soil and surface water monitoring.
 - 10) Provide a CEMP for management of noise and dust emissions, stormwater run-off, infiltrated groundwater and contaminated soil (if any) during construction.
 - 11) A communication and engagement plan for the construction phase of the ULAB recycling facility, including a pollution report line and a schedule of community liaison committee (CLC) meetings.
 - 12) Confirmation that access to both the property and 'Used Lead Acid Battery Facility' will be achievable via the Fourth Road.
- WA_W2 You must not commence construction of the works for which reports are required by condition WA_W1 until written EPA approval of those reports has been received.
- WA_W3 Where any reports specified in condition WA_W1 and approved by EPA differ from the application, the works must be constructed in accordance with those approved reports.
- WA_W4 You must notify EPA when the construction of the works covered by this approval has been commenced.
- WA_W5 You must notify EPA when the construction of the works covered by this approval has been completed.
- WA_W7 You must not commission or operate the works without the written approval of EPA.
- WA_W10 You must install a device capable of activating an alarm that warns the operator whenever pollution control system fails or partially fails, i.e. building negative pressures, baghouses, scrubbers, cooling tower, flue gas or fugitive emissions extraction fans.
- WA_W12 You must install all exhaust stacks so that provisions for sampling are included in accordance with EPA Publication 440.1 "A guide to the Sampling and Analysis of Air Emissions and Air Quality", as amended from time to time.
- WA_W13 You must implement all liquid storage containment and handling measures in accordance with EPA Publication 1698 "Liquid Storage and Handling Guidelines", dated June 2018.



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- WA_W14 You must install all wastewater discharge points so that provisions for sampling are included in accordance with EPA Publication 441 *"Guide to the Sampling and Analysis of Waters, Wastewaters, Soils and Wastes"*, as amended.
- WA_W15 During construction, unacceptable noise (including vibration) must not be emitted beyond the boundaries of the premises.
- WA_W16 During construction, stormwater discharged from the premises must not be contaminated with waste.
- WA_W17 All construction activities must be undertaken in accordance with EPA Publication 480 *"Environmental Guidelines for Major Construction Sites"*, as amended from time to time.
- WA_W18 During construction, you must undertake an environmental monitoring program that enables you and EPA to determine compliance with condition(s) WA_W15, WA_W16 and WA_W17.
- WA_W19 During construction, you must ensure that all activities are carried out in accordance with the information provided in the Works Approval Application.

Reporting Conditions

- WA_R1 At least three months before the commencement of any commissioning, you must provide to EPA the following documents:
- 1) Operational procedures underpinning HAZOP, including ULAB transportation, sorting procedures and process, including:
 - a) identification of non-confirming batteries, i.e. lithium batteries and storage of rejects.
 - b) an inventory of prescribed industrial wastes generated, including storage, handling and disposal procedures.
 - c) an Environment Management System prepared in accordance with the standards specified in the Waste Management Plan (E-Waste).
 - d) requirements for record keeping of incoming, outgoing, rejected wastes that would include/satisfy the monitoring/auditing requirements of the Waste Management Plan (E-Waste).
 - 2) A detailed commissioning plan, including:
 - a) confirming effective building sealing and achieving negative pressure specifications.
 - b) air emissions monitoring plan to demonstrate compliance with SEPP AQM.
 - c) noise emission measurement to confirm that ULAB activities can meet the recommended maximum noise levels under the *Noise from Industry in Regional Victoria* (EPA publication 1411).
 - d) test of the performance of the wastewater treatment plant.
 - e) testing to confirm waste categorisations for slag, waste refractory materials and plastic separators.



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- 3) An environmental improvement plan (EIP) for managing ongoing operation of the ULAB facility, in accordance with EPA's publication 739 *Guidelines for the Preparation of Environment Improvement Plans*. The EIP must include, but not be limited to:
 - a) the plan for on-going Community Liaison Committee (CLC) meetings.
 - b) environmental performance standards for air emissions, wastewater treatment and noise emissions.
 - c) an on-going monitoring program for checking the compliance of performance target levels for point sources, as well as a maintenance and audit plan, including:
 - i. a continuous and routine stack testing program, including SO₂
 - ii. routine tests for lead and dust at site boundary
 - iii. on-going groundwater monitoring
 - iv. monitoring for the wastewater treatment plant
 - v. monitoring for the performance of baghouse, scrubber, and cooling tower
 - vi. PIW management.
 - d) environmental auditing and reporting.
- 4) A copy of an agreement with Gippsland Water to discharge excess treated wastewater and /or fire water into the sewer system if fire water cannot be contained within storage ponds and bunded area.

WA_R4

Before the commencement of any commissioning, you must provide, to the satisfaction of EPA, a report that includes:

- 1) Construction verification report prepared by a suitably quality expert approved by the EPA in writing demonstrating that the facility has been built in accordance with the works approval and all endorsed reports provided under WA_W1.

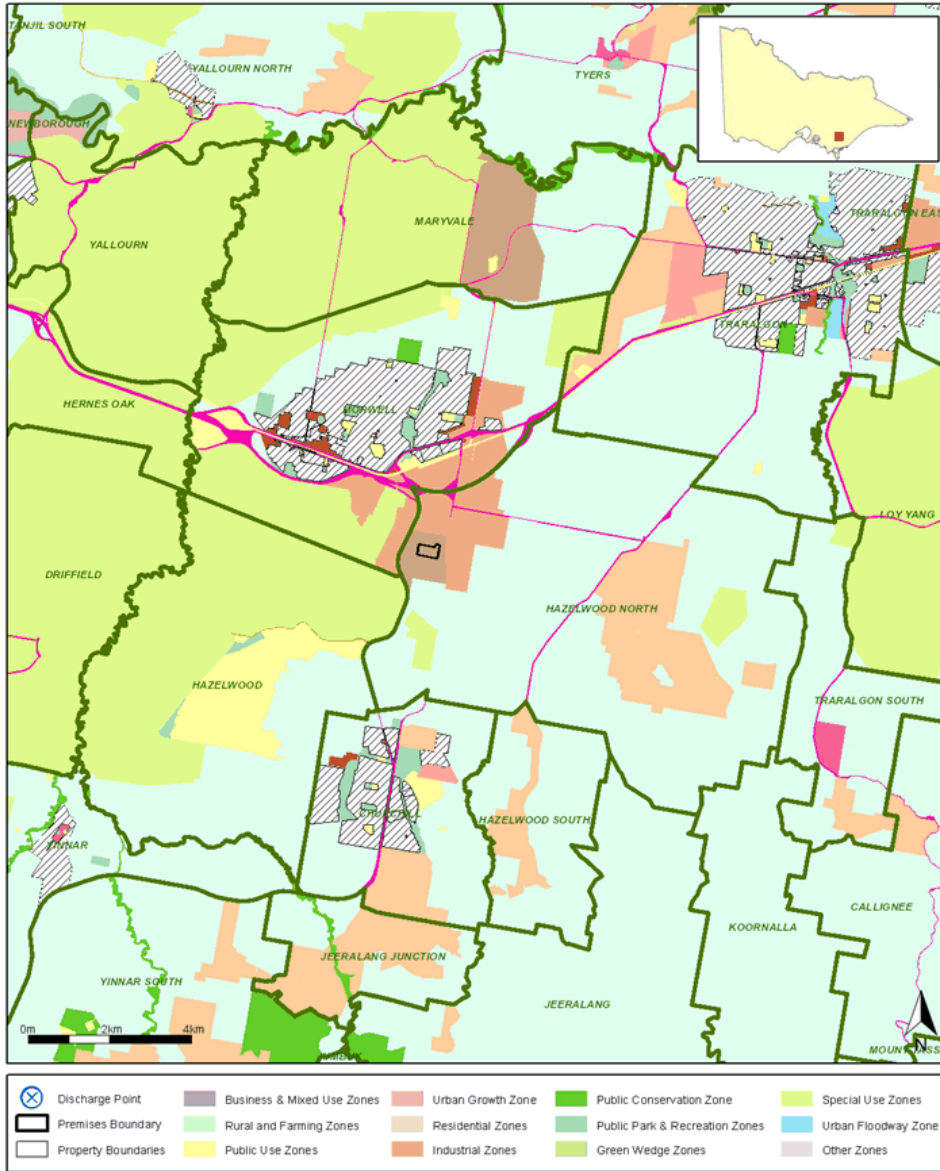
WA_R5

You must not commence operation of the works until written EPA approval of the plans and reports required by condition(s) WA_R1 has been received.



SECTION 19B WORKS APPROVAL

SCHEDULE 1A – LOCALITY PLAN

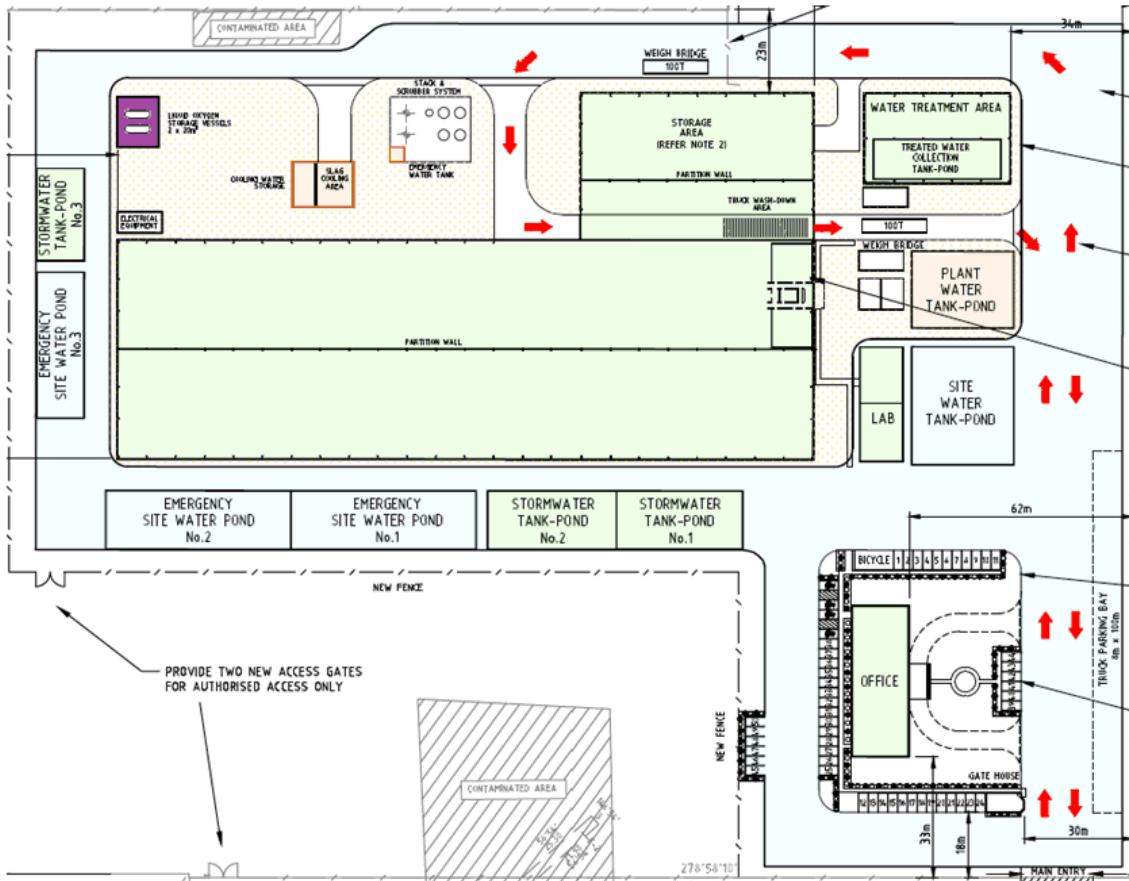


Works Approval:	232330
Company Name:	CHUNXING CORPORATION PTY LTD
ACN:	632 456 538
Premises Address:	CROWN ALLOTMENT 2047, FOURTH ROAD, HAZELWOOD NORTH, VIC 3840
Issued:	31/08/2020
Before relying on the information in this map, users should carefully evaluate its accuracy, currency, completeness and relevance for their purposes, and should obtain any appropriate professional advice relevant to their particular circumstances.	



SECTION 19B WORKS APPROVAL

SCHEDULE 1B – PREMISES PLAN



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