

## **Building Details**

More detailed Infrastructure points.

### **WATER TANKS**

1 X 40,000 Litre underground water tank at Northern end of property.  
 1 X 5,000 Litre underground [ garden water tank ] at Northern end of property.  
 1 X 175,000 Litre underground water tank next to swimming pool.  
 Nb; The tanks are made exactly like the swimming pool except they have a lid on top.  
 Steel reinforced, solid concrete, 150mm thick at base and 120mm thick in walls,  
 100mm at top. The water tanks sit on a 250mm bed of black sand, this provides cushioning  
 in case of earth tremors. The tanks were constructed at the same time the outer walls  
 were constructed in a position that would allow back filling to create two level  
 pads. The base and walls of the tanks were poured at one time to prevent COLD JOINS.

### **PERIMETER WALLS**

Concrete and limestone footings, steel reinforced, concrete columns every 3 Metres,  
 hand place limestone infill [ inside & out ] Conduit placed inside walls for wall lighting.

### **BACK FILLING & STORM WATER DRAINAGE**

Loose limestone was used at the base for drainage then 400 mm of black, mountain soil  
 was used as top dressing. Storm water drainage placed where required.

### **STAFF COTTAGE**

Solidly built block with stone cladding, BHP Colourbond Roofing.  
 Two main entry doors with two entry doors to bathroom, a partition  
 can be placed in the middle of the Cottage to create 2 separate rooms  
 if required. Independent black & grey water waste water system.

### **SWIMMING POOL**

14 Metre lap pool.  
 Construction - steel reinforced concrete, base and walls poured at one  
 time, unlike most pools where the base is poured first and then the walls second.  
 Pouring base and walls at one time creates a solidly built pool with no ' COLD JOIN '  
 Wet concrete does not seal properly against dry / hard concrete and it is this ' COLD JOIN '  
 that can crack and create unrepairable leaks. All the piping in the pool is placed inside  
 the base or inside the walls of the pool, there are no fittings or pipes penetrating either  
 the base or the pool walls, it has all been placed inside the concrete itself and exits above  
 the water line. PVC piping does not seal properly against concrete and this is also a common  
 source of leaks in pools. The pool is not in direct contact with the earth [ limestone ] as it sits  
 on top of 250mm of black sand, there is not one leak in the pool [ the majority of inground  
 pools in Bali leak ]

## POOL EQUIPMENT

The pool pump & salt water chlorinator are positioned in a room at the end of the pool, this room is accessed via the lower section of land.

## BALANCING TANK

Balancing tank is situated below the timber deck at East end of the swimming pool.

## GENERATOR ROOM

20 KVA Perkins / Stamford generator situated next to the pool equipment room.

## MAIN BUILD

Bali sits in an earthquake zone, the building is engineered with this in mind. Solid H beam steel construction, H beam risers encased in rebar reinforced concrete. Ground floor wall infill – Australian designed ‘ **Bessa Block** ‘ filled with rebar and concrete. First and Second Floor – ‘ **Hebal Block** ‘ water resistant, sound proof & very light. Horizontal H beam steel floor supports using ‘ Bondek ‘ steel as base for suspended concrete slabs.

Nb; The correct [ Australian Standard ] method for concreting was adhered to, whether it be for water tanks [ base & walls ] swimming pool [ base & walls ] concrete risers, ground floor slabs or suspended slabs. The CORRECT ‘ Bar Chairs ‘ were used throughout \* Using the correct sized ‘ Bar Chair ‘ ensures that the steel reinforcement inside the concrete is exactly in the position it should be in, not too low and not too high. When Villa Kubu Ku was built these ‘ Bar Chairs ‘ were not available in Bali, everyone simply used pieces of sand / cement or rocks, which of course crack, break or move when walked on. It’s worth mentioning as it is a very important detail **which no one ever will see**. Using the correct sized Bar Chairs ensures a completely seamless, flat end result with optimum strength in all concrete applications.

## ROOFING

Imported Colorbond Industrial Roofing and Gutters

## HARDWARE [ Plumbing ]

Australian Standard floor waste traps used throughout [ no unwanted odours ]

Imported ‘ GROHE ‘ AND ‘ TOTO ‘ Bathroom hardware

Huge [ correctly built ] Black & Grey waste water system.

## HARDWARE [ Other ]

ALL screws, nuts & bolts and general fastenings are imported & Australian Standard.



## **ELECTRICAL**

High quality [ high copper content ] electrical wiring used throughout.

High quality switches and electrical junction boxes.

High quality fuse box

Correctly installed lightning protection [ not a little rod on the roof ]

## **LIGHTING**

Imported Australian ' Brightgreen Lighting ' used throughout.

AC Copper Tube; Imported high quality KEMBLA used throughout.

**Nb; 3 of the AC units replaced in 2023. One HWS replaced.**

Nb; Using high quality [ thick wall ] copper tubing prevents cracks, ensures good union and enables trouble free maintenance.

## **FINISHING**

Large slab granite, fossilised stone, fossilised stone panels, marble, old teak panels & beams, Old iron wood decking, Vintage ships lights, high quality Japanese 316 stainless steel Balustrades and wire, High quality 316 nuts & bolts. All Gyproc screws and other bits n pieces including many electrical & plumbing items were imported from Australia.

The details of the finishing are too long to list here & need to be seen to be appreciated. Rest assured no expense was spared on the project

**' Practicality, Functionality & High Quality**