





Statement of Environmental EffectsCowal Gold Operations Accommodation Village

VOLUME 1 – APPENDIX A TO C

Prepared for Evolution Mining (Cowal) Pty Limited April 2021













Appendix A

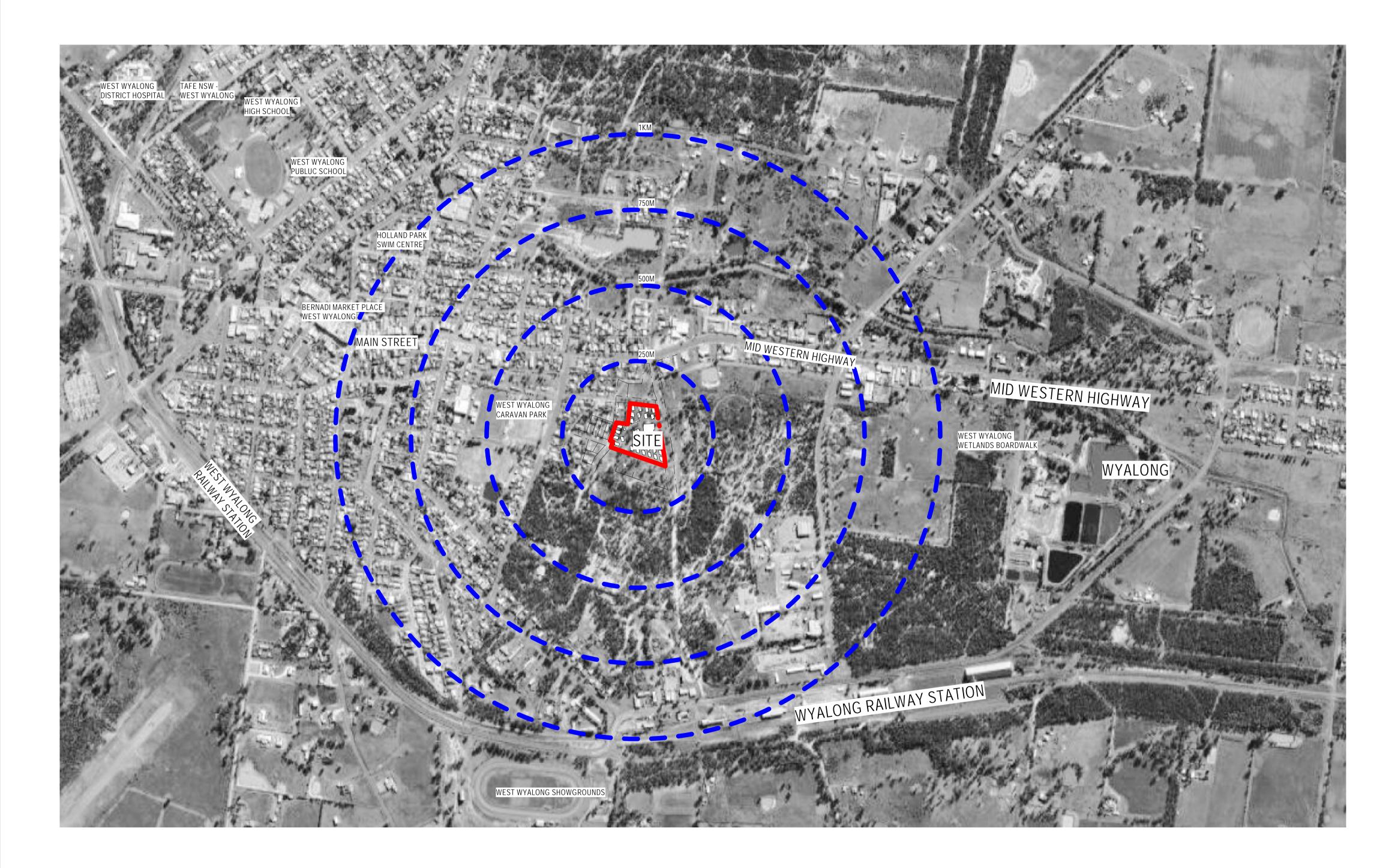
Architectural drawings







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Drawing List - Development Application					
ML	No.:	Sheet Name	DATE	REVISION	
11985-	DA-0000	COVER PAGE & LOCATION PLAN & SCHEDULE OF DRAWING	26.03.21	A	
11985-	DA-0111	SITE PLAN - GROUND LEVEL	14.04.21	А	
11985-	DA-0112	SITE PLAN - ROOF LEVEL	14.04.21	А	
11985-	DA-0113	SITE STAGING PLAN	14.04.21	А	
11985-	DA-0121	SITE PLAN - EXISTING & DEMOLITION PLAN	26.03.21	А	
11985-	DA-0201	SITE ELEVATION - STREET ELEVATIONS	16.04.21	А	
11985-	DA-1101	COMMON BUILDINGS - GENERAL ARRANGEMENT PLAN - GROUND	26.03.21	A	
11985-	DA-1102	COMMON BUILDINGS - GENERAL ARRANGEMENT PLAN - ROOF	26.03.21	А	
11985-	DA-1201	COMMON BUILDINGS - ELEVATIONS - SHEET 1	14.04.21	А	
11985-	DA-1202	COMMON BUILDINGS - ELEVATIONS - SHEET 2	14.04.21	А	
11985-	DA-2101	OPERATIONS MODULE - STANDARD - CONFIGURATION TYPE 1 - PLANS & ELEVATIONS	16.04.21	А	
11985-	DA-2111	OPERATIONS MODULE - STANDARD - CONFIGURATION TYPE 2 - PLANS & ELEVATIONS	16.04.21	A	
11985-	DA-3101	OPERATIONS MODULE - ACCESSIBLE - CONFIGURATION TYPE 1 - PLANS & ELEVATIONS	16.04.21	А	
11985-	DA-4101	CONSTRUCTION MODULE - STANDARD - CONFIGURATION TYPE 1 - PLANS & ELEVATIONS	16.04.21	А	
11985-	DA-5101	LAUNDRY MODULE - CONFIGURATION TYPE 1 - PLANS & ELEVATIONS	14.04.21	A	

The following plans/drawings have been prepared for the use of Evolution Mining and the West Wyalong Local Aboriginal Land Council.

EVOLUTION MINING WEST WYALONG

11985-DA-0000
DEVELOPMENT APPLICATION
APRIL 2021



Project Address

CURRAJONG

Evolution

West Wyalong

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11985-DA-0111











SITE ELEVATION - STREET ELEVATIONS

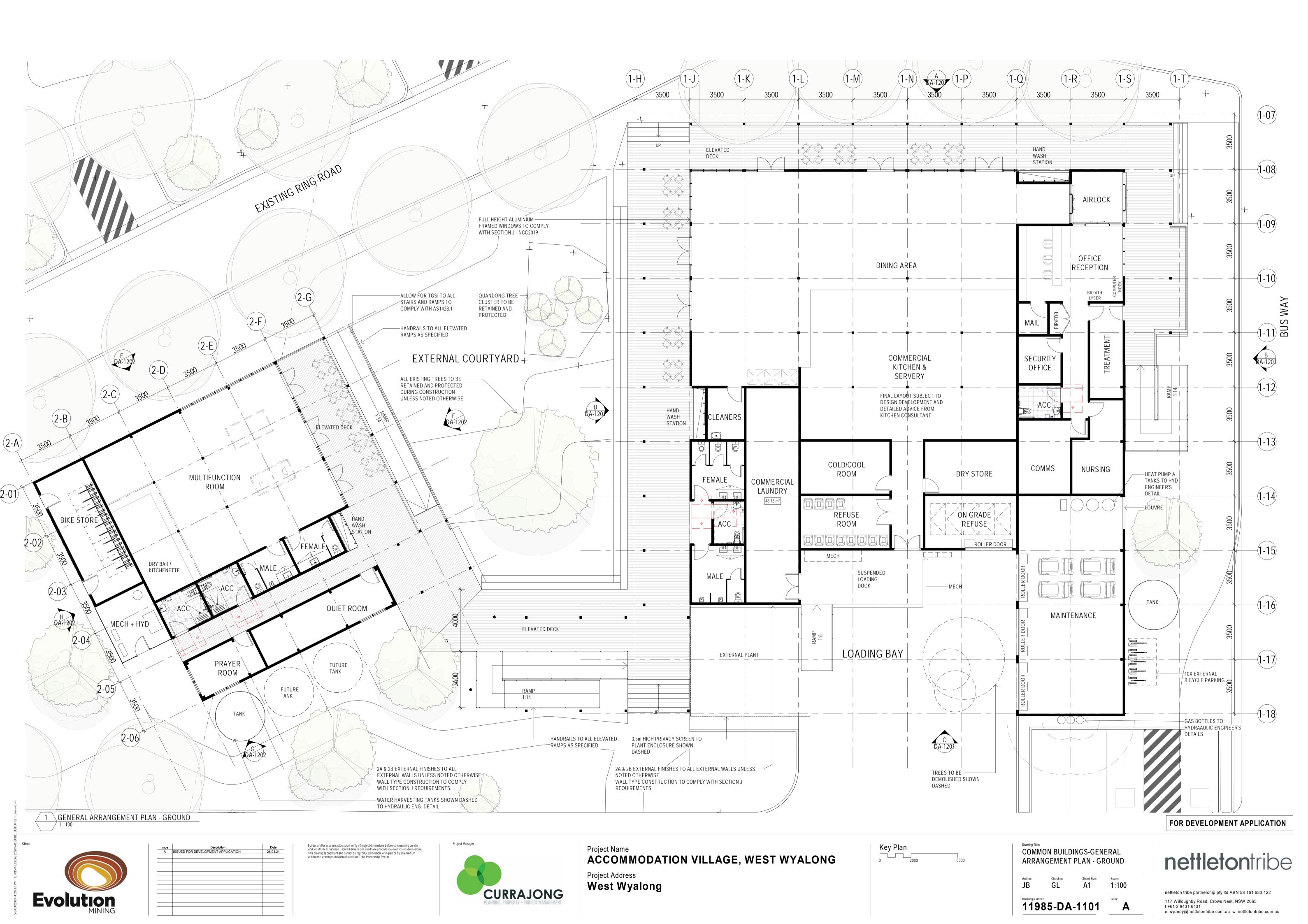
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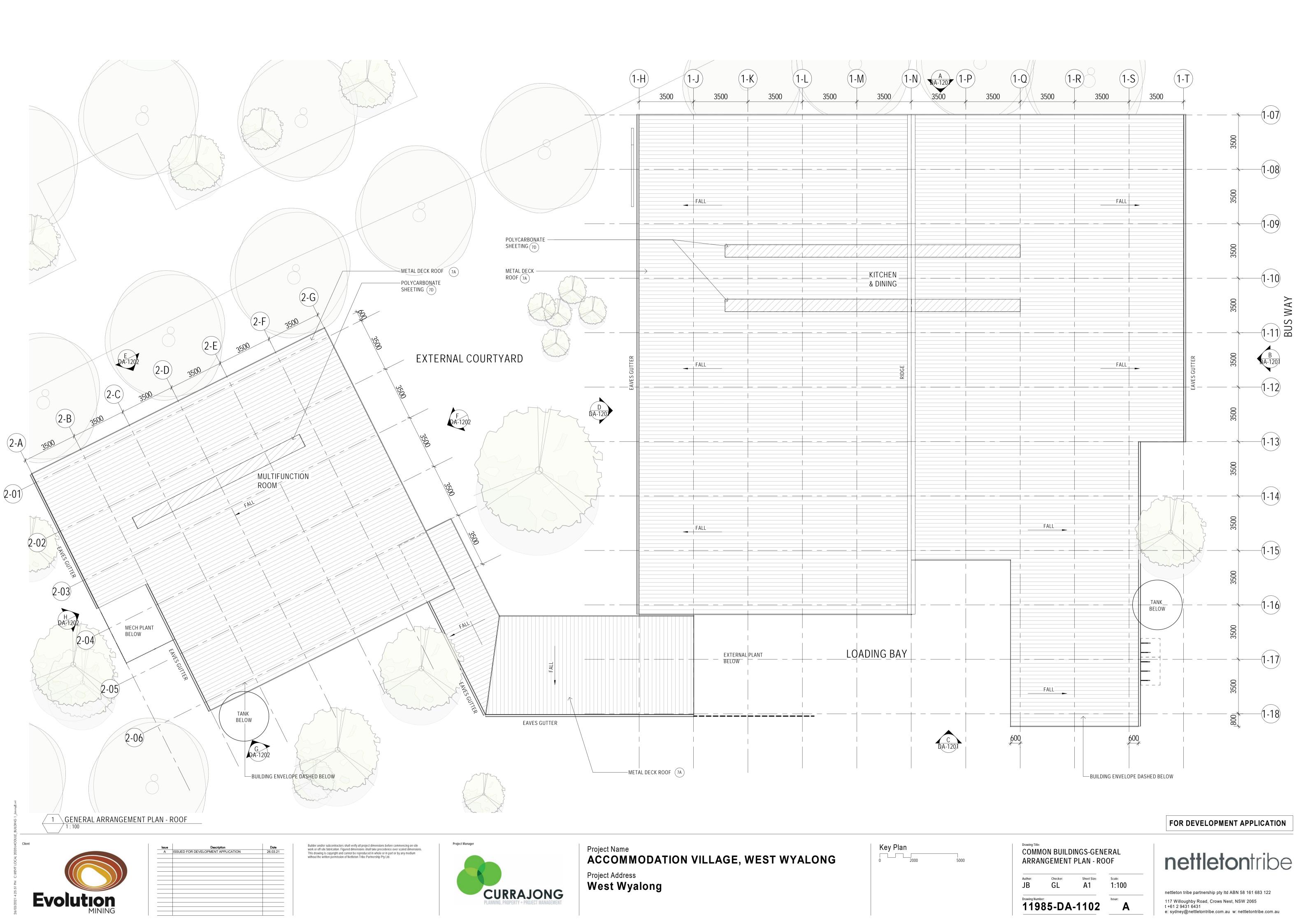
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Drawing Number: 11985-DA-0201

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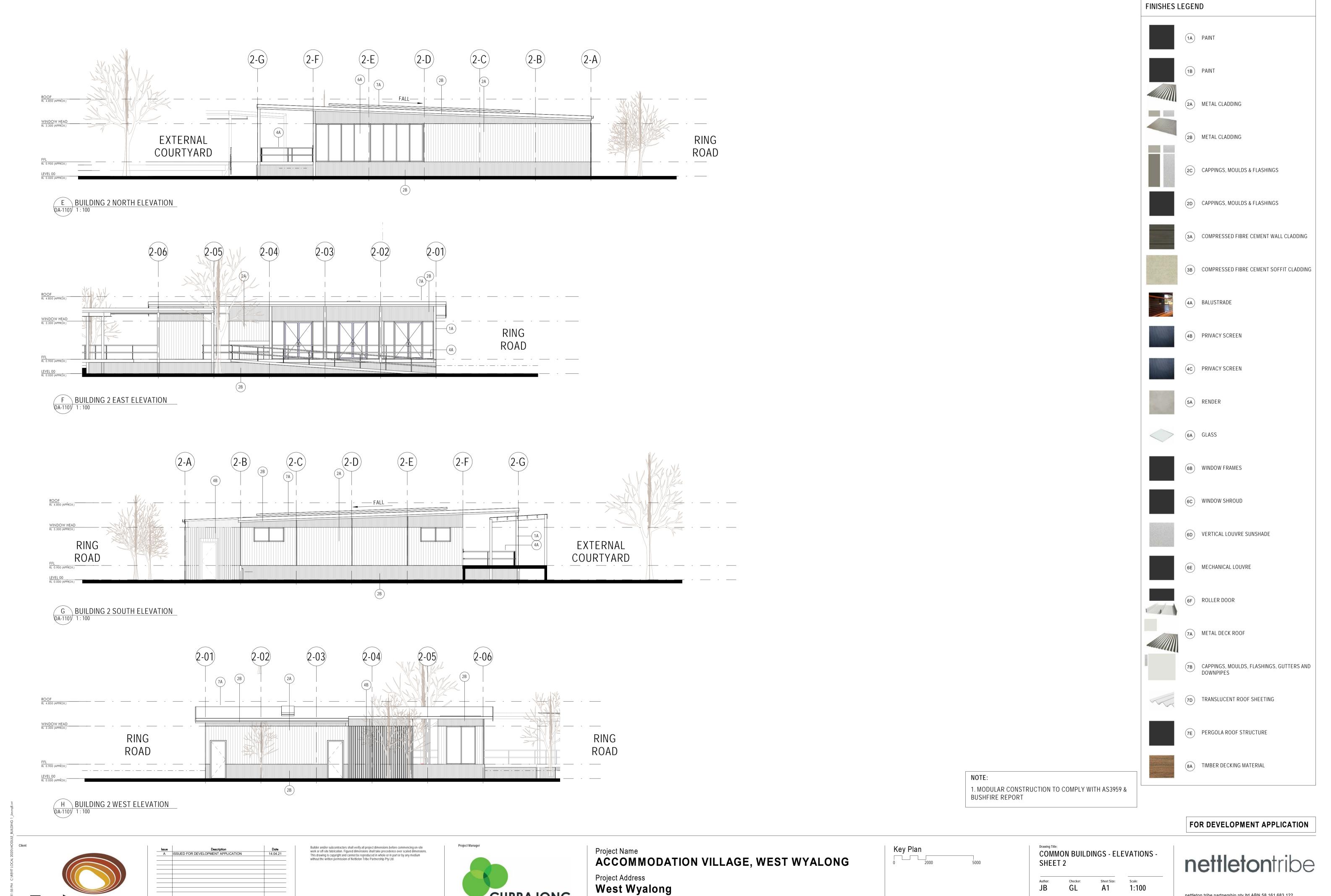
FOR DEVELOPMENT APPLICATION







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Evolution

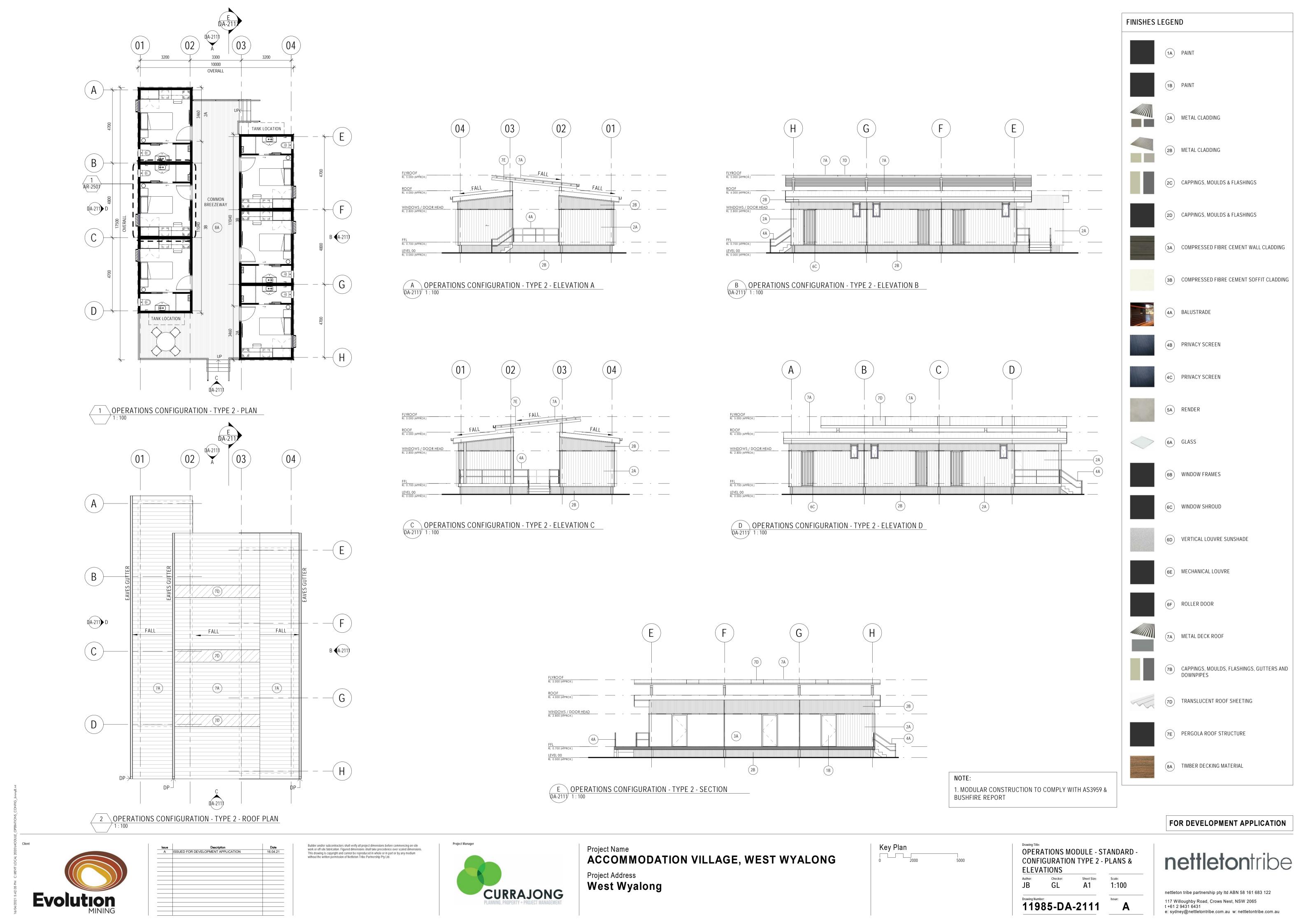
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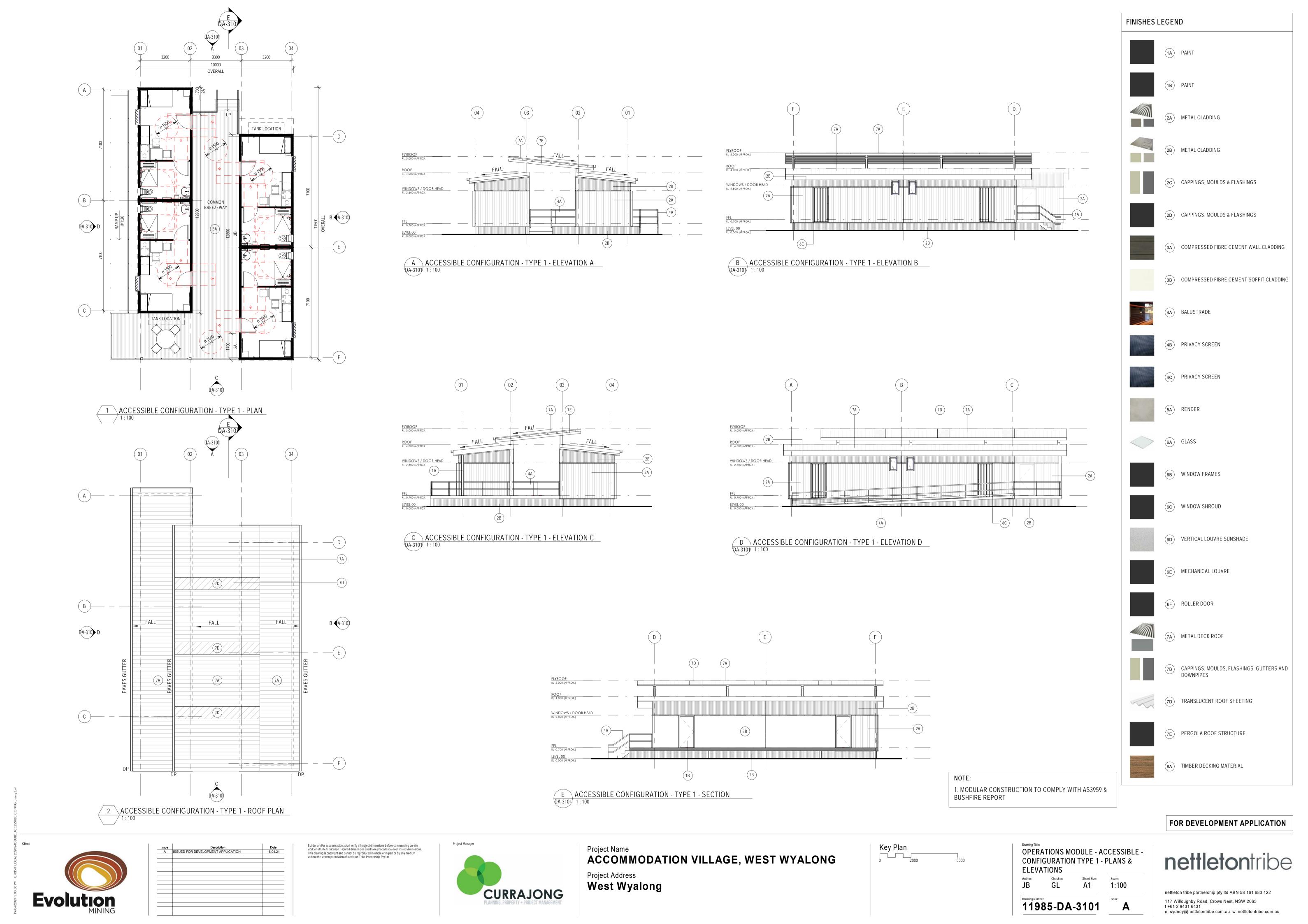
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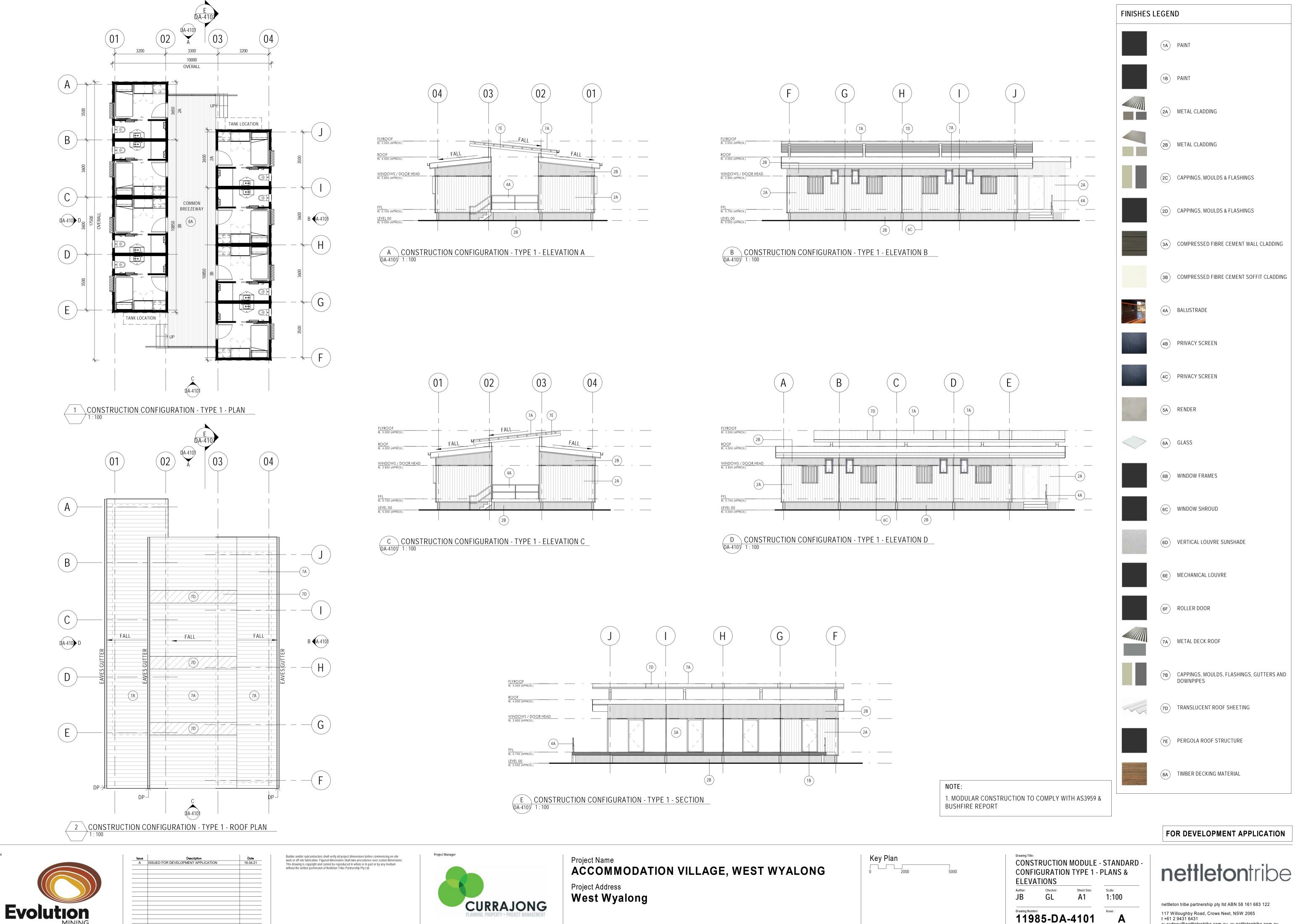
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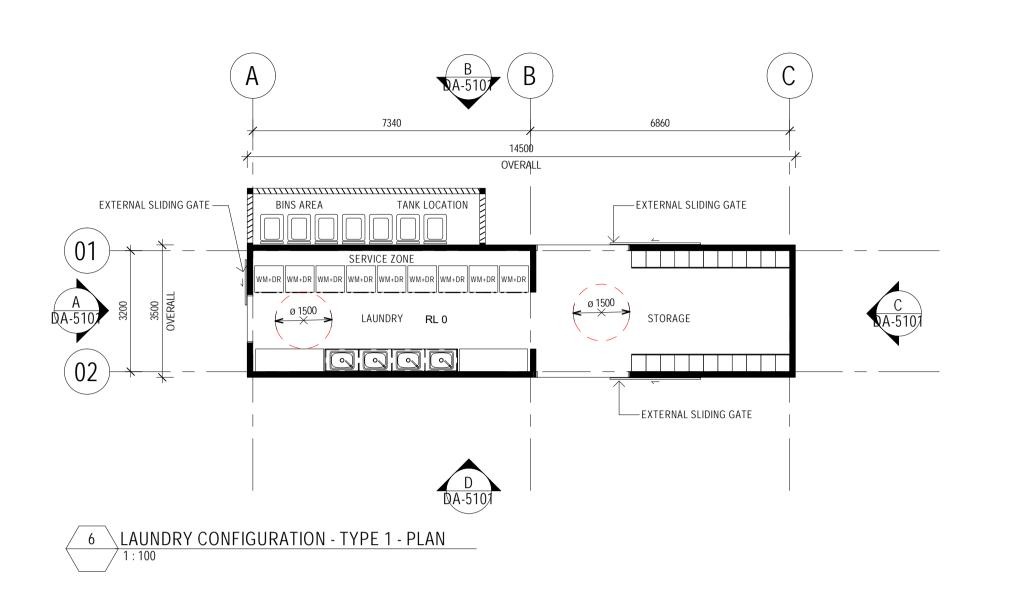
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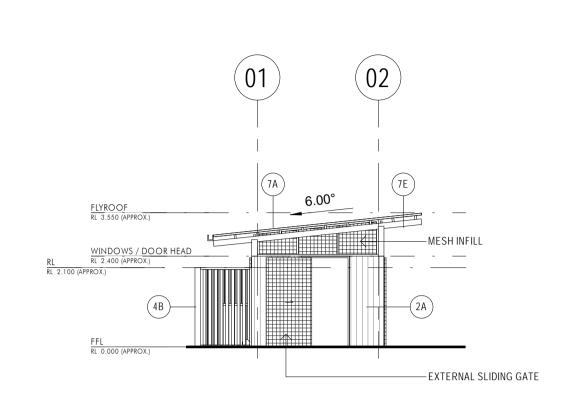






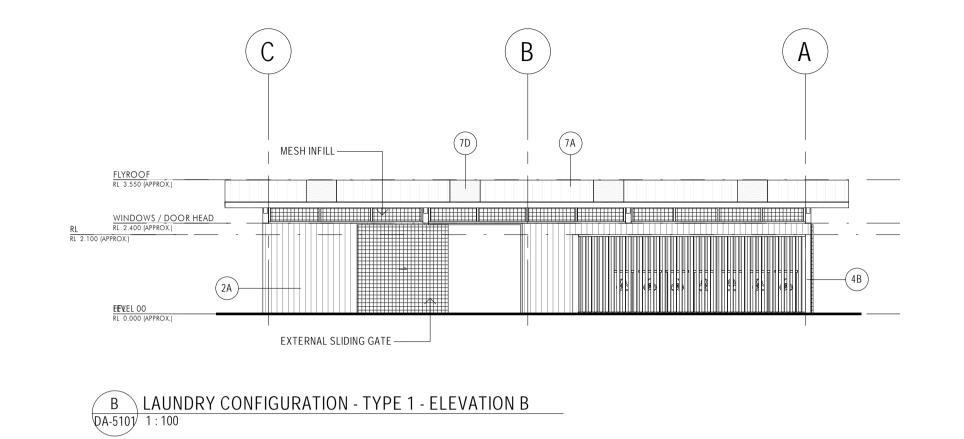
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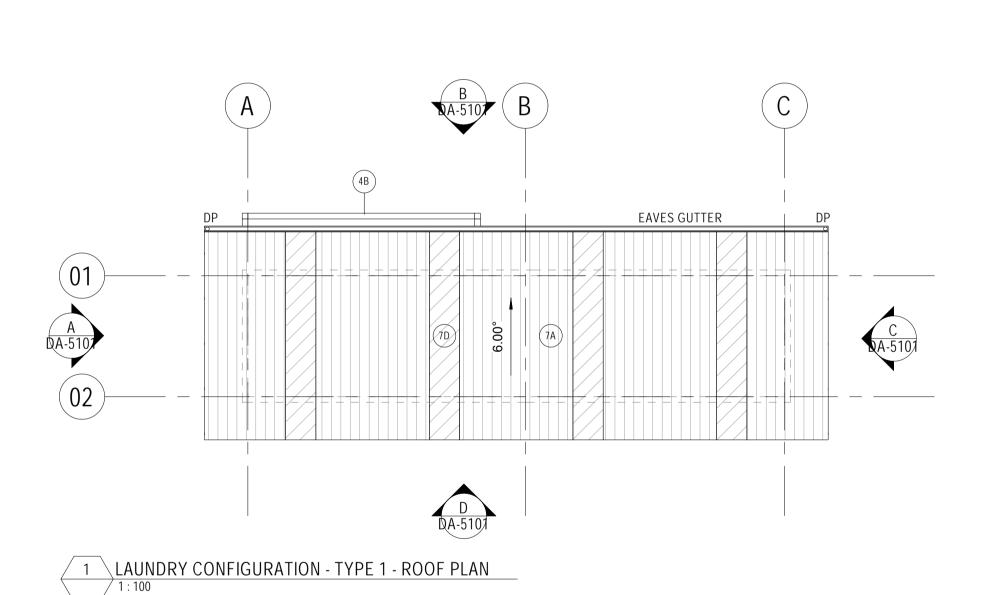


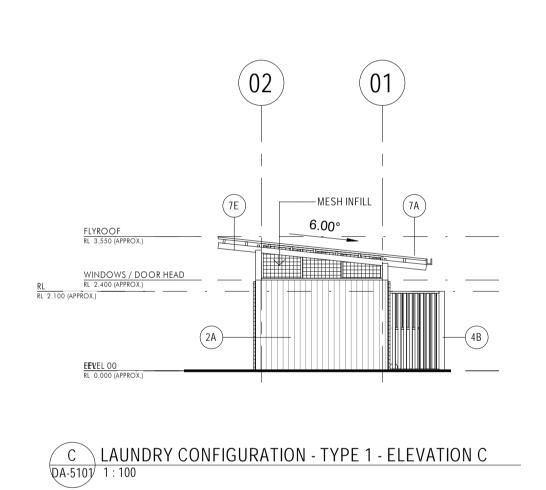


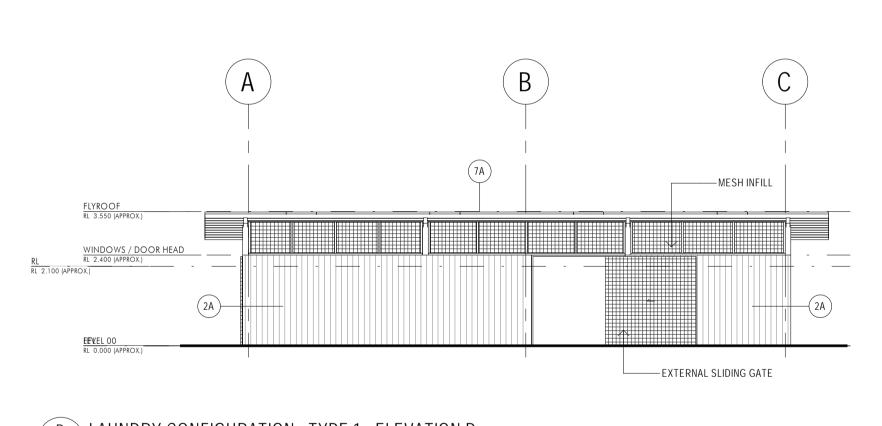
A LAUNDRY CONFIGURATION - TYPE 1 - ELEVATION A

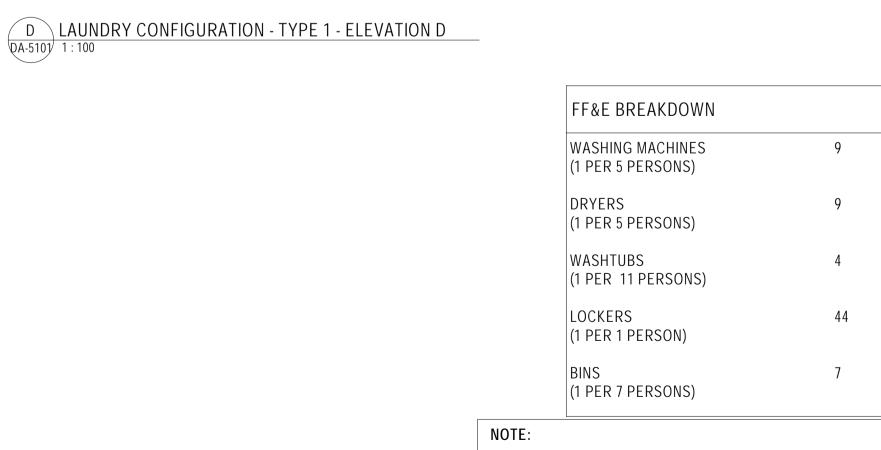
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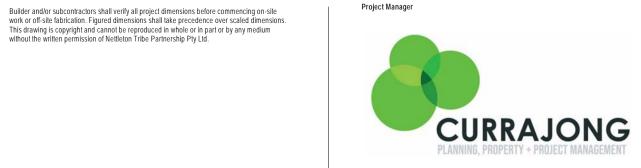
1. MODULAR CONSTRUCTION TO COMPLY WITH AS3959 & **BUSHFIRE REPORT**

FOR DEVELOPMENT APPLICATION

CAPPINGS, MOULDS, FLASHINGS, GUTTERS AND DOWNPIPES



Issue Description
A ISSUED FOR DEVELOPMENT APPLICATION



ACCOMMODATION VILLAGE, WEST WYALONG Project Address West Wyalong

Key Plan

LAUNDRY MODULE - CONFIGURATION TYPE 1 - PLANS & ELEVATIONS

11985-DA-5101

Sheet Size: Scale: **A**1 1:100

FINISHES LEGEND

(1A) PAINT

(1B) PAINT

2A METAL CLADDING

(2C) CAPPINGS, MOULDS & FLASHINGS

(2D) CAPPINGS, MOULDS & FLASHINGS

4A BALUSTRADE

4B PRIVACY SCREEN

4C PRIVACY SCREEN

(6B) WINDOW FRAMES

6C WINDOW SHROUD

(6D) VERTICAL LOUVRE SUNSHADE

(6E) MECHANICAL LOUVRE

(6F) ROLLER DOOR

7A METAL DECK ROOF

7D TRANSLUCENT ROOF SHEETING

7E PERGOLA ROOF STRUCTURE

(8A) TIMBER DECKING MATERIAL

5A RENDER

6A GLASS

(3A) COMPRESSED FIBRE CEMENT WALL CLADDING

(3B) COMPRESSED FIBRE CEMENT SOFFIT CLADDING

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Appendix B

Landscape drawings











Issue D
Date 13/05/2021
Prepared By
Chris Tidswell, Principal Landscape Arcgitect
M.Land Arch M.Arch B.DesSt Dip.PM RAILA #001858
AILA National Director and Company Secretary

Prepared for the use of Evolution Mining and the West Wyalong Local Aboriginal Land Council

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We respectfully acknowledge the Traditional Custodians of the lands where we live and work. We acknowledge their unique ability to care for Country and deep spiritual connection to it. We honour Elders past, present and emerging whose knowledge and wisdom has and will ensure the continuation of cultures and traditional practices.

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Section 2

Site Analysis & Context

Cowal Gold Operations (CGO) Accommodation Village Project Local Landscape Context Local Historical Context Local Landscape Character Site Analysis Masterplan + Existing Tree Identification Existing Trees of Interest

Vision & Concept

Landscape Design Strategies
Landscape Experiences and Place
Landscape Circulation and Access
Landscape Main Living Areas
Landscape Materials
Planting Palette





Cowal Gold Operations (CGO) Accommodation Village Project Landscape Objectives

Landscape project aims and objectives

Cowal Gold Operations (CGO) Accommodation Village Project is proposed to be constructed at a site located off Boundary Street, West Wyalong.

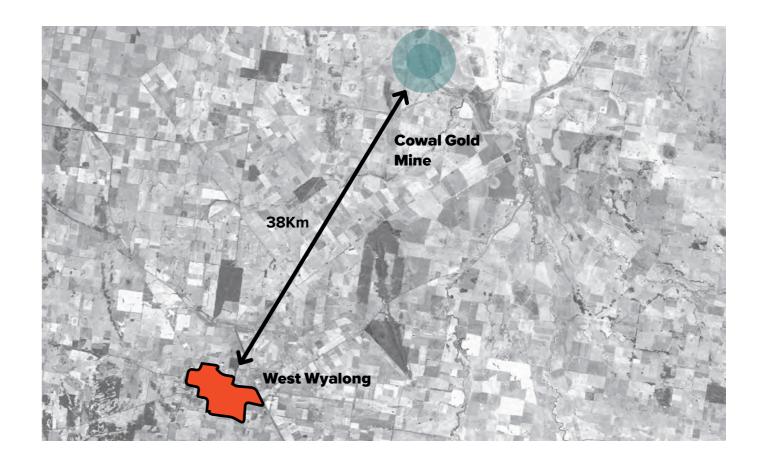
The project supports the Cowal Gold Operations (CGO) to house employees and contractors that contribute to the Cowal Gold Operations (CGO) Mine.

The Landscape Design has three main objectives:

- To create a positive External **Experience** while living Accommodation VIIIage
- To provide a Inclusive landscape design that encourages comfortable and safe movement around the site
- Ensure Connections are direct and functional between built elements



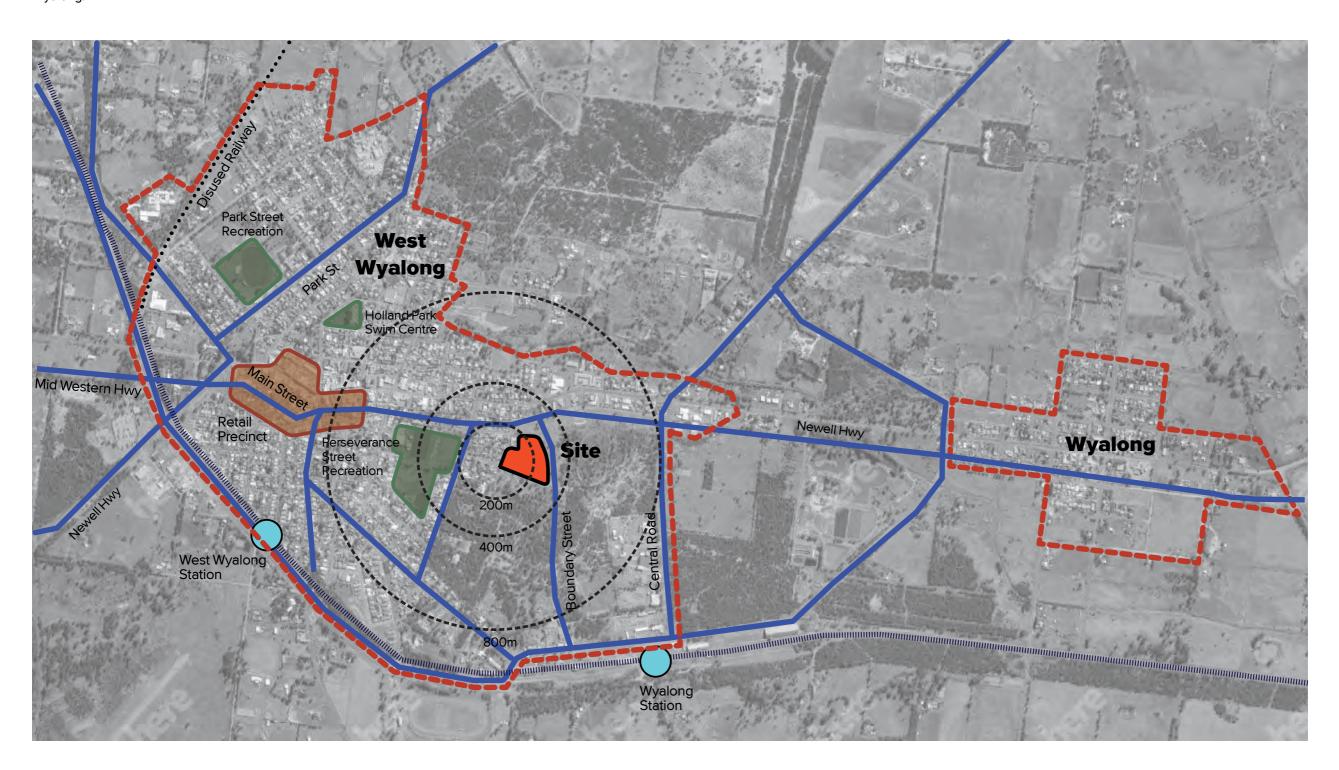




Local Landscape Context

Regional and local scales

Cowal Gold Operations (CGO) Accommodation VillagebProject is proposed to be constructed off Boundary Street 38km from Cowal Gold Operations (CGO) Mine and located within West Wyalong.



Local Historical Context

Regional and local scales

Indigenous History

The Wiradjuri people were the first to inhabitant this region.

Wiradjuri means "People of the three rivers" these being the Lachlan, Macquarie and Murrumbidgee rivers.

The Wiradjuri people generally moved around in small groups, using the river flats, open lands and waterways with some regularity through the seasons as indicated by debris that has accumulated in these areas.

Research shows that there was one basic language used by the Wiradjuri people, however, different smaller sub groups among Wiradjuri speakers had some words that belonged exclusively to their own clan.

Occupation of the land by the Wiradjuri can be seen by modified trees and campsite remainders. Carved trees are more commonly found around the Macquarie and Lachlan rivers. Campsites, which indicate seasonal occupation by small groups, have been found on river flats, open land and by the rivers.

Wiradjuri people moved around the country according to seasonal conditions The Wiradjuri people cover one of the largest tribal areas in NSW from Nyngan to Albury and from Hay to Bathurst

European History

The town has a rich and colourful history despite the early assessment of explorer John Oxley when he passed through the area in 1817 and famously declared "from want of timber, grass and water, it would never be inhabited by civilised man".

Fred Neeld's discovery of gold in Wyalong in December 1893 soon proved Mr Oxley wrong.

As the population of Wyalong swelled, West Wyalong was gazetted and settled in 1895 around

* Information from Bland Shire Council

the old bullock track.

As a result, the crooked Main Street featured a number of curious kinks in the road, twists and turns which were put in place to avoid trees. It is those same original features which continue to give West Wyalong part of its character and charm.

When mining declined in the early 1900's, West Wyalong became the main service centre for agriculture in the district.

Agriculture and mining remain the Bland Shire's major industries today.

Gold was discovered by the Neeld brothers in 1893, when they were fencing on a selection for their brother George, over what is now the Wyalong township.

The father, Frederick, and the brothers prospected over the area and found it to be rich with gold.

By March 1894, about 12,000 people were on the field, with 12 big mines and several smaller ones operating.

At the turn of the century Wyalong produced more gold than any other field in the Colony.

Up to 1920, when the last mine closed 447,500 ounces had been won. Agriculture had by this time taken over and the Wyalong district then became one of the biggest cereal growing centres in NSW.

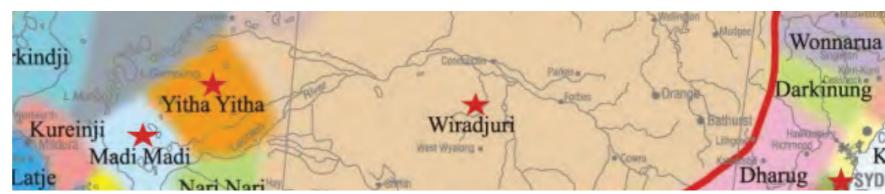


Image of Indigenous Country



Example of European Heritage



5 National Australia Bank and former Bank of NSW Monument & Tattersall's Hotel Buildings





White Tank Hotel



Local Landscape Character

Surroundings

The village site located on the border of West Wyalong about 3km to Wyalong. A monument to this gold mining past in the large replica True Blue Mining Poppet Head and miners hut located at a rest-stop park alongside the Newell Highway between Wyalong and West Wyalong. As a part of the council suggested heritage walking trial, The Green Corridor, a 4.4km walkway from West Wyalong to Wyalong takes visitors walking through numbers of parklands in the town. It provides the town stories from the gold mining past to the memories of the war who served to. The trees planted along West Wyalong Memorial Walk is an important part on the corridor to present the memory of the past war.

Across from the mining monument is The Wetlands, described by the local council as the Shire's best kept secret, it is a welcome sanctuary amongst a largely dry region. The Wetlands is a recognised bird watching area and there are picnic tables to sit and enjoy the surrounds.



True Blue Mining Poppet Head



Existing Ecologies

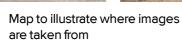
West Wyalong (NSW South Western Slopes Bioregion) is predominantly blue mallee-bull mallee-green mallee very tall mallee shrubland Typical Species Like (not limited too):

- Eucalyptus Dwyeri (Dwyer's red gum)
- Eucalyptus sideroxylon subsp. Sideroxylon
- Eucalyptus socialis
- Eucalyptus microcarpa
- Eucalyptus Viridis (Green Mallee)
- Melaleuca uncinate (Broombush)
- Kangaroo Grass (Themeda australis)

The Site



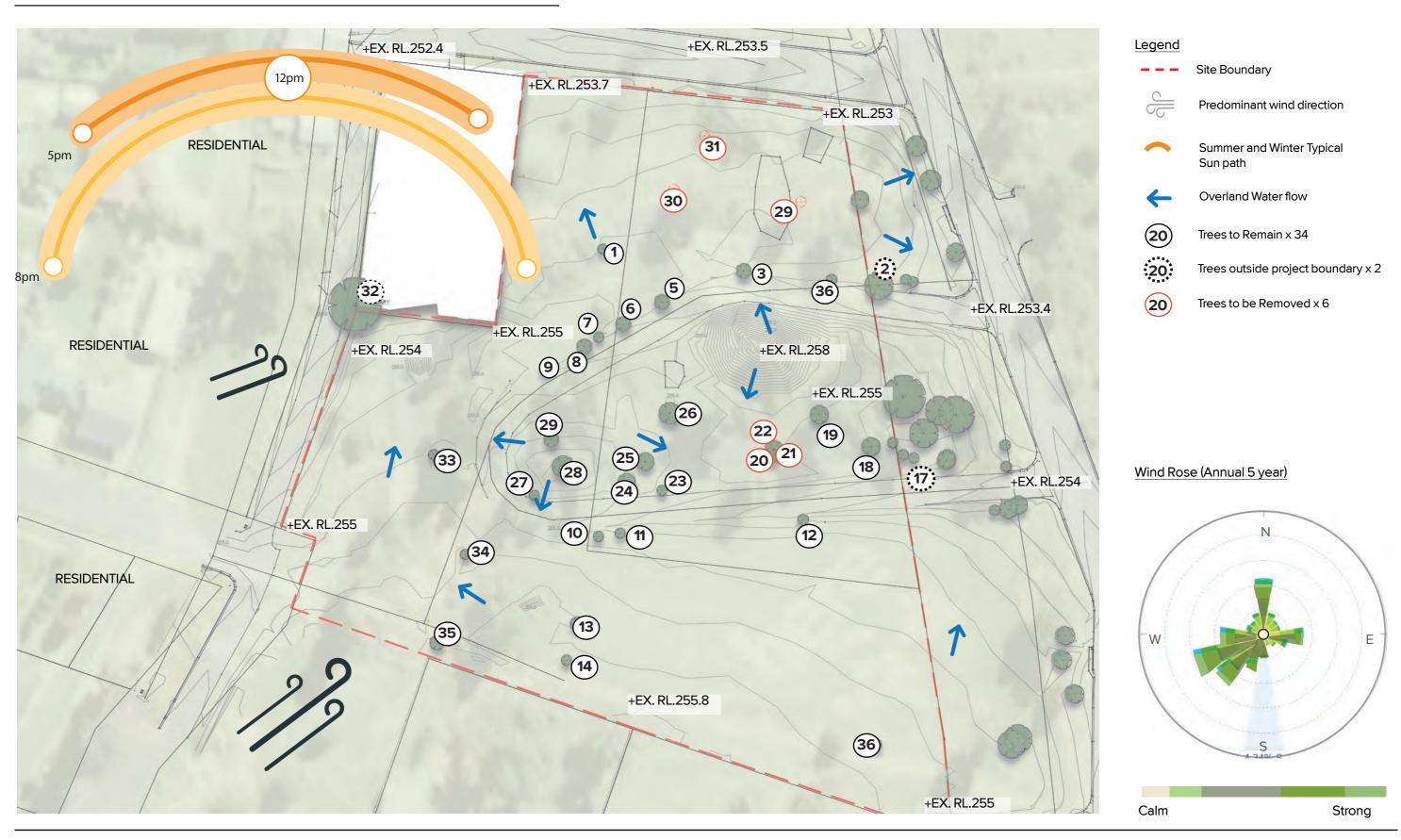








Site Analysis



Masterplan + Existing Tree Identification



Legend

- - - Site Boundary

Existing Trees Canopy 1,173 sqm



Trees to Remain x 34



Trees outside project boundary x 2

Trees to be removed Canopy 36 sqm



Trees to be Removed x 6

New Trees Canopy 1,025 sqm



New Trees



New Trees

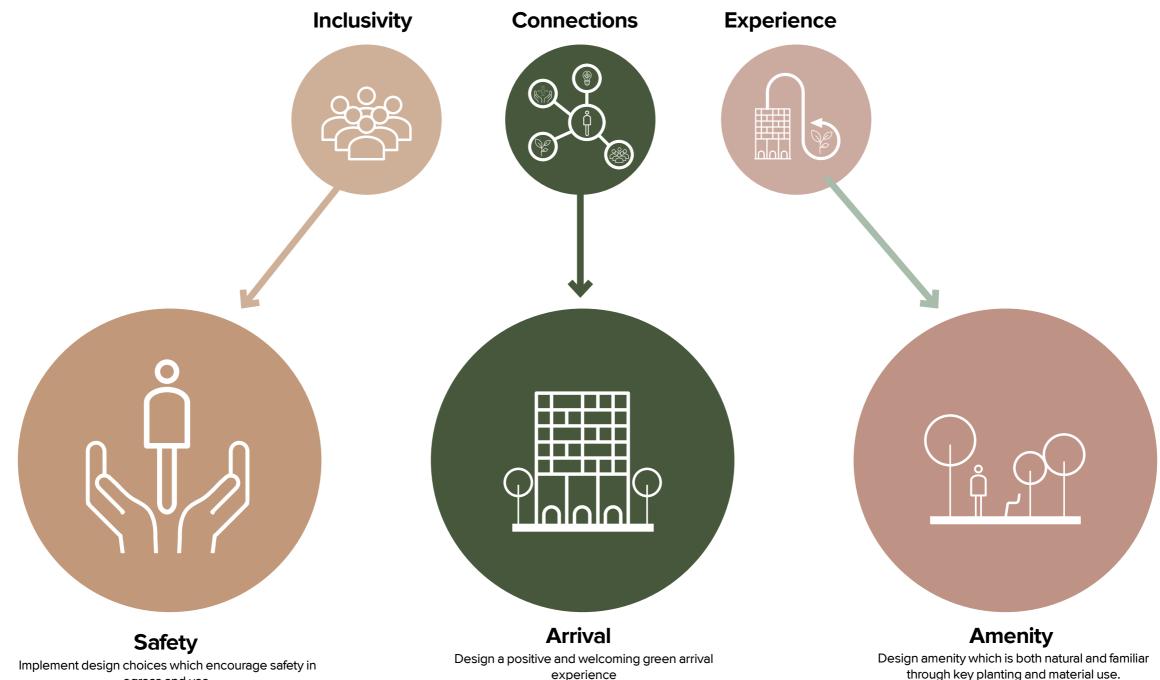
Tree canopy's square meter calculations have been calculated from the survey provided and estimated tree canopy size from up to date aerial

Existing Trees To Be Retained (Additional trees being retained, images below are a sample selection)





Landscape Design Strategies



egress and use. - Accessible pathways - Reduced vehicular intersection with pedestrians

> - Buffering planting -Providing Social Spaces -Provide consistent visual permeabiliy

experience

- Feature planting to entrance
- Utilising higher orders of planting/trees
- Working with existing desire lines
- -Experience of enclosure and reveal

through key planting and material use.

- Enusre existing trees are kept where possible and celebrated
 - Comfort from the Heat and Rain
 - Use of warm and familiar materials
 - Places to rest, wait, and congregate
 - Use of geomorphology in paving and fixtures

Landscape Experiences and Place



Legend



VillageCentre

- Dining
- Meeting
- Social
- Events
- Whole of Village Gathering Quandong tree with cultural
- signfiicance surrounded by Indigenous Planting Species
- External Visitors Areasi



Secondary Communal Open Spaces

- Dining
- Meeting
- Laundry
- Exercise On Turf



Tertiary Communal Open Spaces

- Outdoor Dining
- Smaller, Intermediate
- Reading

Accommodation Social Spaces

Site Boundary

1:1000@A3



Landscape Circulation and Access



Legend

Primary Routes/ Running Track 2400mm wide to fit 'Light Vehicle' & 'Golf Buggy' Regularly and Wheel Chair

Proposed Pedestrian Crossing 1800mm wide to fit 'Golf Buggy' Irregularity

Secondary Routes

1800 Good Neighbor Fence Location

• • • 1200mm High Cyclone Fence Location



Min. 5.5m Emergency Vehicle Path

IIIIIIIIIII Shared access for cars only

– – – Site Boundary

Waste & Maintenance

Bus Stop

Parking

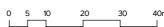
Bicycle Parking

Authority Access Gate

Parking Table

PARKING	SPACE ALLOCATION
Facility Staff	12
Construction Workforce	33
Operations Workforce	22
Accessible Space	8
Bus Parking	2 Bays

1:1000@A3



Landscape Main Living Areas



Legend

- 1 Dining
- Main Communal Open Space
 _-Quandong tree with cultural
 signflicance surrounded by Indigenous
 Plantin Species
 _ Surround by Decking and Seating
- 3 Existing Road
- Primary Routes/ Running Track
 2400mm wide to fit 'Light Vehicle' & 'Golf Buggy' Regularly and Wheelchair
- 5 Parking
- (6) Multi Purpose Function Space
- 7 Laundry
- 8 Social Deck
- **9** Reflective Space
- 10 Irrigated Turf
- 11) Potential Stage 4 Multiuse Court
- Bus Pickup
- External Bicycle Parking
- Delivery Dock/Unloading Bay
- Pedestrian Crossing
- (16) Outdoor Dining

Landscape Materials

Hardscape

Below are images to reflect the materials intent for th project:



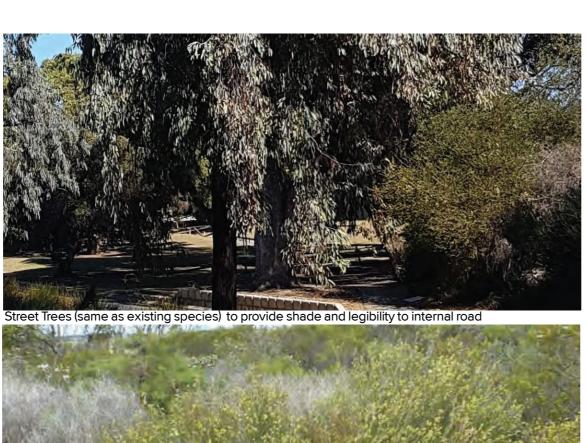
Permeable paving to car parking areas

External Stainless Steel Bicycle Racks

Landscape Materials

Softscape

The following reflects the type of materials which may be used to landscape the site





Street Trees (same as existing species) to provide shade in amenity areas





Site found Logs and Rocks to be placed within the landscape

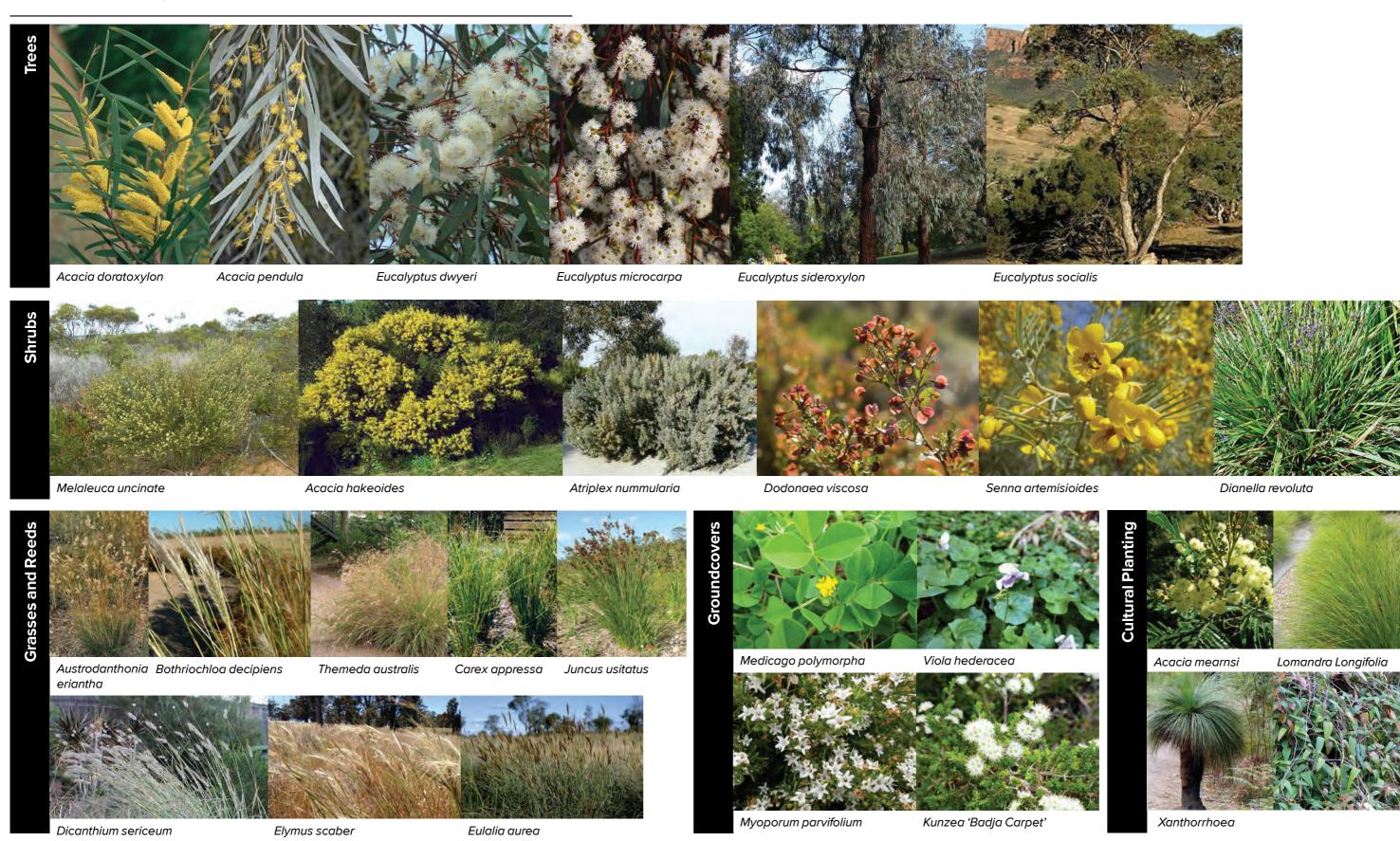




Native Dryland Grasses to areas

Planting Palette

Example Planting Palette



ARCADIA







Appendix C

Services strategy and drawings









Servicing Strategy Report



QUALITY ASSURANCE STATEMENT

TASK	NAME	SIGNATURE
Project Manager	Pradeep Pejavar	PP
Prepared by	Joey Gutierrez/Kiat Chin/Chris Morris/Genevieve Safey	JG/KC/CM/GS
Reviewed by	Pradeep Pejavar	PP
Approved for Issue by	Pradeep Pejavar	PP

DOCUMENT CONTROL

ISSUE	DATE	ISSUE DETAILS	AUTHOR	CHECKED	APPROVED
Α	26.03.2021	Review Issue	JG/KC/CM/GS	PP	PP
В	30.03.2021	Final Issue	JG/KC/CM/GS	PP	PP
С	07.04.2021	Revised Final Issue	JG/KC/CM/GS	PP	PP

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General

1.1 Project Description

This Servicing Strategy Report is for the services connections for the Proposed Accommodation Village for Evolution Mining at West Wyalong (approximately 38km North East of West Wyalong), NSW. This report is relative to and shall be read in conjunction with but not limited to the documentation below:

- Evolution Mining (Cowal), Accommodation Village, West Wyalong, Development and Design Brief (latest version)
- Evolution Mining Architectural Design Package (latest version)
- Any associated engineering services documentation and drawings

1.2 Objective of the Report

The purpose of this report is to outline how the project site will be serviced for the following:

- Power
- Communications
- Water
- Sewer
- Stormwater

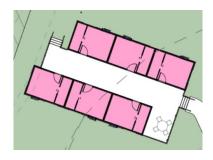
1.3 Local Service Authorities

The servicing of the Accommodation Village shall be carried out with the concerned local service authorities as follows:

- · Essential Energy for power services
- NBN for communications
- Goldenfields Water for water
- Bland Shire Council for sewer
- Bland Shire Council for stormwater

1.4 Accommodation Terminology

• Cluster – generally with two accommodation modules.



• Module – In this project, modules are to be supplied with either three or four rooms (living quarters).



Room – three or four rooms are provided in each Module



2. Electrical Services

2.1 Infrastructure Network Connections

2.1.1 Mains Power

The main power to the accommodation village shall be taken from the power network of Essential Energy via a dedicated pad mounted transformer to be installed between the village front property boundary and Boundary Street.

The design and layout of the PMT shall be carried out by an accredited Level 3 consultant (TFL Consulting and Design Services Pty Ltd) to Essential Energy requirements and design standards.

Design Information Package have already been issued by Essential Energy under reference ST-0001547 Boundary Street, West Wyalong dated 19 March 2021.

Mains power connection to the village shall be from the LV side of the PMT to the Site Main Switchboard (SMSB). The connection shall be with via copper cables in underground conduits designed to AS3000 and AS3008.

2.2 Servicing and Reticulation within the Village

2.2.1 Standards

All works shall fully comply with the Rules and Regulations of all bodies having jurisdiction over all or part of the installations.

Work shall comply with the National Construction Code of Australia, New South Wales Building Act, Workplace Health and Safety Act and all applicable and referenced Codes and Standards.

In particular, the following codes and regulations shall be complied with and provisions shall be carried out in accordance with the latest edition of:

_		
Stan	dard	Title

NCC	National Construction Code
AS/NZS 3000	The Wiring Rules
AS/NZS 3008.1	Electrical Installations – Selection of Cables
AS/NZS 3017	Electrical Installations –Verification Guidelines
AS/NZS 3010	Electrical installations – Generating sets
AS/NZS 61439 (1-6)	LV switchgear and controlgear assemblies
AS/NZS 60898 (1&2)	LV switchgear and controlgear assemblies
AS 60529	Degrees of protection by enclosures (IP Code)
AS/NZS 2053	Conduits and fittings for electrical installations
AS CCM	Communications Cabling Manual for Telecommunications Systems
Client Brief	Evolution Mining (Cowal) Accommodation Village, West Wyalong Development and Design Brief
Brief	All other relevant Acts and Regulations, Local Authority Requirements, Australian Standards and Codes having jurisdiction.

2.2.2 Normal Power

The normal power shall be taken from the PMT that will be available to all electrical demand of the accommodation village.

2.2.3 Emergency Power

Emergency or essential power shall be available during normal power failure through the provision of a generator set with an automatic transfer switch to be located at the Site Main Switchboard. The emergency power shall be available only to the kitchen/Dining/Admin building.

2.2.4 Site Main Switchboard (SMSB)

A Site Main Switchboard of rated capacity, form of separation, and ingress protection shall be designed to applicable Australian Standards (AS) and Essential Energy for the revenue metering system.

The supply side of SMSB shall be from the LV side of the PMT and the distribution side shall be to:

- Distribution Switchboards (DBs) of the central facilities to include DB for the Kitchen, Dining/Admin areas, and multipurpose function space.
- Area Distribution Switchboards (ADBs).

The SMSB shall be provided with Automatic Transfer Switch (ATS) to allow transfer of power supply between normal and emergency power.

2.2.5 Area Distribution Switchboards (ADB)

Area distribution switchboards (ADBs) will be provided to distribute power to the accommodation clusters and laundry blocks.

With the accommodation village divided into three areas or zones, three ADBs will be provided.

Power to the ADBs will be from the SMSB and will be distributed to the various accommodation clusters and laundry blocks distribution switchboards.

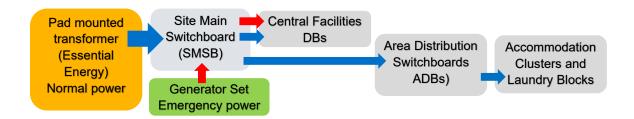
The design of the ADBs shall be carried out in the same manner as the SMSB.

2.2.6 Accommodation Cluster Distribution Switchboards

Each accommodation clusters will have two, three, or four rooms (living quarters) within. One DB per accommodation cluster will be provided for power distribution to the rooms (living quarters).

2.2.7 Reticulation Overview

Following the above, below is the indicative reticulation and distribution system within the accommodation village.



3. Communications

3.1 Infrastructure Network Connections

3.1.1 Main incoming Service

The accommodation village is currently not covered by NBN fibre services. However, NBN confirmed that their existing fibre services can be extended to the village with some customer contributions.

For this report, the main communications incoming services will be NBN fibre services.

The reticulation for the incoming fibre will be from Boundary Street (NBN pit and connection point) to the main IT Room within the Kitchen/Dining/Admin building of the accommodation village.

3.2 Servicing and Reticulation within the Village

3.2.1 Main IT Room

Main IT Room will be provided at the Kitchen/Dining/Admin building. This room will be the centre of the communications infrastructure of the entire village. As such, all communication reticulation in the village will be wired back to communications rack and hardware within this room.

3.2.2 Village Reticulation

The communication reticulation within the Kitchen/Dining/Admin building will directly be wired back to the main IT room. For the multipurpose building, accommodation clusters, and laundry blocks, fibre optic cables will be used to link their communications infrastructure back to the main IT room.

Where possible and practical, wireless technology will be considered.

3.2.3 Fibre Optic cable ring/loops

Fibre optic cable of high number of cores will be provided in a ring or loop configuration for the accommodation clusters and laundry blocks.

The village will be divided into several areas/zones and each will have its own cable rings or loops originating from the main IT Room.

3.2.4 Service to Accommodation Clusters

Each Accommodation Cluster has two Accommodation Modules. Each Accommodation Modules have two, three, or four Rooms.

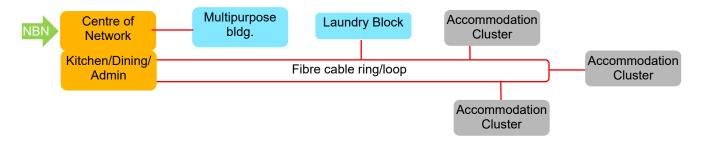
Each accommodation cluster will have a fibre optic wall enclosure (FEW). From the FEW, fibre of lesser number of cores will be connected to the fibre ring or loop.

Within the accommodation cluster and for each room, horizontal cabling will be provided with CAT6 cables.

Where possible and practical, wireless technology will be considered.

3.2.5 Reticulation Overview

Following the above, below is the indicative reticulation and distribution system within the accommodation village.



4. Water

4.1 Infrastructure Network Connections

A 100mm potable water service shall be connected to the existing 100mm water main owned by Goldenfields Water.

The in-coming supply shall feed into Goldenfields' water meter assembly comprising;

- 100mm domestic water meter assembly
- 100mm fire service testable check valve assembly.

4.2 Servicing and Reticulation within the Village

4.2.1 Potable Water Reticulation

The internal potable water supply shall be designed and constructed in accordance with the following Australian Standards;

- National Construction Code Part 3 Plumbing Code of Australia
- AS/NZS 3500.1 Water Services

The internal potable water supply shall be supplied via a 50,000 litre break tank, complete with a variable speed pressure boosting pump set. The break tank will serve the following purpose;

- Provision of 24 hours potable water storage during Local Authority water mains service disruptions.
- To enable peak water flow rates to be drawn without exceeding the Local Authority Mains supply capacity.

The variable speed pressure boosting pumps set will provide suitable water pressure to all buildings on-site.

The potable water service will reticulate around the site via a 100mm ring main service, with suitably sized dead leg branches feeding out each building.

Potable water shall be supplied to each building, terminating adjacent the services zone, above ground with a ball valve, ready for final connection.

4.2.2 Fire Hydrant Service

The internal fire hydrant water supply shall be designed and constructed in accordance with the following Australian Standards:

- National Construction Code Part 3 Plumbing Code of Australia
- AS/NZS 3500.1 Water Services
- AS 2419.1 Fire Hydrant Installations
- AS 2941 Fixed Fire Protection Installations Pumpset Systems
- AS 2304 Water Storage Tanks for Fire Protection Systems

Buildings that exceed 500sqm GFA will require fire hydrant coverage. The central Kitchen Dining

Total flow 10L/s required at minimum pressure of 700kPa at most dis-advantaged hydrant.

The Local Authority main pressures and flows have been provided by Goldenfields Water and found to achieve a maximum flow of 11.5L/s @ 150kPa residual pressure.

The Local Authority mains has adequate supply for the fire hydrant service, but the advice given by the Local Authority is that the water mains are often subject to service disruptions and can be "unreliable". As a reliable fire water supply, in compliance with the requirements of AS 2419.1 cannot be supplied to site, it is proposed to have the total 4-hour fire hydrant service water capacity stored on-site, in fire water storage tanks.

Two 75,000 litre storage tanks are located adjacent the site boundary to provide the fire hydrant water requirements. Two diesel fire hydrant pressure boosting pumps are located adjacent the storage tanks, to provide the minimum water pressures required to the site fire hydrants.

A Fire Hydrant Booster Assembly, complete with large bore suction connection, is located adjacent the entry roadway, in order to allow NSWFR to pressurise the fire system via a fire appliance.

The fire hydrant service reticulates out to two attack fire hydrants, located adjacent the Central Kitchen/ Dining building to provide compliant fire fighting coverage. These hydrants shall be located a minimum of 10m away from the building structure in order to provide NSWFR with protection from structural collapse and radiant heat when operating the hydrants.

Sewer

5.1 Infrastructure Network Connections

Bland Shire Council has an existing 150mm sewer network reticulated through the site. This shall be utilised for site connections.

There are three new 150mm property connections proposed for connection of the internal sanitary drainage system. These property connections shall be connected directly to the existing 150mm pipe as boundary connections in accordance with the requirements of Bland Shire Council.

5.2 Servicing and Reticulation within the Village

5.2.1 Sanitary Drainage

The internal Sanitary Drainage system shall be designed and constructed in accordance with the following Australian Standards:

- National Construction Code Part 3 Plumbing Code of Australia
- AS/NZS 3500.2 Sanitary Plumbing and Drainage

Each building shall connect to a 100mm sanitary drainage connection via an inspection opening and jump-up, which shall connect to an in-ground sanitary drainage system, reticulating to each proposed property connection.

5.2.2 Trade Waste Drainage

The internal Trade Waste Drainage system shall be designed and constructed in accordance with the following Australian Standards;

- National Construction Code Part 3 Plumbing Code of Australia
- AS/NZS 3500.2 Sanitary Plumbing and Drainage
- Local Authority Trade Waste Requirements

The central Kitchen/ Dining trade waste service from the kitchen/ dining area will connect to an in-ground Grease Interceptor Trap (GIT). The size of the GIT will be determined by the fixtures installed within the Kitchen/ Dining area, which are connected to the trade waste system and is to be confirmed. At this stage a 2,000L GIT is proposed.

The Central Laundry Facility shall have sanitary drainage discharge from commercial washing machines discharging to drain via a suitably sized Cooling pit with lint trap. The size of the trap shall be confirmed during detailed design phase.

Stormwater

6.1 Infrastructure Network Connections

All stormwater drainage from the site shall discharge into the existing public stormwater drainage system owned by Bland Shire Council.

The existing stormwater drainage system around the site is limited to kerb and gutters along both sides of Boundary Street and Hyde Street and an informal swale along the western side of Hyde Lane. Dish crossings were found across the intersections between Boundary St and the loop road. These gutters drain into a shallow open pit and pipe culvert that crosses Boundary Street to the north and south of the loop road discharging into bushland to the east of Boundary Street.

6.2 Servicing and Reticulation within the Village

Stormwater drainage for the site will be designed generally in accordance with:

- Bland Shire Council's "West Wyalong Stormwater Management Plan";
- The Institution of Engineers' "Australian Rainfall and Runoff" (2016);
- The relevant Australian Standards; and
- Accepted engineering practice.

it is proposed to drain all roofs into above ground detention and retention tanks which drains and overflows into vegetated gravel lined swales. These swales then drain into bioretention swales/basins before draining out as either sheet flow or distributed pipe connections into the nearest road gutter or swale.

6.2.1 Central Facilities Building - Rainwater Harvesting & Re-Use

The internal Rainwater Harvesting and Re-use system shall be designed and constructed in accordance with the following Australian Standards;

- National Construction Code Part 3 Plumbing Code of Australia
- AS/NZS 3500.1 Water Services

The Central Facilities building shall have roof water collected via rainwater harvesting tanks, which shall be re-used onsite for toilet flushing, external washdown and irrigation.

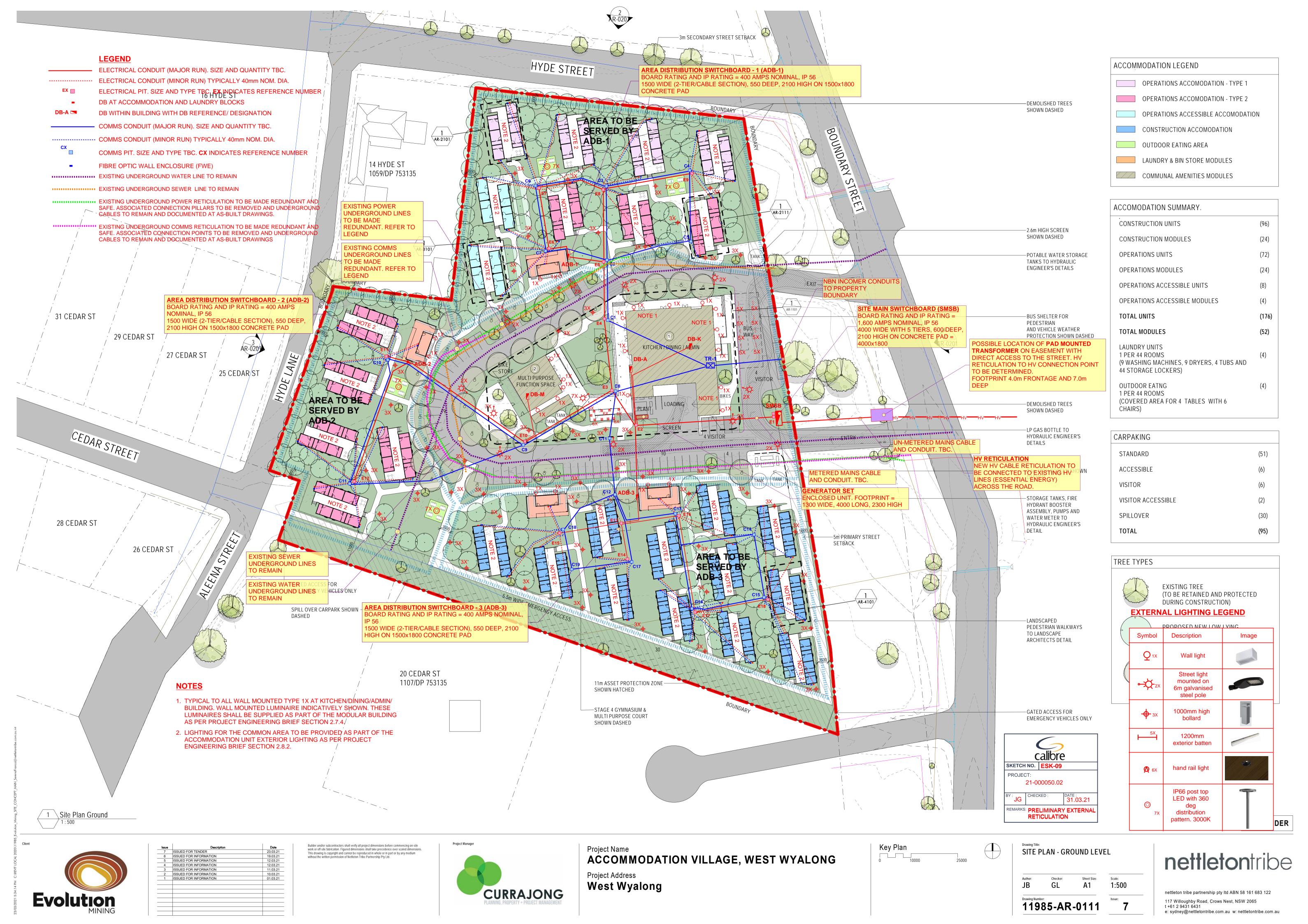
A 50,000 litre rainwater harvesting tank shall be positioned adjacent the building and all downpipes connected via an inground roof water drainage "wet" system.

Re-use water shall be reticulated via a pressure boosting pump, complete with automatic backwash, cartridge and UV filtration located adjacent the rainwater tank.

A mains water by-pass top up facility shall be provided to supply mains water to the re-use system when the rainwater tank is empty.



Appendix A Engineering Concept Layouts



WATE	R RETIC	CULA	TION LEGEND	SANITARY,	STORMWATER & TRADE WASTE	TAG & SY	'MBOL	ABBREVIA	TIONS - GENERAL	ABBREVIA	TIONS - FIXTURES
SYMBOL	IMAGE	ABB.	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
	-	7.00.	DEGGINI HOIV	O	PROPOSED BLIND FLOOR WASTE GULLY		SERVICE RISING	AAV	AIR ADMITTANCE VALVE	BSN	BASIN
		BLV	PROPOSED BALANCING VALVE			01 —	PIPE RISER OR STACK IDENTIFIER	ВТ	BUCKET TRAP	BWU	BOILING WATER UNIT
					PROPOSED CAPPED SERVICE	cw	SERVICE TYPE (REFER TO SYSTEM ABBREVIATION)	BV	BALL VALVE	CLSK	CLEANERS SINK
M		BUV	PROPOSED BUTTERFLY VALVE		PROPOSED FLOOR WASTE GULLY [ROUND]	50	SERVICE PIPE SIZE	BUV BLV	BUTTERFLY VALVE BALANCING VALVE	CM DF	COFFEE MACHINE DRINKING FOUNTAIN
					PROPOSED FLOOR WASTE GULLY [SQUARE]	14	SERVICE DROPPING	CD	CONDENSATE DRAIN	DW	DISHWASHER
		BV	PROPOSED ISOLATION VALVE / BALL VALVE		PROPOSED FLOOR WASTE GULLY WITH BASKET TRAP	H???	REFER TO DRAWING No FOR CONTINUATION	CDD	CONDENSATE DRAIN DROPPER	FLSK	FLUSHING SINK
		ВУ	PROPOSED ISOLATION VALVE / BALL VALVE	O 1.0.S.	PROPOSED INSPECTION OPENING TO SURFACE			C/O	CLEAR OUT	HWU/HWS	HOT WATER UNIT / HOT WATER SYSTEM
						-•⊳	PLUMBING FIXTURES WATER SUPPLY POINT (IF ISOLATION VALVE NOT SPECIFIED)	CW	COLD WATER	IM	ICE MACHINE
		CHV	PROPOSED CHECK VALVE ASSEMBLY	O 1.0.	PROPOSED INSPECTION OPENING	PIPE SYS	TEMS	DG DP	DISCONNECTOR GULLY DOWNPIPE	LS SHR	LAB SINK SHOWER
_	-				PROPOSED OVERFLOW RELIEF GULLY	111 2 010		DFH	DUAL OUTLET FIRE HYDRANT	SK	SINK
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		CP	PROPOSED CIRCULATING PUMP	SD	PROPOSED SANITARY INSPECTION CHAMBER	SANITAR'	Y DRAINAGE & PLUMBING	EPD	ELEVATED PIPEWORK DROPPER	UR	URINAL
				SW SW	PROPOSED SEWER MAINTENANCE HOLE [ROUND]	ABBREVIATIO		FH	FIRE HYDRANT	WC	WATER CLOSET
		CVP	PROPOSED CONTROL VALVE IN PATHBOX	ST	PROPOSED STORMWATER MAINTENANCE HOLE [ROUND]	SD	SANITARY DRAINAGE	FHR FO	FIRE HOSE REEL	ABBREVIA	TIONS - MATERIALS
					, , , , , , , , , , , , , , , , , , , ,	SS	SANITARY STACK	FS FWG	FIRE SERVICE FLOOR WASTE GULLY		
		CV	PROPOSED CONTROL VALVE	•	PROPOSED SANITARY INSPECTION CLEAR-OUT	SV	SANITARY VENT	FW/BT	FLOOR WASTE GULLY WITH BASKET TRAP	ABBREVIATION BR	DESCRIPTION BRASS
	•					RV	RELIEF VENT	GD	GRATED DRAIN	C.I.	CAST IRON
KK		DCHV	PROPOSED DOUBLE CHECK VALVE ASSEMBLY	SW	PROPOSED SANITARY PUMP WELL	SW	STORMWATER	GIT	GREASE INTERCEPTOR TRAP	Cu	COPPER
ИИ		DCHV	PROPOSED DUAL CHECK VALVE ASSEMBLY	ST	PROPOSED STORMWATER PUMP WELL	TW TWV	TRADE WASTE TRADE WASTE VENT	GS	GRATED SUMP	DICL	DUCTILE IRON CEMENT LINED
VIVI						TMRV	TRADE WASTE VENT	GV HC	GATE VALVE HOSE COCK	FRC	FIBRE REINFORCED CONCRETE
+c		НС	PROPOSED HOSE COCK DROPPER	$(\circ\bigcirc\circ)$	PROPOSED SEPTIC TREATMENT PLANT	CD	CONDENSATE	HW	HOT WATER	GMS	GALVANISED MILD STEEL
						SY	SYPHONIC	10	INSPECTION OPENING	HDPE MDPE	HIGH DENSITY POLYETHYLENE MEDIUM DENSITY POLYETHYLENE
+0		HC	PROPOSED HOSE COCK RISER	sw sw	PROPOSED SEWER MAINTENANCE HOLE [SQUARE]	SYOF	SYPHONIC OVERFLOW	IOS	INSPECTION OPENING TO SURFACE	S/S	STAINLESS STEEL
	Ri-All			ST	PROPOSED STORMWATER MAINTENANCE HOLE [SQUARE]	SSD	SUB SOIL DRAINAGE	IV	ISOLATION VALVE	uPVC	UNPLASTISED POLYVINYLCHLORIDE
	(F)		PROPOSED HOT WATER UNIT			EPD	DDAINACE & DILIMPING DIDE TAG	NRV	NON-RETURN VALVE	VCP	VITRIFIED CLAY PIPE
		HWU		□ ↔ TTD	PROPOSED TRAPPED TUNDISH DRAIN		DRAINAGE & PLUMBING PIPE TAG	ORG PBD	OVERFLOW RELIEF GULLY PLANTER BED DRAIN	LD	LIGHT DUTY
	8				PROPOSED TUNDISH DRAIN		PIPE SIZE (mm) ——————————————————————————————————	PLV	PRESSURE LIMITING VALVE	MD HD	MEDIUM DUTY HEAVY DUTY
						(REFER	ABBREVIATION TABLE) ————SD: Ø150: PVC		REDUCED PRESSURE ZONE DEVICE		HEAVY DUTY
							■ 1.65% ■	RPZD	REDUCED PRESSURE ZONE DEVICE		
				ST ST	PROPOSED 450 x 450 STORMWATER GRATED SUMP WITH DOWNPIPE		PIPE FLOW DIRECTION ————————————————————————————————————	RV	RELIEF VENT	ABBREVIA	TIONS - LEVELS
		PP	PROPOSED PRESSURE/BOOSTER PUMP	ST ST				RV SD	RELIEF VENT SANITARY DRAINAGE	ABBREVIATION	TIONS - LEVELS DESCRIPTION
D		PP	PROPOSED PRESSURE/BOOSTER PUMP	ST ST	PROPOSED 450 x 450 STORMWATER GRATED SUMP WITH DOWNPIPE PROPOSED STORMWATER GRATED SUMP	_	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY)	RV SD SIC	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER		
		PP PRV	PROPOSED PRESSURE/BOOSTER PUMP PROPOSED PRESSURE REDUCTION VALVE			WATER R	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) RETICULATION	RV SD	RELIEF VENT SANITARY DRAINAGE	ABBREVIATION	DESCRIPTION
						_	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) RETICULATION DESCRIPTION	RV SD SIC SS	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK	ABBREVIATION FFL FSL GL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG)
				ST	PROPOSED STORMWATER GRATED SUMP	WATER R ABBREVIATIO	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) RETICULATION DESCRIPTION COLD WATER	RV SD SIC SS SLV SV SDO	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
×		PRV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY	ST	PROPOSED STORMWATER GRATED SUMP	WATER R ABBREVIATIO CW HW	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) RETICULATION DESCRIPTION COLD WATER HOT WATER	RV SD SIC SS SLV SV SDO SSDO	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET	ABBREVIATION FFL FSL GL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG)
×		PRV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY	ST	PROPOSED STORMWATER GRATED SUMP PROPOSED STORMWATER INSPECTION CHAMBER	WATER R ABBREVIATIO	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) RETICULATION DESCRIPTION COLD WATER	RV SD SIC SS SLV SV SDO SSDO SSDO SW	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
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		PRV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY	ST ST ST WATER &	PROPOSED STORMWATER GRATED SUMP PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE	ABBREVIATIO CW HW HWR WW NPCW FH	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT	RV SD SIC SS SLV SV SDO SSDO SW SWGS	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
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		PRV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING	ST ST ST WATER & 3D	PROPOSED STORMWATER GRATED SUMP PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE EXISTING DESCRIPTION	ABBREVIATIO CW HW HWR WW NPCW FH	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER HOT WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT TEST DRAIN	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL)	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
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		PRV WM RPZD SV SLV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SOLENOID VALVE	ST ST ST WATER & 3D	PROPOSED STORMWATER GRATED SUMP PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE EXISTING DESCRIPTION COLD WATER SUPPLY	ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY)	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
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		PRV WM RPZD SV SLV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SOLENOID VALVE	ST ST ST WATER & 3D BLUE RED RED	PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE EXISTING COLD WATER SUPPLY HOT WATER RETURN	WATER R ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT FIRE HYDRANT TEST DRAIN WATER & HYDRANT PIPE TAG PIPE SIZE (mm) PIPE FLOW DIRECTION PIPE SYSTEM	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV VJU VP	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT VENT PIPE	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
		PRV WM RPZD SV SLV SWM	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SLUICE VALVE PROPOSED SOLENOID VALVE PROPOSED SUB-WATER METER ASSEMBLY	ST ST ST ST ST ST ST WATER & 3D BLUE RED 226-163-029 000-128-000	PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE EXISTING COLD WATER SUPPLY HOT WATER SUPPLY HOT WATER RETURN TEMPERED WATER SUPPLY	WATER R ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT FIRE HYDRANT TEST DRAIN WATER & HYDRANT PIPE TAG PIPE SIZE (mm) PIPE FLOW DIRECTION PIPE SYSTEM	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV VJU VP	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT VENT PIPE	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
		PRV WM RPZD SV SLV SWM	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SLUICE VALVE PROPOSED SOLENOID VALVE PROPOSED SUB-WATER METER ASSEMBLY	ST S	PROPOSED STORMWATER GRATED SUMP PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE EXISTING COLD WATER SUPPLY HOT WATER SUPPLY HOT WATER RETURN TEMPERED WATER SUPPLY NON POTABLE WATER SUPPLY	WATER R ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT FIRE HYDRANT TEST DRAIN WATER & HYDRANT PIPE TAG PIPE SIZE (mm) PIPE FLOW DIRECTION PIPE SYSTEM	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV VJU VP	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT VENT PIPE	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
		PRV WM RPZD - SV SLV SWM TV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SULICE VALVE PROPOSED SOLENOID VALVE PROPOSED SUB-WATER METER ASSEMBLY PROPOSED TEMPERING VALVE	ST ST ST ST WATER & 3D BLUE RED RED 226-163-029 000-128-000 255-080-080 MAGENTA	PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE EXISTING COLD WATER SUPPLY HOT WATER SUPPLY HOT WATER RETURN TEMPERED WATER SUPPLY NON POTABLE WATER SUPPLY FIRE HYDRANT SYSTEM NATURAL GAS	WATER R ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT FIRE HYDRANT TEST DRAIN WATER & HYDRANT PIPE TAG PIPE SIZE (mm) PIPE FLOW DIRECTION PIPE SYSTEM	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV VJU VP	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT VENT PIPE	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
		PRV WM RPZD - SV SLV SWM TV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SULICE VALVE PROPOSED SOLENOID VALVE PROPOSED SUB-WATER METER ASSEMBLY PROPOSED TEMPERING VALVE	ST ST ST ST WATER & 3D BLUE RED 226-163-029 000-128-000 255-080-080 MAGENTA DRAWINGS SI	PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE EXISTING COLD WATER SUPPLY HOT WATER SUPPLY HOT WATER RETURN TEMPERED WATER SUPPLY NON POTABLE WATER SUPPLY FIRE HYDRANT SYSTEM	WATER R ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT FIRE HYDRANT TEST DRAIN WATER & HYDRANT PIPE TAG PIPE SIZE (mm) PIPE FLOW DIRECTION PIPE SYSTEM	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV VJU VP	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT VENT PIPE	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
		PRV WM RPZD - SV SLV SWM TV TMV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SULICE VALVE PROPOSED SOLENOID VALVE PROPOSED SUB-WATER METER ASSEMBLY PROPOSED TEMPERING VALVE PROPOSED THERMOSTATIC MIXING VALVE PROPOSED WATER FILTER	ST S	PROPOSED STORMWATER GRATED SUMP PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE EXISTING COLD WATER SUPPLY HOT WATER SUPPLY HOT WATER RETURN TEMPERED WATER SUPPLY NON POTABLE WATER SUPPLY FIRE HYDRANT SYSTEM NATURAL GAS HOULD BE REPRODUCED IN COLOUR FOR THE PROSE OF CLEAR REPRESENTATION.	WATER R ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT FIRE HYDRANT TEST DRAIN WATER & HYDRANT PIPE TAG PIPE SIZE (mm) PIPE FLOW DIRECTION PIPE SYSTEM	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV VJU VP	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT VENT PIPE	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
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		PRV WM RPZD - SV SLV SWM TV TMV	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SULICE VALVE PROPOSED SOLENOID VALVE PROPOSED SUB-WATER METER ASSEMBLY PROPOSED TEMPERING VALVE PROPOSED THERMOSTATIC MIXING VALVE PROPOSED WATER FILTER	ST S	PROPOSED STORMWATER GRATED SUMP PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP SINGLE LINE EXISTING COLD WATER SUPPLY HOT WATER RETURN HOT WATER SUPPLY HOT WATER SUPPLY HOT WATER SUPPLY HOT WATER SUPPLY FIRE HYDRANT SYSTEM NATURAL GAS HOULD BE REPRODUCED IN COLOUR FOR THE PROSE OF CLEAR REPRESENTATION. DRAINAGE PIPING SINGLE LINE DESCRIPTION	WATER R ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT FIRE HYDRANT TEST DRAIN WATER & HYDRANT PIPE TAG PIPE SIZE (mm) PIPE FLOW DIRECTION PIPE SYSTEM	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV VJU VP	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT VENT PIPE	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
		PRV WM RPZD - SV SLV SWM TV TMV WF - FHR	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SULICE VALVE PROPOSED SOLENOID VALVE PROPOSED SUB-WATER METER ASSEMBLY PROPOSED TEMPERING VALVE PROPOSED THERMOSTATIC MIXING VALVE PROPOSED WATER FILTER PROPOSED WATER FLOW DIRECTION ARROW FIRE HOSE REEL	ST ST ST ST WATER & 3D BLUE RED 226-163-029 000-128-000 MAGENTA DRAWINGS SI PUR SANITARY	PROPOSED STORMWATER GRATED SUMP PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP GAS PIPING SINGLE LINE EXISTING COLD WATER SUPPLY HOT WATER SUPPLY HOT WATER SUPPLY HOT WATER SUPPLY NON POTABLE WATER SUPPLY FIRE HYDRANT SYSTEM NATURAL GAS HOULD BE REPRODUCED IN COLOUR FOR THE PROSE OF CLEAR REPRESENTATION. DRAINAGE PIPING SINGLE LINE EXISTING DESCRIPTION	WATER R ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT FIRE HYDRANT TEST DRAIN WATER & HYDRANT PIPE TAG PIPE SIZE (mm) PIPE FLOW DIRECTION PIPE SYSTEM	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV VJU VP	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT VENT PIPE	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
	YPES LO	PRV WM RPZD - SV SLV SWM TV TMV WF - FHR	PROPOSED PRESSURE REDUCTION VALVE PROPOSED PROPERTY WATER METER ASSEMBLY PROPOSED REDUCED PRESSURE ZONE DEVICE ASSEMBLY PROPOSED PIPE DROPPING UNDER PROPOSED PIPE DROPPING PROPOSED PIPE RISING PROPOSED SULICE VALVE PROPOSED SOLENOID VALVE PROPOSED SUB-WATER METER ASSEMBLY PROPOSED TEMPERING VALVE PROPOSED THERMOSTATIC MIXING VALVE PROPOSED WATER FILTER PROPOSED WATER FLOW DIRECTION ARROW FIRE HOSE REEL	ST ST ST ST WATER & 3D BLUE RED 226-163-029 000-128-000 MAGENTA DRAWINGS SI PUR SANITARY	PROPOSED STORMWATER GRATED SUMP PROPOSED STORMWATER INSPECTION CHAMBER PROPOSED GREASE INTERCEPTOR TRAP SINGLE LINE EXISTING COLD WATER SUPPLY HOT WATER RETURN HOT WATER SUPPLY HOT WATER SUPPLY HOT WATER SUPPLY HOT WATER SUPPLY FIRE HYDRANT SYSTEM NATURAL GAS HOULD BE REPRODUCED IN COLOUR FOR THE PROSE OF CLEAR REPRESENTATION. DRAINAGE PIPING SINGLE LINE DESCRIPTION	WATER R ABBREVIATIO CW HW HWR WW NPCW FH FHTD	PIPE FLOW DIRECTION PIPE SLOPE (%) (DRAINAGE ONLY) DESCRIPTION COLD WATER HOT WATER HOT WATER RETURN WARM WATER NON POTABLE COLD WATER FIRE HYDRANT FIRE HYDRANT FIRE HYDRANT TEST DRAIN WATER & HYDRANT PIPE TAG PIPE SIZE (mm) PIPE FLOW DIRECTION PIPE SYSTEM	RV SD SIC SS SLV SV SDO SSDO SW SWGS SWIC TD TMV TTD TV TWV VJU VP	RELIEF VENT SANITARY DRAINAGE SEWER INSPECTION CHAMBER SOIL STACK SOLENOID VALVE SLUICE VALVE SPOON DRAIN OUTLET SUB SOIL DRAINAGE OUTLET STORMWATER STORMWATER GRATED SUMP STORMWATER INSPECTION CHAMBER TUNDISH THERMOSTATIC MIXING VALVE TRAPPED TUNDISH TEMPERING VALVE (RMC MODEL TVA50HP or EQUAL) TRADE WASTE VENT VENT PIPE	ABBREVIATION FFL FSL GL IL	DESCRIPTION FINISH FLOOR LEVEL FINISH SURFACE LEVEL GRATE LEVEL (ORG) INVERT LEVEL
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128-128-192

EXISTING STORMWATER DRAINAGE

EXISTING PIPEWORK TO BE ABANDONED / DEMOLISHED

EXISTING WATER MAIN

EXISTING GAS MAIN

PRELIMINARY NOT FOR CONSTRUCTION

TRADE WASTE VENT

DRAWINGS SHOULD BE REPRODUCED IN COLOUR FOR THE PURPOSE OF CLEAR REPRESENTATION.

PIPEWORK CAST IN SLAB





CGO ACCOMODATION VILLAGE WEST WYALONG, NSW

LEGEND, LINETYPES AND ABBREVIATIONS

21-000050.02 BR-H5501 A

NOTES -	GENERAL HYDRAULIC	NOTES - S	SANITARY DRAINAGE	NOTES -	WATER SERVICES
NUMBER	DESCRIPTION	NUMBER	DESCRIPTION	NUMBER	DESCRIPTION
G1	ALL INSTALLATIONS TO BE STRICTLY IN ACCORDANCE WITH THE DRAWINGS & SPECIFICATION. BEFORE COMMENCEMENT OF WORK CONTACT THE HYDRAULIC	SD1	TRADE CONTRACTOR TO ALLOW FOR ADDITIONAL EXCAVATION, BACKFILL OF PIPES, FITTINGS & ALL JUMP UPS AS REQUIRED BY THE WATER SUPPLY &	WS1	ALL PIPEWORK UNDER BUILDINGS IS TO BE POLYETHYLENE PIPE & IS TO BE INSTALLED IN SUCH A MANNER SO AS TO BE FULLY RETRIEVABLE.
G2	SERVICES DESIGN CONSULTANT. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE PLUMBING & DRAINAGE ACT: 2018, NCC VOLUME 3, RELEVANT AUTHORITY REQUIREMENTS,	SD2	SEWERAGE REGULATIONS & IN ACCORDANCE WITH AS/NZS.3500. ALL SANITARY DRAINAGE PIPEWORK IS TO BE UNPLASTICISED POLYVINYL CHLORIDE (uPVC) WITH SOLVENT WELDED JOINTS UNLESS OTHERWISE NOTED.	WS2	ALL PIPEWORK ABOVE GROUND IS TO BE COPPER PIPE, IN ACCORDANCE WIT AS.1432 - 1990 TABLE 2, TYPE "B" TUBES.
G2	ARCHITECTS APPROVAL, AS/NZS.3500 (ALL PARTS) & THE HYDRAULIC SERVICES SPECIFICATION.	SD3	ALL TRADE WASTE DRAINAGE PIPEWORK IS TO BE HIGH DENSITY POLYETHYLENE (HDPE) WITH ELECTRO-FUSION WELDED JOINTS UNLESS OTHERWISE NOTED.	WS3	IN GROUND WATER SERVICES ARE TO BE MEDIUM DENSITY POLYETHYLENE (MDPE) PE100 PN16 WITH ELECTRO-FUSION WELDED FITTINGS. TO CONFORM AS/NZS 4131.
G3	THIS PLAN TO BE READ IN CONJUNCTION WITH APPROVED ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL & LANDSCAPE PLANS & SPECIFICATIONS.	SD4	ALL BRANCH LINES TO BE GRADED AND/OR LOWERED TO AVOID PENETRATING FOOTING BEAMS UNLESS SHOWN OTHERWISE. THE TRADE CONTRACTOR IS TO ALLOW FOR ADDITIONAL PIPE LENGTHS & WORK INCLUDING CONSTRUCTION OF	WS4	DUCTILE IRON PIPES TO BE IN ACCORDANCE WITH AS.2280 - 1998. INSTALL CONCRETE THRUST BLOCKS TO ALL TEES, BENDS & DEAD ENDS OF
G4	DRAINS TO BE SUPPORTED ON, OR FROM SOLID GROUND. LOCATION & DEPTH/INVERT LEVEL OF BRANCH TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK.	SD5	ADDITIONAL INSPECTION OPENINGS AS REQUIRED BY THE LOCAL AUTHORITY. COORDINATE WITH STRUCTURAL DRAWINGS. NO STEEL REINFORCING BARS TO	-	IN GROUND SERVICES OF Ø100 & ABOVE. HOT WATER PIPEWORK IS TO BE INSULATED WITH PREFORMED SECTIONED F WITH FACTORY APPLIED REINFORCED ALUMINIUM COVERING - 'THERMOTEC A
G5	DRAINS UNDER BUILDINGS TO BE RETESTED WHERE DIRECTED BY THE MANAGING CONTRACTOR.	SD6	BE CUT WITHOUT PRIOR WRITTEN APPROVAL FROM STRUCTURAL ENGINEER. ALL SUSPENDED CONDENSATE DRAINAGE PIPEWORK IS TO BE INSULATED WITH 10mm 'ABELFLEX'. OR APPROVED EQUAL.	WS6	ZERO', OR APPROVED EQUAL. THE MINIMUM INSULATION THICKNESS IS TO BI 25mm FOR PIPES LESS THAN 50mm DIAMETER 38mm FOR PIPES EQUAL OR GREATER THAN 50mm DIAMETER
G6	ALL SIZES NOMINATED ON DRAWINGS ARE INSIDE DIAMETER. INSPECTION OPENINGS ARE TO BE PROVIDED AT:	SD7	ALL SUSPENDED DRAINAGE LOCATED OVER OFFICES, LABORATORIES, BEDROOMS OR OTHER ACOUSTICALLY SENSITIVE AREAS IS TO BE WRAPPED	WS7	HOT WATER PIPEWORK IN PLANTROOMS & EXTERNALLY EXPOSED IS TO HAV PROTECTIVE METAL SHEATHING INSTALLED.
G7	THE PROPERTY BOUNDARY ON EACH WC OR BRANCH AT 30m (MAXIMUM) INTERCALS SPREAD EQUIDISTANT WHERE POSSIBLE		WITH 'SOUNDLAG 4245C', OR APPROVED EQUAL. THE OVERFLOW RELIEF GULLY (ORG) IS TO COMPLY WITH AS/NZS.3500.2, SANITARY PLUMBING & DRAINAGE - SECTION 4.6.6. GRATE LEVEL: 150mm BELOW	WS8	PIPEWORK IS NOT TO BE ENCASED IN WALLS. HOWEVER, WHERE THIS IS UNAVOIDABLE, THE PIPEWORK IS TO BE INSTALLED WITH 'KEMLAG' INSULATION.
	IMMEDIATELY UPSTREAM & DOWNSTREAM OF ALL JUMP-UPS AS REQUIRED BY THE AUTHORITY FOR INSPECTION & MAINTENANCE EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. THE	SD8	FINISHED FLOOR LEVEL. FINISHED SURFACE LEVEL: 75mm BELOW GRATE OR GRADED AWAY.	WS9	CONNECTIONS TO EXISTING WATER MAINS ARE TO BE CARRIED OUT BY RELEVANT AUTHORITY AT THE TRADE CONTRACTOR'S EXPENSE. ALL HOSE COCKS SHALL BE INSTALLED WITH VACUUM BREAKERS IN
G8	CONSULTANT DOES NOT GUARANTEE THEIR ACCURACY & IT IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY WORK, CLEARANCES ARE TO BE		ALL IN GROUND AND/OR UNDER SLAB DRAINAGE TO BE 100mm DIAMETER UNLESS NOTED OTHERWISE, EXCEPT FOR DRAINAGE CONNECTING FROM FIXTURES TO FLOOR WASTE GULLIES (FWG), TRAPS, OVERFLOW RELIEF GULLIES (ORG), ETC.,	WS10	ACCORDANCE WITH AS/NZS.3500. ALL CONTROL VALVES IN CEILING SPACES & DUCTS SHALL BE LABELLED WITH
G9	OBTAINED FROM THE RELEVANT AUTHORITIES. THE TRADE CONTRACTOR IS TO ARRANGE ALL SURVEY SETOUT BY A	SD9	WHICH ARE TO BE SIZED AS FOLLOWS: BASIN (BSN) - 40mm CLEANER'S SINK (CS) - 50mm	WS11	CIRCULAR BRASS DISCS, STAMPED WITH LETTERING PUNCHES FOR THEIR RESPECTIVE FUNCTION & FIXED TO SPINDLE USING BRASS CHAIN.
	REGISTERED SURVEYOR. ALL SERVICES THAT CROSS PAVEMENTS.FOOTINGS ETC. ARE TO BE BACKFILLED		SHOWER (SHR) - 50mm SINK (SK) - 50mm	WS12 WS13	EXPOSED INTERNAL PIPE WORK SHALL BE CHROME PLATED COPPER. ALL PIPEWORK SHALL BE CONCEALED WHERE POSSIBLE.
G10	WITH GRANULAR MATERIAL TO SUBGRADE LEVEL & COMPACTED TO 98% M.M.D.D. ON COMPLETION OF PIPE INSTALLATION, ALL DISTURBED AREAS MUST BE		TUNDISH (TD) - 50mm PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE PRIOR TO COMMENT OF WORK OF	WS14	ALLOW FOR EXPANSION & CONTRACTION ON ALL PIPEWORK IN ACCORDANCE WITH AS/NZS.3500.
G11	RESTORED TO ORIGINAL CONDITION INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS, GRASSED AREAS & ROAD PAVEMENTS.	SD10	INVERT LEVEL OF ALL EXISTING CONNECTION POINTS. FAILURE TO IDENTIFY THE CONNECTION POINTS PRIOR TO COMMENCEMENT OF CONSTRUCTION WILL BE THE CONTRACTORS RESPONSIBILITY AND ANY COSTS ASSOCIATED WITH	WS15	WATER SUPPLY SHALL BE LIMITED TO 500 kPA IN ACCORDANCE WITH AS/NZS.3500, SECTION 3, CLAUSE 3.3.4.
G12	TRENCHES THROUGH EXISTING ROAD & CONCRETE AREAS ARE TO BE SAWCUT TO FULL DEPTH OF CONCRETE & 50mm (MINIMUM) OF BITUMINOUS PAVING. REINSTATE WITH ADDITIONAL REINFORCEMENT & DOWLING AS REQUIRED BY	SD11	RECTIFICATION. ALL DRAINAGE LINES ARE TO BE FLUSHED CLEAN OF DEBRIS PRIOR TO HANDOVER OF WORKS.	WS16	ALL COLD WATER PIPES TO A SINGLE FIXTURE SHALL BE 15m FOR A MAXIMUM 3000mm.
G13	STRUCTURAL ENGINEERS. WHERE NEW WORK ABUTS EXISTING, THE TRADE CONTRACTOR IS TO ENSURE THAT A SMOOTH EVEN PROFILE. FREE FROM ABRUPT CHANGES IS OBTAINED.	SD12	SANITARY DRAINS LAYED IN REACTIVE SOIL SHALL HAVE THE APPROPRIATE MOVEMENT/EXPANSION JOINTS INSTALLED - REFER TO DETAIL SHEET IF	NOTES -	RAINWATER REUSE
G14	CARE SHALL BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION SHALL BE TAKEN OVER COMMUNICATIONS OR	NOTES S	SANITARY PLUMBING	NUMBER	DESCRIPTION ALL COMPONENTS OF A WATER SUPPLY SYSTEM INTENDED FOR RAINWATER
G15	ELECTRICAL SERVICES. EXCAVATE BY HAND IN THESE AREAS. ALL PIPE PENETRATIONS AT RETAINING WALLS TO BE FITTED WITH A PUDDLE			RR1	TANK APPLICATIONS MUST COMPLY WITH THE PLUMBING & DRAINAGE 2002 (A PUBLIC REQUIREMENTS.
	FLANGE & MADE WATERTIGHT. ALL SUSPENDED SLAB PENETRATIONS ARE TO BE FORMED BY PATENT "SLABSEAL" OR OTHER APPROVED FIRE ISOLATING CAST IN PENETRATION &	NUMBER SP1	ALL SANITARY DRAINAGE PLUMBING IS TO BE UNPLASTICISED POLYVINYL CHLORIDE (uPVC) WITH SOLVENT WELDED JOINTS UNLESS OTHERWISE NOTED.	RR2	INTERNAL FIXTURES SUPPLIED FROM A RAINWATER TANK MUST INCORPORA' ACCEPTABLE MEASURES TO PREVENT WATER FROM THE RAINWATER TANK ENTERING THE RETICULATED WATER SUPPLY NETWORK.
G16	APPROVED BY THE SUPERINTENDENT IN WRITING. THIS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR THEIR LOCATION & SIZE.	SP2	ALL TRADE WASTE DRAINAGE PIPEWORK IS TO BE HIGH DENSITY POLYETHYLENE (HDPE) WITH BUTT WELDED JOINTS UNLESS OTHERWISE NOTED.	RR3	ALL DOWNPIPES CONNECTED TO THE RAINWATER TANK MUST BE PROVIDED A MESHED RAINHEAD HAVING OPENINGS NO SMALLER THAT 4mm & NO LONGI
G17	ALL SUSPENDED SLAB PENETRATIONS ARE TO BE FORMED CLEAR OF ALL EXISTING STEEL SLAB SUPPORT BEAMS & CORING THROUGH SUSPENDED SLAB. JACK HAMMERS SHALL NOT BE USED TO MAKE SUSPENDED SLAB PENETRATIONS.	SP3	ALL BRANCH LINES TO BE GRADED AND/OR LOWERED TO AVOID PENETRATING EXISTING STEEL BEAMS. THE TRADE CONTRACTOR SHALL ALLOW FOR ADDITIONAL PIPE LENGTHS & WORK INCLUDING CONSTRUCTION OF ADDITIONAL	NNO	THAN 6mm & SHALL BE DESIGNED TO PREVENT LEAVES FROM ENTERING THE DOWNPIPE. GREEN COLOURED IDENTIFICATION TAPE MARKED "CAUTION RAINWATER LIN
G18	TRADE CONTRACTOR IS TO GAIN AUTHORITY APPROVALS & PAY ALL FEES. THE TRADE CONTRACTOR TO ALLOW FOR ALL TIMBERING, SHORING &		INSPECTION OPENINGS AS REQUIRED BY THE LOCAL AUTHORITY.		BURIED BELOW" SHOULD BE USED TO IDENTIFY: • UNDERGROUND STORMWATER PIPES TO THE TANK.
G19	SHUTTERING AS NECESSARY TO CONSTRUCT PIPEWORK, INCLUDING THE REMOVAL OF SAME UPON COMPLETION OF PIPEWORK CONSTRUCTION.	SP4	COORDINATE WITH STRUCTURAL DRAWINGS. NO STEEL REINFORCING BARS TO BE CUT WITHOUT PRIOR WRITTEN APPROVAL FROM STRUCTURAL ENGINEER. ALL ROOF PENETRATIONS TO BE FLASHED WITH 'DEKTITE' FLASHING. COLOURED	RR4	 UNDERGROUND WATER SUPPLY PIPES FROM THE TANK. IDENTIFICATION TAPE IS TO BE LAID ABOVE THE PIPES & WITHIN THE TRE IDENTIFICATION MARKINGS SHOULD COMPLY WITH AS.1345. THE WASHING
G20	PROVIDE 80mm COMPRESSIBLE MATERIAL OVER PIPEWORK WHERE CLEARANCE TO UNDERSIDE OF FOOTING IS LESS THAN 150mm, UNLESS NOTED OTHERWISE.	SP5	SP5 TO MATCH ROOF. ALL VENTS SHALL BE OFFSET IN ROOF SPACE MINIMUM 600mm FROM EAVES & AS SHOWN ON ARCHITECTURAL DRAWINGS.		MACHINE COLD WATER OUTLET SHOULD BEIDENTIFIED AS RAINWATER WI ONE OF THE FOLLOWING: - A TAP BUTTON
G21	ON COMPLETION OF WORK, THE TRADE CONTRACTOR IS TO SUPPLY A FULL SET OF "AS CONSTRUCTED" DRAWINGS IN AUTOCAD FORMAT OR EQUAL TO THE DESIGN STANDARDS OF THESE DRAWINGS. THE CONTRACTOR IS TO PAY FOR ALL	NOTES O	EXPOSED INTERNAL PIPEWORK SHALL BE CHROME PLATED. BAS SERVICE		- A GREEN COLOURED INDICATOR WITH THE LETTERS "RW" - A SIGN SIMILAR TO THAT SPECIFIED FOR OUT DOOR OUTLETS
	DRAFTING OF "AS CONSTRUCTED" DRAWINGS & PAY ALL RELEVANT AUTHORITY FEES.				RAIN WATER HARVESTING SYSTEM SHOULD BE CONSTRUCTED & PROPERLY MAINTAINED TO PREVENT ENTRY & BREEDING OF MOSQUITOES & OTHER VEF REQUIREMENTS INCLUDE THE INSTALLATION OF MOSQUITO PROOF SCREENS
	ON COMPLETION OF THE WORKS, THE TRADE CONTRACTOR IS TO SUPPLY AN 'OPERATIONS & MAINTENANCE MANUAL', IN AN A4 RING BINDER FORMAT, INCORPORATING THE FOLLOWING:	NUMBER	DESCRIPTION GAS INSTALLATION IS TO BE CARRIED OUT IN ACCORDANCE WITH AS/NZS.5601 &	RR5	OPENINGS MADE FROM BRASS, COPPER, ALUMINIUM OR STAINLESS STEEL. T NETTING OF THE SCREEN SHOULD BE 1mm OR FINER. VERMIN TRAPS ARE ALS REQUIRED TO PREVENT ENTRY OF VERMIN. MATERIALS USED FOR MOSQUITO
G22	PLUMBING CONTRACTOR CONTACT DETAILS SCOPE OF SERVICES INSTALLED SERVICE & MAINTENANCE REQUIREMENTS	GAS1	AS/NZS. 1596 (FOR LP GAS) & THE REQUIREMENTS OF THE REGULATORY AUTHORITY.		VERMIN CONTROL SHOULD BE MADE FROM MATERIALS COMPATIBLE WITH THE MATERIALS USED ON THE OPENING TO PREVENT TANK DETERIORATION.
	MANUFACTURER'S LITERATURE LOCAL AUTHORITY APPROVALS COMPLIANCE CERTIFICATES	GAS2	IN GROUND GAS SERVICE IS TO BE INSTALLED IN POLYETHYLENE PIPE PE80 PN12.5, WITH ELECTRO-FUSION WELDED JOINTS. LAY DETECTABLE MARKER TAPE IN TRENCH, 300mm ABOVE THE OBVERT OF THE PIPE.	RR6	RAINWATER TANK OPENING SHOULD HAVE SUITABLE CONSTRUCTED BARRIE THAT PREVENT ENTRY OF CHILDREN, ANIMALS, INSECTS & RUBBISH. ALL TAN ARE TO BE CONSTRUCTED IN A MANNER THAT PREVENTS ENTRY OF SURFAC
G23	'AS CONSTRUCTED' DRAWINGS (A3 SIZED) REFER TO ARCHITECTURAL PLAN FOR SET-OUT. HYDRAULIC PLANS SHOW PIPE	GAS3	INSTALL PIPEWORK SO IT IS CONCEALED WITHIN DUCTS OR NON-HABITABLE ENCLOSED SPACES & DOES NOT APPEAR ON EXTERNAL WALLS.		WATER, STORMWATER & GROUND WATER.
G24	POSITIONS ONLY. THE LAYOUTS INDICATE THE GENERAL LAYOUT OF PLUMBING WORK. ALLOW FOR MINOR ALTERATIONS AS REQUIRED TO COMPLETE THE WORKS.	GAS4	LOCATE PIPE FITTING THAT REQUIRE PERIODIC SERVICING OR MAINTENANCE, INCLUDING CONTROL VALVES & JOINTS DESIGNED TO ENABLE THE REMOVAL OF PIPES IN ACCESSIBLE POSITIONS WITH ADEQUATE CLEARANCE & VENTILATION.		
NOTES -	STORMWATER DRAINAGE	NOTES - F	IRE SERVICES		
NUMBER	DESCRIPTION	NUMBER	DESCRIPTION		
SW1	ALL ROOFWATER/STORMWATER DRAINAGE PIPES ARE TO BE uPVC WITH SOLVENT WELD JOINTS, UNLESS OTHERWISE NOTED.	FS1	IN GROUND FIRE SERVICE IS TO BE CONSTRUCTED OF MEDIUM DENSITY POLYETHYLENE (MDPE) PE100 PN16 WITH ELECTRO-FUSION WELDED JOINTS. THE		
SW2	ALL PIPE JUNCTIONS UP TO & INCLUDING 300mm & TAPERS ARE TO BE VIA		INSTALLATION IS TO BE IN ACCORDANCE WITH AS.2033, AS.2419 & THE MANUFACTURER'S RECOMMENDATIONS.		
SW3	PURPOSE MADE FITTINGS. MINIMUM GRADE TO STORMWATER LINES TO BE 1%, UNLESS OTHERWISE NOTED.	FS2	IN GROUND FIRE SERVICE IS TO BE CONSTRUCTED OF CLASS 16 HIGH PRESSURE HEAVY DUTY UNPLASTICISED POLYVINYL CHLORIDE (uPVC), WITH DUCTILE IRON PRESSURE FITTINGS. THE INSTALLATION IS TO BE IN ACCORDANCE WITH AS.2033,		
SW4	CONTRACTOR TO SUPPLY & INSTALL ALL FITTINGS & SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.		AS.2419 & THE MANUFACTURER'S RECOMMENDATIONS. ABOVE GROUND/INTERNAL FIRE SERVICES ARE TO BE OF GALVANISED MILD STEEL (MEDIUM DUTY) PIPEWORK WITH VICTAULIC JOINTS. THE INSTALLATION IS		
SW5	ALL CONNECTIONS TO EXISTING DRAINAGE PITS TO BE MADE IN A TRADESMAN- LIKE MANNER & THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY TO BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.	FS3	TO BE IN ACCORDANCE WITH AS.2033, AS.2419 & THE MANUFACTURER'S RECOMMENDATIONS.		
SW6	ALL PITS SHALL BE PRE-CAST CONCRETE OR HPDE.	FS4	FIRE HOSE REELS ARE TO BE 36m IN LENGTH & IN ACCORDANCE WITH AS.1221, AS.2441 & THE BUILDING CODE OF AUSTRALIA.		
	WHERE TRENCHES ARE IN ROCK, THE PIPE IS TO BE BEDDED ON A 50mm (MINIMUM) CONCRETE BED, OR 75mm THICK BED OF 12mm BLUE METAL UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT IS TO BEAR ON THE	FS5	FIRE HYDRANT SYSTEM TO COMPLY WITH AS 2419 & THE BUILDING CODE OF AUSTRALIA.		
SW7	ROCK. IN OTHER THAN ROCK, PIPES ARE TO BE LAID ON A 75mm THICK SAND BED. IN ALL CASES BACKFILL THE TRENCH WITH SAND TO 200mm ABOVE THE PIPE. WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH WITH	FS6	FIRE SERVICE PIPEWORK TO BE IDENTIFIED IN ACCORDANCE WITH AS.1345. SYSTEM ISOLATION VALVES TO BE METAL STRAPPED, PADLOCKED OPEN & LABELLED WITH A NON EERBOUR METAL TAC WITH Some LIBBER CASE WORDING.	_	
	SAND OR APPROVED GRANULAR BACKFILL COMPACTED IN 150mm LAYERS TO 98% STANDARD MAXIMUM DRY DENSITY.	F\$7	LABELLED WITH A NON-FERROUS METAL TAG WITH 8mm UPPER CASE WORDING: "FIRE SERVICE VALVE: CLOSE ONLY TO SERVICE FH/FHR SYSTEM"	_	
	BEDDING SHALL BE TYPE H1. IN ACCORDANCE WITH CURRENT RELEVANT S.A.A.	FS8	SLUICE VALVES TO BE RESILIENT SEATED EPOXY COATED IN CONCRETE VALVE	1	

REVISION	DATE	ISSUE DETAILS	DESIGN	DRAWN	CHECK	
Α	30.03.21	DA ISSUE	CM	JC	CM	1
						1
						1
						4
						1
						1
						1

BEDDING SHALL BE TYPE H1, IN ACCORDANCE WITH CURRENT RELEVANT S.A.A.

WHERE STORMWATER LINES PASS UNDER FLOOR SLABS SEWER GRADE RUBBER

WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS & VEHICULAR

ALL CONNECTIONS BETWEEN DOWNPIPES AND DRAINAGE LINES SHALL BE

SEALED WITH SOLVENT WELD JOINTS OR FERNCO RUBBER DRAINAGE

PAVEMENTS UNSLOTTED uPVC SEWER GRADE PIPE TO BE USED. REFER TO ARCHITECTS PLANS FOR LOCATION OF DOWNPIPES

CODES, UNLESS OTHERWISE NOTED.

SW9

SW10

SW11

SW12

PRELIMINARY NOT FOR CONSTRUCTION

INSTALL CONCRETE THRUST BLOCKS TO ALL TEES, BENDS & DEAD LEGS OF ALL

CHAMBER IN COMPLIANCE WITH AS.2419.

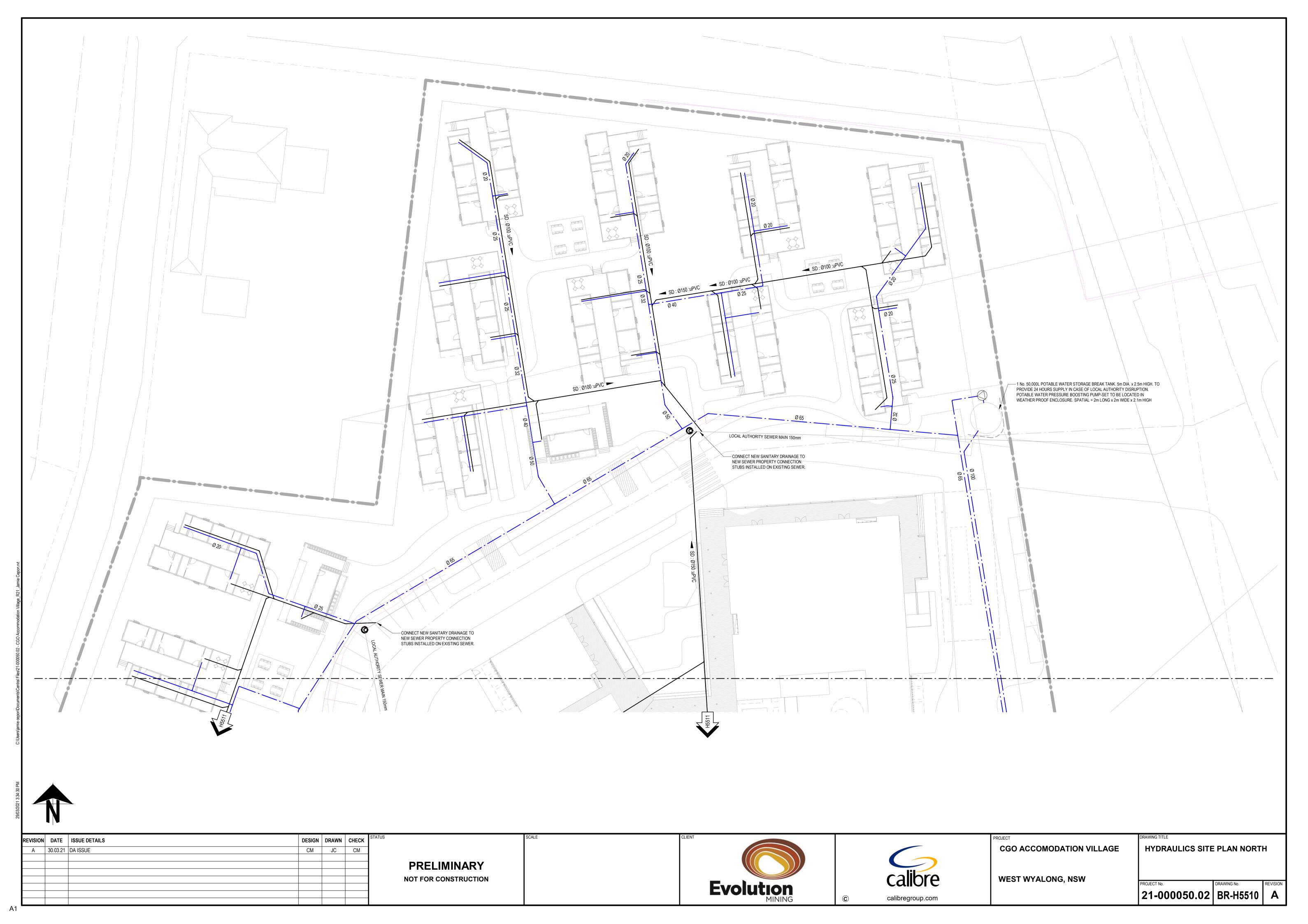
IN GROUND SERVICES.

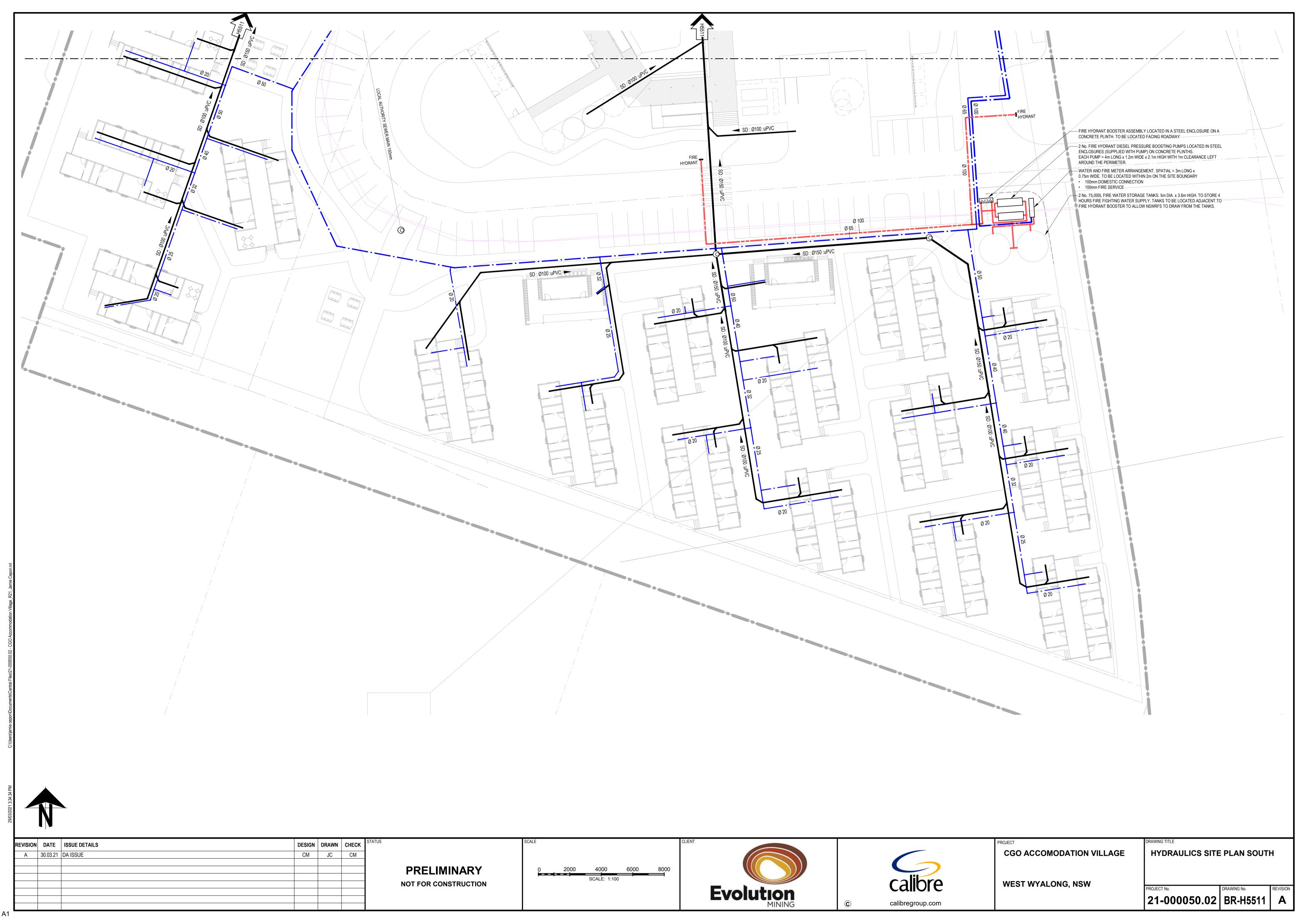


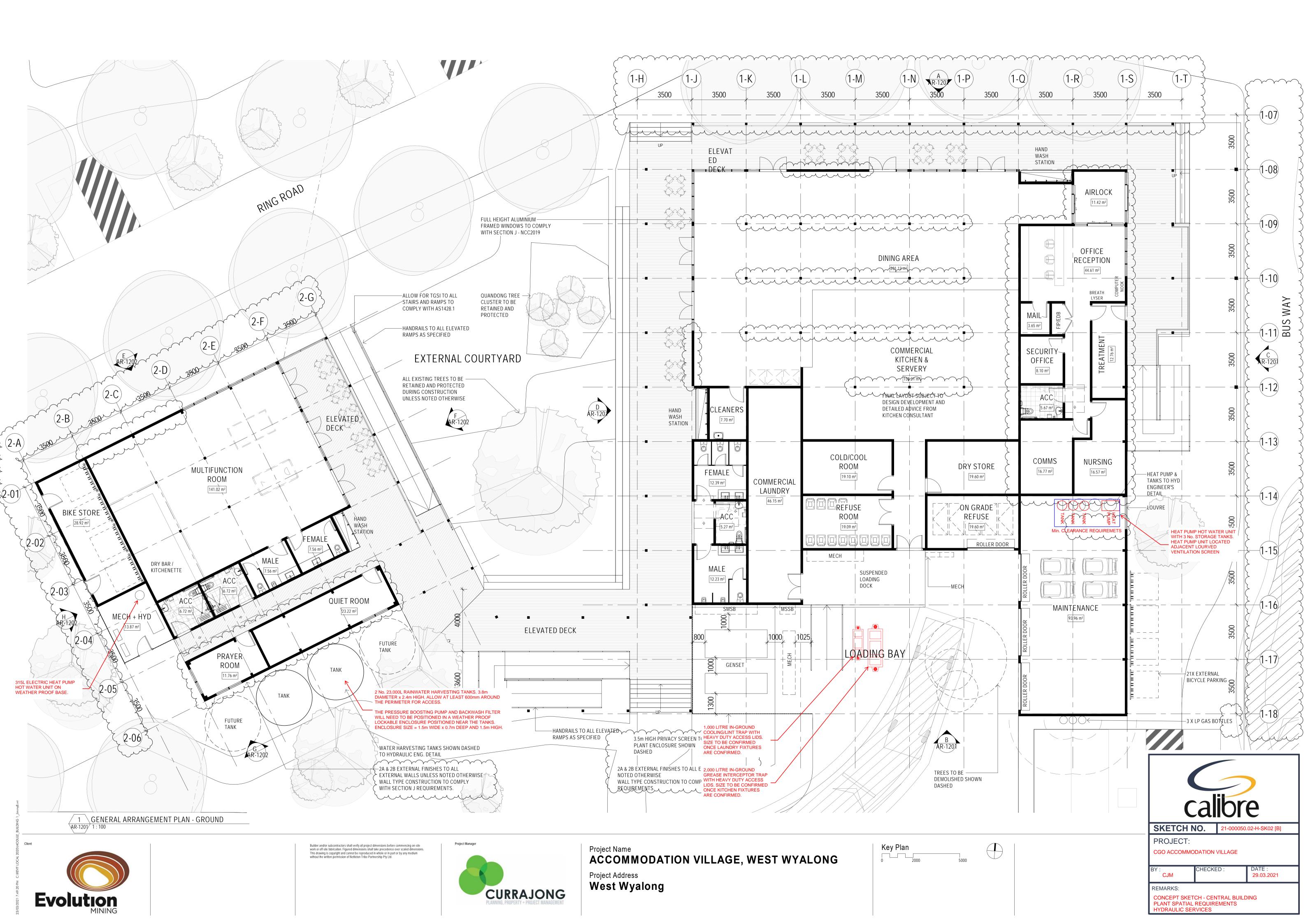


CGO ACCOMODATION VILLAGE **WEST WYALONG, NSW**

DRAWING NOTES 21-000050.02 BR-H5502 A











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