

SAMPLE REPORT · PRE-PURCHASE BUILDING INSPECTION

Moradia,



Address withheld for this sample

CLIENT

Withheld for this sample

INSPECTION DATE



PROPERTY

Detached house on three floors with partial basement, pool and garden; occupied

REPORT DATE



INSPECTED BY

Bradley Cahill · Antipodean Building Services
Lda

REFERENCE

AP-2026-R-SAMPLE



BEFORE YOU READ THIS

This is a real Antipodean report, issued in October 2026. For publication the clients' names, the address and the registration details have been taken out, and photographs showing the whole house are blurred. The findings, costs and advice are as issued. The report records a visual, non-invasive inspection of the house and grounds, carried out on the date stated. No walls, floors or ceilings were opened and no service was tested for compliance. The roof was seen from ground level and from the first-floor veranda; it was not walked. What could not be seen is listed in Section 11.

The position is in Sections 3 and 4, and the evidence behind each finding is in Section 6. The solar, heat pump, ventilation, pool heating and car charger upgrades are priced in Section 5.2 and specified in Section 8. The documents to obtain before the CPCV are in Section 11.

1 Purpose and scope

This is a pre-purchase inspection of this house in [REDACTED], commissioned by the buyers before signing the contrato-promessa de compra e venda (CPCV). The agent has advised that the CPCV is conditional on a satisfactory technical inspection. The house, the basement and garage, the pool and its plant, the barbecue area, the outbuilding beside the pool and the garden were inspected. The house was occupied and furnished.

The inspection covered the structure as visible from inside and outside; the roof covering, eaves and rainwater arrangements; moisture and infiltration, by visual assessment with a moisture meter and thermal camera; the external envelope, joinery and finishes; the internal fabric; and the mechanical and electrical services as installed. It did not include destructive testing, engineering certification, drainage CCTV, gas safety testing or electrical compliance certification.

Cost figures are indicative ranges for a licensed contractor working to the standard of the existing house in the [REDACTED] area at October 2026 prices, exclusive of IVA. They are for budgeting and negotiation and should be replaced by quotations before any commitment.

2 The property and documents

The house is registered as an urban article at Finanças and at the Conservatória do Registo Predial de [REDACTED], in the sole ownership of the seller. The plot is about [REDACTED] with a [REDACTED] footprint. The caderneta describes a partial basement with storage and garage, a ground floor with kitchen, pantry, living room with fireplace, two bedrooms with bathrooms and laundry, an upper floor with a bedroom with bathroom, two further bedrooms, a bathroom, a veranda and a terrace, and a sótão. The tax value was last set in [REDACTED].

The alvará de autorização de utilização was approved by the Câmara Municipal de [REDACTED] in [REDACTED], for a single-family house, with the garage under a [REDACTED]. The same architect designed the house and acted as site director. This

matches what was seen on site: an older building that was gutted, rebuilt and extended about twenty years ago.

Three points in the documents need resolving before the CPCV. The ficha técnica da habitação supplied is for a different property: it describes a lot on [REDACTED] in a [REDACTED], under a different processo and registration, with a different architect, a flat roof and no basement. This house has a pitched tile roof and a basement. Second, the caderneta gives a gross construction area of [REDACTED], of which [REDACTED] dependent, while the topographic survey of [REDACTED], titled a rectification of areas, gives [REDACTED] with nothing dependent; it should be confirmed that the rectification has been registered at Finanças and at the Conservatória. Third, the pool, the barbecue pergola and the outbuilding beside the pool are not described in the caderneta. The approved plans have not yet been supplied. Each of these is set out in Section 11.

None of these is a major red flag. Paperwork that does not line up with what is built is common in Portugal, particularly on houses that have been rebuilt or extended, and it often comes from works not being declared to keep the tax value down. It matters most when the house is sold or mortgaged again, because the next buyer's lawyer will ask the same questions. If you plan to keep the house long term it is not a big issue, but it is easier to have the seller tidy it up now, while they have a reason to, than to do it yourselves later.

3 Executive summary

This is a detached house on three floors with a partial basement, standing in a landscaped plot with a pool, a covered barbecue kitchen and a sunken drive to the garage. The original building was gutted, rebuilt and extended about twenty years ago, to a high standard. The facade is finished in an external thermal insulation system (capoto) with granite surrounds and cappings. The roof is clay tile. A round stair tower rises through the house to a rooflight above the roof line. Inside, the walls are finished in a polished lime plaster, the floors upstairs are hardwood, and the joinery, doors, skirtings and fitted wardrobes are of good quality and well kept.

No structural defects were found anywhere in the house. The windows are in excellent condition for their age, the shutters all work, plumbing pressure is good, the bathrooms and their fittings are in excellent condition, and the electrical installation is to a current standard with RCD-protected circuits and plenty of outlets. The kitchen and laundry are in working order. The basement rooms, including the games room and the offices, were dry with no damp smell; the walls are tiled to about a metre, which suits a below-ground room. The garden is immaculate and the site drainage is well executed.

The principal defect is water at the first-floor veranda. The roof above does not fully cover the veranda and discharges onto it. The joints in the granite capping on the parapet wall are open, the grout in the tiles is tired, the drainage outlets are partly blocked, and the seals around the window and door frames have aged. Water is reaching the base of the wall along the bedrooms. At the far bedroom it has decayed the foot of the timber door frame and stained the floor inside. The same moisture is showing as blistering in the lime finish at a few points, and there is a line of blistering inside the stair tower that may follow a fine crack

and needs a closer look from outside. None of this is structural. All of it is straightforward to correct.

The roof covering is in good condition. The mortar on the ridges is due for repointing and the house has no gutters; installing gutters and downpipes, starting above the veranda, deals with the source of the veranda problem. Smaller items are a little rot in the barbecue pergola, a worn pool deck, and the hot water cylinder, which needs a service.

My position is that the purchase can proceed. The defects are maintenance-scale, well defined and priced in Section 5.1. They are current and visible, which makes them a fair basis for a modest price adjustment, set out in Section 5.3. The document points in Section 11 are not red flags, but they are worth closing before the CPCV while the seller is motivated, the ficha técnica first.

CONDITION	VERDICT
B+	Proceed <i>A well-built and well-kept house with no structural defects. Water is getting in at the first-floor veranda and the roof needs routine maintenance and gutters.</i>

4

Risk summary

Findings in order of severity. Detail and photographs are in Section 6.

ISSUE	RISK	IN SHORT	ACTION
First-floor veranda	MEDIUM-HIGH	Roof discharges onto the veranda; open capping joints, tired grout, partly blocked outlets, aged frame seals	Gutters above; seal cappings; regrout; clear outlets; reseal frames
Far bedroom door and floor	MEDIUM	Decay at the foot of the timber door frame; water-stained floorboards inside	Splice repair or replace the leaf; replace and refinish boards
Stair tower	MEDIUM	Line of blistering and salts in the lime finish; possible fine crack	Inspect the tower and rooflight from outside; repair; refinish
Roof rainwater	MEDIUM	No gutters or downpipes; eaves discharge onto terraces and walls	Gutters and downpipes to the site drainage
Ridge mortar	LOW-MEDIUM	Mortar on ridges weathered and cracked; lichen on tiles	Repoint ridges; clean and treat tiles
Lime finish	LOW-MEDIUM	Blistering at moisture points; one wall beside a radiator	Find and stop each source; dry; repair in lime; wax

ISSUE	RISK	IN SHORT	ACTION
Hot water cylinder	LOW	Rust streaks down the casing of the heat-pump cylinder	Service; trace the source; check anode
Barbecue pergola	LOW	Minor rot in the timber	Replace affected members; treat and stain
Pool deck	LOW	Worn and grey; fixings due	Clean, re-screw in stainless, oil
Chimneys	LOW	Staining on the stack; two fireplaces in use	Sweep; clean and repaint the stack

RISK KEY HIGH — act before purchase or immediately after. MEDIUM — within 3 to 6 months. LOW — routine maintenance.

5 Costs and negotiation position

All figures are ranges for a licensed contractor, exclusive of IVA, at October 2026 prices, and require quotation before commitment. The roof, gutter and veranda works assume one access set-up. Contingency is included in the upgrade programme at 15 per cent.

5.1

Remediation: buyers' direct costs

ITEM	LOW	HIGH	NOTES
First-floor veranda: rake out and seal the granite capping joints, rebed loose cappings over a liquid membrane, regrout in epoxy with perimeter movement joints, clear and guard the outlets, reseal window and door perimeters	€ 3,500	€ 6,500	Section 6.1; water test on completion
Gutters and downpipes to all eaves, connected to the site drainage	€ 6,000	€ 11,000	Aluminium or zinc; priority over the veranda
Ridge and hip repointing in lime mortar; biocide clean of tiles	€ 2,000	€ 4,000	Same access as the gutters
Far bedroom: splice repair of the door frame and leaf, new seals and threshold drip; replace and refinish water-damaged floorboards	€ 1,800	€ 4,500	Upper figure allows for a replacement leaf
Stair tower: inspection of the render and rooflight from an access platform, crack repair in the capoto system, rooflight flashing reseal	€ 1,500	€ 4,000	Provisional; scope set by the inspection
Lime finish repairs at the affected points, including the stair tower, after drying	€ 1,500	€ 3,500	Specialist stuccatore; heating pipe pressure test included
Barbecue pergola: replace decayed members, treat and stain	€ 600	€ 1,800	
Pool deck: clean, replace fixings in A4 stainless, refix, sand and oil	€ 1,000	€ 2,200	
Hot water cylinder service; chimney sweep; clean and repaint the stack	€ 400	€ 900	
Total	€ 18,300	€ 38,400	

5.2

Upgrade programme

These are investment decisions the buyers have asked about, listed so the full cost can be seen in one place. They are specified in Section 8 and sequenced in Section 10.

ITEM	LOW	HIGH	NOTES
Solar PV, about 10 kWp, with a 10 kWh battery and three-phase hybrid inverter	€ 18,000	€ 25,000	Registered as self-consumption (UPAC)
Air-to-water heat pump replacing the gas boiler on the existing radiators, with buffer, controls and gas decommissioning	€ 14,000	€ 22,000	Sized from a room-by-room heat loss calculation
Radiator upsizing where output is short at heat pump temperatures, provisional	€ 2,000	€ 5,000	Released only where the calculation shows it
Decentralised heat-recovery ventilation units to bedrooms and living spaces	€ 7,000	€ 13,000	No ducts through the lime finishes
Pool solar heating: unglazed absorbers, motorised valve and controller on the filtration circuit	€ 3,500	€ 7,000	Alternative: pool heat pump on the PV, € 4,000 to € 7,500
EV charger: link the existing charger to the solar, with surplus charging and load management	€ 600	€ 2,200	Lower figure if the existing unit takes an energy meter
Contingency, 15 %	€ 6,800	€ 11,100	
Total	€ 51,900	€ 85,300	

5.3

Negotiation points

ITEM	LOW	HIGH	NOTES
Veranda water entry and far bedroom damage	€ 5,000	€ 10,000	Current, visible, and the cause is plain
Roof ridge and rainwater	€ 4,000	€ 7,500	Ridge is maintenance; gutters partly an improvement
Stair tower and lime finish repairs	€ 2,000	€ 5,000	Repairs need a specialist to match the finish
Negotiation range	€ 11,000	€ 22,500	

The veranda is the principal lever. The water entry is current and the damage at the far bedroom can be seen by anyone, so it is difficult to dispute. The ridge and gutters are a weaker point because a seller can present the missing gutters as the way the house was built. The stair tower and the lime finish carry weight mainly because the repair is specialist work and the finish is hard to match. I would open in the upper half of the range and expect to settle around the middle. I would take a price adjustment in preference to the seller

carrying out the repairs before the escritura, so the work is done to your standard and on your timing.

The non-financial conditions matter as much. Before the CPCV the buyers should require the correct ficha técnica, or the seller's written confirmation that none exists for this proceso; the approved plans; confirmation that the [REDACTED] area rectification has been registered; and the other documents listed in Section 11.

Antipodean can negotiate directly on the buyers' behalf as part of our Property Advisory service. Ask before making the offer.

6 Detailed findings

6.1 First-floor veranda

LOCATION	The covered veranda along the first-floor bedrooms, its granite-capped parapet wall, the window and door frames opening onto it, and the wall base along its length.
OBSERVED	Large-format tiles laid to the veranda with skirting tiles at the wall. The roof eave above projects over part of the veranda only; there is no gutter, and on the open part the roof discharges straight onto the tiles. The granite capping on the brick parapet wall has wide open joints between stones, with no sealant in them. Grout lines in the tiles are worn and open in places. The drainage outlets at the wall are partly blocked with debris and have no grilles. The seals around the window and door frames where they meet the granite sills and reveals are aged and gapped. At the base of the wall the render is damaged in one spot behind the skirting. Moisture readings were elevated at points along the wall base behind the bedrooms and normal elsewhere. Water appears to pool on the veranda along this wall.
WHY IT MATTERS	Water on the veranda has three ways in: through the open capping joints into the parapet wall, through the open grout into the bed and the slab below, and through the frame joints into the reveals. Because the veranda does not drain freely, water sits against the wall and the frames for longer than it should. The result is the damage at the far bedroom in 6.2 and the blistering inside in 6.3. Left as it is, the timber will continue to decay and the lime finish will keep failing at the same points. The structure is not at risk.

WHAT TO DO

Fit a gutter to the eave above the veranda with downpipes into the site drainage, as part of the whole-house rainwater system in 6.5. Rake out the capping joints, insert a backer rod and seal with a UV-stable polyurethane or MS polymer joint sealant coloured to the granite; where a capping stone is loose or its bed is open, lift it, apply a liquid waterproofing membrane over the wall head and rebed it on a flexible adhesive. Rake out the tile grout and regrout in a two-part epoxy grout, with sealed movement joints at the perimeter and over any slab joint. Clear the outlets, check the falls run to them, and fit stainless grilles. Cut out the old frame seals and reseal all window and door perimeters with a low-modulus sealant over backer rod. Water test the veranda before the internal repairs start.

INDICATIVE COST

€3,500 to €6,500 for the veranda works. The gutter is within 6.5. Buyer's cost; a negotiation point.

RISK

MEDIUM-HIGH Water is reaching the fabric now. Clear the outlets immediately and programme the rest before the winter rain.



Fig. 6.1a — Veranda with the roof eave above; no gutter, and the open section takes the run-off.

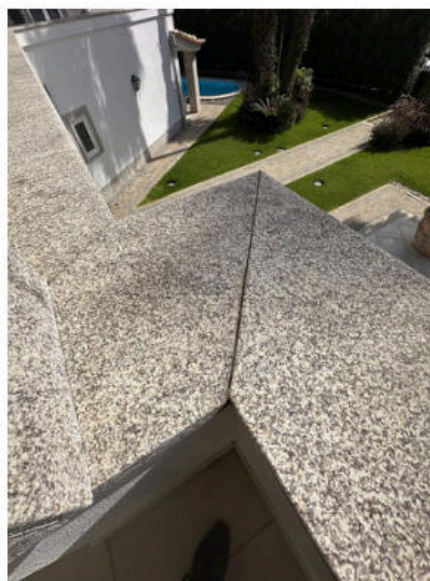


Fig. 6.1b — Granite capping on the parapet wall with an open joint between stones.



Fig. 6.1c — Drainage outlet at the wall, partly blocked with debris.



Fig. 6.1d — Frame and granite sill junction onto the veranda; seal aged and gapped.

6.2

Far bedroom: door frame and floor

LOCATION	The bedroom at the far end of the veranda; the timber door opening onto the veranda and the floor inside it.
OBSERVED	Varnished timber door with a double-glazed panel, opening onto the veranda. The bottom rail of the leaf and the foot of the frame are weathered, open-grained and soft in appearance, with the finish broken down. Inside, the hardwood floorboards at the threshold are darkened with water staining, consistent with water passing under the door and through the frame joint over a period.
WHY IT MATTERS	Decay at the foot of a timber frame spreads upward if the frame stays wet, and the joint between frame and sill is now letting water through to the floor. The floor damage is local. The door itself appears otherwise sound.
WHAT TO DO	Once the veranda works in 6.1 are done, cut out the decayed timber at the foot of the frame and leaf and splice in matching hardwood with an epoxy repair system, or replace the leaf if the decay runs further than it appears. Refinish with a microporous exterior finish, fit new compression seals and a threshold with a drip, and bed the frame foot on sealant. Lift the stained floorboards, check the subfloor is dry, replace the boards with matching stock, and sand and refinish to blend.
INDICATIVE COST	€1,800 to €4,500. The upper figure allows for a replacement leaf. Buyer's cost; a negotiation point.
RISK	MEDIUM Local and progressive. Repair after the veranda is sealed.

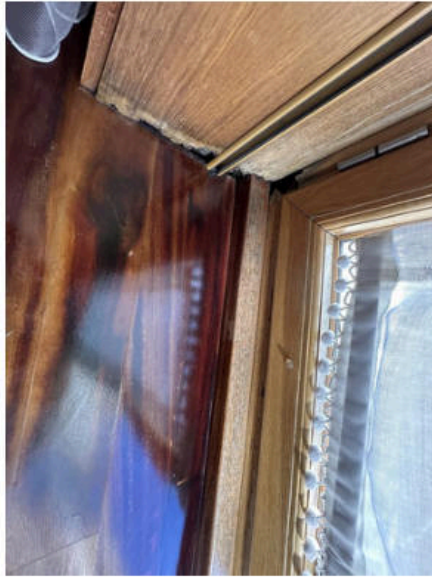


Fig. 6.2a — Foot of the door frame and leaf: weathered, open-grained timber; stained boards inside.

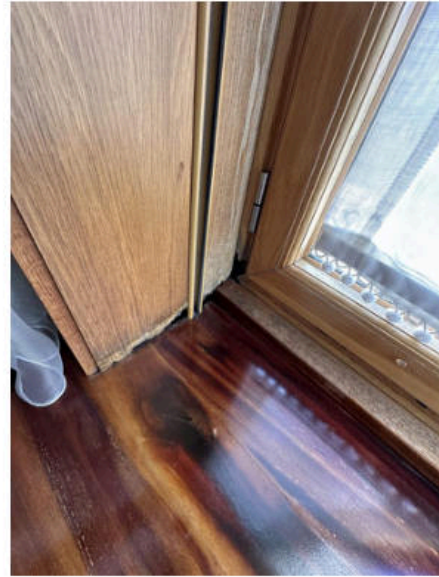


Fig. 6.2b — Same door, hinge side; the floor stain runs from the frame joint.

6.3

Polished lime finish: blistering

LOCATION

Internal walls at a few points: a window reveal on the first floor, the wall beside a door and radiator in a bedroom, and the stair tower (see 6.4).

OBSERVED

The internal walls are finished in a polished lime plaster of the stucco or marmorino type, which appears to have been sealed with a wax or varnish. At the window reveal the finish has blistered and split along the timber lining, with dark staining. On the bedroom wall beside the door frame the finish has lifted in raised blisters at low to mid height, next to the radiator valve. Elsewhere the finish is in good condition.

Moisture readings were elevated at the blistered areas and normal elsewhere.

WHY IT MATTERS

Lime is vapour-open and copes with some moisture, but a sealed surface does not. When water reaches the plaster from behind, it carries salts towards the face and pushes the sealed skin off as blisters, often with a white powder behind. The blisters are the symptom. At the window reveal the likely source is the frame seal in 6.1. Beside the radiator the cause could be the same wall moisture or a weep from the heating pipework in the wall, and that needs ruling out first.

WHAT TO DO

Stop each source first. Pressure test the heating circuit and check the radiator valve and tails beside the blistered wall before assuming it is the veranda. Once the veranda and frame seals are done, let the walls dry out for several weeks and confirm with a meter. Then scrape the blisters back to sound plaster, brush off the salts, consolidate, fill and build up in lime putty, apply the finish coats and burnish. Seal with a natural wax or lime soap only; an acrylic varnish over lime is likely to cause the same failure again. Repair to a natural break such as a corner, so the patch does not show. This is work for a specialist stuccatore.

INDICATIVE COST

€1,500 to €3,500 including the stair tower repairs and the heating pressure test. Buyer's cost.

RISK

LOW – MEDIUM Cosmetic once the sources are stopped. Repair last.



Fig. 6.3a — Window reveal: blistered and split lime finish along the timber lining.

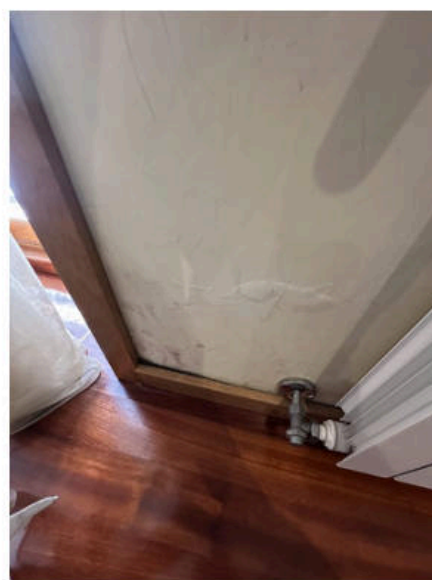


Fig. 6.3b — Bedroom wall beside the door frame and radiator valve: raised blisters in the finish.

6.4

Stair tower

LOCATION

The round stair tower rising from the basement to a rooflight above the roof line.

OBSERVED

A spiral timber stair with stainless balustrade inside a rendered round tower, lit by a rooflight at the top. On the inside face of the tower a vertical line of blistering runs down the polished lime finish, with white powdery salts along it, close to a wall light. Fine map cracking is visible in the finish nearby. From outside the tower is rendered in the capoto system and capped with tiles; the upper part and the rooflight could not be seen closely from the ground.

WHY IT MATTERS	A straight vertical line of blistering with salts usually means water is tracking down a fine crack or a joint, either in the external render, at a board joint in the insulation system, or from the rooflight upstand. It is minor now. The tower is the most exposed part of the house and it is worth finding the path before the winter.
WHAT TO DO	Inspect the tower render and the rooflight from an access platform or by drone. Map any cracking in the render and check the rooflight upstand and flashing. Repair cracks in the capoto by opening, embedding reinforcing mesh in a base coat, and refinishing and repainting to match; reseal the rooflight flashing. Repair the inside face in lime as in 6.3 once dry.
INDICATIVE COST	€1,500 to €4,000 provisional for the inspection and external repair, depending on what is found. Internal repair within 6.3. Buyer's cost.
RISK	MEDIUM Minor at present; needs investigation to confirm the path.



Fig. 6.4a — Inside the stair tower: vertical line of blistering with white salts in the lime finish.

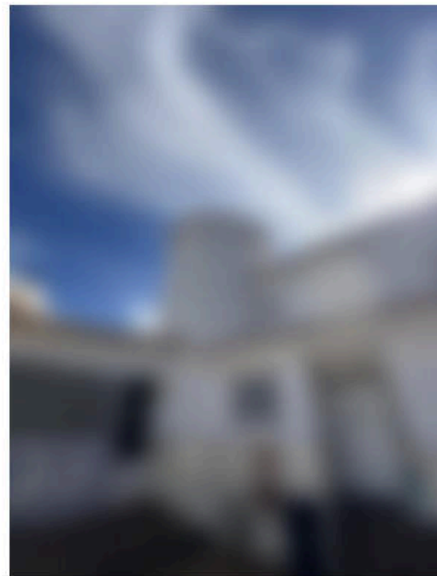


Fig. 6.4b — The stair tower from the rear courtyard, rising above the roof line. Blurred for this sample.

6.5 Roof covering, ridges and rainwater

LOCATION	All roof slopes, ridges and hips, and the eaves on every elevation.
OBSERVED	Pitched roofs covered in clay tile, in good condition with no slipped or broken tiles seen. The tiles carry scattered lichen spots. The mortar bedding the ridge and hip tiles is weathered, cracked and open in places. The eaves are traditional tiled eaves with no gutters or downpipes on any elevation, so the roofs discharge directly onto the terraces, the veranda and the ground. Two chimney stacks rise through the roof; see 6.7.

WHY IT
MATTERS

Cracked ridge mortar lets wind-driven rain under the ridge and loosens the ridge tiles over time. Without gutters, the full roof catchment lands at the base of the walls and on the veranda, which is the root of the problem in 6.1. The covering itself is sound.

WHAT TO DO

From one access set-up, rake out loose ridge and hip mortar and rebed or repoint in a lime mortar; where ridge tiles are loose, rebed over a ventilated ridge roll. Treat the tiles with a biocide and leave it to weather off; do not pressure wash. Install gutters to all eaves on brackets fixed under the first tile course or to a fascia, with downpipes at the corners connected to the existing site drainage. Aluminium in a colour to suit, or zinc, will match the house. Fit leaf guards where the palms overhang.

INDICATIVE
COST

€2,000 to €4,000 for the ridges; €6,000 to €11,000 for gutters and downpipes to the whole house. Buyer's cost; partly a negotiation point.

RISK

MEDIUM Rainwater is the cause of the veranda water entry; the ridges are maintenance.



Fig. 6.5a — Ridge tiles: weathered and cracked bedding mortar, lichen on the tiles.

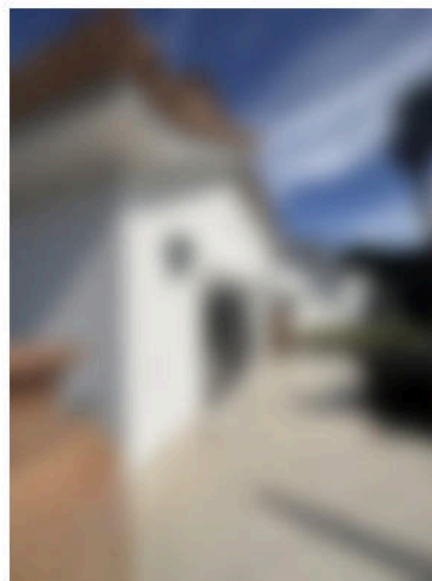


Fig. 6.5b — Rear elevation: tiled eaves with no gutter above the terrace. Blurred for this sample.

6.6

Barbecue pergola and pool deck

LOCATION

The covered barbecue kitchen in the rear courtyard; the timber deck around the pool.

OBSERVED	The barbecue kitchen has a tiled timber roof structure on masonry, a brick barbecue, a wood-fired oven, a cast-iron range and a stone worktop. The cooking equipment appears new and unused. Some of the pergola timbers show minor rot. The pool is surrounded by a hardwood deck that is grey and worn, with fixings standing proud in places.
WHY IT MATTERS	Both are maintenance items. Rot in the pergola will spread to sound timber if left, and an unfixed deck board is a trip hazard round a pool.
WHAT TO DO	Replace the decayed pergola members like for like, treat all timber with a preservative and restrain. Clean the deck, replace the fixings in A4 stainless screws, refix any loose boards, lightly sand and apply two coats of a penetrating deck oil; repeat the oil every year or two.
INDICATIVE COST	€600 to €1,800 for the pergola; €1,000 to €2,200 for the deck. Buyer's cost.
RISK	LOW Routine maintenance.



Fig. 6.6a — Barbecue kitchen with wood-fired oven and range, apparently unused.

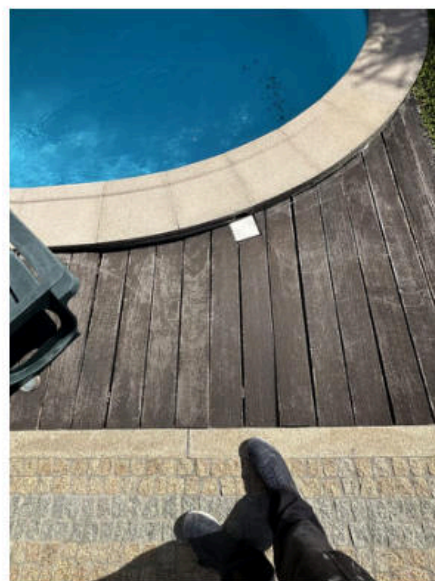


Fig. 6.6b — Pool deck: grey and worn, fixings due.

6.7 Hot water cylinder and chimneys

LOCATION	The heat-pump hot water cylinder in the outbuilding by the courtyard; the two chimney stacks.
OBSERVED	Domestic hot water is from a heat-pump cylinder in the outbuilding. Rust-coloured streaks run down the casing from the top section. The house has two fireplaces with inserts, in the living room and the basement games room. One chimney stack shows dark biological staining on its render.

WHY IT
MATTERS

Streaking on a cylinder casing usually comes from a weep at a fitting, condensate from the heat pump section, or the casing itself corroding; it needs tracing before it becomes a leak. The stack staining is cosmetic.

WHAT TO DO

Have the cylinder serviced: trace the source of the streaks, check the condensate drain and fittings, and check the anode. Sweep both chimneys before first use. Clean the stack with a biocide and repaint with a breathable masonry paint when the roof works are done.

INDICATIVE
COST

€400 to €900. Buyer's cost.

RISK

LOW Routine.



Fig. 6.7a — Heat-pump hot water cylinder: rust streaks down the casing.

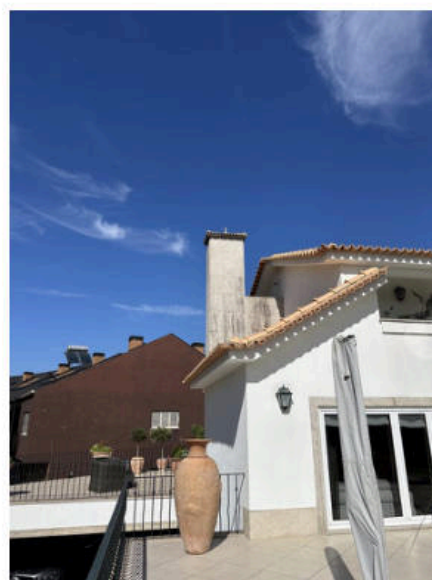


Fig. 6.7b — Chimney stack with staining on the render.

7 Construction and services summary

A summary of the house as observed, with the condition of each element and the action required. Detail is in Section 6.

ELEMENT	CONSTRUCTION AND CONDITION	ACTION
Structure	Older building gutted, rebuilt and extended about twenty years ago; use licence [REDACTED]. No cracking or movement seen anywhere	None
External walls	External thermal insulation system (capoto) with render finish; granite window surrounds, sills and cappings. Sound; one damaged spot at the veranda wall base	Seal cappings; patch (6.1)
Roof covering	Pitched clay tile, good condition; ridge and hip mortar weathered	Repoint (6.5)
Rainwater	No gutters or downpipes; tiled eaves discharge to terraces and ground	Install (6.5)
Stair tower	Round rendered tower with spiral timber stair to a rooflight; blistering line inside	Investigate (6.4)
Windows and external doors	Timber and white-framed double-glazed units in granite surrounds; excellent for their age. Decay at one bedroom door	Reseal at veranda; repair (6.2)
Shutters	All functional and in good condition	None
Internal walls	Polished lime finish, appears sealed; good, with blistering at moisture points	Repair after drying (6.3)
Floors	Hardwood upstairs; ceramic and terracotta tile on the ground floor and in the basement	Local board replacement (6.2)
Internal joinery	Timber doors, skirtings and fitted wardrobes; excellent	None
Bathrooms	Several bathrooms, including hydromassage baths and a shower cabin; excellent condition and fittings	None
Kitchen and laundry	Fitted kitchen and separate laundry; units and appliances in working order	None
Basement	Games room, offices, bathroom, stores, plant and garage. Walls tiled to about 1 m; dry; no damp smell	None
Electrical	Main distribution board and sub-boards for the garage, outdoor areas and pool, labelled, with RCD protection; plenty of outlets. Three-phase car charger installed in the garage	Obtain certificate (Section 11)
Heating	Gas boiler serving radiators throughout; two fireplaces with inserts	Heat pump option (8.2); sweep
Hot water	Heat-pump cylinder in the outbuilding; rust streaks on the casing	Service (6.7)

ELEMENT	CONSTRUCTION AND CONDITION	ACTION
Ventilation	Extract in the bathrooms; no whole-house ventilation	Heat-recovery units (8.3)
Water and drainage	Good pressure throughout. Site drainage well laid, with channel drains at steps and thresholds. Supply and foul connections not confirmed	Confirm (Section 11)
Other systems	Central vacuum system with the unit in the basement store; intruder alarm panel	Obtain manuals and codes
Pool	Oval pool on well water, unheated; plant and controls labelled; timber deck worn	Deck (6.6); solar heating (8.4)

8 Upgrades: specification

The buyers have asked about solar power, a heat pump, ventilation, pool heating and linking the existing car charger to the solar. The house is a good candidate for all five: the envelope is already insulated, the supply is three-phase, and a car charger is already installed in the garage. The specifications below are what I would put to an installer. Costs are in Section 5.2. Antipodean can check the installers' quotes against these specifications and inspect the work at the key stages, in the order set out in Section 10.

8.1 Solar PV with battery

SCOPE	A roof-mounted array of about 10 kWp with a 10 kWh battery and a three-phase hybrid inverter, run as self-consumption with surplus export.
WHY IT SUITS THIS HOUSE	The house already runs pool filtration, a heat-pump water cylinder and a central vacuum, and the buyers are adding a heat pump and a car charger. Summer daytime load from the pool matches solar output, and the battery carries daytime generation into the evening for heating and charging.
SPECIFICATION	Monocrystalline panels in the region of 430 to 450 W on the best-oriented slopes, south to west, on aluminium rails with stainless roof hooks under the tiles; tiles notched or replaced, not cracked, and the covering left weathertight. DC cabling in UV-stable conduit to a three-phase hybrid inverter of about 10 kW in the garage or plant room. Lithium iron phosphate battery of about 10 kWh beside it. AC and DC isolation, surge protection and earthing to the installation rules. Monitoring app. The installer registers the system with DGEG as an UPAC before connection.
INDICATIVE COST	€18,000 to €25,000.

NOTES	Final layout depends on roof orientation and on shading from the palms and neighbouring buildings, confirmed at survey. Install after the ridge repointing, from the same access. Check the IVA rate applying to solar equipment at the time of order.
-------	--

8.2 Heat pump replacing the gas boiler

SCOPE	An air-to-water monobloc heat pump connected to the existing radiator circuits, with the gas boiler removed and the gas supply capped.
WHY IT SUITS THIS HOUSE	The capoto and double glazing keep heat loss moderate for the size of house, and with PV the running cost falls well below gas. The existing radiators were sized for a gas boiler running hot. A heat pump is most efficient at a flow temperature of about 45 to 55 °C, so each room's radiator output has to be checked against its heat loss.
SPECIFICATION	Room-by-room heat loss calculation to EN 12831 first. Monobloc unit with R290 refrigerant, sized to the calculation and expected in the region of 12 to 16 kW, on anti-vibration mounts on a level base, away from bedroom windows and the boundary. Buffer tank of 50 to 100 litres or a low-loss header, magnetic filter, system flush and inhibitor, weather compensation and thermostatic radiator valves. Radiators upsized where the calculation shows a shortfall. The existing heat-pump cylinder can stay for hot water, or the new unit can serve a new cylinder. Gas boiler removed and supply capped by a certified gas installer.
INDICATIVE COST	€14,000 to €22,000, plus €2,000 to €5,000 provisional for radiator upsizing.
NOTES	Best installed outside the heating season. Check the contracted power before adding the heat pump and the car charger. Place the outdoor unit with the neighbours in mind. Check Fundo Ambiental for any support programme open at the time; none is assumed in these figures.

8.3 Decentralised heat-recovery ventilation

SCOPE	Wall-mounted single-room heat-recovery units in the bedrooms and the main living spaces, with the existing bathroom extracts kept.
WHY IT SUITS THIS HOUSE	An insulated envelope with good windows holds moisture inside unless it is ventilated, and steady humidity suits the lime finish. A central ducted system would mean cutting through polished lime walls and ceilings throughout the house. Decentralised units need only a core hole through the external wall.

SPECIFICATION	Paired reversing units with ceramic heat-exchange cores, working in push-pull, nominally 70 to 90 per cent heat recovery, humidity-sensing control and low noise at normal speed. Typically one pair per bedroom and two pairs in the larger living areas. Core-drilled through the capoto and wall with a sleeve, sealed to the insulation system with a compatible collar, and fitted with an external hood. Wired from local circuits with room or central controls.
INDICATIVE COST	€7,000 to €13,000.
NOTES	Drilling positions to be planned to avoid pipes and cables. The stuccatore makes good the lime finish around each internal grille.

8.4 Pool solar heating

SCOPE	Unglazed solar absorbers on the filtration circuit to extend the swimming season. The pool is fed from the well and is currently unheated.
WHY IT SUITS THIS HOUSE	Solar absorbers are the cheapest way to warm an outdoor pool in this climate and cost nothing to run beyond the filtration pump already in use.
SPECIFICATION	Polypropylene absorber panels with a total area of 60 to 80 per cent of the pool surface, on a south to west facing roof slope or a ground frame. Motorised three-way valve and differential controller on the existing filtration circuit, with a booster pump if the lift requires it, and drain-down for winter. Use a thermal cover overnight; a cover reel appears to be on site already.
INDICATIVE COST	€3,500 to €7,000.
NOTES	Test the well water for hardness and iron before ordering; hard water scales the absorbers. An inverter pool heat pump run from the PV is the alternative, at €4,000 to €7,500, with more control over temperature.

8.5 Car charger: link to the solar

SCOPE	Upgrade the existing three-phase car charger in the garage so it charges from solar surplus and shares the supply safely with the heat pump.
WHY IT SUITS THIS HOUSE	The charger and its three-phase circuit are already in place. Once the PV and battery are installed, charging the car from surplus generation is one of the best returns on the solar, and load management stops the charger, heat pump and pool plant overloading the contracted power together.

SPECIFICATION	If the existing unit accepts an external energy meter and has a solar mode, add a three-phase energy meter at the main supply and configure surplus charging and dynamic load management through the PV inverter. If it does not, replace it with an 11 kW three-phase smart wallbox, Type 2, with solar-surplus mode and load management. RCD protection to suit, either Type A with 6 mA DC fault detection in the charger or Type B. Existing cable size and protection checked at the same visit.
INDICATIVE COST	€600 to €2,200. The lower figure is the meter and configuration only.
NOTES	Confirm the contracted power and the charger make and model (Section 11). Done after the PV is commissioned.



Fig. 8a — Garage board: the three-phase car charging circuit.



Fig. 8b — Main distribution board: labelled circuits with RCD protection.

9 Exterior, garden and pool

The house sits in an immaculate landscaped garden with lawns, granite sett paths and established planting, closed by hedges and walls. Surface water is well handled across the site, with channel drains at steps and thresholds and no ponding seen at ground level. A sunken drive in granite setts runs down to the basement garage between a stone retaining wall and a steel balustrade, both in good order.

The pool is an oval shell with a stone coping and a timber deck, fed from the well and unheated. The pool plant and its controls are housed nearby and are well labelled. Beside the pool, a small rendered outbuilding with glass block walls contains a WC and wash basin in good condition. The rear courtyard has a covered barbecue kitchen, a terracotta-tiled

terrace, and a stair up to the upper terrace; the hot water cylinder is in the courtyard outbuilding.

Two points outside need attention beyond those in Section 6: the well needs its licence confirmed (Section 11), and the deck and pergola are maintenance items. Everything else outside was in good condition.

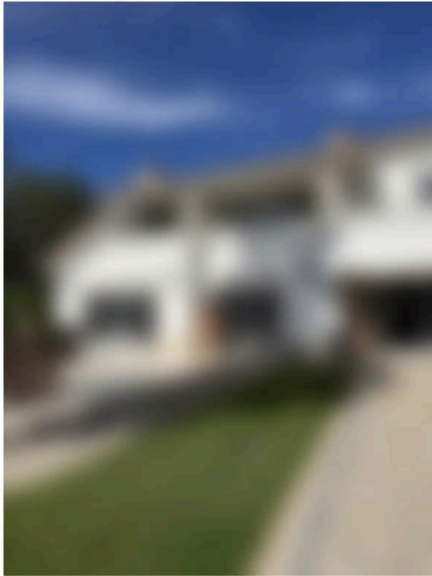


Fig. 9a — Front elevation and garden: capoto render, granite surrounds, clay tile roofs. Blurred for this sample.

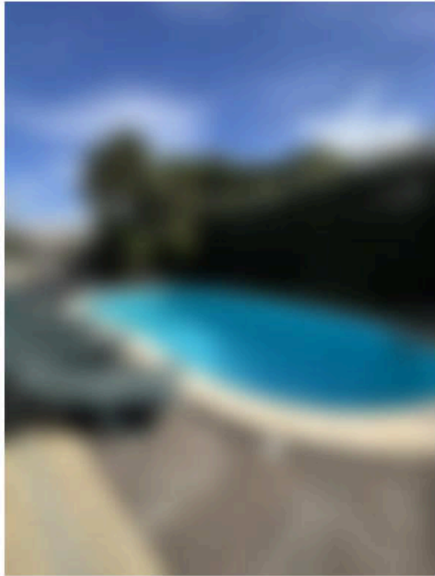


Fig. 9b — Pool with timber deck; the pool runs on well water and is unheated. Blurred for this sample.

10 Recommended sequence of works

The order below gets the water off the veranda before the rain, lets the walls dry before they are refinished, and uses one access set-up for all the roof work.

STAGE	WORKS	DURATION	DEPENDS ON
1	Documents and approvals before the CPCV (Section 11)	1 to 2 weeks	Seller and agent
2	Clear the veranda outlets as a holding measure	1 day	Immediately after purchase
3	Access set-up. Gutters and downpipes; ridge and hip repointing; veranda cappings, regrout, outlets and frame seals; water test	2 to 3 weeks	Dry spell
4	Stair tower inspection and external crack repair; rooflight flashing	1 week	Stage 3 access; dry weather

STAGE	WORKS	DURATION	DEPENDS ON
5	Solar PV array and battery	1 week	Stage 3 roof work complete; DGEG registration
6	Far bedroom door repair and floorboards	1 week	Stage 3
7	Heat loss calculation; heat pump, radiator changes, gas boiler removal	1 to 2 weeks	Contracted power; ideally outside the heating season
8	Heat-recovery ventilation units	1 week	Before the lime repairs
9	Heating pressure test; lime finish repairs throughout	1 to 2 weeks	Walls dry, about 6 to 8 weeks after Stage 3
10	Car charger link to the solar; pool solar heating; deck and pergola maintenance	1 week	Stage 5; pool heating in spring

A realistic programme is three to four months from purchase to the last repair, most of it drying time. The remediation in Stages 2 to 4 and 6 can be finished in the first month. If the budget is phased, the gutters, ridge and veranda works go first and should not be separated.

11 Limitations and what to do before signing

The roof was seen from ground level and from the first-floor veranda, and was not walked. The upper part of the stair tower and its rooflight were seen from the ground and from inside only. The house was furnished and occupied, and furniture, rugs and stored items limited the view of some floors and wall bases. The gas installation, the boiler, the electrical installation, the pool plant and the central vacuum were observed and not tested. The drains were not surveyed by camera. No thermal or moisture readings are given as figures; readings are described as elevated or normal at the points noted.

As set out in Section 2, these are the ordinary loose ends of a house that has been rebuilt and extended, and they weigh more on a future sale than on living in the house. They are best closed before the CPCV while the seller still has a reason to help. The buyers' lawyer should handle the legal items.

ITEM	WHAT TO OBTAIN	WHY	FROM
Ficha técnica	The ficha técnica for this house's licensing processo, or the seller's written statement that none exists	The one supplied is for a different property	Seller; Câmara
Approved plans	Plans approved under the licensing processo and use licence	To check the stair tower and the outbuildings against what was licensed	Câmara de [REDACTED]; seller

ITEM	WHAT TO OBTAIN	WHY	FROM
Areas	Confirmation that the [REDACTED] area rectification is registered at Finanças and the Conservatória	Caderneta shows [REDACTED] gross, survey shows [REDACTED]; affects IMI, registration and valuation	Lawyer
Pool and outbuildings	Confirmation that the pool, barbecue pergola and pool WC are licensed or exempt, and included in the [REDACTED] IMI valuation	Not described in the caderneta; [REDACTED] exempts a pool attached to a house	Lawyer
Garage number	Confirmation that the garage and house door numbers are one article and one registration	The use licence names both numbers	Lawyer
Well	The título de utilização de recursos hídricos for the well from APA; a water test	Wells should be licensed; water quality matters for pool heating	Seller; APA
Water and drainage	Confirmation of mains water and public sewer connection, with recent bills	Not confirmed on the day	Seller; Águas de [REDACTED]
Gas	Boiler service history and the latest gas installation inspection certificate	Safety, and the baseline for the heat pump decision	Seller
Electrical	Installation certificate, contracted power and number of phases, and the make and model of the car charger	Sizing the PV, heat pump and charger	Seller; E-Redes
Energy certificate	The current certificado energético	Required for the sale; the baseline for the upgrades	Seller; ADENE
Veranda history	When the veranda water entry started, any repairs made and any insurance claims	Lets the repair be priced with confidence	Seller
Equipment	Manuals, warranties and service records for the hot water cylinder, central vacuum, alarm, pool plant, shutters and barbecue equipment; alarm codes	Handover; warranties on the new barbecue equipment	Seller
Inventory	A written list of what is included: barbecue equipment, laundry appliances, light fittings, wardrobes	Annex to the CPCV	Agent

This report is based on a visual, non-invasive inspection on the date on the cover. Cost estimates are indicative and should be verified by quotation before commitment. It is not a structural survey, a valuation or legal advice. It is written for the clients named on the cover and should not be relied on by any other party. Antipodean Building Services Lda accepts no liability for costs arising from defects not visible at the time of inspection.

Bradley Cahill

INSPECTOR · SÓCIO-GERENTE

Antipodean Building Services Lda · Alvará IMPIC n.º
109726-PAR