

AU BIN

For Waste Sorting & Skip Bin Delivery License Application to Town of Bassendean

PERTH

Resource Recovery Facility
Development Application Supporting Documentation

Prepared by:
AU BIN PERTH

20 May Holman Drive, Bassendean WA 6054
Email: info@aubin.au | Tel: 08 9273 5000
Date: October 2025



aubin.au

Contents

1. Overview of Use	4
1.1 Purpose of the Facility	4
1.2 Service Scope	4
1.3 Waste Acceptance Conditions	4
1.4 Operational Process	5
1.5 Operating Hours	5
1.6 Throughput Capacity	5
1.7 Environmental Impact Controls	6
1.8 Zoning and Land Use Compatibility	6
2. Waste Types Accepted and Management Controls	6
2.1 Accepted Waste Streams	6
2.2 Prohibited Waste Streams	7
2.3 Waste Acceptance Controls	8
2.4 Administrative and Physical Controls	8
3. Site Operations Sequence	9
3.1 General Operating Method	9
3.2 Delivery and Load Verification	9
3.3 Sorting and Material Separation	9
3.4 Material Recovery and Storage	10
3.5 Removal and Off-Site Transport	10
3.6 Operational Control Measures	10
3.7 Summary Statement	10
4. Traffic and Access Control	11
4.1 Site Access and Road Network Context	11
4.2 Vehicle Types, Frequency, and Distribution	11
4.3 Internal Traffic Flow and Reversing Controls	12
4.4 Road Safety and Public Interface	12
4.5 Summary	13

5. Environmental Management	13
5.1 Environmental Management Objective	13
5.2 Noise Management Controls – Indoor Mechanical Processing.....	13
5.3 Dust and Air Quality Management.....	14
Airborne Dust Escape Prevention.....	14
Stormwater Protection	15
Combined Environmental Outcome.....	15
5.4 Stormwater and Runoff Protection	15
5.5 Waste Storage and Material Containment	15
5.6 Odour and Hygiene Management	16
5.7 Summary Statement	16
6. Staffing & Safety Management	16
6.1 Staffing Levels	16
6.2 Staff Training & Competency.....	17
6.3 Visitor and Contractor Controls	17
6.4 Traffic and Pedestrian Safety.....	18
6.5 Emergency Preparedness.....	18
6.6 Summary Statement	19
7. Community & Amenity Considerations	19
7.1 Land Use Compatibility.....	19
7.2 Containment of Operations.....	19
7.3 Amenity Protection.....	20
7.4 Sustainability and Waste Diversion Benefits	20
7.5 Summary Statement	21
8. Waste Management & Material Flow	21
8.1 Process Overview	21
8.2 Material Flow Sequence	21
8.3 Crushing Line – Environmental & Operational Controls	24
8.4 Products & Outbound Transport.....	25

Site Use & Operations Statement

Site Address: 20 May Holman Drive, Bassendean WA

Proposed Use: Construction & Demolition (C&D) Waste Sorting and Temporary Storage

Operator: AU BIN (Trading as AU BIN Perth)

Operating Hours: Monday to Saturday, 7:00am – 5:00pm

Maximum Throughput: Approx. 100 tonnes per day (Phase 1 Operation)

1. Overview of Use

1.1 Purpose of the Facility

The facility at **20 May Holman Drive, Bassendean WA** will operate as a **Construction and Demolition (C&D) Waste Sorting and Resource Recovery Facility**.

The purpose of the operation is to **recover recyclable materials and divert waste from landfill**, supporting Western Australia's circular economy and resource recovery targets.

1.2 Service Scope

The facility primarily services skip bin waste generated from:

- Residential renovation projects
- Small to medium commercial and domestic construction projects
- General clean-up and non-putrescible mixed waste removal activities

The operation is classified as **Phase 1 Sorting and Resource Recovery**, not manufacturing or processing.

1.3 Waste Acceptance Conditions

The following **acceptable waste types** will be received:

- Mixed construction and demolition waste
- Timber and reusable building materials
- Plasterboard / gypsum-based linings
- Cardboard, paper and packaging materials
- Bricks, concrete, tiles, aggregates and masonry products
- Metals (ferrous and non-ferrous)

The following **waste types are prohibited** and will **not** be accepted:

- Putrescible waste
- Liquid waste

- Hazardous waste (including chemicals, solvents, oils and contaminated materials)
- Medical or biohazardous waste
- Asbestos or asbestos-contaminated materials
- Gas bottles, batteries, flammable goods

Non-conforming loads will be rejected or redirected to licensed facilities.

1.4 Operational Process

The facility operates using a **controlled, enclosed sorting workflow**:

Step	Activity	Control Measures
1	Vehicle arrival and check-in	Load inspection and waste classification
2	Unloading into designated sorting area	Internal floor space only, no external tipping
3	Manual and mechanical sorting of materials	Separation by material type
4	Temporary storage in dedicated bays	Clearly labelled, isolated storage zones
5	Materials transported off-site	To licensed recyclers or disposal facilities

No chemical alteration, combustion, composting, or landfill burial occurs on-site.

1.5 Operating Hours

Day	Hours
Monday – Saturday	7:00am – 5:00pm
Sunday / Public Holidays	No operations

There are **no night operations**.

1.6 Throughput Capacity

- Maximum daily throughput (Phase 1): **100 tonnes/day**
- Materials are **not stored long-term** on site
- Turnover cycle prioritises **continuous removal and off-site recycling**

1.7 Environmental Impact Controls

The facility is operated as a **low-impact, enclosed industrial activity**, supported by the following controls:

Impact Aspect	Control Measure
Noise	Daytime only operations, equipment mufflers, enclosed workspace
Dust	Mist spray systems, dust curtains, sealed surfaces, sweeping
Stormwater	Separation from waste handling areas; no contaminated discharge
Waste Containment	Concrete bays and bunding prevent migration and runoff
Odour	No putrescible waste accepted → odour risk negligible

1.8 Zoning and Land Use Compatibility

The site is zoned **General Industry** under the **Town of Bassendean Local Planning Scheme**. The proposed use is **consistent with industrial land activities** and is contained **entirely within the site boundary and building envelope**, ensuring **no impact to public realm or neighbouring land uses**.

2. Waste Types Accepted and Management Controls

2.1 Accepted Waste Streams

The facility will only accept **non-hazardous, non-putrescible Construction and Demolition (C&D) waste** generated from residential renovation works, small-to-medium scale commercial construction, and general property clean-up activities.

Waste Type	Typical Source	Handling Method on Site
Mixed Construction & Renovation Waste	Residential renovation, builder skip bin collections	Unloaded in designated sorting zone and manually/mechanically separated into material streams
Timber	Framing, formwork, offcuts	Sorted and stored in dry designated timber recovery bay for reuse or recycling
Metals (Ferrous & Non-Ferrous)	Structural steel, piping, fixings, hardware	Magnets/manual extraction; stored separately and collected by licensed metal recyclers
Plasterboard / Gypsum Linings	Interior partition and ceiling works	Segregated to prevent contamination and sent to licensed gypsum recycling/reprocessing facilities
Masonry (Bricks, Concrete, Tiles, Aggregates)	Demolition debris	Stockpiled in contained bay for off-site crushing and recycling
Cardboard and Packaging Materials	Product unpacking and deliveries	Baled or consolidated and transported to licensed paper/cardboard recyclers
Green Waste (Minor Volume only)	Residential garden clean-up	Segregated immediately and transported to licensed green-waste processing facilities

2.2 Prohibited Waste Streams

The facility **will not receive, store, process, or handle** the following waste types under any circumstances:

Prohibited Waste Category	Examples / Clarification
Putrescible waste	Food waste, household garbage, commercial organic waste
Hazardous waste	Solvents, oils, paints, chemicals, adhesives, contaminated materials
Asbestos-containing materials	Asbestos sheet, contaminated soil, insulation boards, ACM fragments
Medical or Biohazardous waste	Syringes, sharps, clinical waste
Liquid Waste	Slurry, sludge, emulsions, wastewater

Prohibited Waste Category	Examples / Clarification
Flammable or Dangerous Goods	Gas cylinders, fuel containers, batteries, explosives

Any load suspected of containing asbestos or hazardous materials will be immediately isolated and redirected to a licensed hazardous waste facility.

2.3 Waste Acceptance Controls

To prevent the receipt of prohibited waste, the following management procedures will be implemented:

- All incoming loads are **visually inspected** on arrival.
- Drivers are trained to **identify and report** suspected contamination.
- Any non-conforming load is:
 1. **Isolated in the quarantine area**, and
 2. **Rejected or redirected** to an appropriate licensed waste facility.
- The site maintains **waste tracking records** for all inbound and outbound materials.

2.4 Administrative and Physical Controls

Control Measure	Purpose
Skip bin booking documentation requires customer declaration of waste type	Prevents prohibited waste from being delivered to the site
On-site signage at entry and tipping floor	Reinforces prohibited waste categories
CCTV monitoring tipping zones	Supports audit verification and non-conformance management
Quarantine/holding bay separate from all operational areas	Allows safe isolation of suspect materials
Licensed transport partners used for off-site dispatch	Ensures regulatory compliance in disposal and recycling

3. Site Operations Sequence

3.1 General Operating Method

The facility operates using a **controlled, enclosed, and supervised workflow** to ensure efficient material recovery and minimal environmental impact.

All operational activities take place **within the internal footprint of the building and/or within the fenced site boundary**, preventing noise, dust, and visual disturbance to surrounding areas.

3.2 Delivery and Load Verification

1. Skip bin trucks enter the site through the designated access gate.
2. Loads are **checked and verified** to ensure they contain only **approved non-hazardous C&D waste**.
3. Any loads suspected of containing **prohibited waste (e.g., asbestos, liquids, chemical contaminants)** are **isolated and redirected** to a licensed facility.
4. Waste volumes may be weighed or recorded in the site's load tracking system.

3.3 Sorting and Material Separation

1. Loads are **unloaded within the designated sorting area**.
2. Waste is processed through **manual and mechanical sorting methods**, depending on material type and form.
3. Sorting personnel and equipment separate materials into defined categories, including:
 - o Metals (ferrous and non-ferrous)
 - o Timber and reusable construction products
 - o Plasterboard / gypsum-based materials
 - o Masonry (bricks, concrete, tiles, aggregates)
 - o Cardboard, paper and packaging products

Sorting occurs **on sealed internal hardstand flooring** to prevent contamination of soil or stormwater.

3.4 Material Recovery and Storage

1. Recovered materials are placed into clearly marked storage bays or bins, each dedicated to a single material type.
2. Storage bays are designed to:
 - Maintain **separation of waste streams**
 - Preventing cross-contamination
 - Facilitate orderly removal and transport
3. Storage periods are **temporary only** and based on **high turnover and dispatch frequency**, not long-term stockpiling.

3.5 Removal and Off-Site Transport

1. Recovered and sorted recyclables are **collected by licensed recycling partners**.
2. Residual non-recoverable waste is **compacted or consolidated** and transported to a **licensed landfill disposal facility**.
3. All outbound material movements are recorded for **waste tracking compliance and audit reporting**.

3.6 Operational Control Measures

The following measures ensure the facility remains **low-impact and compliant**:

Aspect	Control Measure
Noise	Daytime-only operations; equipment fitted with mufflers; work conducted inside building
Dust	Mist spray systems, dust curtains, sealed surfaces, regular sweeping
Stormwater	No waste processing outside; runoff protected; no discharge of contaminants
Safety	Traffic management, PPE, operator training, CCTV supervision
Visual Amenity	All sorting and storage areas located behind building façade or internal walls

3.7 Summary Statement

All operations occur **within the building or controlled yard area**, ensuring:

- Minimal off-site noise
- No dust or debris escape
- No public interface
- Full compliance with industrial zoning and environmental controls

This workflow reflects a **Phase 1 material recovery operation**, consistent with **resource recovery objectives** and suitable for approval under the **General Industry land use classification**.

4. Traffic and Access Control

4.1 Site Access and Road Network Context

The site is located within the established industrial precinct of **May Holman Drive, Bassendean**, where the surrounding road network is **specifically designed to accommodate commercial vehicles**.

The road reserve width, pavement construction and turning geometry allow for **safe entry and exit of rigid trucks** without modification.

The site uses its **existing lawful crossover access**, and no new crossovers or kerb alterations are required.

There are **no schools, childcare centres, residential streets or pedestrian-sensitive land uses** in the immediate vicinity.

4.2 Vehicle Types, Frequency, and Distribution

The facility uses **rigid skip bin trucks**, typically 2–12m³ capacity. These are **short-wheelbase commercial vehicles**, not articulated semi-trailers.

Vehicle Type	Approx. Mass	Purpose	Typical Daily Movements	Peak Hour Impact
Rigid Skip Bin Trucks	4–12 tonne	Bin delivery / collection	6–18 movements/day	Negligible

Vehicle Type	Approx. Mass	Purpose	Typical Daily Movements	Peak Hour Impact
Utility / Supervisory Vehicles	<3 tonne	Staff / inspection	Low	None
Occasional Third-Party Recycler Collection	Varies	Removing aggregates & metals	Scheduled	Controlled

Because movements are **spread evenly 7:00am–5:00pm**, there is **no concentration of truck arrivals**, and therefore **no traffic peak generation**.

4.3 Internal Traffic Flow and Reversing Controls

All maneuvering including:

- Truck approach
- Bin loading/unloading
- Reversing
- Material transfer

occurs **within the property boundary on sealed hardstand surfaces**.

A **forward-in / forward-out** circulation pattern is used where practical, supplemented by:

- **Reverse cameras**
- **Spotter supervision**
- **Low-speed limit: 10 km/h**

This ensures **no vehicle needs to stop or queue on May Holman Drive**.

4.4 Road Safety and Public Interface

There is **no public access** to the facility.

Visitors and contractors must report to the office before entry, eliminating uncontrolled vehicle/pedestrian interaction.

The operation does **not** involve:

- Bulk inbound waste convoys
- Container trucks

- Night-time deliveries
- Hazardous goods transport

Therefore the **risk profile is low**, and no dedicated traffic management plan is required.

4.5 Summary

The proposed transport activity is **consistent with normal industrial land use** and does **not adversely affect the road network or public amenity**.

Accordingly, a **formal Traffic Impact Assessment (TIA)** is **not required**.

5. Environmental Management

5.1 Environmental Management Objective

The facility is operated as a **low-impact, controlled industrial activity**.

Environmental controls are designed to:

- Prevent off-site noise, dust, and waste migration
- Protect stormwater and surrounding land uses
- Ensure safe and compliant handling and storage of materials
- Maintain a clean and orderly operational environment

The site will comply with:

- **Environmental Protection Act 1986 (WA)**
- **Environmental Protection (Noise) Regulations 1997**
- **Waste Avoidance and Resource Recovery Regulations 2008**
- Industry best practice resource recovery guidelines.

5.2 Noise Management Controls – Indoor Mechanical Processing

The crushing and screening line is located **fully within the enclosed warehouse structure**, which functions as a **primary acoustic barrier**.

Noise Element	Compliance Strategy
Process Machinery (Jaw & Impact Crushers)	Installed indoors with door systems kept closed during operation
Screens & Conveyors	Vibration isolation mounts reduce structure-borne noise
Material Drop Points	Soft-drop chutes reduce impact noise from falling aggregates
Operational Schedule	Daytime only: Mon–Sat, 7:00am–5:00pm (no night or Sunday work)
Preventative Maintenance	Bearings, hammer plates, pads inspected to prevent tonal or rattling noise

Outcome: Noise is **contained within the boundary** and complies with **Environmental Protection (Noise) Regulations 1997** without requiring an acoustic model.

5.3 Dust and Air Quality Management

The system operates as a **dry mechanical process**, meaning there is **no wet slurry** and **no contaminated discharge water**.

Dust is controlled through **engineering + operational** measures:

Dust Source	Control Measure
Crusher Inlet/Outlet	Full enclosure shrouds + negative-pressure extraction
Screening Decks	Pulse-jet baghouse filter with internal recirculated air return
Transfer Conveyors	Soft-feed loading + minimized drop heights
Sorting & Tipping Bay	Targeted misting nozzles used only when required
Stockpile Storage	Aggregates stored in contained internal bays , not outdoors
Yard Cleanliness	Sealed hardstand swept and cleaned as part of daily schedule

Airborne Dust Escape Prevention

- **No open-air crushing**
- **No external stockpiling**
- **No visible dust plumes permitted**

- **Warehouse doors closed during processing**

Stormwater Protection

- No slurry, washwater, or suspended solids enter drainage
- All areas draining externally are **kept clean and free of material tracking**

Combined Environmental Outcome

The indoor crushing line operates as a **low-impact, enclosed processing system**, achieving:

- **No off-site dust emissions**
- **No off-site noise impacts**
- **No stormwater contamination**
- **No public amenity interference**

5.4 Stormwater and Runoff Protection

The site is designed to prevent contamination of groundwater or stormwater.

Stormwater Risk	Mitigation Strategy
Rainfall contacting stored waste	Waste is stored under roof / in defined bays where practical
Wash-down or runoff contamination	No wash-down discharge to stormwater drains
Site drainage	Surface water directed to existing controlled drainage network

The facility **does not discharge pollutants** to stormwater or external soil.

5.5 Waste Storage and Material Containment

- All materials are stored in **clearly defined and labelled bays**, separated by type.
- Storage is **short-term**, based on high turnover and regular off-site dispatch.
- Containment methods prevent:
 - Cross-contamination
 - Windblown material
 - Leachate generation

Waste bays are located **within the building or screened yard area** to prevent visual and environmental impact.

5.6 Odour and Hygiene Management

- The facility **does not accept putrescible waste**.
- Therefore, the potential for odour is **negligible**.
- Routine housekeeping ensures site cleanliness and hygiene.
- Any incident of non-conforming waste is **isolated and removed immediately**.

5.7 Summary Statement

The facility is operated in a manner that:

- **Contains environmental impacts within the site boundary**
- **Prevents release of dust, noise, or contaminants to surrounding areas**
- **Maintains compliance with Western Australian environmental legislation**

The environmental control measures in place ensure the operation is **safe, low-impact, and consistent with the General Industry zoning purpose**.

6. Staffing & Safety Management

6.1 Staffing Levels

The facility is staffed by a **small, trained operational team**.

Peak staffing levels are expected to be **4–6 personnel** on-site, consisting of:

Role	Typical Responsibilities
Site Supervisor	Oversight of daily operations, safety compliance, waste acceptance control
Machine/Equipment Operators	Mechanical sorting, material movement, housekeeping
General Labourers / Sorters	Manual sorting and recovery of materials
Administration / Logistics Support (as required)	Scheduling, record-keeping, customer coordination

Staffing levels are **appropriate for Phase 1 operations** and will scale proportionally only if capacity expands.

6.2 Staff Training & Competency

All staff working on site will receive training in:

Training Area	Purpose
Waste identification and acceptance control	Prevents prohibited waste from entering the facility
Traffic and vehicle movement safety	Minimises interaction risks between vehicles and personnel
Environmental management procedures	Ensures dust, noise, and waste containment controls are followed
Emergency response and incident reporting	Enables quick response to unplanned events

Competency assessments and refresher training are conducted **at least annually**.

6.3 Visitor and Contractor Controls

- All visitors and external drivers must **check in at the site office upon arrival**.

- Visitors may **not enter operational areas** without:
 - Site induction
 - PPE
 - Direct supervision
- Contractors performing maintenance or service work must:
 - Provide **SWMS / JHA** prior to starting work
 - Comply with site access and safety procedures

No public access is permitted to the operational areas of the facility.

6.4 Traffic and Pedestrian Safety

The site is managed to **prevent vehicle–pedestrian conflict**.

Control Measure	Function
Designated pedestrian exclusion zones	Keeps personnel clear of vehicle paths
Reversing alarms and/or spotters for unloading	Reduces risk during truck manoeuvring
One-way internal vehicle circulation routes	Minimises reversing and cross-traffic
PPE: high-visibility clothing, safety boots, gloves, eye & hearing protection	Ensures personal protection in all work zones

6.5 Emergency Preparedness

The site maintains formal emergency response procedures, including:

- Emergency assembly point and evacuation route signage
- Fire extinguishers and spill response kits strategically located
- Staff trained in **basic first aid** and **fire response**
- Incident reporting and corrective action procedures

A site-specific **Emergency Response Plan (ERP)** will be available on-site at all times.

6.6 Summary Statement

The facility is staffed by a **trained and safety-competent team**, operating under structured environmental and safety controls.

Visitor access is restricted and supervised, and the site maintains procedures to **eliminate or minimise risks associated with waste handling, equipment operation, and traffic movement**.

This ensures the operation is **safe, compliant, and aligned with industry best practice**.

7. Community & Amenity Considerations

7.1 Land Use Compatibility

The site at **20 May Holman Drive, Bassendean WA** is zoned **General Industry** under the Town of Bassendean Local Planning Scheme.

The proposed activity—Construction and Demolition (C&D) waste sorting and resource recovery—is **consistent with the intended industrial land use**, and is similar in scale and nature to other operations in the surrounding industrial precinct.

There are **no sensitive land uses** (schools, hospitals, aged care, residential zoning) in the immediate vicinity of the site.

7.2 Containment of Operations

All operational activities are **fully contained within the building and secured site boundary**, including:

- Delivery and unloading of skip bins
- Sorting and recovery of materials
- Temporary storage of separated materials
- Preparation for off-site dispatch

There are **no outdoor public-facing waste piles** and no uncontrolled external tipping or processing.

The site boundary is secured with:

- Fencing and controlled access gates
- No access for the general public
- Signage restricting unauthorized entry

7.3 Amenity Protection

The facility has been designed to ensure **no unacceptable amenity impacts**:

Potential Impact	Management Measure
Noise	Daytime-only operations, equipment mufflers, work conducted within enclosed building
Dust	Mist spray systems, dust curtains, sealed flooring and regular housekeeping
Visual Appearance	Waste stored in designated bays behind existing built form; no external stockpiling
Odour	No putrescible waste accepted → odour risk negligible
Traffic	Low-volume truck movements dispersed throughout the day; no queuing on public roads

As a result, the facility remains **invisible and non-intrusive** to the surrounding community.

7.4 Sustainability and Waste Diversion Benefits

The facility supports Western Australia's **Waste Avoidance and Resource Recovery Strategy** by:

- Increasing recovery of reusable construction materials
- Reducing disposal of recyclable materials to landfill
- Supporting circular economy outcomes in the building and demolition sector
- Providing **local recycling pathways** for material streams that would otherwise be discarded

This promotes **environmental stewardship and responsible material management** within the Perth metropolitan region.

7.5 Summary Statement

The proposed facility operates in a **controlled, enclosed, low-impact manner** within an appropriately zoned industrial area.

No public access is permitted, and environmental control measures ensure **no adverse impact on surrounding land uses, road networks, or community amenity**.

The project contributes positively to **resource recovery, landfill reduction, and sustainability goals**, while maintaining **full compliance** with planning, environmental, and operational safety standards.

8. Waste Management & Material Flow

8.1 Process Overview

The facility manages non-hazardous Construction and Demolition (C&D) waste through a **controlled indoor resource recovery process**.

All unloading, sorting, screening, crushing and storage activities occur **within the existing warehouse building**, ensuring no dust, noise or waste migration beyond the site boundary.

Incoming skip bin loads are inspected to confirm acceptable waste categories. Waste is then tipped inside the **indoor sorting bay** and processed through **manual sorting, mechanical separation, screening and crushing** to recover recyclable materials. Non-recoverable residuals are consolidated and transported to a **licensed landfill**.

This system operates as a **dry-process** with no wastewater discharge, no putrescible waste handling, and no outdoor crushing.

8.2 Material Flow Sequence

1. Skip Bin Truck Arrival & Verification

Loads are visually inspected on arrival. **Asbestos / hazardous / liquid waste is not accepted.**

2. Indoor Tipping Bay (Sealed Concrete Floor)

Waste is unloaded **inside the warehouse**, preventing windblown debris and dust escape.

3. Pre-Sorting (Manual + Mechanical)

Recyclables and combustible light fractions are removed:

4.

Material Stream	Handling Outcome
Metals	Sent to licensed metal recyclers
Timber	Sent to reuse / reprocessing partners
Plasterboard / Gypsum Lining	Segregated and sent to gypsum reprocessor
Cardboard / Paper Packaging	Baled and sent to paper recycling
Minor Green Waste	Segregated and transported off-site

5. Screening (≈30 mm Drum Screen)

Mixed waste is passed through a **drum screen** to separate:

- **<30 mm fines** → Temporary bay / reuse pathway
- **>30 mm fraction** → Crushing line feed

6. Crushing Line (Indoor – Enclosed)

30 mm material is processed **inside the warehouse**:

- **Jaw Crusher** → primary reduction
- **Impact Crusher** → secondary shaping
- **Vibrating Screen** → aggregate grading
- **Magnetic Separator** → steel removal

7. Short-Term Storage in Designated Aggregate Bays

Stockpiles are **contained, labelled, and limited in volume** to prevent over-accumulation.

8. Outbound Transport

Recovered commodities go to **licensed recyclers**; residual waste to **licensed landfill**.

1. Skip Bin Arrival



2. Indoor Tipping Bay (sealed floor, misting as required)



3. Pre-Sorting (manual & mechanical separation)

- Remove metals → to licensed metal recycler
- Remove timber → reuse / chip recovery
- Remove plasterboard → gypsum processor
- Remove cardboard/paper → baled for recycling



4. Drum Screen (~30 mm aperture)

- Oversize → to Crushing Line
- Undersize <30 mm → Short-Term Indoor Fines Bay (24–72 hr max)



5. Crushing Line (fully enclosed / indoor / dry-process)

- 5.1 Jaw Crusher → primary size reduction
- 5.2 Impact Crusher → shaping & secondary reduction
- 5.3 Vibrating Screen → grading into fractions
- Magnetic Separation → remove residual metals
- Baghouse Dust Extraction → captures airborne particulates



6. Graded Aggregate Storage Bays (indoor, contained)

- 20 mm
- 10 mm
- Fines



7. Outbound Transport to Licensed Recyclers

Residual non-recoverable waste → placed in skip → transported to licensed landfill.

Figure 8-1: Material Flow & Crushing Sequence (Text Flow)

8.3 Crushing Line – Environmental & Operational Controls

Control Aspect	Management Measure
Dust Control	All crushing and screening points are fully enclosed ; fitted with pulse-jet bag dust collectors ; misting applied at transfer points; no outdoor crushing .
Noise Control	Crushers and screens operate indoors on vibration-damped bases; operations restricted to 7:00am–5:00pm Mon–Sat .
Material Containment	All materials handled on sealed hardstand flooring ; aggregate bays are contained and labeled ; no open stockpiles exposed to wind.
Fire & Combustion Risk	Combustible light materials are removed during pre-sorting and stored separately; no burning or thermal processing occurs.
Metal Safety	A suspended magnetic separator captures ferrous metal before/after crushing.
Stormwater Protection	Dry-process only; no washwater discharge ; no contamination of stormwater drains.

Result: The crushing line operates as a **low-impact, fully enclosed process with no off-site environmental effects.**

8.4 Products & Outbound Transport

Material	Handling	Final Destination
Graded Recycled Aggregates (20 / 10 / fines)	Stored in covered bays; removed regularly	Civil construction / recycled aggregate market
Ferrous & Non-Ferrous Metals	Separated and consolidated	Licensed metal recycling facilities
Timber	Sorted and stacked for reuse or chip recovery	Reprocessing facilities
Plasterboard	Segregated dry to avoid contamination	Gypsum recycling processor
Cardboard & Paper	Baled for efficient transport	Licensed fibre recycling facility
Residual Waste	Compacted and manifested	Licensed landfill

Outbound transport is **scheduled, recorded and traceable.**

8.5 Summary Statement

The facility operates a **fully enclosed, controlled waste separation and crushing system** that:

- Maximises **resource recovery and recycling**
- Minimises **landfill disposal**
- Maintains **dust, noise, odour and stormwater controls**
- Operates entirely **within an existing General Industry building**
- Produces **no off-site amenity impacts**

This material flow model aligns with Western Australia's **Waste Avoidance and Resource Recovery Strategy** and supports regional circular economy outcomes.

Appendix A – Site Plan & Facility Layout (L-101)

Appendix B – Machinery & Equipment List (Phase 1)

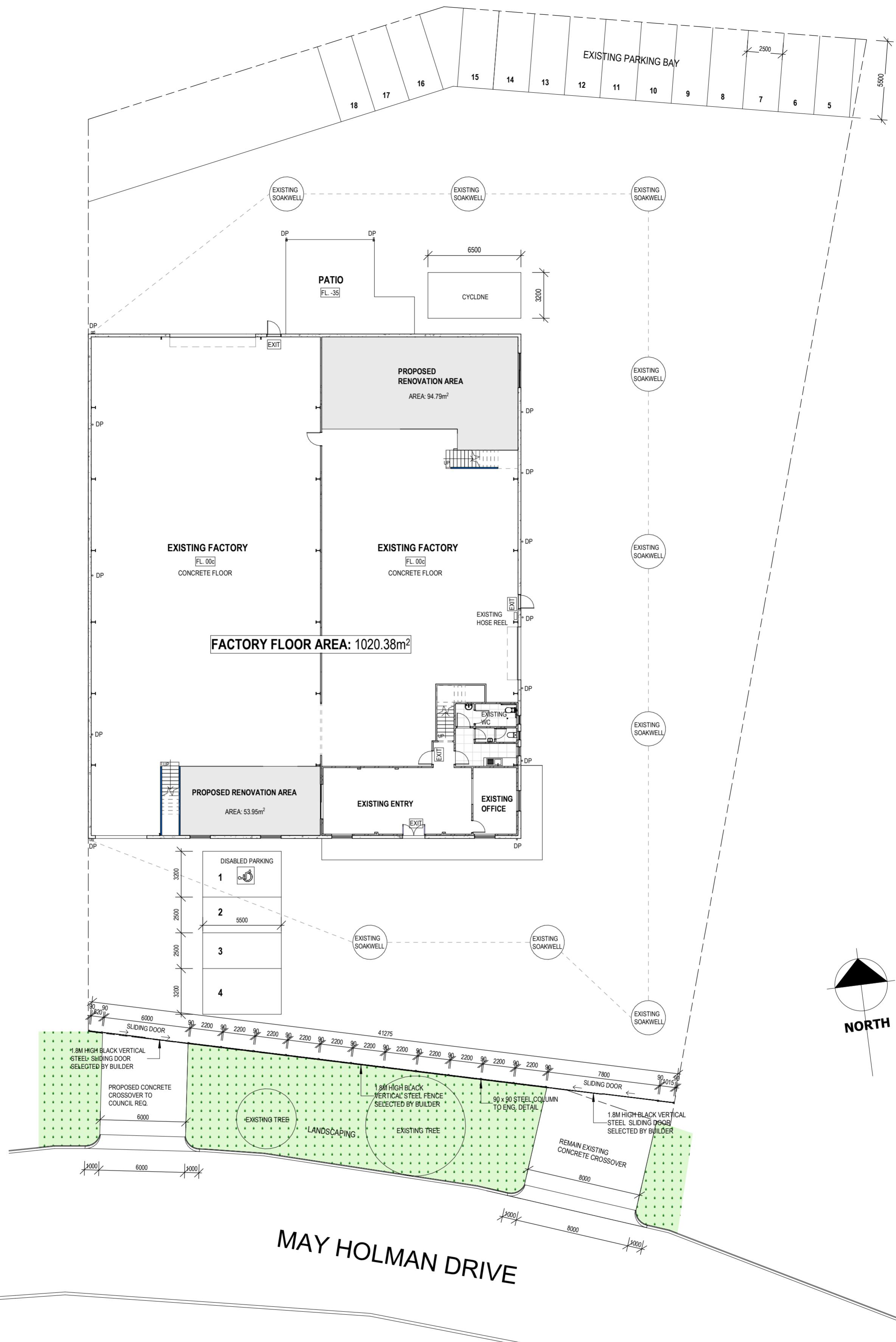
Appendix C – Material Flow Diagram (PFD-201)

Appendix D – Photos of the Building

GENERAL NOTES:

DO NOT SCALE FROM DRAWINGS
DIMENSIONS MUST BE FOLLOWED
AND CHECKED ON SITE PRIOR TO
THE COMMENCEMENT OF WORK.

ALL DRAWINGS TO BE READ IN
CONJUNCTION WITH ENGINEERING
SPECIFICATIONS AND ALL
CONSTRUCTION TO BE DONE TO
AUSTRALIAN STANDARD.



PROPOSED SITE PLAN

SCALE: 1:200



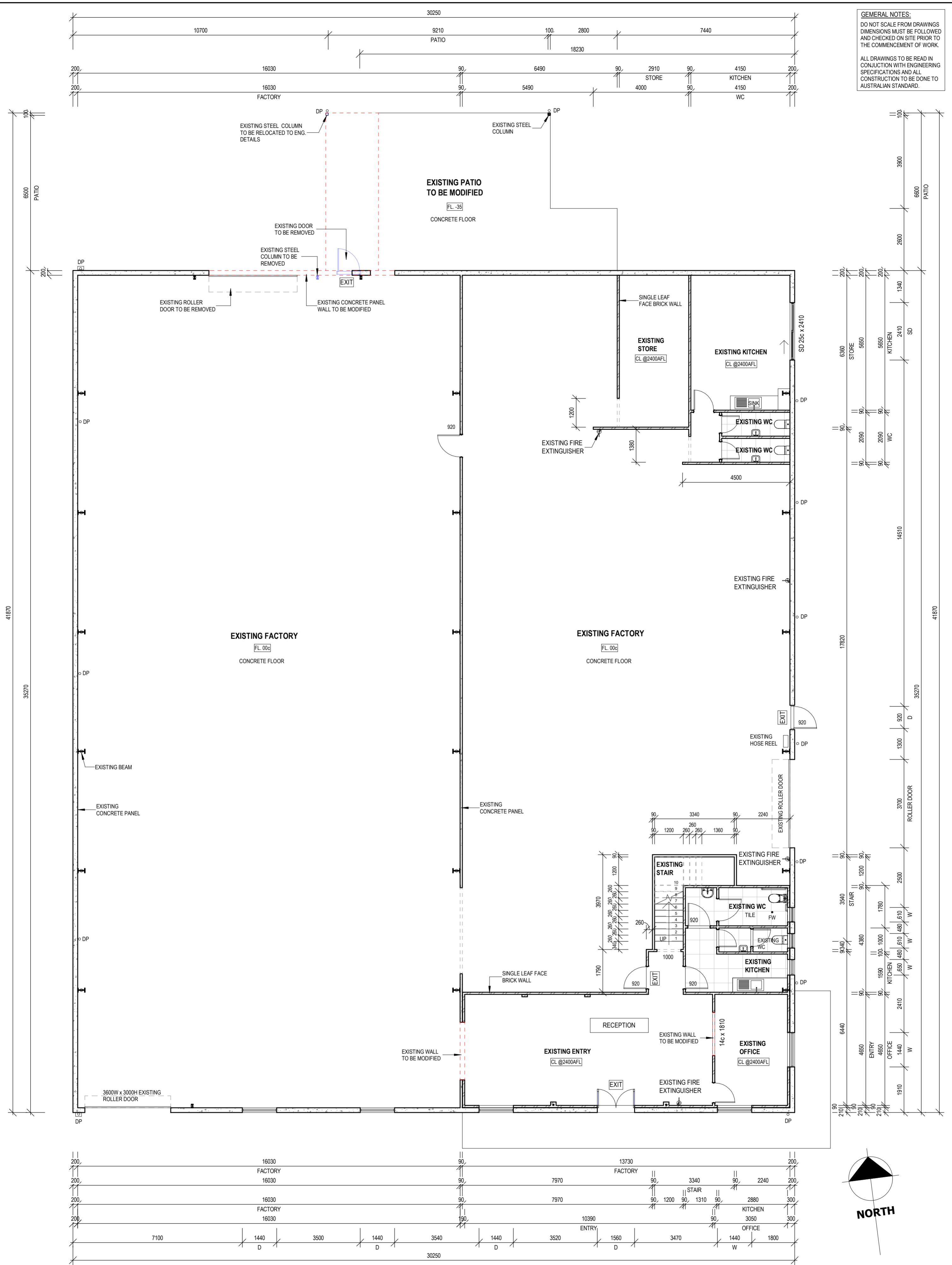
EG Building Design

Add: U1/15 Meares Way, Canning Vale
Tel: 0456 224 230

Drawing Title: **PROPOSED SITE PLAN**

Project Details:

Designed: Y.H.		Job No			
		24142			
Drawn: Y.H.					
Scale: As indicated		Dwg No.	Rev.		
		A101			
Checked:					
Plot Info: 16/02/2024 2:33:35 PM		Paper:	A2	REV	Description
					Date



EXISTING GROUND FLOOR PLAN

SCALE: 1 : 100



EG Building Design

Add: U1/15 Meares Way, Canning Vale

Tel: 0456 224 230

Drawing Title:
EXISTING GROUND FLOOR PLAN

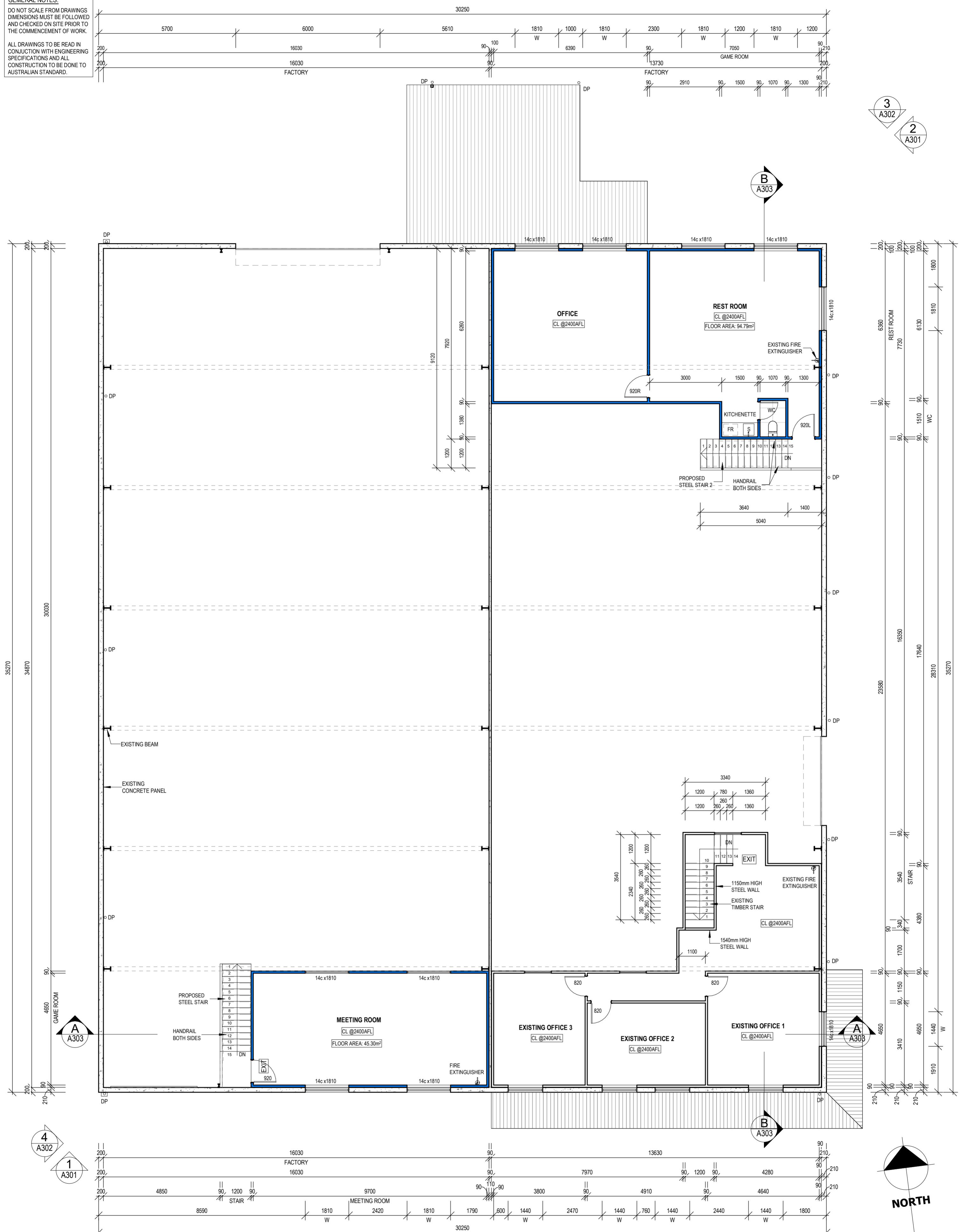
Project Details:
20 May Holman Drive, Bassendean WA 6054

Designed:	Y.H.	Job No 24142	
Drawn:	Y.H.		
Scale:	As indicated	Dwg No.	
Checked:		A201	
Plot Info:	16/02/2024 2:33:36 PM	Paper: A2	
		REV:	
		Printed:	
		Date:	

GENERAL NOTES:

DO NOT SCALE FROM DRAWINGS
DIMENSIONS MUST BE FOLLOWED
AND CHECKED ON SITE PRIOR TO
THE COMMENCEMENT OF WORK.

ALL DRAWINGS TO BE READ IN
CONJUNCTION WITH ENGINEERING
SPECIFICATIONS AND ALL
CONSTRUCTION TO BE DONE TO
AUSTRALIAN STANDARD.



PROPOSED UPPER FLOOR PLAN

SCALE: 1 : 100



EG Building Design

Add: U1/15 Meares Way, Canning Vale

Tel: 0456 224 230

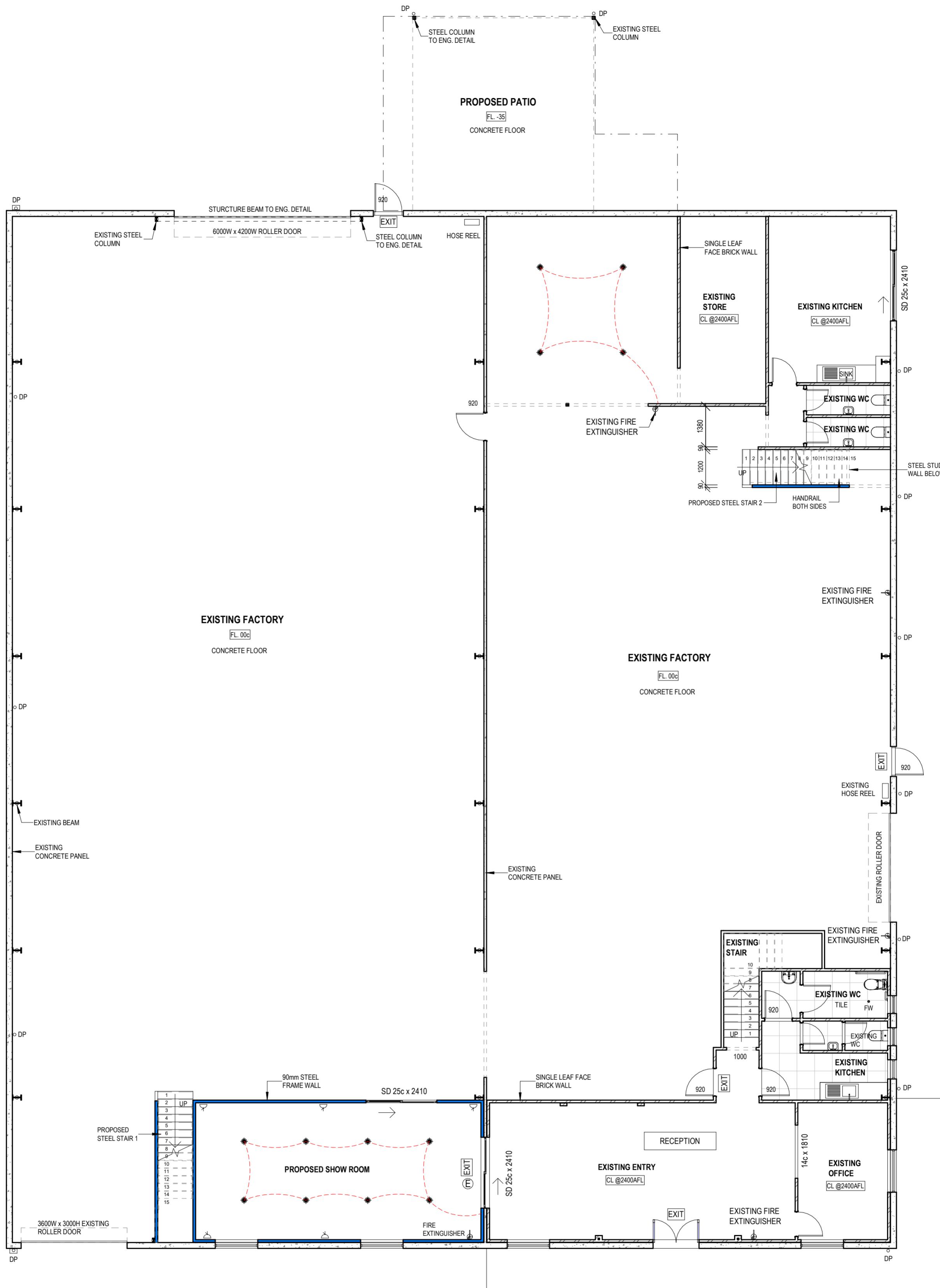
E-mail: EGBuildingGroup@gmail.com

Drawing Title: **PROPOSED UPPER FLOOR PLAN**

Project Details:
20 May Holman Drive, Bassendean WA 6054

Designed:	Y.H.	Job No	
Drawn:	Y.H.	24142	
Scale:	As indicated	Dwg No.	Rev.
Checked:		A204	
Plot Info:	16/02/2024 2:33:38 PM	Paper:	A2
		REV	Description
			Date

GENERAL NOTES:
DO NOT SCALE FROM DRAWINGS
DIMENSIONS MUST BE FOLLOWED
AND CHECKED ON SITE PRIOR TO
THE COMMENCEMENT OF WORK.
ALL DRAWINGS TO BE READ IN
CONJUNCTION WITH ENGINEERING
SPECIFICATIONS AND ALL
CONSTRUCTION TO BE DONE TO
AUSTRALIAN STANDARD.



GROUND FLOOR ELECTRICAL PLAN

SCALE: 1:100

Drawing Title:
**GROUND FLOOR ELECTRICAL
PLAN**
Project Details:
20 May Holman Drive, Bassendean WA 6054

ELECTRICAL LEGEND		
◆	DOWN LIGHT	12
□	DOUBLE GPO - 350 AFL	5
EXIT	EXIT SIGN	1
(E)	EMERGENCY LIGHT	1
●	FIRE EXTINGUISHER	1

NOTE:
ALL POSITIONS OF POWER POINTS & LIGHTS ON PLAN ARE APPROXIMATE ONLY.
ALL ELECTRICAL ITEMS SHOWN ON PLAN ARE APPROXIMATE ONLY AND ARE SUBJECT TO BUILDING CONSTRAINTS.
LIGHT SWITCH PLATES TO BE 1200 ABOVE FLOOR LEVEL UNLESS OTHERWISE NOTED.
ALL EXHAUST FANS ARE TO BE DAMPED UNLESS OTHERWISE NOTED.
ELECTRICAL CONNECTED TO THE EXISTING METERBOX.
HOT WATER UNIT SHOWN ON PLAN ARE APPROXIMATE ONLY AND ARE SUBJECT TO BUILDING CONSTRAINTS.



EG Building Design
Add: U1/15 Meares Way, Canning Vale
Tel: 0456 224 230
E-mail: EGBuildingGroup@gmail.com

Designed:	Y.H.	Job No	24142
Drawn:	Y.H.	24142	
Scale:	As indicated	Dwg No. Rev.	
Checked:	A205		
Plot Info:	16/02/2024 2:33:39 PM	Paper:	A2
REV	Description	Date	

GENERAL NOTES:
DO NOT SCALE FROM DRAWINGS
DIMENSIONS MUST BE FOLLOWED
AND CHECKED ON SITE PRIOR TO
THE COMMENCEMENT OF WORK.
ALL DRAWINGS TO BE READ IN
CONJUNCTION WITH ENGINEERING
SPECIFICATIONS AND ALL
CONSTRUCTION TO BE DONE TO
AUSTRALIAN STANDARD.



UPPER FLOOR ELECTRICAL PLAN

SCALE: 1:100

ELECTRICAL LEGEND

◆	DOWN LIGHT	30
●	EXHAUST CEILING FAN	1
▷	DOUBLE GPO - 350 AFL	12
EXIT	EXIT SIGN	2
(E)	EMERGENCY LIGHT	2
●	FIRE EXTINGUISHER	2

NOTE:
ALL POSITIONS OF POWER POINTS & LIGHTS ON PLAN ARE APPROXIMATE ONLY.
ALL ELECTRICAL ITEMS SHOWN ON PLAN ARE APPROXIMATE ONLY AND ARE SUBJECT TO BUILDING CONSTRAINTS.
LIGHT SWITCH PLATES TO BE 1200 ABOVE FLOOR LEVEL UNLESS OTHERWISE NOTED.
ALL EXHAUST FANS ARE TO BE DAMPED UNLESS OTHERWISE NOTED.
ELECTRICAL CONNECTED TO THE EXISTING METERBOX.
HOT WATER UNIT SHOWN ON PLAN ARE APPROXIMATE ONLY AND ARE SUBJECT TO BUILDING CONSTRAINTS.



EG Building Design

Add: U1/15 Meares Way, Canning Vale
Tel: 0456 224 230
E-mail: EGBuildingGroup@gmail.com

Drawing Title:
UPPER FLOOR ELECTRICAL PLAN

Project Details:
20 May Holman Drive, Bassendean WA 6054

Designed: Y.H.

Job No

24142

Drawn: Y.H.

24142

Scale: As indicated

Dwg No. Rev.

A206

Checked:

A206

Plot Info: 16/02/2024 23:39 PM

Paper: A2

REV

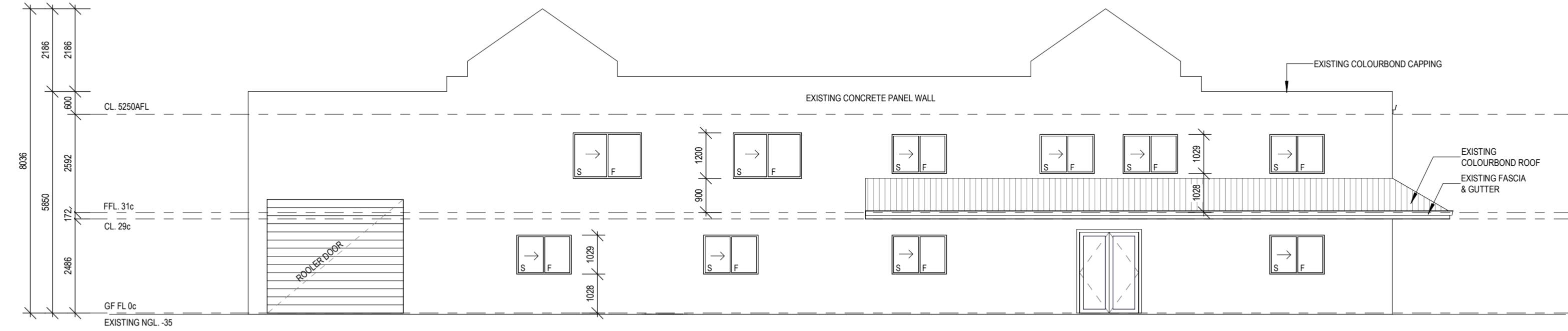
Description

Date

GENERAL NOTES:

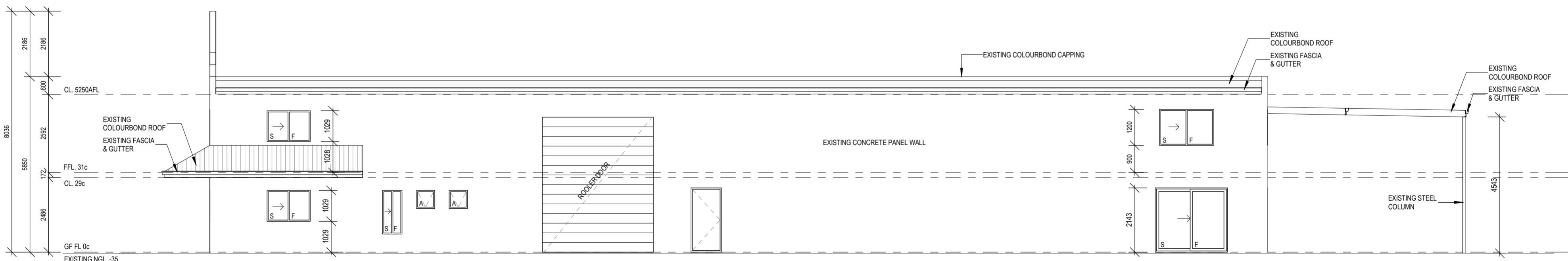
DO NOT SCALE FROM DRAWINGS
DIMENSIONS MUST BE FOLLOWED
AND CHECKED ON SITE PRIOR TO
THE COMMENCEMENT OF WORK.

ALL DRAWINGS TO BE READ IN
CONJUNCTION WITH ENGINEERING
SPECIFICATIONS AND ALL
CONSTRUCTION TO BE DONE TO
AUSTRALIAN STANDARD.



ELEVATION 1

SCALE: 1:100



ELEVATION 2

SCALE: 1:100



EG Building Design

Add: U1/15 Mearns Way, Canning Vale WA 6155

Tel: 0456 224 230

E-mail: EGBuildingGroup@gmail.com

Drawing Title:

ELEVATIONS

Project Details:

20 May Holman Drive, Bassendean WA 6054

Designed: Y.H.

Job No

24142

Drawn: Y.H.

Dwg No.

Rev.

Scale: As indicated

A301

Checked:

Plot Info: 16/02/2024 2:34:46 PM

Paper: A2

REV

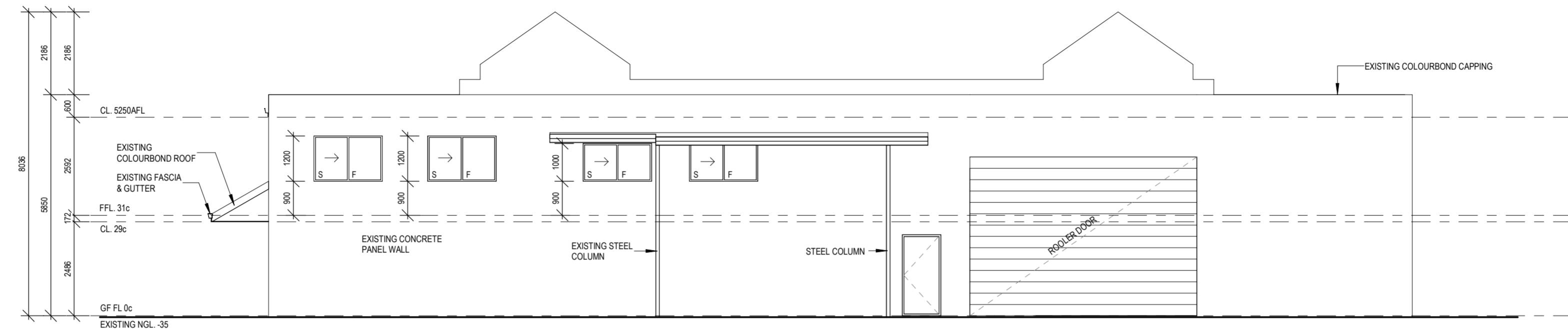
Description

Date

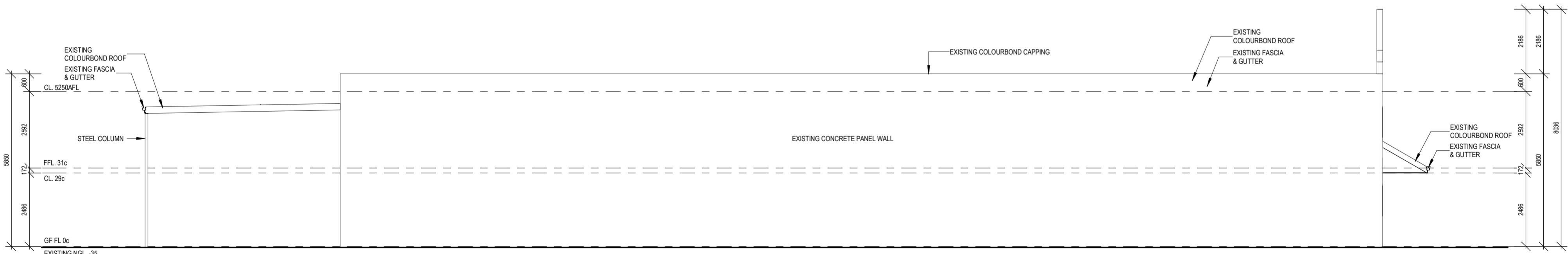
GENERAL NOTES:

DO NOT SCALE FROM DRAWINGS
DIMENSIONS MUST BE FOLLOWED
AND CHECKED ON SITE PRIOR TO
THE COMMENCEMENT OF WORK.

ALL DRAWINGS TO BE READ IN
CONJUNCTION WITH ENGINEERING
SPECIFICATIONS AND ALL
CONSTRUCTION TO BE DONE TO
AUSTRALIAN STANDARD.

**ELEVATION 3**

SCALE: 1:100

**ELEVATION 4**

SCALE: 1:100

**EG Building Design**

Add: U1/15 Mearns Way, Canning Vale WA 6155

Tel: 0456 224 230

E-mail: EGBuildingGroup@gmail.com

Drawing Title:

ELEVATIONS

Project Details:

20 May Holman Drive, Bassendean WA 6054

Designed: Y.H.

Job No

24142

Drawn: Y.H.

Dwg No.

Rev.

Scale: As indicated

Checked:

A302

Plot Info: 16/02/2024 2:34:46 PM

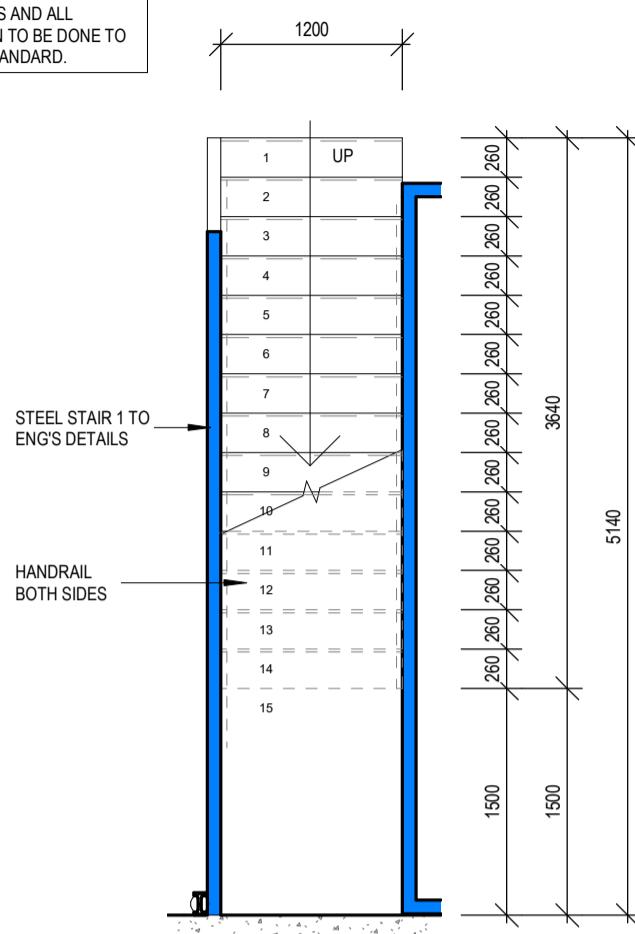
Paper: A2

REV

Description

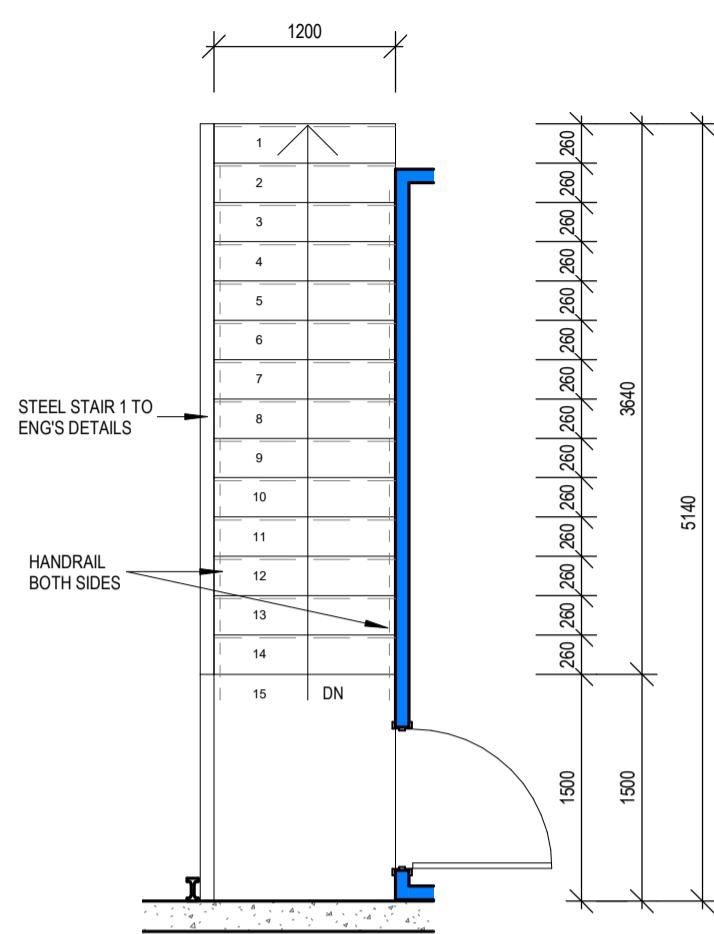
Date

GENERAL NOTES:
 DO NOT SCALE FROM DRAWINGS
 DIMENSIONS MUST BE FOLLOWED
 AND CHECKED ON SITE PRIOR TO
 THE COMMENCEMENT OF WORK.
 ALL DRAWINGS TO BE READ IN
 CONJUNCTION WITH ENGINEERING
 SPECIFICATIONS AND ALL
 CONSTRUCTION TO BE DONE TO
 AUSTRALIAN STANDARD.



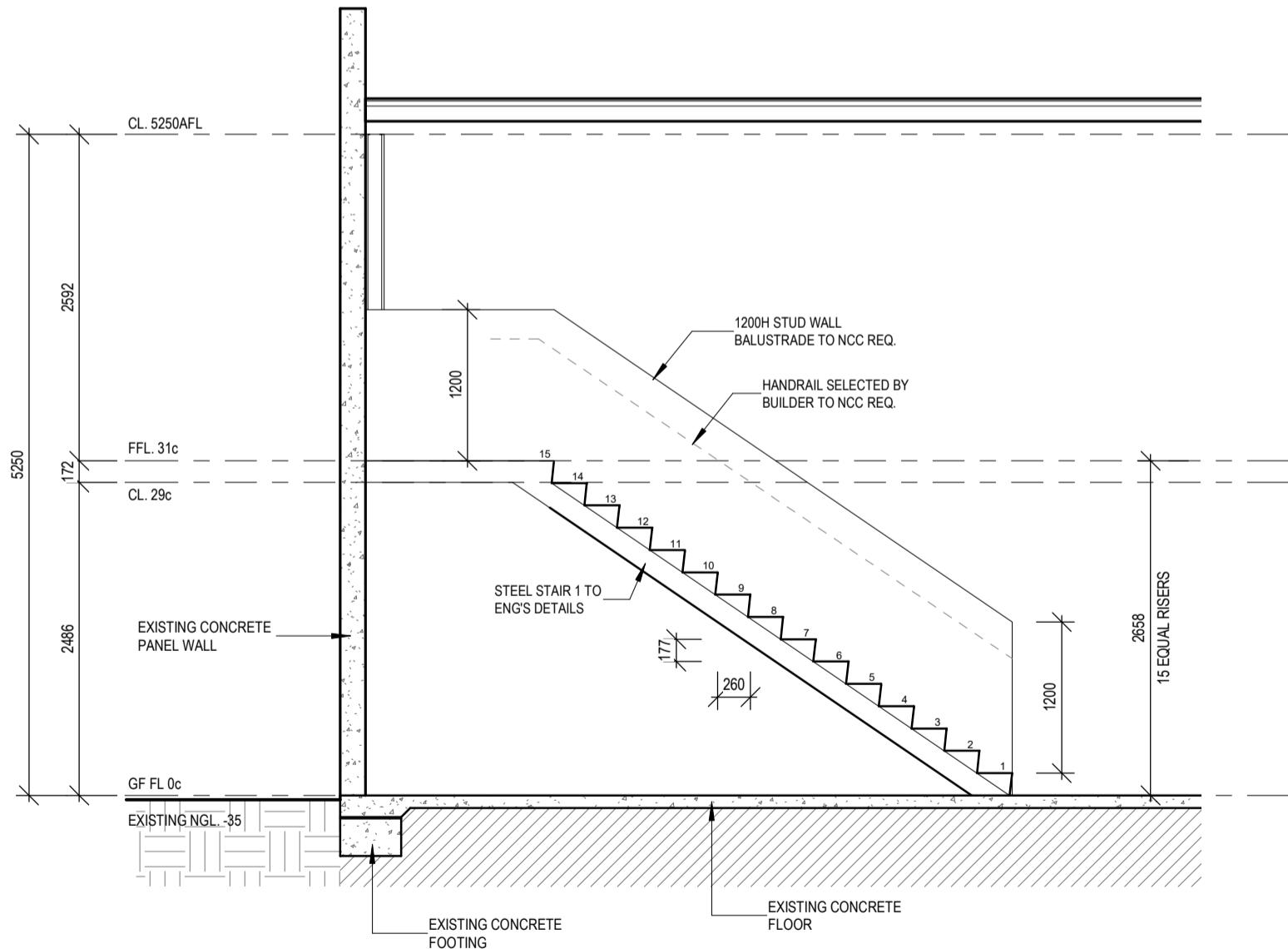
STAIR 1 - GROUND FLOOR PLAN

SCALE: 1 : 50



STAIR 1 - UPPER FLOOR PLAN

SCALE: 1 : 50



STAIR 1- ELEVATION

SCALE: 1 : 50



EG Building Design

Add: U1/15 Meares Way, Canning Vale

Tel: 0456 224 230

E-mail: EGBuildingGroup@gmail.com

Drawing Title:

STAIR 1 LAYOUT

Client / Project:

20 May Holman Drive, Bassendean WA 6054

Status:

Designed: Y.H.

Job No

24142

Drawn: Y.H.

Dwg No.

Rev.

Checked:

Scale: 1 : 50

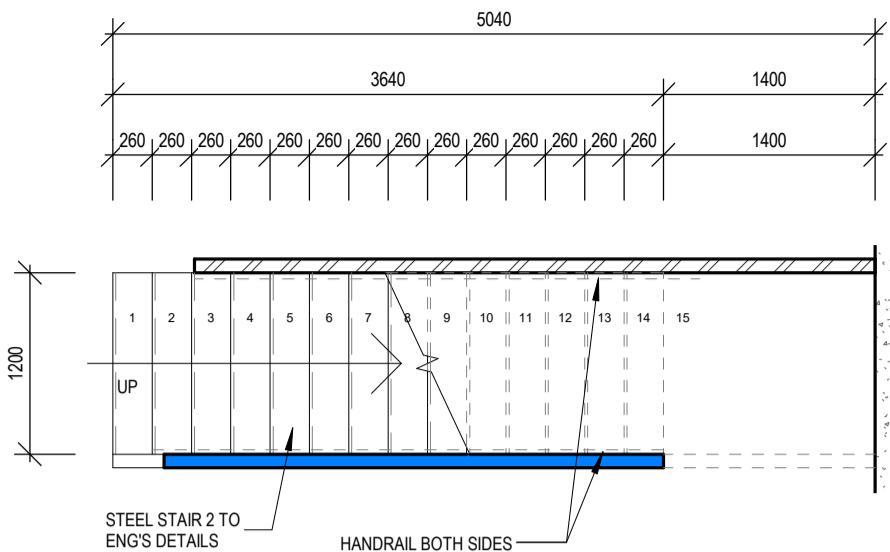
A304

Plot Info: 16/02/2024 2:35:18 PM

Paper: A3

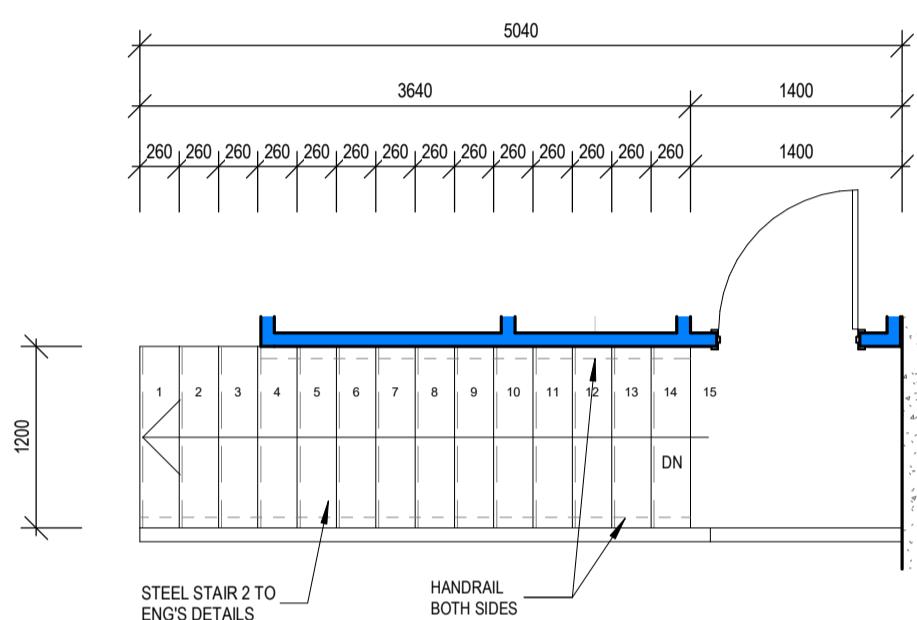
Rev Description Date

GENERAL NOTES:
 DO NOT SCALE FROM DRAWINGS
 DIMENSIONS MUST BE FOLLOWED
 AND CHECKED ON SITE PRIOR TO
 THE COMMENCEMENT OF WORK.
 ALL DRAWINGS TO BE READ IN
 CONJUNCTION WITH ENGINEERING
 SPECIFICATIONS AND ALL
 CONSTRUCTION TO BE DONE TO
 AUSTRALIAN STANDARD.



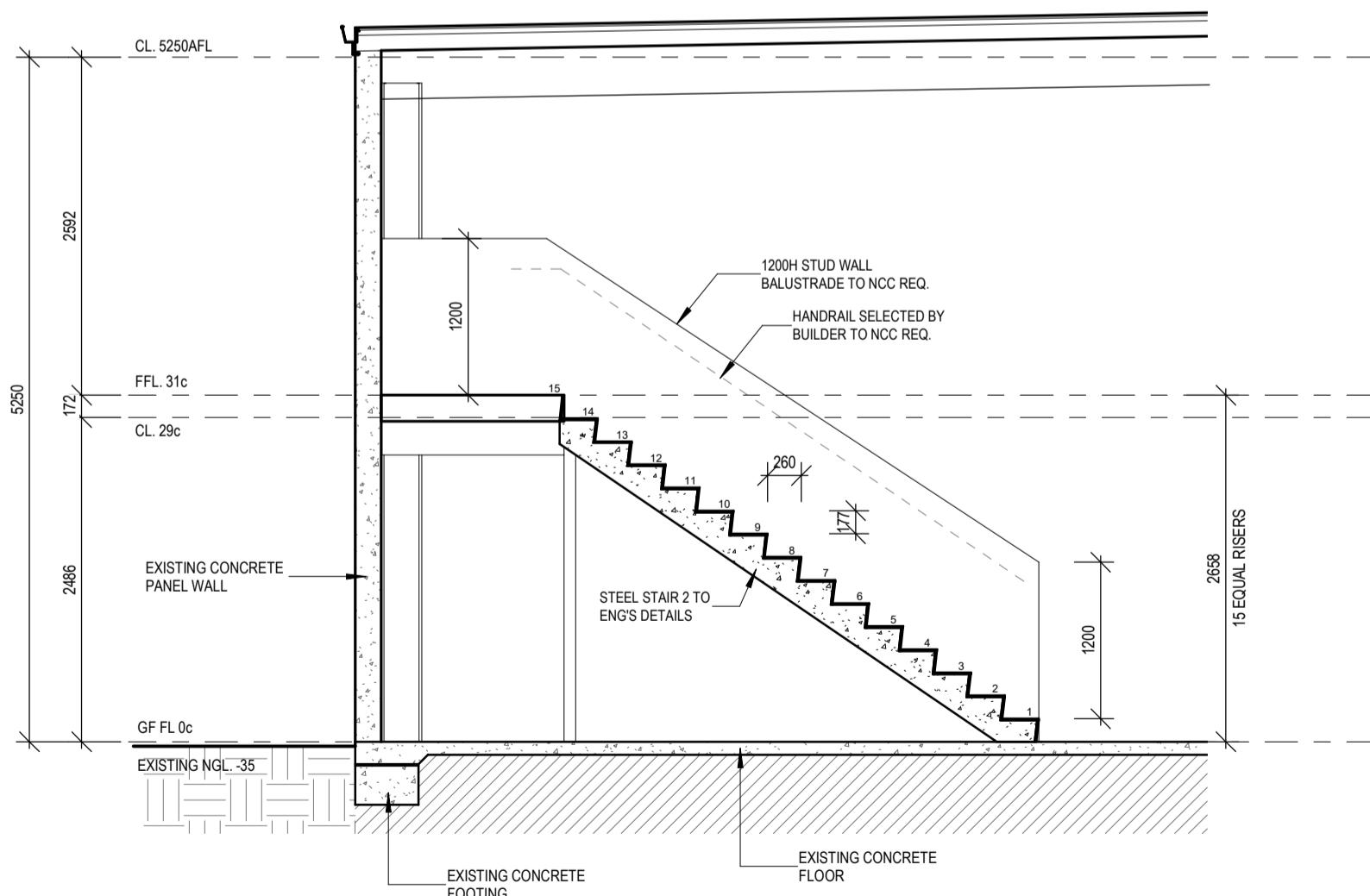
STAIR 2 - GROUND FLOOR PLAN

SCALE: 1 : 50



STAIR 2 - UPPER FLOOR PLAN

SCALE: 1 : 50



STAIR 2- ELEVATION

SCALE: 1 : 50



EG Building Design

Add: U1/15 Meares Way, Canning Vale

Tel: 0456 224 230

E-mail: EGBuildingGroup@gmail.com

Drawing Title:

STAIR 2 LAYOUT

Client / Project:

20 May Holman Drive, Bassendean WA 6054

Status:

Designed: Y.H.

Job No

24142

Drawn: Y.H.

Dwg No.

Rev.

Checked:

Scale: 1 : 50

A305

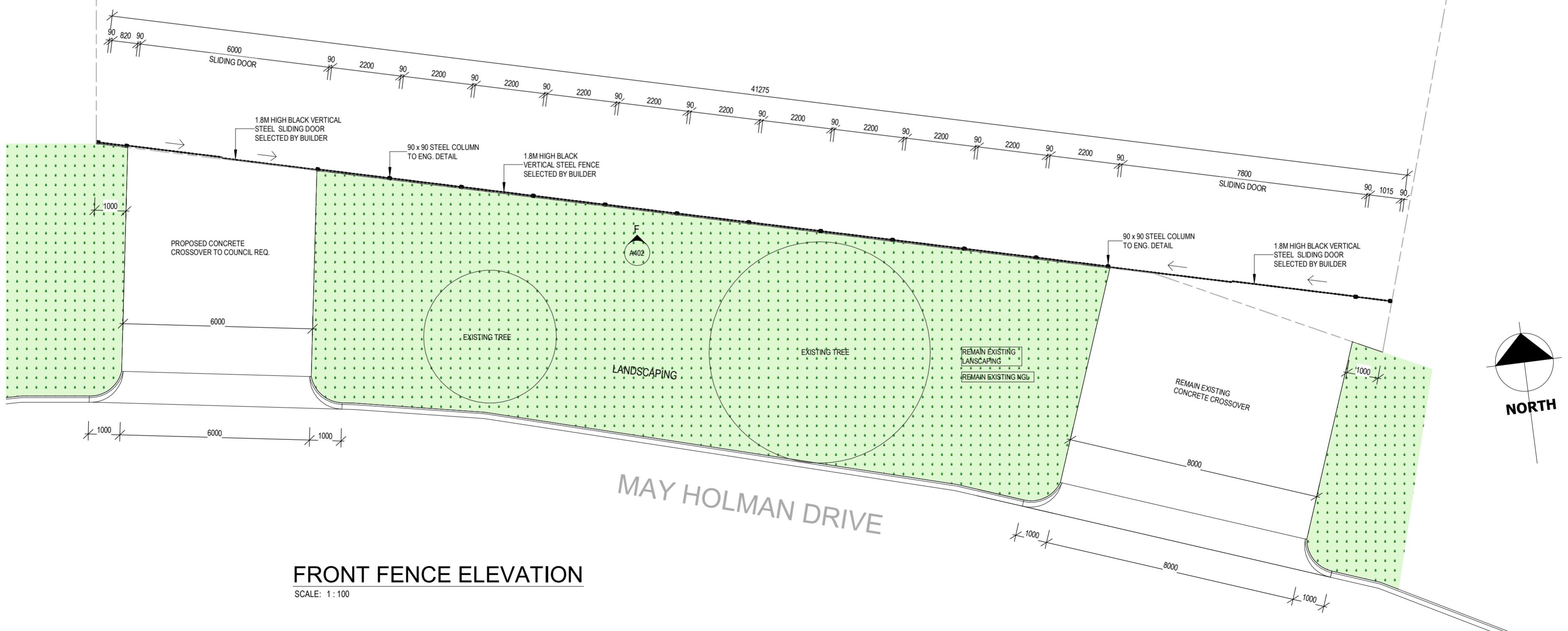
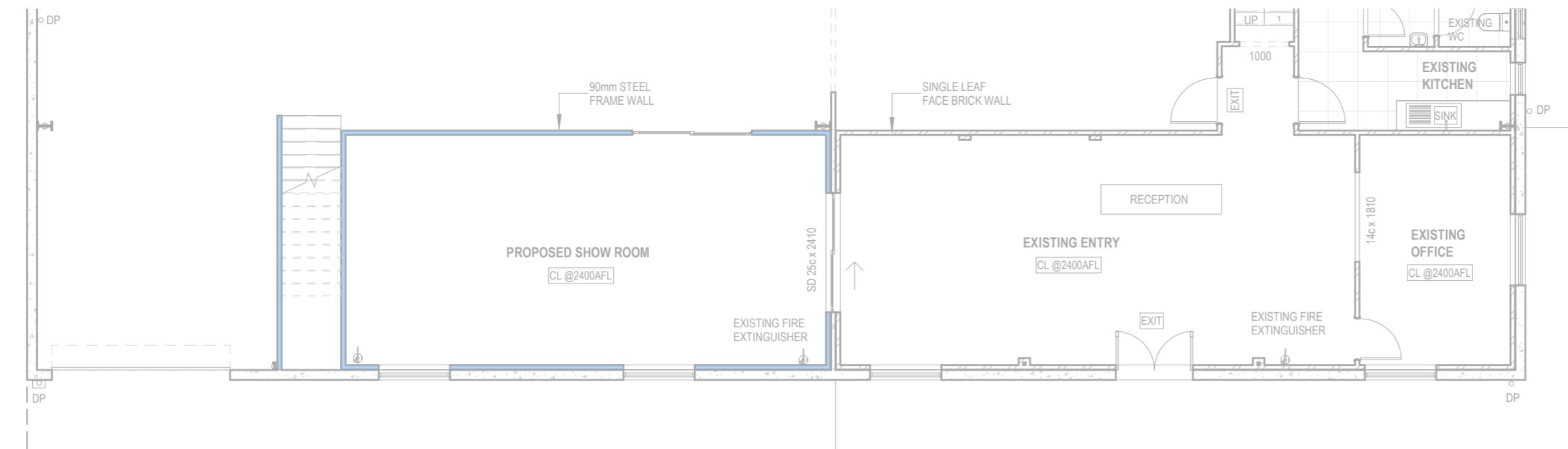
Plot Info: 16/02/2024 2:35:19 PM

Paper: A3

Rev Description Date

GENERAL NOTES:
DO NOT SCALE FROM DRAWINGS
DIMENSIONS MUST BE FOLLOWED
AND CHECKED ON SITE PRIOR TO
THE COMMENCEMENT OF WORK.

ALL DRAWINGS TO BE READ IN
CONJUNCTION WITH ENGINEERING
SPECIFICATIONS AND ALL
CONSTRUCTION TO BE DONE TO
AUSTRALIAN STANDARD.



EG Building Design
Add: U1/15 Meares Way, Canning Vale WA 6155
Tel: 0456 224 230
E-mail: EGBuildingGroup@gmail.com

FRONT FENCE ELEVATION

SCALE: 1:100

FRONT FENCE FLOOR PLAN

Project Details:
20 May Holman Drive, Bassendean WA 6054

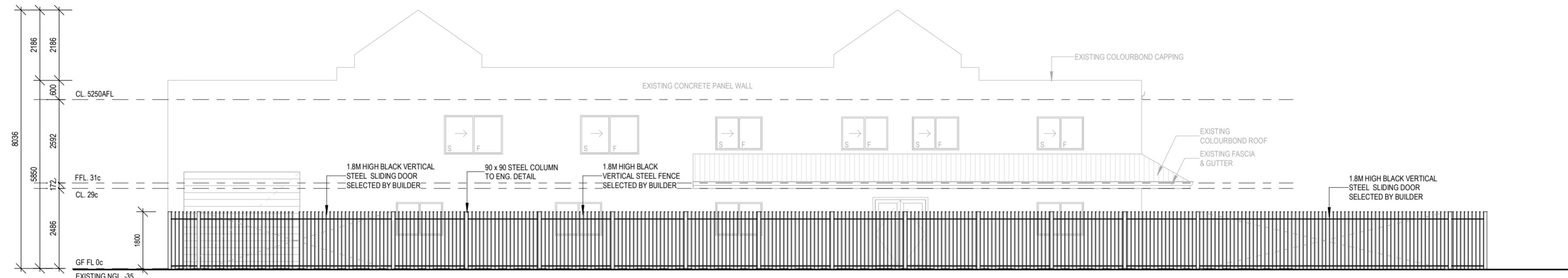
Designed: Y.H.	Job No
Drawn: Y.H.	24142
Scale: As indicated	Dwg No. Rev.
Checked: A401	
Plot Info: 16/02/2024 2:34:47 PM	Paper: A2

REV Description Date

GENERAL NOTES:

DO NOT SCALE FROM DRAWINGS
DIMENSIONS MUST BE FOLLOWED
AND CHECKED ON SITE PRIOR TO
THE COMMENCEMENT OF WORK.

ALL DRAWINGS TO BE READ IN
CONJUNCTION WITH ENGINEERING
SPECIFICATIONS AND ALL
CONSTRUCTION TO BE DONE TO
AUSTRALIAN STANDARD.

**FRONT FENCE STREET ELEVATION**

SCALE: 1 : 100

**EG Building Design**

Add: U1/15 Mearns Way, Canning Vale WA 6155

Tel: 0456 224 230

E-mail: EGBuildingGroup@gmail.com

Drawing Title:

FRONT FENCE STREET ELEVATION

Project Details:

20 May Holman Drive, Bassendean WA 6054

Designed: Y.H.

Job No

24142

Drawn: Y.H.

Dwg No.

Rev.

Scale: As indicated

A402

Checked:


Plot Info: 16/02/2024 2:34:48 PM

Paper: A2

REV

Description

Date



Note:

1. This layout represents internal equipment placement only.
2. No structural modifications to the existing building are proposed.
3. No changes to fire exits, egress paths, or building footprint.
4. All operations remain fully contained within the existing warehouse envelope.
5. This layout is for operational planning and development approval purposes only.
6. All crushing, screening and transfers occur indoors with dust extraction

REFERENCE MAP

NORTH

1

10 of 10

- This layout represents internal equipment placement only.
- No structural modifications to the existing building are proposed.
- No changes to fire exits, egress paths, or building footprint.
- All operations remain fully contained within the existing warehouse envelope.
- This layout is for operational planning and development approval purposes only.
- All crushing, screening and transfers occur indoors with dust extraction

ADDRESS
0 May Holman Drive, Bassendean

U BIN – Resource Recovery Facility

DRAWING TITLE

CRUSHING & MATERIAL FLOW DIAGRAM

PHASE 1 (INDCOP)

REVIEWED

APPROVED

U BIN Mgmt

L-101

ALE @ A0

6. Scale (Schematic)

Cheng

Phase 1 – Sorting + Insertion Sort

ALE @ A0

6. Scale (Schematic)

Cheng

Phase 1 – Sorting +

Appendix B — Machinery & Equipment List (Phase 1)

Equipment Name	Model / Specification	Power (kW)	Purpose & Function	Location	Notes
Chain Feeder	1200×4000	7.5	Controlled feed to sorting system	Indoor Sorting Bay	Sealed feed zone
Drum Screen	Ø2000×6000	15 (7.5×2)	Separates fines (<30mm) from heavy fraction	Sorting Zone	Primary sizing
Air Separation Unit	GX-80	37.2	Removes lightweight materials	Enclosed Sorting Area	Dry system
Magnetic Separator	RCYD Series	3–5	Removes ferrous metals	Pre-Crushing	Safety & equipment protection
Primary Jaw Crusher	PE500×700	55	First-stage size reduction	Crushing Bay (Indoor)	Fully enclosed
Secondary Impact Crusher	PXJ1210	110	Secondary shaping & reduction	Crushing Bay (Indoor)	Fully enclosed
Vibrating Screen	ZYK1548	15	Grading of recycled aggregates	Crushing Bay	Output to storage bays
Belt Conveyors	650×10000	4 each	Internal material transfer	Indoor	Drop heights minimized
Pulse-Jet Baghouse Dust Collectors	DMC320 (×2)	30×2	Captures airborne particulates, returns clean air	Adjacent to Crushing Line	Key dust control system
Electrical VFD Control System	Integrated	—	Regulates power & motor load, improves noise stability	MCC Room	Energy efficient

All processing equipment operates fully indoors under dust and noise control measures. No outdoor crushing or stockpiling occurs.

Appendix C – Material Flow Diagram (PFD-201, Text Representation)

APPENDIX C

Material Flow & Crushing Sequence — Phase 1 (80 TPD)

(PFD-201 – Text Version)

This appendix provides a complete process flow description for the waste sorting and material recovery operations. All activities occur **fully indoors** within the existing building footprint.

Process Flow Sequence

Step	Stage	Description	Indoor / Outdoor	Controls & Notes
1	Skip Bin Arrival	Skip bins arrive and are weighed / signed in.	Indoor / Yard Entry Only	Controlled vehicle access; no public entry.
2	Indoor Tipping Bay	Waste unloaded onto sealed concrete floor inside building.	Indoor	Targeted misting available for dust suppression.
3	Pre-Sorting (Manual + Mechanical)	Removal of recoverable materials prior to processing.	Indoor	Operators trained; visual inspection & quality control.
→	Metals	Removed and sent to licensed metal recyclers.	Indoor handling	Eliminates metal contamination in aggregates.
→	Timber	Sent for reuse or chip recovery.	Indoor handling	Reduces landfill volume.
→	Plasterboard	Sent to gypsum recycling processor.	Indoor handling	Prevents sulfur odor risk.

Step	Stage	Description	Indoor / Outdoor	Controls & Notes
→	Cardboard / Paper	Baled and sent to secondary recycling markets.	Indoor handling	Stored dry to prevent degradation.
4	Drum Screen (~30 mm)	Separates fine material from crushable oversize.	Indoor	Enclosed screen with dust shrouding.
→	<30 mm Fines	Directed to Short-Term Indoor Fines Bay (24–72 hrs).	Indoor	No outdoor stockpiling.
5	Crushing Line (Fully Enclosed / Dry Process)	Primary and secondary reduction, followed by grading.	Indoor (Enclosed)	No external emissions.
5.1	Jaw Crusher	Primary size reduction.	Indoor	Vibration mounts.
5.2	Impact Crusher	Shaping and secondary reduction.	Indoor	Controlled feed rate.
5.3	Vibrating Screen	Grading into final fractions.	Indoor	Low-drop discharge.
•	Magnetic Separation	Removes remaining metals.	Indoor	Protects crusher & improves product quality.
•	Baghouse Dust Extraction	Captures airborne particulates.	Indoor	Recirculated clean air; no dust venting outdoors.
6	Aggregate Storage Bays	Partitioned indoor bays for finished product.	Indoor Only	20 mm / 10 mm / Fines segregated.
7	Outbound Transport	Recovered product shipped to licensed recyclers.	Truck movements only	No queueing on public road.
R	Residual Waste	Remaining non-recoverable material → landfill bin.	Short-term storage only	No long-term accumulation on-site.

Key Environmental and Operational Controls

- All sorting, screening, and crushing activities occur fully indoors.
- No outdoor crushing and no outdoor stockpiling.
- Dry-process system — no wash water and no discharge to stormwater.
- Baghouse dust extraction at crushers and screens.
- Magnetic separation reduces contamination and equipment wear.
- Short-term storage only (24–72 hrs turnover in bays and fines).
- Operations limited to Mon–Sat, 7:00am–5:00pm (no night work).

Summary Statement

The processing line operates as a controlled indoor recovery system designed for low environmental impact, compliant with the Environmental Protection Act 1986 (WA) and avoiding the need for external stockpiling or airborne emissions.

PFD-201 (v3) — Material Flow & Crushing — Phase 1 (80 TPD)

