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TENDER FORM

The Chairman – Tender Opening Committee
PNG Power Ltd
P. O. Box 1105
BOROKO 111 NCD
Papua New Guinea
Phone: (675) 324 3381
Fax: (675) 3250791
Email: supplyhelpdesk@pngpower.com.pg

We (Full name of company).....
.....
.....
.....

hereby tender for the undermentioned goods and services subject to the conditions of tendering and at the prices quoted in the scheduled therein

TENDER No. 56/2019

CLOSING AT 4.00 PM FRIDAY 27TH SEPTEMBER 2019

FOR MAJOR MAINTENANCE WORKS FOR THE CLINIC BUILDING FOR PNG POWER LTD YONKI – EASTERN HIGHLANDS PROVINCE.



TENDER NO: 56 / 2019

**MAJOR MAINTENANCE ON CLINIC BUILDING AT
YONKI, EASTERN HIGHLANDS PROVINCE**

*Property Development Team
Property Services Group
Finance & Shared Services BU
P. O. Box 1105, BOROKO 111
National Capital District*



TENDER NO: 56 / 2019

**MAJOR MAINTENANCE WORKS ON CLINIC BUILDING AT
YONKI TOWNSHIP, EASTERN HIGHLANDS PROVINCE**

Prepared by:

A handwritten signature in black ink, appearing to be "P. Singh", written over a horizontal line.

Checked By:

A handwritten signature in black ink, appearing to be "A. Singh", written over a horizontal line.

Date:

30th August 2019

PNG POWER LIMITED

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FRONTISPIECE

BRIEF DESCRIPTION OF QUOTATION

This Tender is purposely for the Major Maintenance on Clinic Building and the Construction of the Ambulance Bay as annexure to the Clinic Building in Yonki, Eastern Highlands Province and any other works associated under this contract.

PNG POWER LIMITED

SECTION 1

MAJOR MAINTENANCE WORKS ON CLINIC BUILDING AT YONKI TOWNSHIP, EASTERN HIGHLANDS PROVINCE.

(A) INVITATION TO QUOTE/TENDER

Quotation/Tender close with:

PNG Power Limited,
P. O. Box 1105,
BOROKO,
Papua New Guinea

At 4:00 pm, Friday 27th September 2019.

The Quotation Submission shall consist of the following, all duly completed;

- Form of Quotation
- Schedule of Quantities
- GST and Tax Registration Numbers
- Additional information/price offered by the Supplier to aid the evaluation of the Quotation.

Enquiries during the Quotation/Tender period shall be addressed to:

PNG Power Limited,
P. O. Box 1105,
BOROKO,
Papua New Guinea.

ATTENTION: Mr. Ivan Anengo
Senior Property Development Officer
Corporate Services Business Unit

Fax: 323 5239
Telephone: 324 3514
Email: ianengo@pngpower.com.pg

(B) FORM OF QUOTATION

**MAJOR MAINTENANCE WORKS ON CLINIC BUILDING AT YONKI TOWNSHIP,
EASTERN HIGHLANDS PROVINCE.**

Companies quoting are required to complete the blank spaces in this Quotation Form and complete the Schedules included.

To: PNG Power Limited
P. O. Box 1105,
BOROKO. NCD

Gentlemen,

1. Having examined the Drawings, Specification and Schedules for the execution of the above named Works, we, the undersigned, offer to execute and complete the works accordingly for the sum of (words & figures)
.....
.....
.....(K.....)
2. We undertake, if our quotation is accepted, to complete and deliver the whole of the works within ten (10) weeks from the date of receiving your Official Order.
3. We agree to abide by this Quotation for the period of ninety (90) days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before expiration of that period.
4. This Quotation/Tender, together with the receipt of your Official Order thereof, shall constitute a binding Contract between us.
5. We understand that you are not bound to accept the lowest or any Quotation bids you may receive.

Signed and sealed for and on behalf of:)
.....)
by)
the)
of the said Company herein)
authorised in the presence of)
Address of Company Quoting:.....

(C) **QUOTATION DATA**

**MAJOR MAINTENANCE WORKS ON CLINIC BUILDING AT YONKI TOWNSHIP,
EASTERN HIGHLANDS PROVINCE.**

(i) **TENDERER'S ORGANISATION**

1. Name: Nationality:
2. Business Address: Fax:
- P. O. Box No: Phone:
-

(ii) **CONTRACT SUPERVISION**

Tenderers shall list their proposed supervisory staff for this Contract. (number and designation only).

(iii) **STATEMENT OF EXPERIENCE**

The Tenderer shall state hereunder facts in detail describing previous experience and achievements in performing similar or comparable works together with the names of authorities for whom, and the dates when, such work was carried out.

CONSTRUCTION SCHEDULE

**MAJOR MAINTENANCE WORKS ON CLINIC BUILDING AT YONKI TOWNSHIP,
EASTERN HIGHLANDS PROVINCE.**

The Bidder should indicate his proposed program for completing various stages of the work by filling in the schedule below.

ACTIVITY	TIME IN WEEKS									
	1	2	3	4	5	6	7	8	9	10
Mobilisation, Demolition & Set- Up										
Concrete Works										
Metal/Steel Works										
Carpentry Works										
Roofing, Plumbing & Drainage Works										
Tiling and Glazing										
Electrical & Fire										
Painting Works										
Clean-Up										

(D) PRICE SCHEDULES

**MAJOR MAINTENANCE WORKS ON CLINIC BUILDING AT YONKI TOWNSHIP,
EASTERN HIGHLANDS PROVINCE.**

(i) LUMP SUM BREAKDOWN

1.0	Mobilisation & Site Set Up	K.....
2.0	Concrete Works	K.....
3.0	Metal/Steel Works	K.....
4.0	Carpentry Works (incl. roofing)	K.....
5.0	Roofing, Plumbing & Drainage Works	K.....
6.0	Tiling & Glazing	K.....
7.0	Electrical & Fire Works	K.....
8.0	Painting Works	K.....
9.0	Cleaning Works	K.....
	Sub-total	K.....
	GST	K.....
	TOTAL LUMP SUM (Carried to Form Quotation)	K.....

Name of Contractor:

Signature:

Date:

Witness:

SECTION 2 TECHNICAL SPECIFICATION

Description

Page No

1. Schedule of Preliminaries
 - 1.1 General
 - 1.2 Standards
 - 1.3 Nature of Contract
 - 1.4 Location of Site
 - 1.5 Description of Work
 - 1.6 Site Inspection
 - 1.7 Possession of Site
 - 1.8 Site Operations
 - 1.8.1 Safety
 - 1.8.2 Site Facilities
 - 1.9 Construction Schedule
 - 1.10 Use of Second Hand Materials
 - 1.11 Setting Out
 - 1.12 Time for Completion
 - 1.13 Liquidated Damages
 - 1.14 Approvals, Fees and Notices
 - 1.15 Cleaning Up

2. Job Specifications (Scope of Works)
 - 2.1 Mobilisation, Demolition and Set-Up
 - 2.2 Concrete Works
 - 2.3 Metal/Steel Works
 - 2.4 Carpentry Works
 - 2.5 Roofing, Plumbing & Drainage
 - 2.6 Tiling and Glazing
 - 2.7 Electrical and Fire
 - 2.8 Painting Works
 - 2.9 Cleaning Up

(A) **JOB SPECIFICATION**

1. **SCHEDULE OF PRELIMINARIES**

1.1 **GENERAL**

The Contractor shall carry out the works as detailed and or inferred in the Technical Specification comprising of Trade Schedules and Drawings which takes precedence over the Standard Specification, Part (B).

1.2 **STANDARDS**

All works shall be carried out to the accepted standard trade practices, Local Authority Regulations and the relevant PNG and Australian Standards.

1.3 **NATURE OF CONTRACT**

The contract will be Fixed Price Lump Sum Contract. Approved variations shall be paid for at the applicable rates listed in the Schedule of Rates for Variations.

1.4 **LOCATION OF SITE**

The work site is located within the Township of Yonki in the Eastern Highlands Province. The Clinic Building is located next to the Yonki Administration Building.

1.5 **DESCRIPTION OF WORK**

All works covered in this contract is as stipulated within the scope of works. It basically requires carpentry, carpentry, metal and steel works, electrical and painting.

1.6 **SITE INSPECTION**

The Contractor shall inspect the site prior to lodging his Tender and satisfy himself with the nature of the site, PNG Power Ltd will not be liable if conditions proved otherwise climatic conditions and services relevant to the contract.

1.7 **POSSESSION OF SITE**

Possession of Site shall be on the date stated in the Letter of Acceptance to the successful tenderer.

The Contractor shall be given such possession of the site as is considered necessary to carry out these works, but such possession shall not be deemed to mean exclusive possession.

1.8 **SITE OPERATIONS**

1.8.1 **Safety**

All matters and conditions regarding safety, health and welfare of persons working on site shall be the responsibility of the Contractor.

1.8.2 **Site Facilities**

The Contractor shall arrange for and meet all the costs associated with the provisions of his electricity, telephone, water ablution facilities, temporary buildings for his workmen including site security.

1.9 CONSTRUCTION SCHEDULE

The Contractor shall provide a detailed construction schedule expanding on the Tender Construction Schedule within two (2) weeks of acceptance of contract.

1.10 USE OF SECOND HAND MATERIALS

No second hand materials shall be used unless indicated in the specification or shown on the drawing or until they have been inspected and approved by the Superintendent. Any materials reused shall be finished to "as new" condition.

1.11 SETTING OUT

The works shall be located where indicated on the drawings, however, the accurate setting out and adherence to details of levels and squareness of the building will be the sole responsibility of the Contractor.

1.12 TIME FOR COMPLETION

The works shall be Practically Completed within Ten (10) weeks from the date of Possession of Site given in PNG Power's Letter of Acceptance.

1.15 CLEANING UP

Upon completion of the works, the contractor shall leave the work areas clean and clear of rubbish, excavated material and access material which is of no use to PNG Power. All rubbish shall be dumped at the local authority's official garbage dump and not at or around the work site.

2.0 DESCRIPTION OF WORKS

The general clinic area needs to be fully maintained to bring it to a sound and conducive state. With so much developments taking place in the Township and many more proposed projects to come, health and safety is and will be of paramount importance. Therefore, the existing facility needs to be fully maintained to cater for the need.

2.1 MOBILISATION, DEMOLITION & SITE SET-UP

- 2.1.1 The Contractor shall organise and mobilise on site upon PPL instruction or upon receiving of PPL Official Purchase Order.
- 2.1.2 The contractor shall arrange for temporary services on site including site access, telephone, power and sewerage for use by its workers.
- 2.1.3 The Contractor shall arrange for storage spaces on site to store materials, tools and other plant and equipments.
- 2.1.4 The Contractor shall also arrange for Security on site to safe-guard building materials, plants and equipments.
- 2.1.5 Locate underground services and foundations before any excavation work commences. Make good at no extra cost damages to existing services.
- 2.1.6 Demolition of existing part of buildings and shall be confirmed by PNG Power inspector and carried out under this contract as agreed upon. Any obstruction (ie; stonewall, trees, stumps etc) shall also be cleared properly to make way for construction.
- 2.1.7 The Contractor shall make good existing concrete or stone pitched drains. All drain waste to connect to proper main drain system.
- 2.1.8 Contractor shall make good all access and drive ways into the site.

2.2 CONCRETE WORKS

- 2.2.1 Construct a reinforced concrete slab from the front of verandah out to the incinerator. The slab shall be 1000mm-wide and located centrally along the verandah and extended right to the incinerator. (A ledged door – see Carpentry Works).
- 2.2.2 All concrete shall have a minimum strength of 20 MPa.
- 2.2.3 All concrete mixing shall be by mechanically driven revolving drum. Hand mixing is not permitted unless approved by the Superintendent. Minimum mixing proportions shall be 3:2:1 with a maximum slump of 80mm.
- 2.2.4 All footings, slabs, reinforcing, formwork etc. shall be inspected by the Superintendent before commencement of mixing and placing of concrete.
- 2.2.5 For all slab construction, supply and lay fortecon membrane to underside of slab, lapped 150mm and taped at joints.
- 2.2.6 Any existing cracked concrete foot path shall be removed and replaced

with new slab construction to match existing.

- 2.2.7 Cracked or broken existing stone walls shall be made good or repaired as indicated on drawings.

2.3 BLOCK AND MASONRY WORKS

All works under this category shall be undertaken by the experienced Bricklayer and comply with all relevant codes of this specifications.

2.3.1 Blocks

All blocks shall be Class A blocks Monier or equal approved – with a minimum strength of 12MPa.

2.3.2 Standard 400x200mm Blocks

Lay stretcher bond, reinforced and core filled as detailed.

2.3.3 Beams

At every second course where horizontal reinforcement is required all round, lay knock out beam blocks and core fill. Also lay and reinforce above all openings.

2.3.4 Reinforcement Bars

Provide and place all bars and ties in blockwork as detailed. Horizontal at every second coarse all round.

2.3.5 Conduits

For electrical wiring the contractor will provide 25 dia. Conduits for embedding as instructed on site. Draw wires shall be left in the conduit runs.

2.3.6 Laying

All blocks shall be laid in stretcher bond to meet acceptable standards.

2.3.7 Corefill

All cores whether reinforced or not shall be core-filled.

2.3.8 Jointing

Joints in blockwork shall be "iron" jointed all through-out.

2.3.9 Chasing

Chasing of blockwork is not permitted. Pipework, conduits etc. shall be built in and concealed in blockwalls.

2.4 METAL AND STEEL WORKS

- 2.4.1 Replace defective/corroded steel verandah posts or stumps.

- 2.4.2 Provide and fix 90x90 SHS stumps for stair landings as shown with 4 x 250mm long Y16 bars welded to bottom of stumps.

- 2.4.3 Provide aluminium flywire frames with rubber splines to fix insect screening to all window openings and security screen doors.
- 2.4.4 The frames shall be fixed to the window and door frames by a suitable adhesive/sealant and self tapping screws.
- 2.4.5 Provide and fix to all window frames as indicated 16mm dia. Ms galvanized security bars. Bars shall be continuous lengths and have washers welded to each end to prevent bars from being pulled out.

2.5 CARPENTRY WORKS

MAIN CLINIC BUILDING

2.5.1 Barge and Fascia Board

Supply and fix new fascia and barge boards. The size shall be 200x32mm and fascia boards shall be securely fixed at the end of the new jack rafters with appropriate jolt head nails. The contractor shall ensure to apply wood primer to exposed timber board surfaces prior to fixing.

2.5.2 Verandah Beam

Supply and fix 150x50mm timber beam for fixing of the new jack rafters. The new height of the Beam shall be determined on site.

2.5.3 Verandah Posts

All corroded metal post shall be replaced with new. All metal posts at the new extension side shall be removed including the existing 150x50mm timber beam.

2.5.4 Verandah Decking

All existing verandah decking shall be replaced with new 100x20mm hard wood deckings. The contractor shall apply 3 coats of timber top mission brown matt finished all around prior to fixing of the floor boards.

2.5.5 Verandah Joist

The Contractor shall replace all existing short verandah floor joists with new timbers. Size and width of the timber shall be determine on the site.

2.5.6 External Wall Claddings

Replace defective/damaged weatherboard on external walls shall be removed and replaced with new wall cladding is 100x20mm thk Weatherboard with proper CCA treatment. New claddinigs shall be firmly fixed all around.

2.5.7 Skirting Board

Supply and install new skirting board. Skirting shall be of 90x20mm and shall be neatly fitted against the bottom of the partitions. All joints shall be mitred.

2.5.8 Internal Wall Linings

All interior wall lining shall be replaced with versilux lining neatly fixed to wall frames. Only damaged ceiling shall be replaced.

2.5.9 Wall Frames

All damaged wall frames shall be replaced during the course of construction. Wall frames shall be 75x50mm treated hardwood.

2.5.10 Door Jambs and Window Frames

All rotten door and window frames that the contractor shall find during the course of maintaining the building shall be replaced.

2.5.11 Ledged Door

A ledged and braced door measuring 1000mm wide x 2000mm high is to be installed as per drawing centrally located on the new concrete foot path.

2.5.12 Double Doors

Relocate the twin doors and align them centrally facing the Ambulance Bay.

2.5.12 Staircase

Demolish and remove existing staircase and seal off. Reconstruct front staircase with proper treated timbers.

2.5.13 Canopy

Construct a canopy 2.6 metres from the floor up and shall cover both the verandah and trolley driveway.

2.6 JOINERY AND HARDWARE

2.6.1 Doors

All doors shall be replaced with new Solid Core Doors (External) on hollow core doors for the interior.

2.6.2 Door Frames and Jambs

All defective/rotten doors jambs, heads, architraves and door stops shall be replaced with new.

2.6.3 Door Locks

Provide new dead locks lockwood series to all external doors with appropriate door handles fixed on both sides of the doors.

Provide new entrance set lockwood series to all internal doors with appropriate door handles.

Provide new passage set locks to toilet and tea rooms

2.6.4 Hinges and Catches

All existing door hinges shall all be replaced with a new 100mm butt Steel hinges. Mark out for fitting of the butt steel hinges shall be 150mm from the top of the door and 200mm up from the bottom edge of the door.

Provide 3 x cupboard doors construct from 15mm plywood and fixed on with 2 x metal concealed hinges. Fix 100x50 "D" handles, 2 x catches and 2 x air vents to cupboard doors.

2.6.5 Flywires and Flywire Strips

All existing fly wires shall be replaced including 32 x 15mm fly wire beadings. Apply 1 coat of wood primer and 2 coats of under prior to fixing of the fly wire beadings.

When fixing new fly wires onto the window frames, the contractor shall ensure that flywires are not sagged or wrinkled and shall firmly fixed with fly wire tacs.

2.6.6 Cupboards and Shelves

All cupboard doors shall be made out from 15mm ply with 1 x 10mm edge strips fixed all around the doors.

Provide 75x15mm brass butt hinges and the brass hinges fixed 2 x air vents to each door with 75 x 50mm "D" handles and 2 x ball catches securely fitted to all doors.

Cupboard bench tops shall extend out 20m from the edge of the ladder frames and provide 2mm thick laminex on bench tops glued with contact adhesive.

2.7 ROOFING, PLUMBING AND DRAINAGE WORKS

All roofing works to be carried out according to Manufacturers relevant codes and practices.

2.7.1 Roofing Sheets

Roofing shall be corrugated zincalum bond custom orb same as the existing building roof. Check, remove and replace any corroded or defective roofing sheets with new.

2.7.2 Overhangs

Overhang length shall be 900mm minimum as shown on drawings.

2.7.3 Roof Fasteners

60mm long tekscrews shall be used as roof fasteners and the contractor shall use three(3) number of tekscrews on roof sheets and securely fastened as per roof battens.

2.7.4 Sisalation

The existing sisalation shall be replaced with new 1.2m wide double sided insulation paper and allow 150mm lap over on each joints.

2.7.5 Gutter

Replace, the existing quadrant gutter with a new trim line gutter and shall be fixed the full length of both sides of the existing building.

The contractor shall allow a fall starting from the centre of the length of the building and runs towards the two ends of the building.

2.7.6 Gutter Brackets

An appropriate trim line gutter brackets shall be used prior to fixing of the gutter. The gutter brackets shall be fixed at 1.0meters spacings with an appropriate fixer or fasteners.

2.7.7 Down Pipes

Down pipes shall be 100x100mm square and shall be filtered tightly where the drops are. All joints shall be neatly fitted to avoid appearing of gaps.

A 50x50mm light metal hollow section pipes shall be used for down pipes supports especially from the under side of the floor joists down to the ground level.

2.7.8 Flashings

An appropriate metal flashing shall be provided at the edges of the roofing and securely fasten with appropriate fasteners on to the Barge Board. Ensure to seal off screw heads properly with approved sealant.

All plumbing shall be carried out by competent Tradesmen who hold current Sanitary Plumbers licences issued by the authorised Public Health Authority.

2.7.9 Cold Water Supply

Provide and maintain cold water supply to the following fittings:-

- sinks
- hand basins
- WC cisterns

2.7.10 Traps and Wastes

Supply and provide 32mm dia. uPVC to sink and hand basin. Provide 50mm dia. uPVC floor wastes and 100mm dia. uPVC to water closet.

2.7.11 Soil Waste Vent Pipes

Supply and replace 100mm uPVC vent pipes. All bends, junctions and elbows, excepting those in vent pipes shall have inspection openings. All

vents shall be fitted with PVC vent cowls. Cement grout waste pipes into drains and disconnecter traps.

2.7.12 Sanitary Fittings

Provide, replace and fix the following fittings and connect up to services and wastes.

a. Sinks

Provide and install Radiant stainless steel sink with 100mm upstand at back, complete with barred wastes and plugs and built into the bench.

b. Water Taps

Supply and install required water taps to sink and toilets.

c. Hand Basin

Provide, replace and install firmly wall mounted hand basin complete with barred waste and plug. Colour: White.

d. Water Closets (WC)

Provide and install approved WC full flush toilet suite with low level cistern and standard seat. Colour: TBA. Connect to soil waste, provide bituminous felt strip between pan and floor and fix with 75mm brass screws.

e. Bath Tubs

The existing bath tubs at the mini ward and labour rooms shall be replaced with new. Tub at the labour room shall be bigger than the existing one.

f. Miscellaneous Ablution Fittings

Provide and fit to bathroom the following fittings:-

- Toilet Roll Holder
Caroma Bathmates toilet roll holder. Colour:- TBA

2.8 TILING AND GLAZING WORKS

2.8.1 Standards and Workmanship

The tiler shall supply and install all floor coverings as indicated.

2.8.2 Splashback shall be formed along the back of the hand basin using 150x100mm bull-nosed edge ceramic tiles.

2.8.3 The ceramic tiles on toilet and shower shall be firmly bedded on a beads of adhesive and shall be properly grouted. All excess grout shall be completely cleaned off.

Colour: Splashback - white. Floor Tiles – grey.

2.8.4 Provide 300mm high ceramic tiles splash back at the back top end of the bench top and seal off gaps with appropriate sealant.

- 2.8.5 Provide green coloured vinyl tiles to floor in the interior. Ensure also that same size vinyl tiles are fitted at the edges. For door ways, proper edging ceramic tiles shall be used.
- 2.8.6 Provide and fix 6mm thick clear and obscure glass to all windows as specified.
- 2.8.7 Provide and fix 600x400mm mirror with 4 No. chrome plated corner clips to rooms as specified.
- 2.8.8 Mirrors shall be 6mm thick silvering quality polished plates glass with silver applied and guaranteed tropical quality. Edges shall be ground and polished.

2.9 ELECTRICAL AND FIRE

2.9.1 Standard and Workmanship

All electrical works to be undertaken by a Licensed Electrician according to the relevant codes and practices. All materials shall be of the best quality and workmanship shall be accordingly to the best trade practice of the workmanship in accordance with the PNG Power requirement.

2.9.2 Electrical

Comply with all the relevant PNG Power Limited rules, codes and requirements.

a. Distribution Board

The contractor shall upgrade the existing distribution board depending on the size of the new loads.

a. Wiring

All wiring shall be concealed inside the ceiling and in conduits embedded in the walls.

c. Power Outlets

Provide and replace damaged GPO's where necessary.

d. Light Switch

Provide and replace damaged light switches where necessary. Switches shall be mounted 1.2m above floor level.

e. Lights and Fittings

Supply, install and replace damaged light and fittings where required.

f. Daylight Switch

Provide and install a daylight switch where necessary.

g. Security Lights

Provide and install defective security light/fittings where necessary.

2.9.3 Fire Requirements

Comply with all relevant Fire Authority rules, codes and requirements.

- a. Provide and install portable fire extinguisher of the types and capacities shown below. Install fixings, brackets and position indicating signs and labels for each extinguisher.
- b. Provide extinguisher as;

Type 1 4.5kg Dry Chemical Powder (DCP)

Locations of the extinguishers on site to be determine by PPL Safety Officers.

2.10 PAINTING SPECIFICATION

2.10.1 Quality of Materials

The contractor shall supply all painting materials and store them neatly in an appropriate area free from dust, moisture or anything that may have an immediate effect on painting materials.

All materials used for this painting work shall be of higher grade. No second grade materials shall be used, if the contractor shall or may want to use second graded materials, the contractor must seek Inspector's approval.

2.10.2 Brand

The contractor shall supply materials such as, undercoat, turps, final coat etc, from the same Manufacturer. Mixtures of painting materials from different brand of manufactures shall not be allowed.

2.10.3 Wash down

All painting surfaces shall be thoroughly washed down with approved detergent or sugar soap prior to commencement of any painting work. The contractor shall seek approval from PNG Power supervisor after thorough wash down all surfaces before commencing of painting work.

2.10.4 Drop Sheet

A drop sheet shall be used by the Contractor during the cause of the painting work to protect the floor of the building.

2.10.5 Under Coats

A water base Acrylic under coat or similar approved type under coat that can quickly settled and dried shall be used. The Contractor shall apply one (1) coat on old surfaces. 2 coats of under coats on new surfaces.

2.10.6 Putty

The contractor shall use sparkfilla and polyfilla or similar approved putty to fill holes, gaps or any uneven surfaces. Puttied areas shall be left for a day before any sanding is carried out. This putting work shall be carried out after painting of first coat of under coat.

2.10.7 Final Coat

After completion of the sanding work to all painting surfaces, the contractor shall carry out the painting of the final two (2) coats. Colours shall be preferred by the PNG Power Supervisor.

2.10.8 Turpentine

The Contactor shall only use turpentine to wash paintbrushes or to soften paint so that paints are flexible and easy to use. Kerosene shall not be used when carrying out the painting work.

2.10.9 Scaffolding

The Contractor's responsibility to provide necessary scaffolds and securely fixed to avoid accidents. PNG Power shall not be responsible for any accident created due to negligence.

2.10.10 Painting and Varnishing

- a. The contractor shall use Taubmans paints only when carrying painting works.
- b. Do not apply under coat without the approval of the PNG Power Inspector.
- c. All existing paint surface shall be cleaned and washed down properly with sugar soap or detergents prior to applying of any under coat.
- d. Apply masonry filler under coat for all masonry surfaces prior to painting of final coats.
- e. All rusted metal surface shall be cleaned and scrape off properly before applying of metal primer.
- f. Colours scheme shall be provided by PNG Power Inspector.
- g. New surfaces shall have 2 coats of under before applying of 2 final coats.
- h. Light machine sanding on all floors as per instruction from Project Inspectors. Apply 1 coat of sanding sealer and 2 coat of poly gloss varnish.

2.11 AMBULANCE BAY CONSTRUCTION

12. PHASE 2: AMBULANCE BAY CONSTRUCTION

12.1 Exterior works.

- 12.1.1 Identify site and prepare for construction of the ambulance bay. Refer to drawings
- 12.1.2 Utilize all sound materials on the job.
- 12.1.3 The footing has to be in solid concrete construction. It has To be level at the floor level and stretched in a straight line from floor level to the ground surface. A solidly braced formwork is required to safely keep the concrete from movements of any sort.
- 12.1.4 The footing has to be in solid concrete construction. It has To be level at the floor level and stretched in a straight line from floor level to the ground surface. A solidly braced formwork is required to safely keep the concrete from movements of any sort.
- 12.1.5 A normal standard concrete mixing ratio of 1: 2: 4 is to be applied.
- 12.1.6 Utilize 12mm deformed bars for wall reinforcements. The reinforcing bars to be placed vertically and strengthened by horizontal bars fastened with construction tie wires. The spacing to be within 200mm to 250mm through out.
- 12.1.7 Appropriately utilize or lay F72 weld mesh throughout the entire concrete slab.
- 12.1.8 Install 400mm up stand (100mm x 100mm angle iron welded onto the 50mm galvanized pipe)for the column base to sit on. A 12mm hole is to be bored at the vertical end of the angle iron for the 12mm galvanized bolt to be inserted to hold down the column. Refer to drawing for clarity.
- 12.1.9 The column has to be 100 x 100mm sound solid hardwood and free of defects. They have to be well sanded to give a smooth look throughout.
- 12.1.10 For roof covering, utilize corrugated galvanized roofing iron and well held down with galvanized roofing nails.

12.2 Exterior paint works.

- 12.2.1 Prior to painting, all surfaces have to be well sanded to give a smooth surface.
- 12.2.2 Apply oil based under coat to all timber surfaces prior to final gloss paints
- 12.2.3 Apply oil based gloss white to all timber columns.
- 12.2.4 Apply oil based galaxy blue to all rails, fascia and barge boards.

12.2 Excess road works

- 12.2.1 Excavate from the front end of the ambulance bay shed straight to the perimeter fencing and link it with the main road.
- 12.2.2 Remove existing top soil and fill with 20mm to 30mm road base gravel in its place. Continue the concrete slab all through to the main road.

2.12 CLEANING UP

Upon completion of the works, the contractor shall leave the work areas clean and clear of rubbish and excess material which is of no use to PNG Power Ltd.

All rubbish shall be dumped at the Local Authority's official dump site and not at or around the work site.

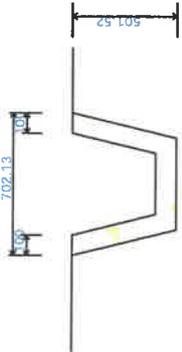
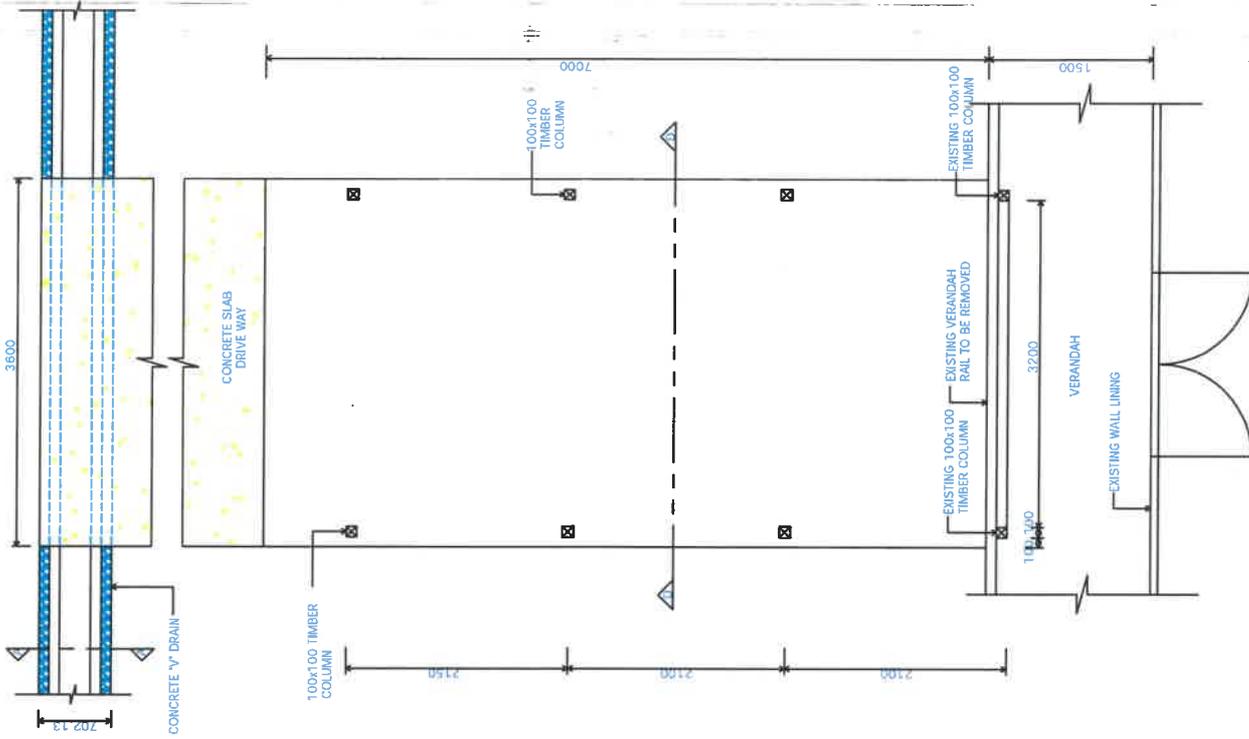
*******END OF SCOPE*******

(J) **LIST OF DRAWINGS**

The Contractor shall undertake the works for Tender in accordance with the Drawings listed below and as appended. The drawings form part of the Contract Documents and all notes on the drawings are considered to be part of the drawings and the Contract. If the drawings conflict with any other part of the Contract Documents, the drawings will take precedence.

Drawing Ref. No.	Drawing Title	Date of Issue
M 11931	Yonki Clinic Building Upgrades Works at Yonki Township – Eastern Highlands Province	Jul 2019
Sheet 00	Cover Sheet, Drawing Index	
Sheet 01 of 06	Ambulance Bay Layout	
Sheet 02 of 06	Floor Plans	
Sheet 03 of 06	Elevations	
Sheet 04 of 06	Cross Section B_B	
Sheet 05 of 06	Cross Section C-C	
Sheet 06 of 06	Construction Details	

← MAIN DRIVE WAY TOWARDS ADMIN OFFICE →

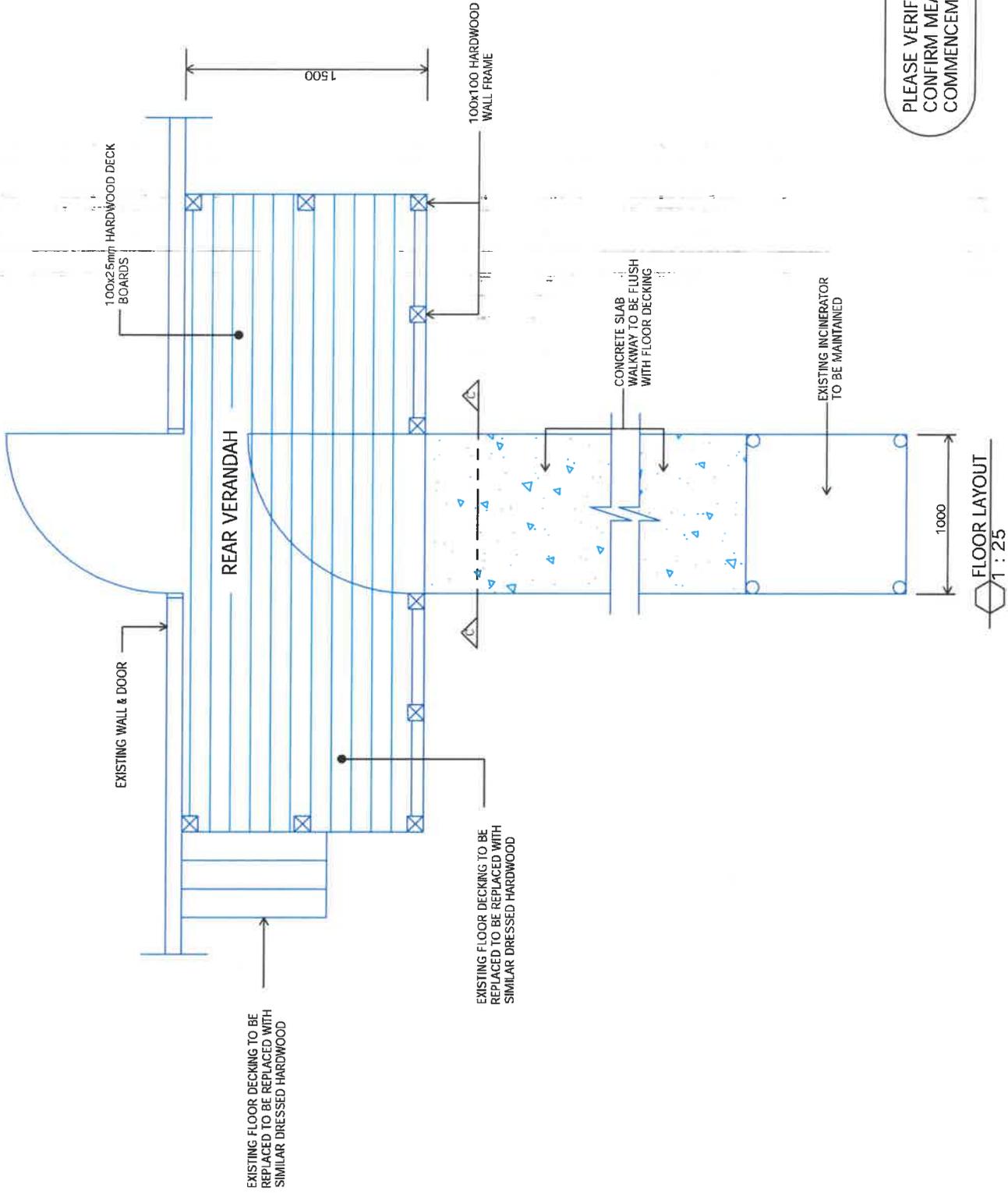


SECTION AA ("V" DRAIN)
1 : 25

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AMBULANCE BAY LAYOUT
1 : 50

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<p>CAD Filename: dwg</p>	<p>Date Plotted: 31.07.19</p>	<p>Drawn: <input type="checkbox"/> JULY/19</p>	<p>Location: PNG POWER YONKI TOWNSHIP - KAMANTU, EHP</p>
<p>Scale: 1:25 / AS SHOWN</p>	<p>Time Plotted: 12:00PM</p>	<p>Designed: <input type="checkbox"/> sc. enp</p>	<p>Title: PNG POWER YONKI CLINIC</p>
<p>Endorsed: <input type="checkbox"/></p>	<p>Approved: <input type="checkbox"/></p>	<p>Checked: <input type="checkbox"/> A.3</p>	<p>Number: M1931</p>
<p>Facsimile: (975) 324 3200</p>	<p>Website: www.pngpower.com.pg</p>	<p>Addressed: <input type="checkbox"/></p>	<p>Revision</p>
<p>Telephone: (975) 324 3200</p>	<p>P. O. Box 1105, BOROKO 111, NCD, Papua New Guinea.</p>	<p>Estimated: <input type="checkbox"/></p>	<p>Sheet: 01 OF 01</p>

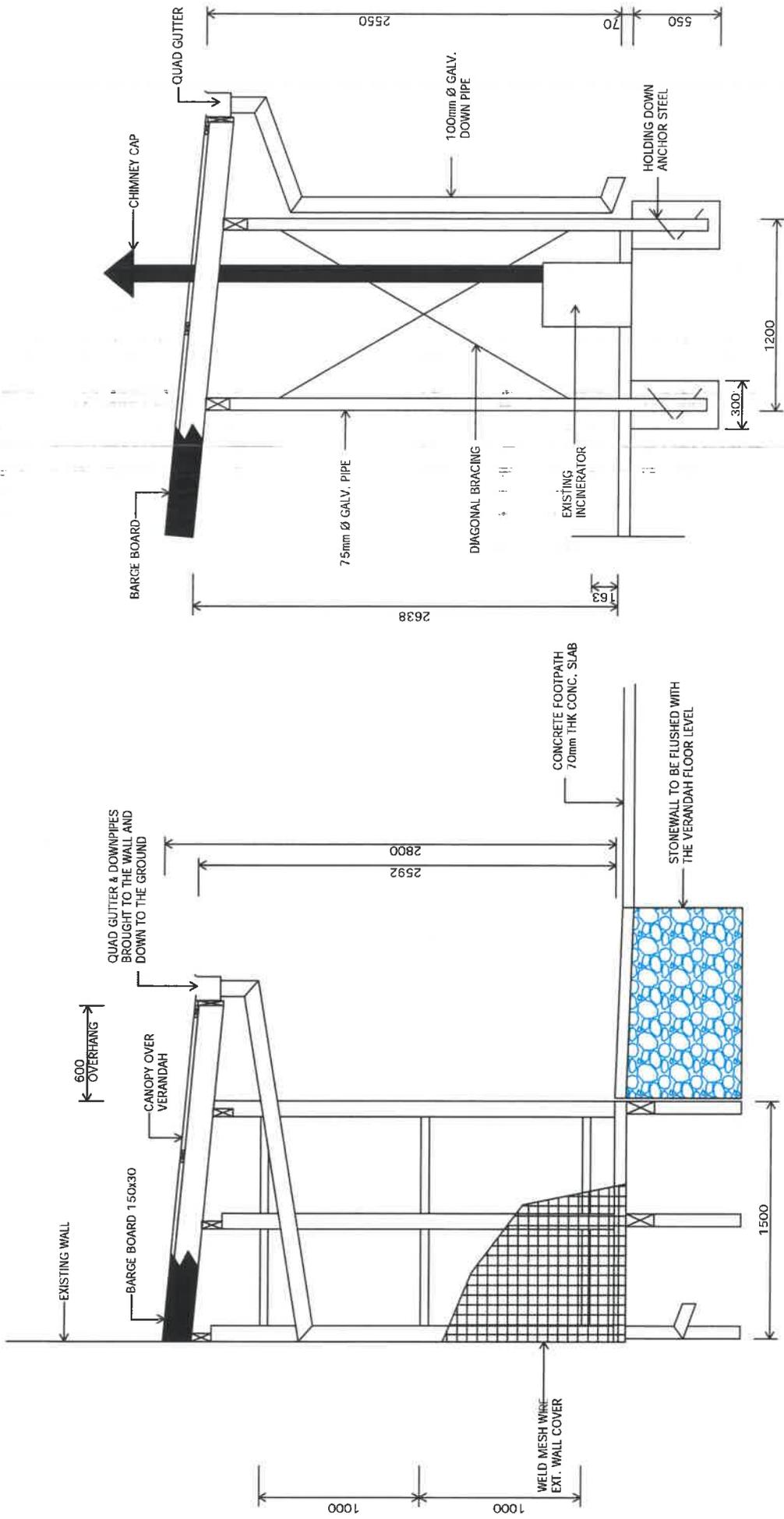


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<p>CAD Filename: .dwg</p>	<p>Date Plotted: 31.07.19</p>	<p>Revised</p>	<p>By</p>	<p>Checked</p>	<p>Date</p>
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<p>Location: JULY 19</p>		<p>Revised</p>	<p>By</p>	<p>Checked</p>	<p>Date</p>
<p>Title: A3</p>		<p>Revised</p>	<p>By</p>	<p>Checked</p>	<p>Date</p>
<p>Number: M1931</p>		<p>Revised</p>	<p>By</p>	<p>Checked</p>	<p>Date</p>
<p>Revision</p>		<p>Revised</p>	<p>By</p>	<p>Checked</p>	<p>Date</p>
<p>Drawn: ut.exp</p>		<p>Revised</p>	<p>By</p>	<p>Checked</p>	<p>Date</p>
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 Facsimile: (675) 325 0072
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PNG POWER YONKI TOWNSHIP -- KAINANTU, EHP
 PNG POWER YONKI CLINIC
 FLOOR LAYOUT
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ELEVATIONS
1 : 25

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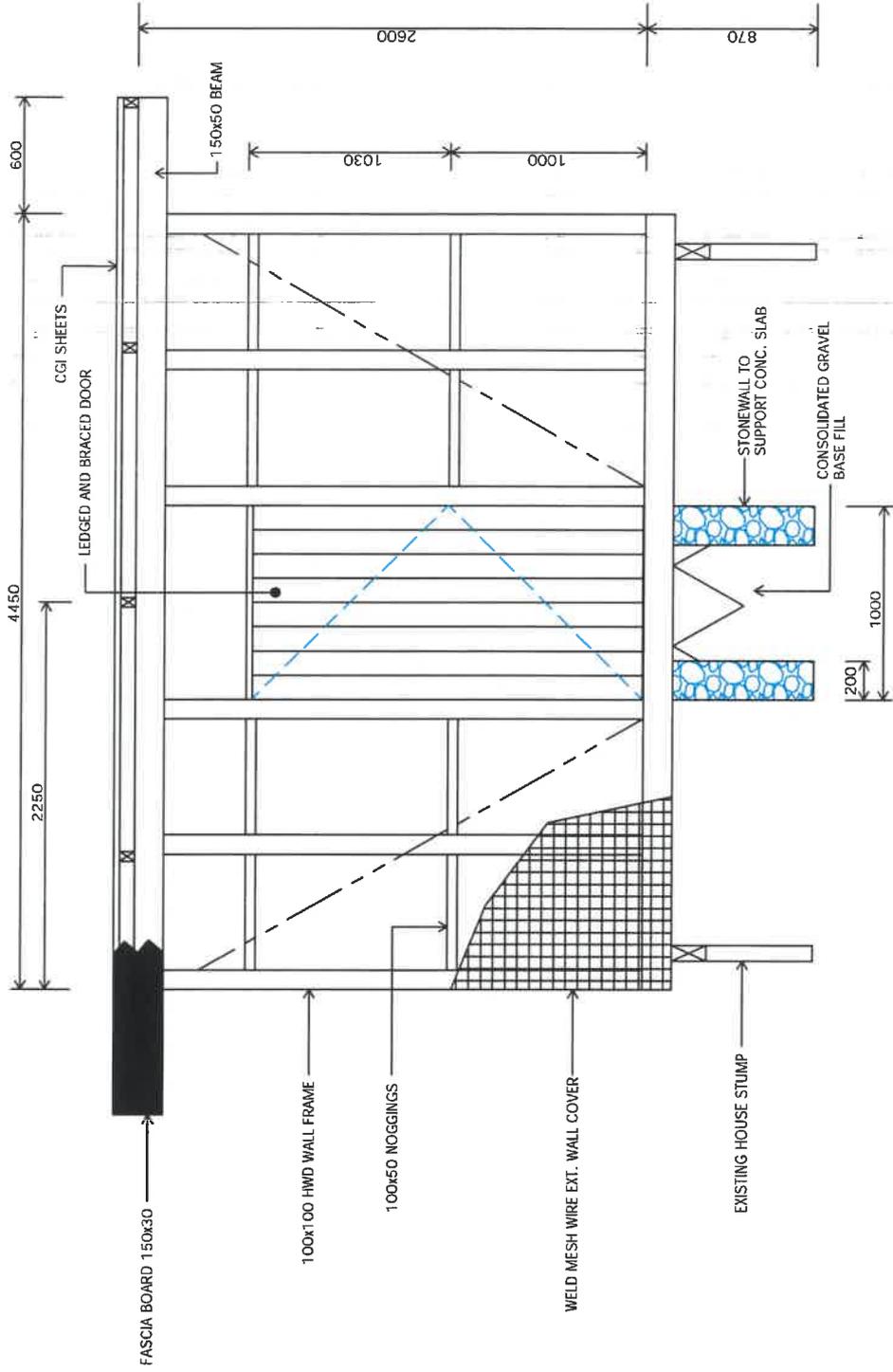
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Title		PNG POWER YONKI CLINIC ELEVATIONS	
Number		Number	M11931
Revision		Revision	
Sheet		Sheet	03 OF 01



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CROSS SECTION C-C
1:25

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CROSS SECTION CC	
Sheet	04 OF 04

