



## GENERAL SPECIFICATIONS FOR 2 HOUSES

### 1. STRUCTURAL FRAME

Reinforced concrete frame with slabs, beams, columns and foundations: pad footings or raft foundation according to specification and current antisismic code and regulations. The external frame is insulated with 50 MM extruded polystyrene for beams and columns and 25 MM ordinary plaster. Also 50 MM Styrofoam for roof slab and waterproofing insulation.

### 2. WALLING

- a) External walls are constructed of 300MM thick hollow bricks (**11LB30 THERMAL INSULATED BRICK** ( $\lambda = 0,182 \text{ W/mK}$ ), and are externally and internally rendered with 25MM ordinary plaster.
- b) Internal walls are constructed of 100MM thick hollow bricks and finished with 2 coats ordinary plaster.

### 3. PLASTERING - SEALING

All Internal surfaces are finished in three coats spatula **Superfix7**, one coat **Emulsion Fijadora** and three coats of **Ovaldine mate** paint.  
External surfaces are finished in three coats spatula **X-Lime**, one coat **Emulsion Fijadora** and three coats of **Ovaldine Fachadas Liso** paint.

### 4. FLOORING

Living room – Dining room	Ceramic Tiles or marble	€40.00 per m <sup>2</sup>
Bedrooms	Wood flooring 16mm	€30.00 per m <sup>2</sup>
Kitchen	Ceramic Tiles or marble	€30.00 per m <sup>2</sup>
Corridors	Ceramic Tiles or marble	€30.00 per m <sup>2</sup>
Stairs	Marble	€35.00 per running meter
Bathrooms	Ceramic Tiles	€40.00 per m <sup>2</sup>
Verandas	Ceramic Tiles	€25.00 per m <sup>2</sup>

### 5. DOORS AND WINDOWS

- a) The Entrance Door is made of solid wood construction.
- b) All external doors and windows are triple-glazed and are made of aluminium frames THERMAL Lift & Slide type.
- c) All internal doors are made of M.D.F finished with a paint finish.

### 6. WARDROBES & CABINETS

Built-in opening wardrobes are made with a melamine finish.  
Kitchen Cabinets and cupboards are made internal with a melamine, and externally of M.D.F. and finished with a gloss finish. Incorporating bench tops made of granite.

### 7. WALL TILES

Kitchen	Ceramic Tiles	€35.00 per m <sup>2</sup>
Bathrooms	Ceramic Tiles	€35.00 per m <sup>2</sup>

### 8. SANITARY WARE/FITTINGS

Sanitary ware is white and of deluxe quality, and the fittings are chrome plated.

### 9. BALUSTRADES/FENCING/BOUNDARYWALLS

- a) Veranda balustrades are constructed of Aluminium and glass.
- b) The front boundary wall is a combination of beton with a Superplast & paint finish and Aluminium & glass balustrades.
- c) All external walls are constructed of concrete and finished in three coats spatoula **X-Lime**, one coat **Emulsion Fijadora** and three coats of **Ovaldine Fachadas Liso** paint.



## 10. ELECTRICAL INSTALLATION

- The electrical installation will include the following:
- Distribution Boards and protection devices.
- Lighting circuits internal and external to the house.
- External Motion sensors for automatic operation of the lighting circuits.
- Home Automation system for lighting and shutters circuits which includes individual functions, central functions scenarios and connection to the web for mobile application.
- Sockets circuits internal and external to the house.
- Small power circuits for the cooker, oven, dish washer, w/machine, driers, refrigerators, sauna, electric gates, garage doors, lift control panel and mechanical equipment including external air conditioning units, internal air conditioning units, pool control panel, boiler control panel, sewage pumps control panel and water pressure pump.
- Shutter and curtain circuits for the bedrooms windows and sliding doors.
- Curtain circuits for the ground floor area.
- Complete Structured cabling system including wifi points.
- IP Colour Video Door Phone having external units and internal units.
- Wired Security system having infrared detectors, magnetic contacts, internal sirens, external siren, smoke detectors and key press.
- Closed Circuit Television (CCTV) system having IP cameras to monitor the house external areas.
- TV distribution system for local channels and conduit provision for satellite dish.
- Conduits Provision for high definition TV distribution system.
- Conduits provision for Audio system having three internal and three external speaker zones.
- Conduits provision for home cinema systems at ground floor and basement.

## 11. SECURITY AND FIRE PROTECTION SYSTEMS

The systems will be installed by Krypto Security (Cyprus) Ltd and authorized licensed company employing 23 police licensed technicians in accordance to the Cyprus legislation "N.125(I)/07 and N.54(I)/2009" that strictly prohibits security services from companies not licenses by the police. All systems are in full certification to the relevant European Standards:

- a) Each one of the houses will be protected via an intruder alarm system inclusive of smoke detectors, GSM communicator and an internet module for full remote control of the system from any smart device.
- b) Each house will include an IP CCTV System covering the perimeter area with 8 x HD IP Cameras which will all be recorded on a Network Video Recorder with an archive of approximately one month. The client will be able to locally or remotely view live or recorded video from the cameras.
- c) Additionally, each house will be accommodated by an IP Videophone System with 2 outdoor calling units for visitors to communicate either with the client directly to the 3 indoor IP units. Being an IP videophone system, each flat/office may choose for the videophone calls to be diverted to mobile phones



## 12. AUTOMATION SYSTEMS

### 12.1 Lighting Control system:

The Lighting System is capable of:

- individual lighting circuits control, lighting scenes, elegant keypads with led indication, sensors, advanced programming (astronomic clock, panic mode, holiday mode, remote access, master control, ease of use)
- shading (curtains or blinds, shutters) motor control, individual and grouped motors control, control from lighting keypads and touch panels, advanced programming (daylight harvesting/blocking), whole residence/room lighting global scenarios

#### **System Functionality**

- control of lighting circuits (individual or grouped) from Lighting Keypads & Touchpanel
- control of lighting scenes from Lighting Keypads & Touchpanel
- control of Shading motors (individual or grouped) from Lighting Keypads & Touchpanel
- control of shading scenes from Lighting Keypads & Touchpanel

#### **Devices:**

- Lighting KNX Keypads
- Lighting KNX Dimmers (Lighting Panel equipment)
- Lighting KNX Switching on/off modules (Lighting Panel equipment)
- Shading KNX motors Control modules (Lighting Panel equipment)

### 12.2 Automation Main Control System (Crestron)

- All the automation subsystem (Lighting / Shading / Audio System/ Video System/ HVAC) of the Residence will integrate into the automation system. The automation fully integrated the Lighting and Shading Control System, the Audio and HD Video Distribution System and the HVAC Control System.
- The user can control the system through in-wall touch panel at ground floor, wireless touch panels (iOS/Android devices) and PC. The touch panel and integrated iOS/android devices will allow the user to control all the functions of the lighting and shading control system, substituting the functions of the lighting keypads. The touch panel/ iOS/android devices will also have incorporated the virtual remote controls of all the audio and HD video sources in order to fully control the functions of the audio and HD video zones. Moreover, the HVAC control system can be accessible through the available touch panels and lighting Keypads Room Controllers

#### **Devices:**

- Crestron automation system processor
- Wall-Touchpanel 7"Crestron
- Rack 42 system for installation of Automation/music/video systems and sources. (Rack cabinet /fans/sockets/ventilation plates /network patch panels/rack mounted sockets)



### 12.3 **HVAC System Integration**

- VRV and Underfloor Heating system integration, with climate scenarios, combined climate/lighting/shading scenarios, control from Lighting Keypads Room controllers, touch panels and wireless devices, faults reporting and maintenance warnings.
- Hot Water integration control through Selected lighting keypads and Touch panel
- Hot Water Circulation Pump integration on the automation system

#### **Devices:**

- Crestron VRV gateway integration
- KNX room controllers for each underfloor heating zone
- Heating valves actuators control

### 12.4 **Audio Multiroom System and Home Cinema Systems:**

- Whole residence multiroom music coverage 8 Zones, most suitable sound level in every area, discrete ceiling speakers in indoors areas and environmental speakers outdoor, zone control (on/off, source selection, volume control), source control (on/off, metadata feedback), centrally located audio sources, control from touch panel and wireless devices (Customer iOS/Android devices)
- 5.1 elegant in ceiling home cinema speakers, AV 4K receiver amplifier THX ultra at Basement Home Cinema and Sitting Room

#### **System Functionality**

- control of zones on/off functions, source selection, volume control
- control of source selection, metadata feedback
- home cinema integrated to the automation control from touch panels and wireless devices

#### **Devices:**

- Multiroom amplifiers 8 Zone
- Home cinema amplifiers 2 Areas
- Ceiling speakers
- Outdoor speakers
- Home Cinema Ceiling speakers 5.1 2 Areas
- Internet Radio and airplay integration to the system through Crestron gateway (Tune-In/Apple Music/USB/Airplay)

### 12.5 **4K Video Distribution System – ( Wyrestorm )**

- 4K-HD video in every display
- TV control (on/off, source selection, volume control) without remote, source control centrally located HD video sources, control from touch panels and wireless devices,

#### **System Functionality**

- 16 x16 matrix 4K HDMI switch digital media
- control of Video Zones (TV's) on/off functions, source selection, source control, volume control through main Automation Touch panel and iOS/Android wireless devices provide by customer.



**Devices:**

- 16 x 16 matrix switch 4K FULL HD
- 11 x 4K receivers

**13. PLUMBING & DRAINAGE**

- a) Cold-water installation includes a 1.5m<sup>3</sup> P.V.C. storage tank and water pressurisation unit in the plantroom. The main domestic cold and hot water pipes from the plantroom up to the manifolds are made of multilayer PPR. The domestic cold and hot water pipes from the manifolds up the sanitary fittings will Pex pipe-in-pipe.
- b) Drinking water is filtered with sediment filter and carbon filter. Domestic cold/hot water is softened with an automatic water softener.
- c) There is a domestic hot water recirculation system which includes pump, pipes and push-button outside each bathroom. When this system is activated by the push-buttons, hot water is circulated in the pipes and is brought nearer to the tap, to avoid water waste.
- d) Solar system is installed on the roof and is comprised of a hot water cylinder 250 lts and 4m<sup>2</sup> collectors. The hot water cylinder is equipped with a backup electric heater 3kw.
- e) All drainage pipes are U.P.V.C. The drainage system is connected to the city sewer.

**14. AIR CONDITIONING & HEATING**

- a) There are three independent AC VRV systems, one for each floor. Each VRV system comprises one compressor and multiple indoor units which air condition each space independently.
- b) In addition to the indoor units, the VRV compressors of the ground and first floors are connected to two hydroboxes, one for each floor. The hydroboxes are used during the winter for the production of heating water for the floor heating system. Floor heating is installed at ground and first floor levels.
- c) The basement is air conditioned and heated with the indoor VRV units (with cold/hot air).

**CHANGES TO THE SPECIFICATIONS & DRAWINGS**

The Purchaser may request changes to the specification or drawings, the cost of which is negotiable, however the Vendors reserve the right to refuse any changes, which are considered as unsafe and outside good building practice or spoiling the architectural design and/or the character of the project.